Master Degree
Department of Basic Science
Author : Afaf Ahmed Mohamed Shaheen.
Title : Effect of electromagnetic field on mammalian blood.
Dept. : Department of Basic Science.
Degree : Master.
Abstract :
In recent years there has been increased concern regarding effects of exposure to the electromagnetic fields (EMFs) associated with short wave diathermy (S.W.D) apparatus. the present study was designed to investigate the effects of exposure to different doses of S.D.D on the functional and structural properties of the blood of rats and to measure the radiation contour around S.W.D apparatus. Thirty-six adult male Albion rats were used. They equally divided into six groups, five experimental groups in addition to control group. The animals of experimental groups were exposed to EMFs emitted from S.W.D apparatus for six hours / day, six days / week for two weeks. After the two weeks of exposure the direct effects of S.W.D were studied through the measurements of osmotic fragility, solubilzation and morphology of red blood cells (RBCs) membrane in addition to the level of serum cretin bhosokinase (SCPK), serum glutamic byruic transamainase (SGPT) and serum glutamic oxaloacitic tramsaninase (SGOT). Late effect of S.W.D. was studied on the animals of group 1 after 50 days after the end of exposure. There were changes in the elasticity, permeability of RBCs membrane and significant increase in the level of SCPK and SGOT with non-significant increase in the level of SGPT after exposure to S.W.D. It was concluded that S.W.D interact mainly with biological membrane and may affect cell communication, lead to formation of inflammation sites and may be hazardous to physiotherapists. Shielding against such radiation is necessary to minimize the occupational exposure to such radiation.
Key words : Electro magnetic field, short wave diathermy, red blood cell membrane, solublization test, osmotic fragility test, hazardous effect of S.W.D, liver enzymes, physical therapy.
Arabic Title Page : تأثير المجال الكهرومغناطيسى على دم الثدييات.
Author  : Khaled Zaki Saleh Fouda.
Title  : Efficacy of different pulse frequencies of high voltage galvanic stimulation on the torque of the quadriceps muscle.
Dept.  : Department of Basic Science.
Degree  : Master.
Abstract:
Background: The pulse frequency section during electrical stimulation is critical because it determines the peak force output and the rate of fatigue during treatment. However selection of specific pulse frequency generally has been a subject decision on the part of the investigator and still there is continuous argument and confliction among therapist about the accurate pulse frequency. The purpose: of this study was to investigate the effective pulse frequency either (20,60,100)pulses per second (PPS) that could be used to increase the torque of the quadriceps muscle and investigated the possible pulse frequency that could produce muscle soreness after 48 hours of stimulation. Subjects: Forty-five healthy male physical therapy students (X age 19.5 years SD= 1.96) assigned randomly to equal three groups. Methods: The isometric torque of the non-dominant quadriceps was evaluated at 60 degrees of knee flexion, using Akron rehabilitation system, first before training then at the end of the second, fourth and sixth weeks of training. High voltage was administered three times a week for 6 week at pulse frequencies of 20 PPS for group I,60 PPS for group II and 100 PPS for group III. The duty cycle of the stimulator was set at 10 seconds on and 10 seconds off. The subjects trained at the maximum tolerable voltage for 15 minutes per session. Muscle soreness was evaluated 48 hours after stimulation using short form of McGill pain questionnaire. ANOVA was done to determine the significance differences in the quadriceps torques. Student-t-test was performed to further distinguish between the effects of the 3 pulse frequencies. results : the results revealed that high voltage produced significant increase in the quadriceps muscle torque (53% , 59% , ,and 67.7%)respectively (P<0.0001). but without significance difference among the 3 pulse frequencies (P>0.05). muscle soreness rating by the 3 groups was not statistically significant. discussion and conclusion :the finding revealed that high voltage can improve the strength of normal innervated muscles and 100 PPS having an advantage over the (20 and 60 PPS)in terms of strength gained .
Key words  : High voltage, pulse frequencies, quadriceps, physical therapy.
Arabic Title Page  : فاعلية الترددات المختلفة لليثار الجلفاني عالي الجهد على عزم العضلة الرباعية.
Author : Sahar M. Adel El-Hakke.
Title : Reliability of the BROM device in measurement of the lumbar range of motion.
Dept. : Department of Basic Science.
Supervisors : Mohsen El-Sayyad.
Degree : Master.
Abstract:
The purpose of the study was to investigate the interexaminer and intraexaminer reliability of the BROM device for measurement of the active lumbar spine mobility and determine normal values in relation to age and sex. Study design: repeated measures were made between examiners. Intraexaminer and interexaminer reliability were determined between three examiners. Subjects: Sixty asymptomatic physical therapy student and employees (30 males and 30 females, age range from (15 - 30 years) means age (X = 22.45, SD = ± 4.89).
Method: Three examiners measured all 3 planes of lumbar range of motion in 60 subjects and the session was repeated after 3 days. Each examiner was blinded to the results of the partner. Pearson product moment (PPMCC) and interclass correlation coefficients (ICCs) were calculated. Results: The range of Pearson (PPMCC) was in (0.72 - 0.92) and interclass correlations were in the range of (ICC = 0.69 - 0.87) for interexaminer reliability and (ICC = 0.66 - 0.89) for intraexaminer reliability. Results showed that there is a significant relationship between age, sex and ROM p = (0.005). Normal values of the lumbar spine range of motion related to age and gender were established. Conclusion: The BROM was found to have acceptable reliability in measurement of lumbar active ROM especially in flexion, extension, right and left lateral flexion. It can be a good addition to the instrumentation and tools utilized in physical therapy for documentation after treatment intervention. Further studies are recommended for Pathological conditions.
Key words: Reliability, Inter-intra examiner, BROM, Measurement, Lumbar Range of Motion, physical therapy.
Arabic Title Page : درجة ثبات جهاز البروم الخاص بقياس مدى الحركة في الفقرات القطنية.
Author: Sherif Mohamed Diab.
Title: Bactericidal effect of helium-neon laser on photosensitized staphylococcus aureus in vitro.
Dept.: Department of Basic Science.
Supervisors: Mohsen Mohamed El-Sayyad, Abd El-Fattah Mohamed attia, Samy Abd El-Samed Nasef.
Degree: Master.
Abstract:
Background; many studies had shown that low power He-Ne laser therapy was effective as bactericidal modality, while others did not found so based on this conflicting research, the use of He-Ne laser as bactericidal with direct effect is still controversial. The purpose of research was study the bactericidal effect of low power He-Ne laser on photosensitized staphylococcus aureus bacteria in vitro.

Methods: staphylococcus aureus bacteria were used in this study, one hundred samples were used (86 standard strains (ATCC25923) and 14 isolated strains in microbiology and immunology department), 15mW He-Ne gas laser was used in this study with wavelength 632.8nm. Toludine blue O (TBO)(CI52040) was utilized as photosesiting agent in this study.

Results: Of this study showed negative effect of He-Ne laser on 98 plates of staphylococcus aureus bacteria out of one hundred plates.

Discussion: this results has been attributed to susceptibility of staphylococcus aureus bacteria strain that has been utilized in this current study, in addition the results would have been expected to be more efficient if gallium aluminum phosphate laser has been utilized instead of He-Ne laser in the current study because of its reported bactericidal effect, which is more powerful than He-Ne laser, however He-Ne laser has been utilized because of its availability in faculty of physical therapy while Ga-Al-P laser device has not been available for these research work.

Conclusion: within limitation of these study 15mW He-Ne laser has no bactericidal effect on photosensitized Staphylococcus aureus bacteria.

Key words: Laser, staphylococcus aureus bacteria, wound care, physical therapy.

Arabic Title Page: تأثير الليزر منخفض الشدة الهيليومـ. نيوم على البكتريا استافيلوكوكس أوبريس المختلقة ضوئيا.
Department of Biomechanics
Author : Anees Saleh Soliman.
Title : Influence of flat foot on some mechanical measurements of the lumbar spine.
Dept. : Department of Biomechanics.
Degree : Master.
Abstract:
Background: Flat foot deformity consists of maximally pronated subtler joint; this abnormal position of pronation locks and destabilizes the midtarsal joint. The purpose of the study was to investigate the structural changes that might occur in the lumbar spine, as a result to the disturbed normal mechanical function in patient with flat food deformity. Methods: Thirty healthy subjects (the control group) and thirty flat foot subjects (the study group) were included in this study. X-Ray films of the lumbar spine (lateral views) were obtained for each subject in the natural standing position. From the lateral X-ray films the lumbar curve angle (LCA) measured as the angle between the line passing parallel to the superior end plate of L1 and the line passing parallel to the superior sacral plateau, the lumbosacral angle (LSA) measured as the angle between the line passing parallel to the inferior end plat of L5 and the line passing parallel to the superior sacral plateau and the sacral inclination angle (SIA) measured as the angle between the line passing parallel to the superior sacral plateau and the horizontal line. The results the independent T-test was used to compare the study and the control groups regarding the LCA, LSA and SIA. Conclusion the study provides that there is no significant difference between the study and the control groups regarding the LCA, LSA and SIA.
Key words : Flat foot, lumbar curve angle, lumbosacral angle, sacral inclination angle, foot, lumbar spine, physical therapy.

Arabic Title Page : تأثير القدم المسطحة على بعض القياسات الميكانيكية للفقرات القطنية.
Author : Enas Ahmed Hanafy.
Title : Isokinetic peak torque of elbow flexors at different forearm positions in normal and diabetic individuals.
Dept. : Department of Biomechanics.
Supervisors : Amira Mohamed El-Tohamy, Mohamed Fouad Ibrahim Khalil.
Degree : Master.
Abstract:
Twenty five patients with type 2 diabetes mellitus forming group I and twenty five healthy volunteers forming group II participated in this study. The age subjects ranged from 30 to 50 years. The peak torque of elbow flexors was measured by using Akron rehabilitation system. Each subject performed the movement of elbow flexion at three angles which are 45° and 90° and 135°. In each angle of elbow flexion, the movement was performed from supination, pronation, and mid position of the forearm. The results revealed a significant difference in the mean of peak torque of elbow flexor between the two groups at the three angles of elbow flexion and at the three forearm positions with reduction in the diabetic group. And there was no significant difference in the mean of peak torque of elbow flexors within the normal or within the diabetic group with respect to angels of elbow flexion and respect to forearm positions.
Key words : Diabetic, physical therapy.
Arabic Title Page : أقصى عزم أيزوكينيتي للعصبات القابضة لمفصل المرفق مع تغيير أوضاع الساعد في الأشخاص الأصحاء ومرضى البول السكري.
Osteoarthritis (OA) is one of the most common diseases affecting the knee joint that is characterized clinically by pain, stuffiness, tenderness at the joint margins, effusion, ligamentous laxity, impairment of motion, copular contracture, muscle weakness, spasm, and impairment of function and loss of independence. These clinical findings cause a symptomatic change in the functional performance of the patient that would result in change of the location of the line of gravity in relation to various body segments in static situations and abnormal oscillation of the center of gravity in dynamic activities. Thus, the purpose of this study is to determine the structural changes in the lumbar spine in patients with unilateral knee OA. Thirty healthy subjects (the control group) and thirty subjects with unilateral knee OA (the study group) were included in this study. X-Ray images of the lumbar spine (A-p and Lateral) were obtained for each subject in the natural standing position. From the lateral X-ray films the radiological parameters concerning the lordotic curve angle (LCA) (measured as the angle between the tangential line of the superior end-plate of L1 and the tangential line of the superior sacral plateau), the lumbosacral angle (LSA) (measured as the angle between the tangential line of the inferior endplate of L5 and that of the superior sacral plateau and the sacral inclination angle (SIA) (measured between the tangential line of the superior sacral plateau and a horizontal line) were recorded for each subject. Also, the radiological findings regarding osteophytes, disc degeneration and spondylolisthesis were recorded from both views. The group regarding the LCA, LSA and SIA. Also the incidence of osteophytes, disc degeneration and spondylolisthesis were calculated. The results of this study suggested that there is no significant difference (p<0.05) between both groups regarding the LCA, LSA and SIA. While the incidence of osteophytes, disc degeneration and spondylolisthesis were higher in the study group.

**Key words**: Osteoarthritis - lordotic, curve angle - lumbosacral, angle - sacral inclination, angle - knee, joint - lumbar spine, physical therapy.

**Arabic Title Page**: تأثير الالتهاب العظمي المفصلي لأحادي الركبتين على بعض قياسات الешاعة السينية لل الفقرات الفقرية.
Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery
Author : Amal Ibrahim Mohammed.
Title : Functional limitations, impairment and disability in patients with chronic obstructive pulmonary disease.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Awny Fouad Rahmy, Faris Mohamed Oaf, Mohamed A. Sallam.
Degree : Master.
Abstract : The purpose of this study were (1)to describe the disabilities of patients with COPD and (2) to examine the relationships among impairment, functional limitation and disability, as described by the disablement prices model methods fifty patients with COPD their age ranged from 40-60 years we recruited from El-Hussain Hospital to participate in this study . assessment included the physical performance test which include five items and functional reach test (measuring functional limitation) spirometric tests as FVC, FEV1, FEV1/FVC (measuring impairment)medical research council dyspnea scale (measuring disability). Results: of patients studied, one were classified as having MRC grade 1 dyspnea , eight MRC grade 2 dyspnea , twenty one MRC grade 3 dyspnea , eighteen MRC grade 4 dyspnea and two grade 5 dyspnea . The result of these study indicated that, there was a significant correlation between disability and both function and impairment. Conclusion: this study has support the use of the disablement process model and suggest that functional limitation, impairment and disability.
Key words : COPD, Functional limitation, impairments, disability, physical therapy.
Arabic Title Page : حدود الإداء الوظيفي والضرر والعجز في مرضى السدة الرئوية المزمنة.
Author : Gada Mohamed Salah El-Din.
Title : Haemodynamics response to monitored exercise and its relationship to lipoprotein lever in obese.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Awny Fouad Rahmy, Essam Abd El-Mohsen Afifi, Mohamed A. Sallam.
Degree : Master.
Abstract :
Obesity threatens to become the leading health problem in the present century. Our study was designed to show the effect of exercise and diet on the levels of cholesterol and triglycerides and the hemodynamical changes that may occur in obese subject. This study includes 30 subjects, (20 females' and 10 males). The subjects were participated in bicycle ergometer exercise program for thirty minutes five times per week and diet regimen for eight successive weeks. The study was done at three stages, before the beginning of the program, after four weeks and after eight weeks from the beginning of the program. We have studied one independent variable, (the diet and exercise program) and eight dependent variables (body mass index, systolic blood pressure, diastolic blood pressure, hemoglobin, hematocrit, heart rate, cholesterol and triglycerides in blood). The data collected was body mass index and heart rate as the results of the exercise and diet program while there were no significant improvements in the other dependent variables. We conclude that exercise and diet directly affect the lipoprotein levels in the blood but the hemodynamical changes due to the same program were unclear. We recommend extending this study for a more prolonged period and with high intensity exercise program to document the collected data.
Key words : Obesity, lipoprotein lever, exercises, physical therapy.
Arabic Title Page : استجابة ديناميكية الدم للتمارين العلاجية المحكمة وعلاقتها بمستوى الدهون في البدناء.
Author : Hatem Abdel Raheim Kamar.
Title : Efficacy of walking exercise on thrombocytes in healthy subjects.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Awny Fouad Rahmy, Essam Abd-Elmohsen Afifi, Alsayed Abd - Elhamed Abo - Shanb.
Degree : Master.
Abstract:
The aim of this study was to investigate the effect of different intensities of walking exercise on the function of blood platelets in healthy subjects. Forty-five healthy males with mean age 30.11±3.26 years divided into 3 equal groups, each group applied 20 minutes of walking on electrical treadmill 3 times per week for 12 weeks. Walking intensities were low (50%-65% of HR max), moderate (65%-75% of HR max), and severe (75% to 80% of HR max) for the groups A, B, and C respectively. Bleeding time, clotting time, prothrombin time, prothrombin concentration, and platelet count were detected before, after, and after 72 hours of the last session of exercise. Results showed that, bleeding time was significantly reduced after the first and last session of exercise on group B and C, while clotting time was significantly reduced after the last session of exercise in group B.
Key words : Walking, THROMBOCYTES, Healthy Subjects, physical therapy.
Arabic Title Page : فعالية تمرینات المشی على صفای الدم
للاشخاص الاصحاب.
Author : Khaled Takey Ahmed Abd Allah.
Title : Efficacy of selected exercise programs for intermittent claudicates.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Awny F. Rahmy, Abd El-Fattah A.Ismail, El-sayed A. Abo Shanb.
Degree : Master.

Abstract:
The aim of this study is to investigate the effect of different exercise training programs on walking distances, walking time, and ankle brachial pressure index in claudicates. Sixty patients with intermittent claudicating with age ranged from 40 to 65 years were divided into three equal groups. Group I participated exercise training program by using ergometer, group II participated exercise training by using treadmill, group III participated the training program by using ergometer and treadmill. All groups worked with moderate intensity of exercise from (60% to 75% of HR_max) for 30 minutes, 3 times per week and for 3 months. The variables were measured before and after exercise training program. The data were statistically analyzed, and showed that were significantly increased after the exercise training programs within each group, and between groups.

Key words : Exercise programs, intermittent claudicates, physical therapy.

Arabic Title Page : فعالية برامج تمريناً مختارة على مرضى العرج المنتقم.
Author: Omer Farouk Farahat Helal.
Title: Transcutaneous electrical nerve stimulation on diabetic neuropathy.
Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors: Awny F. Rahmy, Mohamed I. Sheta, Al-Sayed A. Abo Shanb.
Degree: Master.
Abstract:
This study aimed to detect the effect of TENS on diabetic neuropathic pain and on the nerve conduction velocity. Subjects Forty medical controlled type 2 diabetic patients (21 males and 19 females with their age was ranged from 40 to 70 years) complaining of pain in their lower limbs were included. Methods A high frequency (100 Hz, 200 μsec, moderate intensity) TENS was used with four electrodes were positioned on both lower limbs for 20 minutes per session / 3 times per week / for 12 weeks. All patients were requested to modify short form Mc Gill pain questionnaire before starting the treatment / every 4 weeks / after 12 weeks and after 16 weeks to evaluate the long-term effect of TENS on pain. Also the all patients were evaluated by motor nerve conduction velocity test of the post-tibial nerve before starting and at the end of the treatment. Results the intensity of neuropathic pain was significantly decreased after 12 weeks of TENS application. Also the pain intensity was significantly decreased after 16 weeks. While the pain improvement was not correlated with the motor conduction velocity, as the motor conduction velocity of the post-tibial nerve (medial and lateral branch) were not significantly changed. Conclusion and Discussion The results revealed that TENS can significantly decrease neuropathic pain, but has no effect on motor conduction velocity.

Key words: Diabetic neuropathy, Pain, Nerve conduction velocity, TENS, physical therapy.

Arabic Title Page: التنبية العصبي الكهربائي عبر الجلد على التهاب الأعصاب الطرفية المصاحبة لمرض السكرى.
Author : Osama Safwat Lewis.
Title : Relative relationship between maximum voluntary ventilation and weight reduction in young adult obese subjects.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Abstract:
The aim of this study was to find the relative relationship between maximum voluntary ventilation and weight reduction through exercise - diet. Fifty five obese volunteers (32 males and 23 females) selected from the students of October 6 University. Their age ranged between 18 - 25 years, height ranged between (160-180 cm), attended a program of aerobic exercise and diet, within 12 weeks. The results can be used as a reference for the present study to show the relation between the percentage change of body mass index and that of maximum voluntary ventilation. Whenever there is high value of body mass index change reduction, it gives the expected improvement voluntary ventilation.
Key words : voluntary ventilation, Obesity, physical therapy.
Arabic Title Page : العلاقة النسبية بين أقصى تهوية رئوية و انقاص الوزن في الأشخاص البالغين البدناء.
Author : Sahar Arafa Mohamed Arafa.

Title : Factors influencing physical therapy graduates, decision to work with elderly patients.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.

Supervisors : Nagwa Mohamed Hamed Badr, Ahamd Hassan Hussian, Zahra M.H.Serry.

Degree : Master.


Abstract :
To determine the factors that may influence physical therapy graduates decisions to work in geriatrics, a questionnaire was distributed to the students in the faculty of Physical Therapy - Cairo University. Eighty nine percent of them responded. After data analysis, the results showed that the students were more liable to make their decisions on socioeconomic basis than on any other factor. Strategies were suggested for educators to enrich the current curriculum.

Key words : elderly patients, physical therapy.

Arabic Title Page : العوامل التي تؤثر على قرارات خريجي العلاج الطبيعي للعمل مع المرضى السنين.
Author : Salwa Bahaa El-Deen El-Sobkey.
Title : An ecological study of vital capacities changes among individuals subjected to indoor radon decay products.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Awny Rahmy, Azza Abdel Azyz, Zeinab Helmy.
Degree : Master.
Abstract :
This work was aimed to study the relation between PFTs and indoor air pollution with radon. 81 normal non-smoker volunteers participated in this study. They answered a questionnaire and the measurement of their PFTs and radon concentration in their homes and work place were done. The study results in a negative relation between the PFTs and radon concentration. also it showed that there are several factors affecting indoor air radon concentration including type and hours of ventilation, type of building material and painting, presence of ceramic and its percentage.
Key words : ecological study, physical therapy.
Arabic Title Page : دراسة العلاقة بين التغيرات في السعة الرئوية للأشخاص المعرضين للمنتجات المشعة للرادون داخل الأماكن المغلقة.
Physical Therapy Department for Obstetrics and Gynaecology and its Surgery
Author : Taghrid Taha Abd El-Rahman.
Title : Effect of aerobic and electrolipolysis on sex hormones in infertile obese women.
Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors : Fahima Metwally Okeel, Ibrahim Mahrous Kandil, Amal Mohamed Youssef.
Degree : Master.
Abstract :
This study was done to investigate the effect of exercise program or infertile obese women. Thirty volunteers infertile obese women were selected, their age ranged from 25 to 35 years old, BML >32 Kg /m2 and waist / hip ratio > 80%. They were assigned randomly into two equal groups. Group (A) received exercise program and group (B) received electrolipolysis program for three months (one every other day). Both groups received a dietary regimen of 1500 kcal / day. The results of this study reveal that: exercise program and electrolipolysis are alternative methods; however, electrolipolysis is more effective than exercise program in the treatment of infertile obese women.
Key words : Aerobic exercises, electrolipolysis, sex hormones, infertile, women, gynecology, obesity, physical therapy.

Arabic Title Page : تأثير التمرينات الهوائية وإذابة الدهون كهربيا على الهرمونات الانتوية للسيدات البدينات قليلات الخصوبة.
Physical Therapy Department for Musculoskeletal Disorder and its Surgery
Author: Amr Ahmed El-Zeidy.
Title: Anthropometric measurements and spinal mobility in subjects with and without low back dysfunctions.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors: Mohamed Gamal El-Hanak.
Degree: Master.

Abstract:
Background: Anthropometric measurements, as a possible factor in the rehabilitation of low back dysfunction, have received a great deal of attention in the field of physical therapy. Purpose: the purpose of this study is to investigate the influence of anthropometric measurements and spinal mobility in subject with the without low back dysfunction. Design: prospective analysis of relationship between spinal mobility and anthropometric measurements.
Subjects: sixty subjects age ranged from 20-55 decided into 2 group's Group I [30 normal subject] 15 male with mean age 41.7±5.5 mean height 169.4±7.7,15 female mean age 38.4±3.9 meanheight163±7.5 and group II [30 subject with low back dysfunction]15 male mean age 37.7±8.1 mean height 166.8±6.8±6.5 and 15 female mean age 34.6±5.8 mean height 162±6.5 methods: subjects were measured and data recorded height , weight, torso height, pelvic width and pelvic girth . Subjects also were tested to determine their back mobility using BROM11 device. Results: descriptive statistics [T-test] were used to differentiate between anthropometric measurements and spinal mobility in subjects with/without LBD means and standard deviation tables were run. Pearson correlation matrix indicated that the combination of sex, age height and torso height were significantly related to mobility [intra-tester reliability] ICC were 0.81 for flexion, 0.84 extension, right rotation.70, left rotation 0.72, right lateral flexion. 65 left lateral flexion. 68, torso height.77 pelvic girths .88. (Multiple R2=.68). Discussion and conclusion: This findings. Suggested forward flexion and back extension measured by BROM II were reproducible measures between equal testers. The results can take apart in estimating improvement in physical therapy through anthropometric measurements and back mobility. Similar studies are needed to investigate other anthropometric measurements in relation to mobility and spinal dysfunction.

Key words: anthropometric measurements, lumbar range of motion, goniometry, back range of motion device, physical therapy.

Arabic Title Page : المقايس الجسمانية وليونة العضود الفقرى لأشخاص يعانون وأخرون لايعانون من خلل وظائي باسفل الظهر.
Author : Khaled El-Sayed Ayad.
Title : Functional effects of proprioceptive training after anterior circulate ligament reconstruction.
Degree : Master.
Abstract:
The purpose of this study was to clarify the importance of proprioceptive training after anterior circulate ligament [ACL] reconstruction by semitendinosus tendon auto graft. A comparison was held between two ACL reconstructed groups [A and B]. Both groups received an accelerated rehabilitation program but one of them received a proprioceptive training program in addition [group B]. treatment outcome was determined from: 1] absolute angular error [AAE] in active repositioning test as an indicator of the sense of position, 2] scores of lysholm knee scale as all reported measure representing functional disabilities experienced by subject during activities of daily living, and 3] scores of three functional tests: a] vertical jump test b] figure-of-eight test, and c]stairs running test. The later three functional tests are indicators of the functional abilities of the subject. The results showed a statistically significant improvement in sense of position of the knee and greater scores of lysholm knee scale in group [BB]. No statistically significant difference was found between both groups in the scores of the functional tests. It was concluded that combining a propriocetive training program with an accelerated rehabilitation program after ACL reconstruction is important for improving function of the knee.
Key words : Knee ligament, rehabilitation, kinesthesia, absolute angular error, active repositioning, functional test, vertical jump test, figure of eight test, physical therapy.

التأثيرات الوظيفية لتمرين المستقبلات الحسية العميقية بعد إعادة بناء الرباط الصليبي الأمامي.
Author: Mahmoud Mohammed Mahmoud Kenawey.

Title: Effect of chronic mechanical low back pain on dynamic balance.


Supervisors: Nadia Abd El Azim Fayaz, Salwa Fadid Abd El Mageed.

Degree: Master.


Abstract:
Dynamic balance could be affected by various parameters of back dysfunction. The purpose was to investigate dynamic balance responses in chronic mechanical low back pain (CMLBP) patients. 20 normal volunteers and 20 CMLBP patients participated in this study. Stability indices were measured in five dynamic balance conditions. AP stability indices were significantly greater in all of the five tested conditions in the CMLBP patients as compared to healthy subjects. ML stability indices were significantly greater in CMLBP patients in most the tested conditions. Patients with CMLBP demonstrated significantly worse dynamic balance measurements than healthy subjects, constituting predisposing factor to recurrent back pain episodes.

Key words: dynamic balance, low back pain, fatigue, stability, physical therapy.

Arabic Title Page: تأثير آلام أسفل الظهر الميكانيكية المزمنة على الاتزان الحركي.
Author : Mohamed Amal Said El-Azhary.
Title : Effect of early weight bearing exercises on sensor motor control after lateral ankle sprain.
Degree : Master.
Abstract:
Forty subjects with ankle sprains participated and were assigned into two groups, each of which includes twenty subjects. One group received an early weight-bearing exercise program. Twenty normal subjects also participated to act as a control group and they did not receive any exercises. The subjects were assessed pre and post-treatment for the reaction time of tibialis anterior and peroneus longus muscles and swelling. A specially designed platform connected to the EMG device and volumeters were used. The results of post-test for the early weight-bearing group were better than the late weight-bearing group.
Key words : Exercises, motor control, ankle sprain, physical therapy.

Arabic Title Page : تأثير تمرينات التحميل المبكر على التحكم الحسي الحركي بعد تمزق الرباط الخارجي لمفصل الكاحل.
Author : Mohamed Shawki Abd El-Salam.
Title : Acetic acid iontophoresis in treating calcaneal spur associated with plantar facilities.
Degree : Master.
Abstract : The purpose of this study was to investigate the effect of acetic acid iontophoresis in reduction of size of calcaneal spur, and identify its influence, if any, in pain and functional disability associated with plantar facilities. Thirty subjects suffering from plantar fasciamas with associated calcaneal spur evident in x-ray participated in this study. They were randomly assigned to both group one (G1) receiving ultrasound therapy and exercises or group two receiving acetic acid iontophoresis, ultrasound therapy and the same exercises program as group one. Subjects in both groups were evaluated pre and post experimentally for spur size in x-ray, pain and functional disability. Therapeutically, subjects in both groups received nine sessions (one session every other day for three weeks). it was concluded that acetic acid iontophoresis was found beneficial in reducing pain and functional disability in cases of plantar facilities, despite not being convincingly affecting the spur size associated with it. In addition, calcaneal spur size was found irrelevant to the severity of pain and/or functional disability cases of plantar facilities.
Key words : plantar facilities, physical therapy.

Arabic Title Page : عملية التأنين لحامض الخليك في علاج شوكة الكعب المصاحبة للالتهاب صفاق الأخمص.
Author : Mowafak F. Said.
Title : The combined effect of taping and selective isometric exercises in enhancing the correction of mechanical patellofemoral malalignment.
Supervisors : Nadia Abd Elazim Fayaz, Yahia Nassef Mohammed.
Degree : Master.
Abstract:
Patellofemoral disorders are one of the most commonly treated conditions in orthopedic practice. The patellofemoral joint is a complex articulation based on its dependence on both dynamic and static restraints for stability. Vastus medialis oblique is considered the major dynamic stabilizer of patellofemoral joint that mention its tracking. Lateral patellar maltracking is attributed to delay timing of activity and weakness of vastus medialis. Two methods were separately used for correcting patellofemoral maltracking, isometric exercises and taping, but their combined effect has not been investigated. The purpose of this study was to investigate the effect of taping combined with selective isometric exercises in enhancing the correction of mechanical patellofemoral malalignment. Thirty subjects with patellofemoral maltracking, males and females, age 20-40 years were randomly assigned into two groups each of 15 subjects. Group Received traditional program and group11 received taping combined with selective isometric exercises using adjustable quadriceps board. Radio graphical comparison of congruence and quadriceps angles were done before and after treatment for both groups. Significant difference were found between two groups [P<0.05]. There were significant improvements in measurements of group II than group I. These findings suggest that an efficient method for enhancing the correction of patellofemoral maltracking is to apply taping combined with selective isometric exercises.
Key words : patellofemoral joint, malalignment, taping, selective isometric exercise, adjustable quadriceps board, medials oblique, congruence angle, patellar tracking, physical therapy.
Arabic Title Page : التأثير المشترك لاستخدام الشريط اللاصق وتمارين التواوي المختارة على تعزيز إصلاح عدم الاستقامة الميكانيكية لمفصل الرصقة مع
Author : Omnia El-Sayed Abd El-Fattah El Ereqy.
Title : Role of latissimus dorsi muscle in decreasing hip reaction force during cane use.
Degree : Master.
Abstract : The aim of this study was to investigate the role of LD in decreasing the HAM and hip joint demand during cane use. Forty normal right-handed subjects were included in these studies. The surface EMG of the GM and LD muscle was recorded during SLS with and without cane use. The cane was used in different positions (IP and CL) and with different amounts of pressure (10% and 15% TBW). The results revealed that increasing cane pressure from 10% to 15% TBW is associated with significant increase in LD muscle activity. CL cane 10% is efficient and more energy consuming than using CL cane 15%.
Key words : hip, muscles, physical therapy.
Arabic Title Page : دور العضلة العريضة ظهرية في تقليل قوة رد فعل مفصل الفخذ أثناء استخدام العصا.
Author: Sahar Abd Elrehim.
Title: Effects of patellar taping on patients with patellofemoral pain.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Degree: Master.
Abstract:
Patellofemoral pain syndrome (PFPS) is a common problem presenting to physiotherapist. One successful approach to treatment involves taping of the patella, which theoretically facilitates the vastus medialis oblique (VMO). The main transverse stabiliser of the patella, as well as relieving pain. The purpose of this study was to establish the effect of taping of the patella on VMO and vastus laterals (VL) EMG activity patterns and patients perceived pain level during maximal isometric quadriceps contractions. Thirty subjects (20 men, 10 women) aged 20-45 years were examined. There were significant reduction in pain after the application of tape (P<0.0001) at all joint angles tested. After the application of tape there was a significant increase in VMO EMG activity. Within the limitations of this study taping of the patella in patients with PFPS brings about a significant reduction in pain and facilitates VMO activity.

Key words: patellofemoral joint, taping, EMG, patellar alignment, patellar tracking, biomechanics anterior knee pain, facilitation, medialis oblique muscle, laterals muscle, physical therapy.

Arabic Title Page: تأثيرات ربط عظام الرضفة على المرضى بالمرضى مفصل الرضفة وأفضل الفخذ.
Physical Therapy Department of Surgery
Author : Amal Mohamed Abd El-Baky.
Title : Therapeutic efficiency of gait and mechanical stretching in lower extremity.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Abstract : The purpose of this study was to differentiate between two methods of stretch prolonged mechanical passive stretch and gait training stretch" in elongating gastrocnemius-soleus muscles and their effects on gait parameters and range of motion of both ankle dorsiflexion and knee extension. Thirty male volunteer subjects participated in this work and selected from Eelkaser Elane hospital with posterior leg burn. They had second degree of thermal injury since one week. the total body surface area ranged from 15-20 %.these patients were divided randomly into 3 groups: group(A):which received prolonged mechanical passive stretch and their traditional physiotherapy program "positioning and exercises group (B): which revived gait training stretch and their traditional' physiotherapy program , and group (C):which received only their physical therapy program .the patients treated twice / day , for five days / week , and for three weeks . a 16-m walkways , a tape measurement , and a stop watch were used to measure the gait parameters and standard goniometers were used to measure ankle dorsiflexion and knee extension. The results of this study revealed that, prolonged mechanical passive stretch is effective method to elongate gastrocnemius-soleus muscles.
Key words : burn, stretch, mechanical stretch, physical therapy.
Arabic Title Page : الكفاءة العلاجية للمشي والاستطالة الميكانيكية في حالات حروق الطرف السفلي.
Author : Mohamed Taher Ahmed Omar.
Title : Effectiveness of high voltage pulsed current in the treatment of hand burn.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Abstract :
The purpose of this study was to determine the effectiveness of HVPC in the reduction of edema, improvement of ROM and grip strength in burned hand. Sixty patients were participated and divided into two main groups (group I who received HVPC, and group II who received placed HVPC). Each group was subdivided into three groups according to the location of burn. The edema was measured by using volumeter, while the ROM measured by goniometer, and grip strength through using of dynamometer. The patients were received one session / day for fifteen days. The results revealed that HVPC is effective than placebo HVPC in the treatment of hand burn.
Key words : thermal burn, edema, high voltage pulsed current, hand function, grip strength, physical therapy.
Arabic Title Page : فاعليّة التيار المتردد العالي الفولتية في علاج حروق اليد.
Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery
Author: Hoda Mohamed Zakaria Zaki.
Title: Neuromuscular electrical stimulation and wrist splint controlling spasticity in stroke patients.
Dept.: Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.
Supervisors: Naima Hamdy Hassan, Magdy Ahmed Arfa, Abd El-Moez Abd El-Aziz Sanad.
Degree: Master.
Abstract:
This investigated a therapeutic regimen using NMES And wrist splint too assess their efficacy in reducing wrist flexor spasticity in stroke patients twenty-six spastic stroke patients were assigned into either a study or control group both groups received traditional exercise program and wrist splint the study group received additional neuromuscular electrical stimulation (NMES) all patients in both groups received their treatment for six days weak for eight successive weeks assessments were made for muscle tone, resting wrist angle (RWA), active range of motion (ROM) and muscle tension of wrist extensors one time with flexed fingers and another time with extended fingers the study group showed significant decrease in muscle tone and RWA, and improved isolated motor control of the wrist.
Key words: wrist, spasticity, stroke, physical therapy.
Arabic Title Page: نأطير الكهربي العضلى العصبى وجثيرة الساعد في التحكم في التشنج العضلى في مرضى السكتة الدماغية.
Author : Nevein Mohamed Mohamed Ghareeb.

Title : Value neuromuscular electrical stimulation in conjunction with shoulder sling in reducing the incidence of shoulder subluxation in stroke patients.


Supervisors : Naiema Hamdy Hassan, Nawal Abd El-Raouf Abou-Shay, Mohamed Nabil El-Bahrawy.

Degree : Master.


Abstract:
The purpose of this study was to evaluate the influence of NMES in conjunction with shoulder sling in decreasing the degree of incidence of shoulder subluxation in flaccid stage of vascular hemiplegic patients. Thirty recent hemiplegic stroke patients with shoulder muscle flaccidity were randomly assigned to either a control group or study group. They had their first assessment within 12 days post stroke. Both groups received traditional exercise program and specially designed shoulder sling. The study group received additional neuromuscular electrical stimulation (NMES) where two flaccid paralyzed shoulder muscles (supraspinatus and posterior fibers of deltoid muscles) were induced to contract repetitively up to one hour, three times a week for six weeks. Assessment were made of shoulder subluxation, shoulder pain, and motor function recovery of the upper arm. The study group showed significant improvement in shoulder subluxation after the treatment period, but at the end of the follow-up period, there was no significant difference between the two groups. It was concluded that shoulder sling in conjunction with NMES training program, hemiplegic shoulder subluxation can be reduced significantly if such a program is implemented early after the patient suffers a stroke.

Key words : shoulder sling, NMES, flaccidity, shoulder subluxation, stroke, physical therapy.

Arabic Title Page : تأثير التنبيه الكهربائي العضلي العصبي ومعلاجه الكتف مع تقليل حدوث الخلع الجزئي للكتف في مرضى السكتة الدماغية.
Author : Waleed Talat Mansour.
Title : Low - intensity laser in conjunction with ultrasound therapy in treating carpal tunnel syndrome.
Supervisors : Samiha Hafez Hassan, Mohamed Sadek Badawey, Usama Mohamed Rashad.
Degree : Master.
Abstract : The purpose of this study was is to find out the role of laser therapy in treating carpal tunnel syndrome. thirty female patients suffering from CTS participated in this study , their age ranged from 20-40 years with a mean aging of 30.83 (± 7.15)years . They were classified into two groups, each them consisted of 15 patients. Group (1) received IR laser, ten minutes for 5cm segments of the skin on the palmer surface of the hand. It started about 3cm from the proximal border of the flexor retinaculum, and then passed distally for 2cm across the retinaculum with lateral division over the tenor eminence. group (20 received IR laser ten minutes as group one followed by pulsed U.S. Model 2:8 was applied on the carpal tunnel area which expands from the wrist crease to the palmer region and covers an area of 3 to 5cm in length and 2 to 2.5cm in width, for 15 minutes. both groups received three sessions / week for four weeks. patients were assessed electro physiologically via (motor Sensory distal latencies and motor sensory conduction velocities)and clinically via (visual analogue scale, Semmes - Weinstein monofilament, and pinch dynamometer) before and after treatment program. the results showed that both groups were improved significantly after treatment, with no significant difference in between the two groups, regarding the clinical and electrophysiological parameters according to the statistical analysis, IR laser therapy is considered effective in treating CTS, and pulsed U.S. has no role in treating CTS .
Key words : Carpal tunnel syndrome, IR laser therapy, palsied ultrasound, median nerve, nerve conduction velocity, physical therapy.
Arabic Title Page : علاج ضيق النفق الرسغي عن طريق الليزر ذو الجهد المنخفض والموجات فوق الصوتية معا.
Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery
Author : Amany Abdel-Aziz Hamed.
Title : Postural deviations among rural and urban pre-adolescents.
Supervisors : Mohamed Tawfik Mahmmuod, Kamal El-Sayed Shoukry, Amany Mosua Mohamed.
Degree : Master.
Abstract : The purpose of this study was to investigate the effect of children working in farm activates on their postural health through comparing rural children posture with urban children posture. one hundred thirty two healthy educated boys aged from 9-12 years participated in this study and they divided into two groups. rural group composed of 70 boys selected from El-Sheakh Someat primary school, and they daily participate in farm activates, while urban group composed of 62 boys selected from , shams Eldeen primary school in Shirbeen town they don't participate in any physical work or any type of sport. Three mean steps were involved for postural evaluation. First is observation for postural alignment of different body segments from lateral and posterior photographic views. Second step was observation ional testing for postural muscles flexibility. The third step testing for physic muscles strength using densitometer. The analysis of date revealed that there was a significant increase in rural percentage with normal postural alignment and normal posture muscle flexibility, while there was a significant increase in the percentage of urban boys with postural deviations, and with hamstring tightness. Finally rural boys have higher muscle strength than urban boys except for the quadriceps.
Key words : Postural deviations, pre-adolescents, pediatrics, physical therapy.

اللغز: التغيرات القيومية بين أطفال الريف والحضر فيما قبل مرحلة البلوغ.
Author : Fatma Mostafa Abd El-Atty.
Title : Description of movement patterns used by blind and deaf children to rise from a supine position to erect stance.
Supervisors : Kamal El-Sayed Shoukry, Eman Ebrahim El-Hadidi, Shadia Abd El-Aziz Khalil.
Degree : Master.
Abstract:
The objective of this study was to determine the way of motor development in both deaf and blind children. Rising from supine to a standing position was selected as the movement task to evaluate the way of motor development. Twenty-five blind children, twenty-five deaf children and fifty normal children with age ranges from 7 to 9 years participated in this study. All children were videotaped while rising from a supine position 10 times. Descriptive categories were formed to portray movement of upper extremities (UE), axial (AX) and lower extremities (LE). The results of this study revealed a significant difference between the normal and blind children as well as between the feed and blind children in the movement patterns they used in the execution of the rising task. On the contrary, there were no significant differences between normal and deaf children in the performance of the rising task. moreover, the study clarified that both deaf and blind children largely depend on their upper extremities while coming from supine to erect stance, compared with the normal children who greatly rely on their lower extremities during performance of the rising reaction. According to the previous results, we concluded that deaf children were to a great extent-closer in their execution of different movement patterns to the performance of their normal peers, showing the least movement deviations, whereas the performance of such movement patterns in blind children was usually associated with odd execution and characterized by a higher degree of deviations.
Key words : Blind children, deaf children, a supine position, pediatrics, physical therapy.

Arabic Title Page : وصف نماذج القيام من الرقود على الظهر إلى الوقوف عند الأطفال مكفوفي البصر والأطفال الصم.
Author : Alyaa Attiah Mohamed Diaab.
Title : Efficacy of pulsed short wave on ehrlich tumor growth on mice.
Dept. : Department of Basic Science.
Degree : Master.
Year : 2002.
Abstract :
Electromagnetic field (EMF) is considered on of the common used modalities in the field of the physical therapy. Physical therapists use almost all types of EMF (high, Middle, and low frequency EMF) at different intensities and thresholds in the management of different cases. Over the last twenty years, interests and activities of different researchers in the world is increasing for the biological effects of electromagnetic fields on the different systems of the body. Therefore, the aim of this work is to investigate the biological effect of high frequency electromagnetic field on tumor growth. for this purpose 60 female mice contain ehrlich tumor in the thigh were divided into six groups , five experimental groups namely B,C,D,E and F in addition to the control group ((Group A). the mice were exposed to EMFs emitted from SW apparatus , at eight hours/day , six days/week for three weeks. exposures to pulsed short wave started at day 10-post tumor implantation. the in vivo measurements included: 1)studying tumor growth, by measuring the size of the tumor after exposures every 3 days for three weeks. 2) Survival rate, by calculating the percentage of animals surviving post tumor implantation and 3) histopathological studies. It was concluded that exposures to short waves even at very low dose rates enhance tumor growth and its density and decrease survival rate. We may consider short waves promoters for cancer cells.
Key words : tumor growth, high frequency electromagnetic field, short wave, physical therapy.

Arabic Title Page : قوة تأثير الموجات القصيرة النابضة على نمو الورم السرطاني الأليشبي.
Author : Azza Mohamed Atia.
Title : Efficacy of spinal manipulation in the treatment of low back dysfunction.
Dept. : Department of Basic Science.
Degree : Master.
Year : 2002.
Abstract
Background low back dysfunction (LBD) is a significant public health problem that frequently restricts patient activity and boosts LBD. The purpose of this study was to investigate the efficacy of spinal manipulation on pain, ROM, and functional activities in treatment of LBD patients subjects. Thirty patients with chronic LBD (19 females, 11 males), age (30±5.65) years. They were randomly assigned to two groups: group (A) as applied conservative treatment, group (B) was applied conservative treatment plus spinal manipulation. The program was applied day/day for four weeks. Results: there was a significant decrease in pain score from 8.20±1.32 to 4.33±1.99 in group A and from 8.20±1.15 to 2.87±1.12 in group B. The range of motion was significantly improved in group B than in group A. The disability index significantly decrease from 0.52±0.22 to 0.29±0.16 in group A, 0.58±0.19 to 0.11±0.09 in group B. Discussion and conclusion. Spinal manipulation as shown in this study has a great effect in treating patients with LBD in term of pain reduction, improvement in ROM and functional activities.
Key words : Low back dysfunction, spinal manipulation, physical therapy.
Arabic Title Page : مدى كفاءة العلاج البدوى للعمود الفقري في حالات الخلل الوظيفي بالجزء الاسفل من الظهر.
Department of Biomechanics
Author: Amr Almaz Abd El-Aziem.
Title: Circadian specificity in flexibility of hamstring.
Dept.: Department of Biomechanics.
Supervisors: Amira Mohamed El-Tohamy, Bassem G.El-Nahass, Mohamed Wafik.
Degree: Master.
Year: 2002.
Abstract:
The purpose of this study was to prove the effect of circadian rhythm on flexibility training of hamstring forty-five subjects with tight hamstring were selected and randomly divided into three groups, each of which include 15 subjects the first group received static stretch at the morning (0.8:00-10:00 AM), the second group received static stretch at (14:00-18:00 PM), and the third group as a control group received static stretch randomly at any time of the day the results proved that the static stretch is effective if repeated at the same time of the day especially at afternoon more than other times of the day.

Key words: Circadian rhythm, flexibility, hamstring, physical therapy.

Arabic Title Page: توصيف الإيقاع الحيوي لمرونة عضلة الفخذ الخلفية.
Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery
Author : Abeer Ahmed Abdel-Hamed Fargaly.

Title : Constant versus incremental work rate cardiopulmonary exercises test in evaluation of functional capacity of Egyptian physical therapy students.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.

Supervisors : Nagwa Mohamed Hamed Badr, Zeinab Mohammed Helmy, Mustafa Hussein Gad.

Degree : Master.

Year : 2002.

Abstract:
The aim of this study was to compare between two different protocols of cardiopulmonary exercise tests in measuring indices if functional capacity and work time, sixty normal students participated in the study, their ages were ranged from 18-24 years, each perform an incremental cardiopulmonary exercise test then one week later they performed a constant exercise test, selected cardio vascular responses to both type of exercise test were measured, the results showed non significant change in VO2_{max}, anaerobic threshold for all subject, while the work time was significantly decreased during constant work rate for all subjects, the result showed also a non significant increase in parameters of cardio vascular response except of maximum heart rate during constant work rate for all subjects.

Key words : Cardiopulmonary exercise test, constant work rate, incremental work rate, functional capacity, physical therapy.

Arabic Title Page : اختبار تمارين القلب الرئوية ل معدل الشغل الثابت مقابل المتزايد في تقييم المقدرة الوظيفية لطلاب العلاج الطبيعي المصريين.
Author : Mohamed Abd El-Sattar Mohamed Hemida.

Title : Cardiovascular response to aerobic exercise training in diabetic autonomic neuropathy.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.

Supervisors : Awny Foud Rahmy, Ayman Fatehy Kaddah, Alsayd Abd El-Hamid Abo-Shanab.

Degree : Master.

Year : 2002.

Abstract : Forty NIDDM with autonomic neuropathy (25 male and 15 female) participated in the study, their age was ranged from 45-65 years divided into two group A and B. Group A practiced exercise and received medication while group B received only medication patients with ischemic heart diseases and varicose veins were excluded. Each patient was evaluated pre and post exercise program. Each patient of group A received three sessions/week for three months pre and post program assessment was done for each patient of both groups included: both weight, mass index, fasting blood glucose, ECG studies, heart rate from (supine, standing and after 3 minutes of standing) and systolic and diastolic blood pressure from (supine, standing and after 3 minutes of standing) the data were statistically analyzed, the results showed that the body weight and body mass index were statistically significantly reduced in both groups. Fasting blood glucose was significantly reduced in group A and increased in group B. Heart rate was significantly reduced in both groups. Systolic blood pressure was significantly decreased in group A except from standing significantly increased diastolic blood pressure was significantly decreased in group A in group B. Systolic blood pressure changed non-significantly except from standing.

Key words : Cardiovascular, Exercise training, Diabetic, autonomic neuropathy, physical therapy.

Arabic Title Page : استجابة الجهاز الدورى للتمريينات الهوائية في مرضى السكر المصحوب بالتهاب الجهاز العصبي اللامع.
Author : Mona Mohamed Mohamed.
Title : Efficacy of physical training on ventilatory functions in Alzheimer's.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Awny F. Rahmy, Intessar E. Sultan, Zahra M. H. Serry.
Degree : Master.
Year : 2002.
Abstract :
This study aimed to detect the efficacy of physical training on ventilatory functions in Alzheimer's patients subjects: thirty ambulated patients of moderate stage of Alzheimer's disease (14 males and 16 females with the mean age 73 years and the mean height 157cm) methods: physical training to patients include gait training upper limb exercise associated with respiration incentive spirometry exercises and diaphragmatic breathing exercises three times per week for six weeks also the pulmonary functions of the patients were evaluated by spirometer (Japanese minat auto Spiro As-500) before and after treatment results: the pulmonary function was significantly increased after six weeks of physical training conclusion and discussion: the results revealed that physical training could significantly improve pulmonary functions.
Key words : Alzheimer's Disease, ventilatory functions, physical training, Physical Therapy.
Arabic Title Page : فاعلية التدريب الجسماني على وظائف التهوية الرئوية في مرضى الزهايمر.
Physical Therapy Department for Obstetrics and Gynaecology and its Surgery
Author: Ali Abd El-Monsif Thabet.
Title: Efficacy of interferential current in the treatment of chthonic pelvic inflammatory disease.
Dept.: Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors: Fahima Metwally Okeel, Mohamed mostafa Radwan, Amel Mohamed Yousef.
Degree: Master.
Year: 2002.
Abstract:
The purpose was conducted to determine the efficacy of interferential current (LFC) in the treatment of chronic inflammatory disease (PLD)participated in this study they were treated with lfc for 18 sessions one every other day each session was for 20 min All patients were evaluated before and after the end of lfc treatment using present pain intensity score (ppi) McGill pain questionnaire((MPQ)erythrocyte sedimentation rate (ESR)and white blood corpuscles (Mpo), erythrocyte sedimentation rate (ESR)and white blood corpuscles (WBC)except pain relief score was used only after lfc treatment resoles showed signficant relief of pain and inflammation of chronic PLD accordingly it could be concluded that LFC was found to be effective in treating chronic PLD.
Key words: Electrotherapy, pain, interferential current, pelvic inflammation, physical therapy.
Arabic Title Page: كفاءة التيار الكهربائي المتداخل في علاج التهابات الحوض المزمنة.
Author: Dalia Mohamed Kamel Shewitta.
Title: Effect of gentamycin iontophoresis on the incidence of wound infection in post cesarean section.
Dept.: Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors: Fahima Metwally Okeel, Serag El-Din Mansour Mahmoud, Amel Mohamed Youssef.
Degree: Master.
Year: 2002.
Abstract:
The study was conducted to determine the effect of gentamycin iontophoresis on the incidence of wound infection in post cesarean section (C.S.). Thirty volunteer women underwent C.S. for the first time were participated in this study and were divided randomly into two equal groups. All patients were evaluated by photographs for the wound site, counting white blood cells, measuring body temperature and culture. Results showed a statistically no significant difference between both groups (A and B). Accordingly it could be concluded that gentamycin iontophoresis was found to be an effective in treating and reducing incidence of C.S. wound infection and could be considered as alternative method for systemic antibiotic treatment.

Key words: cesarean section, gentamycin, iontophoresis, wound infection, physical therapy.

Arabic Title Page: تأثير التلَّوْح الكهربائي بالجبنتاميسين على معدل حدوث التلوث الجراحى بعد الولادات القيصرية.
Author : Fayiz Farouk Ibrahim.
Title : Changes of lumbar curvature and back muscles activity as early predictor of low back pain in normal pregnant women.
Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Degree : Master.
Year : 2002.
Abstract : The study was conducted to predict low back pain (L.B.P.) which may be developed during pregnancy by measuring lumbar curvature changes and back muscle activities. thirty volunteer pregnant women free from L.B.P. at 20 weeks' gestation selected from outpatient clinic of obstetric department at El - Galaa Teaching Hospital were participated in this study. evaluation of all subjects was done through visual analogue scale ((VAS)and McGill pain questionnaire (MPQ) to determine the intensity of L.B.P. at 24, 28 and 32 weeks gestation, flexible curve rule to determine the lumbar curvature changes at 20, 24, 28, and 32 weeks' gestation and EMG to measure the amplitude of the erector spinal muscles activities at 20 weeks' gestation. the results of the study revealed that L.B.P measured by (VASMPQ) was statistically significant increased (P<0.05) between 24 weeks gestation 28 and 32 weeks gestation. lumber curvature changes showed a very highly significant increase between 20 and 14, 28 32 weeks gestation. EMG activity of the erector spinal muscles at right and left sides showed a statistically non significant difference (P>0.05) at 20 weeks gestation. Thus, lumbar curvature changes and EMG activity of the erector spinal muscles can accurately predict L.B.P. which developed later on during pregnancy. So, it can be concluded that lumbar curvature changes and EMG activity of the erector spinal muscles can predict L.B.P. developed later in pregnancy and offer excellent guide for obstetricians and physical therapists to apply suitable measures of prevention and treatment as early as possible.
Key words : low back pain, lumbar curvature changes, back muscles activities, pregnancy, physical therapy.

Arabic Title Page : تغيرات الاحتراء القطني ونشاط عضلات الظهر لدى السيدات للتنبؤ المبكر بالماسفل الظهر أثناء الحمل الطبيعي.
Author : Mohamed Ahmed Mohamed Awad.
Title : Effect of sub maximal exercise on serum immunoglobulin G during second and third trimesters of normal pregnancy.
Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors : Fahima Metwally Okeel, Mohamed Hesham Hassan Anwar, Azza Baramoud Nashed.
Degree : Master.
Year : 2002.
Abstract : Forty volunteer pregnant women (primigravidae and multipart) participated in this study, their ages ranged from 20 to 32 years, weight ranged from 50 to 122 kegs. They were divided randomly into two groups equal in number (A and B). Group (A) consisted of 20 pregnant women in second trimester of pregnancy, while group (B) consisted of 20 pregnant women in third trimester of pregnancy. Each pregnant women performed sub maximal exercise (70% of maximum heart rate) on an electronic bicycle ergometer for 25 minutes (5 minutes warming up, 15 minutes active stage, and 5 minutes cooling down). Blood sample was drown from ante capital vein before and immediately after exercise, to estimate the serum level of I G. In group (A) the results showed significant increase in serum IG level immediately after sub maximal exercise (p=0.033), while in group (B) the results showed insignificant decrease (p=0.247) in serum IG level immediately after sub maximal exercise. There was insignificant difference in serum IG level before exercise between group (A) and (B) (p=0.883), while there was significant decrease in serum IG level in group (B) than in group (A) immediately after exercise (p=0.003).
Key words : Immunity, immunoglobulin, submaximal exercise, Physical Therapy.

Arabic Title Page : تأثير التمرينات المتوسطة الشدة على مصل الأجسام المضادة ج أثناء الثلاثة الثاني والثالث من الحمل الطبيعي.
Author: Nesreen El-Said Abbas.
Title: Symphyseal distention in relation to pelvic pain in prim and multigravid women.
Dept.: Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors: Salwa Mostafa El-Badry, Ibrahim Mahrous Kandil, Amel Mohamed Yousef.
Degree: Master.
Year: 2002.

Abstract:
This study was conducted to investigate the relationship between the symphyseal distention and pelvic pain in prim and multigravid women at 20 and 35 weeks gestation. Forty volunteer pregnant women at 20 weeks gestation complained from pelvic pain participated in this study, from outpatient clinic of obstetric department at Bab El-Sheria University Hospital. Women were divided randomly into two groups equal in number: group (A) 20 prim gravid women and group (B) 20 multigravid women. Evaluation for all women was done at 20 and 35 weeks gestation through measuring pelvic pain by visual analogue scale (VAS) and McGill pain questionnaire (MPQ). Symphyseal distention (width and vertical shift) was evaluated by ultrasonography. The results of this study revealed that pelvic pain and symphyseal distention were increased significantly between 20 and 35 weeks gestation in both groups (A and B) and they increased significantly in group (B) than in group (A) at 20 and they increased significantly in group (B) than in group (A) at 20 and 35 weeks gestation. Also there was a significant correlation between increased pelvic pain and increased symphyseal width, while symphyseal vertical shift had no significant correlation except in group (A) at 20 weeks gestation. So, it could be concluded that severe pelvic pain during pregnancy is strongly associated with an increase symphyseal distention, which a special conservative physical therapy needs program to prevent it.

Key words: symphyseal joint distention, pelvic pain, gravid women, women, physical therapy.

Arabic Title Page: العلاقة بين تمدد المفصل الارتقائي والحموض في السيدات الحوامل سواء في الحمل الأول أو المتكرر.
Physical Therapy Department for Musculoskeletal Disorder and its Surgery
Author : Aliaa Mohammed Rehan.
Title : Effects of early closed kinetic chain exercises on the rate of callus formation during distraction osteogenesis by ilizarov's method.
Degree : Master.
Year : 2002.
Abstract :
The purpose of the current study was to investigate the effect of an early graduate high-repetition closed kinetic chain exercises on the rate of callus formation and functional outcome in patients who underwent unilateral tibial lengthening by ilizarov's method. Twenty patients completed the proposed exercise program and / or the assessment. These patients were divided into a study group (GI,n= 11)and a control group (GII,n= 9). Both groups were further subdivided into two age subgroups. Callus formation was assessed using the indirect digital radiography method, while functional outcome was assessed using the physical subset of the children health information service rand scale. G I (GIa G Ib) showed a significant improvement in the rate of callus formation and in functional outcome was assessed using the physical subset of the children health information service rand scale. G I (GI a G Ib) showed a significant improvement in the rate of callus formation and in functional outcome compared with G II (G IIa,G IIb). There was also a moderate negative correlation between bone density and functional outcome. It could be concluded that early weight bearing closed kinetic chain exercises enhance the rate of callus formation and promote patients functional outcome.
Key words : physical rehabilitation, closed kinetic chain exercises, bone formation, distraction osteogenesis, ilizarov's method, physical therapy.

Arabic Title Page : تأثير تمارين السلسلة المغلقة المبكرة على معدل تصلب العظام(تكون العظام) خلال التهاب (تكون العظام) بالتبعيب بطريقة اليزازروف.
Author : El-Sadat Saad Soliman.
Title : A suggested physical therapy program in failed back surgery syndrome for lumbar disc prolepses.
Degree : Master.
Year : 2002.
Abstract : The purpose of this study was to develop and evaluate a suggested physical therapy program (ultrasonic therapy, stretching, and strengthening exercises) for the management of patients with failed back surgery syndrome after lumbar disc surgery, the study included 30 patients (17 males and 13 female) randomly selected and divided into two groups, the experimental group that received the suggested program, and the controlled group that received the traditional physical therapy program (infra red, massage, skin rolling, and stretching for lower limb muscles) the program duration was 10 wks for both groups, the assessment for both groups included the visual analogue scale, the modified scooper test, the oswestry disability questionnaire, and the isotation dynamometer the results showed that there were significant differences between the two groups in post treatment status in favor of the experimental group regarding the pain intensity, the distance of walking, the lumbar range of motion, the functional disability level, and the back muscles torque.

Key words : failed back surgery, physiotherapy, lumbar disc prolepses, physical therapy.

Arabic Title Page : برنامج علاج طبيعي مقترح في حالات متلازمة فشل جراحة الظهر لبعض حالات الانزلاق الغضروفى الفقني.
Author : Mohamed Mohamed Ibrahim Alisalem.
Title : Assessment of shoulder proprioception in chronic rotator cuff tendonitis.
Supervisors : Ahmed Hassan Hussein, Abd El-Aziz Abd El-Aziz El-Senegry, Yehia Nassef Mohamed.
Degree : Master.
Year : 2002.
Abstract :
The purpose of this study was to investigate the effect of chronic rotator cuff tendonitis on shoulder proprioception and to identify the relation between shoulder pain and proprioception and between age and shoulder proprioception. Forty patients suffering from unilateral chronic rotator cuff tendonitis participated in the study. The sound shoulder was used as a control for testing. Patients were evaluated for pain by using visual analog scale (VAS) and for shoulder proprioception by using active reproduction tests. The results of the present study revealed that there were significant differences between involved and uninvolved shoulder in proprioceptive ability and there was a positive weak correlation between pain and shoulder proprioceptive deficit and between age and shoulder proprioceptive deficit.
Key words : shoulder proprioception, pain, age, chronic rotator cuff tendonitis, physical therapy.
Arabic Title Page : تقييم مستقبلات الكتف الحسية العميقة في حالات الالتهاب المزمن لطرق العضلات المدورة لمفصل الكتف.
Author : Mona Hassan Gamal.
Title : The effect of various pressures of the forearm support band on wrist extensors in tennis elbow.
Degree : Master.
Year : 2002.
Abstract :
Forearm support band is a commonly used method for treating tennis elbow patients. The effect of the band on the wrist extensor strength of tennis elbow patients is controversial. Therefore, the aim of this study was to investigate the effect of using the forearm support band with various pressures on the strength of wrist extensors and on pain scores. Thirty patients with unilateral tennis elbow participated in this study. Wrist extensor strength was measured using the biodex isokinetic dynamometer. Pain scores were recorded using visual analogue scale. Peak torque and pain were measured without band, and with band at different pressures (20, 30, and 40 mmHg). Paired t-test was used to compare between pain scores with and without the band. One way ANOVA was used to compare between wrist extensors strength without the band and with the band at different pressures. Results of the current study showed that using the band significantly decreased pain scores and significantly increased wrist extensor strength. Varying the pressure of the band did not produce significant effect neither on pain nor on wrist extensor strength.
Key words : Tennis elbow, tendentious, forearm support band, Physical Therapy.

Arabic Title Page : تأثير ضغوط متباينة للرباط المساند للساعد على العضلات الباسطة للرسغ في حالات مرفقه التنس.
Author : Mona Selim Faggal.
Title : Effect of eye-head coupling exercises on cervicocephalic kinesthesia in chronic mechanical neck pain.
Degree : Master.
Year : 2002.
Abstract:
The purpose of this study was to clarify the importance of an eye-head coupling based rehabilitation program in the treatment of chronic mechanical neck pain a comparison was held between two groups of neck pain patients (A, B) both groups received a traditional physical therapy program but group (B) received an eye-head coupling based rehabilitation program in addition treatment outcome was determined from: 1) scores of neck pain and disability scale (NPAD) as a self reported measure, 2) absolute angular error (AAE) in horizontal plane, and 3) absolute angular error (AAE) in sagittal plane the results showed a statistically significant decrease in the scores of (NPAD) scale in both groups (A, B) with greater decrease in group (B) no statistical significant decrease in the (AAE) in the group (A) in both horizontal and sagittal planes, while there was statistical significant decrease in the (AAE) in both horizontal and sagittal planes in group (B) it was concluded that combining a traditional physical therapy program with an eye-head coupling based rehabilitation program is important for improvement of chronic mechanical neck pain.
Key words : neck pain, cervical, kinesthesia, eye-head coupling exercises, absolute angular error, neck pain and disability scale, physiotherapy, kinesthetic sensibility test, proprioception, physical therapy.

Arabic Title Page : تأثير تمارين اقتران العين والرأس على الحساس بالحركة في الاتجاه الرأسي العنقى في حالات الامال العنقية الميكانيكية المزمنة.
Author : Nasr Awad Abd El-Kader Osman.
Title : Diethylamine salicylate phonophoresis versus ultrasound in the treatment of carpal tunnel syndrome.
Degree : Master.
Year : 2002.
Abstract:
The purpose of this study was to compare between diethyl amine salicylate phonophoresis and ultrasound in the treatment of patients with carpal tunnel syndrome (CTS) A comparison was held between two groups of patients with CTS group A received ultrasound with intensity of 1 w / cm2 , frequency of 1 MHZ , pulsed mode 1:2 , 10 minutes / session , for 20 session (5 session / week), while group B received the same treatment program as group A , but diethylamine salicylate gel was used as a couplant instead of aquasonic gel (phonophoresis). Treatment out come was determined from measuring the following variables pre post-treatment1) pain perception measured by visual analogue scale (VAS), 2) motor distal latency (MDL), and 3) motor nerve conduction velocity (MNCV). The results showed statistically significant decrease in pain perception in both groups (A, B), but the decrease in group B was more than the decrease in group A. the MDL was significantly decreased in group B , while in group A there was a non significant increase in MDL . The MNCV was significantly decreased in both group (A,B). It was concluded that diethylamine salicylate phonophoresis is more effective in the treatment of CTS than ultrasound.
Key words : Carpal tunnel syndrome, ultrasound, phonophoresis, diethylamine salicylate, Physical Therapy.

Arabic Title Page : مقارنة العلاج الطبيعي بالادخال بالموجات فوق الصوتية لعقار الدائى إيثيلامين سانيسلات عبر الجلد بالعلاج بالموجات فوق الصوتية في متلازمة النفق الرسغي.
Physical Therapy
Department of Surgery
Author : Anwer Abd El-Gayed Ebeed.
Title : Role of Isokinetic training on muscle torque after thermal burn injury.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2002.
Abstract : The purpose of this study were to determine the effect of thermal burn injury on muscle torque also to determine the role of isokinetic training protocol on muscle torque thirty voluntaries were participated in this study, with total body surface area 20-25% the torque of quadriceps of both sides was measured by using Akron rehabilitation system. isokinetic training protocol was applied to the affected side, measurement, were made after 24 week's for both quadriceps results, there were statistical significant difference in torque of affected and control side which indicate that thermal burn injury affect muscle torque and isokinetic training protocols had high effect on development of muscle torque useful therapeutic tool in management of chronic burns.
Key words : Thermal burn isokinetic protocol muscle torque physical therapy lower limb, Physical Therapy.
Arabic Title Page : دور التدريب المتساوي على العزم العضلي بعد الصابة بالحروق.
Author : Heba Ahmed Bahey El-Dein Ahmed.
Title : Physical therapy approach after plastic surgery in crushed hand.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Ahmed Hassan Hussein, Mahmoud Magdy Sherif, Wafaa Hussein Borhan.
Degree : Master.
Year : 2002.
Abstract:
The aim purpose of this study was to assess the available physical therapy approach after plastic surgery in crushed hand. Sixty five hand surgeons and 60 physiotherapists filled out a handed-in questionnaires and two check lists were utilized. The results of the study showed that the majority of selected hospitals lack specialized hand therapists, both therapeutic and measuring equipment and tools for hand and communication among medical team members. Additionally, the study showed the most commonly used modalities and techniques for associated problems of crushed hand in participated hospitals. The study concluded that an emphasis should be experienced hand therapist and well equipped departments for such patients and continued communication between medical team members.

Key words : Physical therapy approach, crushed hand, plastic surgery, Physical Therapy.

Arabic Title Page : اسلوب علاج طبيعي مقترح لما بعد جراحة التجميل لانسحاق اليد.
Author : Mostafa Saber Ibrahim.
Title : The evaluation of non-invasive intermittent positive pressure breathing in the management of pulmonary complications after open heart surgery.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2002.
Abstract : This study was conducted to evaluate the efficacy of non-invasive intermittent positive pressure breathing (IPPB), in the management of pulmonary complications after open heart surgery. Twenty patients were treated with traditional chest physical therapy program. the other twenty patients were treated with non-invasive IPPB in addition to traditional chest physical therapy program . post operative pulmonary complications were reduced in both groups and there was no statistical significance difference between two groups.
Key words : Chest physical therapy, heart surgery, post operative complications, intermittent positive pressure breathing, physical therapy.

Arabic Title Page : تقييم جهاز ضغط التنفس الإيجابي المتقاطع الغير تداخللي في علاج مشاكل الجهاز التنفسي بعد عمليات القلب المفتوح.
Author: Sayed Aabd El-Moneim Tantawy.
Title: Pressure ulcers responses to iontophoresis.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2002.
Abstract: This study was conducted to evaluated pressure ulcers responses to iontophoresis . at Agouza Rehabilitation Center and Inpatients Departments Neurosurgery Unit at Cairo University Hospitals 40 male patients suffering from pressure ulcers with incomplete spinal cord injuries participated in this study . twenty patients were treated with placebo iontophoresis and regular wound care (group 1). the other twenty patients were treated with zinc iontophoresis in addition to the regular wound care (group 2). Evaluation of pressure ulcers was through measuring the wound surface area (WSA) pre , post 12 days and post 24 days by tracing method according to Bohannon and Paler (1983). there was no significant deference in the WSA between both groups before starting the treatment procedure. while there was a significant differences between both groups (P > 0.05)after 12 days of treatment application. also there was a significant difference between both groups (P > 0.05) after 24 days of treatment application. it has been concluded that the application of zinc iontophoresis treatment is valuable method for treating and improving rate of healing process of patients with incomplete spinal cord injuries and had pelvic pressure ulcers.
Key words : Pressure ulcers, zinc, iontophoresis, physical therapy.
Arabic Title Page : استجابة قرح الفراش للعلاج بالثائين الكهربائي.
Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery
Author : Ahmed Mohamed Azzam.
Title : Short width pulse stimulation in relation to spasticity control of hemiparetic cerebral palsy children.
Supervisors : Emam Hassan El-Negamy, Amina Hindawy Salem, Shadia Abd El-Aziz.
Degree : Master.
Year : 2002.
Abstract:
Thirty spastic hemiparetic C.P. children were invited in this study their age was ranging from 4 to 6 years they were divided randomly into two groups of equal number (study and control) the study group was subjected to physical therapy program in the from of spinal stimulation, faradic stimulation for anterior tibial group and neuro-developomental techniques for six successive months period the control group was subjected to physical therapy program in the from of NDT only Hoffman reflex / myogenic response ratio and gait parameters were recorded for every patient in the study and control groups before and after treatment the results showed significant improvement in both groups but also significant difference was recorded in study group as compared with control group in the form of reduction of CNS excitability manifested by reduction of H / M and increased functional abilities which was manifested by gait pattern improvement before treatment in both groups step and stride lengths were decreased while foot angle was increased with almost unchanged step width while after treatment the step and the stride lengths of the affected side were increased more in study group while the foot angle and step width were decreased more in study group as compared with control group but both groups showed significant improvement after the suggested period of treatment.

Key words : Stimulation, spasticity control, hemiparetic children, cerebral palsy, children, pediatrics, physical therapy.

Arabic Title Page : نأثائر التنبيه الكهربائي ذو النطاق المجري القصير على التواصل في الشد العضلي التشنجى في حالات الأطفال المصابين بالشلل المخ.
Author : Mohamed Bedair Ibrahim Bedair.
Title : Significance of vestibular stimulation using direct current in erb's palsy.
Supervisors : Mohamed Tawfik Mahmoud, Amina Hindawy Salem, Khaled Ahmed Mamdouh.
Degree : Master.
Year : 2002.
Abstract : Thirty infants suffering from Erb's palsy participated in this study, the age ranged between 25 to 40 days. the sample was randomly divided into tow groups of equal number (study and control). the control group was subjected to the traditional exercise program only but the study group was subjected to electric vestibular stimulation on addition to the traditional exercise program . Strength duration curve, muscle tone and volitional movements were used as evaluation procedures for both groups before and after three months of treatment. Results showed improvement in both groups but significant difference was recorded in favor of the study group.
Key words : Erb's palsy, vestibular stimulation, direct current, Physical Therapy.

Arabic Title Page ـخعٍ١رش طٕز١رٗ ظٙرخص حٌظرٛحصْ حٌظ١رخس حلاسرٟ حٌشًٍ حلاسرٟ. فاعليّة تنبيه جهاز التوازن باستخدام التيار الكهربائي المستمر في حالات الشلل الأربي.
Author : Nivirt girgis dawoud tadrous.
Title : Knee cage versus below knee orthosis the control genu recurvatum in cerebral palsied children.
Degree : Master.
Year : 2002.
Abstract : The purpose of this study was to determine and compare the effect below knee orthosis and knee cage on genu recurvatum control of cerebral palsied children forty children with age ranging from 3 to 7 years were randomly assigned to either a knee cage or below knee orthosis group both groups also received the same traditional program assessments were made using x-ray and goniometer to assess genu recurvatum degree and tensiometer to assess their effects on quadriceps , hamstring , and gastrocnemius muscles strength both groups showed significant reduction in genu recurvatum degrees after the treatment period they also showed significant improvement in the concerned muscles strength in knee cage group while in below knee orthosis group , there was no significant improvement in the concerned muscles except hamstring muscle there was no significant difference between the two groups in all parameters it can be concluded that both orthosis were helpful in genu recurvatum control but knee cage was more accepted by patients.
Key words : genu recurvatum, cerebral palsy, orthosis, physical therapy.
Arabic Title Page : دراسة مقارنة بين تأثير استخدام قفص الركبة وجبيرة تحت الركبة في التحكم في الانحناء الخلفي للركبة عند الأطفال المصابين بالشلل المخي.
Author                   : Taher Salah Eldin Taha.
Title                    : Reciprocal electrical stimulation in relation to hand function in hemiparetic children.
Supervisors              : Hoda Abd El-Azim El-Talawy, Hekmat E-Ghadban, Shadia Abd El-Aziz.
Degree                   : Master.
Year                     : 2002.

Abstract

thirty spastic hemiparetic cerebral palsy children (eighteen males and twelve females), ranging in age from 5.4 to 8.5 (X 1/2 6.5 +- 1.05), twenty one was right sided and nine vicars was left sided represented the sample of the study the degree of spasticity ranged from mild to moderate according to the modified ash worth scale the upper limb was free from any structural deformities the children of the sample were divided randomly into two groups of equal numbers (control and study)evaluations to determine hand strength, wrist extensor strength, pinching grip strength, tapping performance, alternate tapping performance and time taken to arrange 5 cubs (in seconds)were conducted for each child of both groups individually before and after three months of treatment the control group received physical therapy program and occupational therapy while the study gory received the designed physical therapy program and occupational therapy given to the control group in addition to reciprocal electrical stimulation to the wrist and finger flexor and extensor muscles the results of the present study revealed significant improvement in all measured variables in both groups however high significant improvement was observed in the study group when comparing the pre and post treatment results of both groups improvement in the study group may be attributed to the effect of reciprocal electrical stimulation on improving interneuronal mechanism of inhibition which regulates relationship between agonist and antagonists muscles of spasticity.

Key words                   : Electrical stimulation, hand function, hemiparetic children, children, pediatrics, physical therapy.

Arabic Title Page    : التنبية الكهربائي المتبادل عكسيا وعلاقته بوظائف الأيدي في حالات الشلل النصفي عند الأطفال.
Department of Basic Science
Author: Amir Nazih Wadee Maawad.
Title: Efficacy of laser pulse frequencies on blood flow in normal subjects.
Dept.: Department of Basic Science.
Degree: Master.
Year: 2003.
Abstract:
This study was to investigate the effective laser pulse frequency either that could be used to improve blood flow thirty normal inhale subjects randomly selected from students of faculty of physical therapy, Cairo university (x age 18.92±1.5) assigned randomly to equal two groups the blood flow volume, mean blood flow velocity and caliper of the blood vessel were evaluated before and after laser using duplex Doppler ultrasound combined He-Ne and infrared laser was administered three a week for twelve sessions at intensity 2 J/cm2, power 15 mw, duration 15 min and pulse frequency 200 Hz for group I and 2000 Hz for II on the surreal artery at posterior aspect of dominant leg the results revealed that low pulse frequency (2000 Hz) of LILT product significant improvement in blood flow volume and blood flow velocity (48.2% and 40.6%) respectively (p< 0.05) with significant difference between the two frequencies (p<0.005) but there was no change in caliper of the blood vessel of group I, blood flow volume, blood flow velocity or caliper of the blood vessel of group II.
Key words: Lilt, blood flow, pulse frequencies, Physical Therapy.
Arabic Title Page: كفاءة ترددات نبض اشعة الليزر على سريان الدم في الاصحاب.
Author: Manal Mahmoud Mota.
Title: Median frequency changes during Para spinal isometric contraction in different age groups.
Dept.: Department of Basic Science.
Supervisors: Fatma Sedeek Amin, Maher Ahmed El-Kaballawe, Ragia Mohmed Kamel.
Degree: Master.
Year: 2003.
Abstract:
Background: muscle endurance is an important variable to measure in the assessment of back muscle function and despite the widespread use of electromyography in to monitor muscle fatigue it's relationship with age is not been well investigated. the purpose: this study was conducted to investigate the relationship between electromyography manifestations of fatigue and age during isometric contraction of Para spinal muscles up to the level of fatigue. Subjects: eighty healthy, back pain-free individuals. Their ages ranged from 15 to 55 years. they were divided into four groups according to their ages each group of 10 years, each group included 20 subjects. Methods: using skin-surface electrodes, electromyographic signals were recorded from 3rd lumbar (L3) region of Para spinal muscle during an isometric endurance test, the rate of change in median frequency (MFS), and initial median frequency (IMF) of the electromyographic power spectrum were calculated for all groups. Results: the results showed that MFS decreased with increasing age from -0.8322 Hz/sec to -0.4405 Hz/sec up to the age of 45, at the same time IMF increased with age from 134 Hz to 118.06 Hz, on other hand MFS correlated with endurance time, as endurance time increased with increasing age from 68.7 sec in group I to 84.5 sec in group III and decreased slightly in group IV to 72.1 sec. Discussion and conclusion: the finding revealed that age has significant influence on Para spinal muscle fatigability and this fatigability was greater in younger than older subjects. in addition to that endurance time increased slightly with age up to age of 45 then decreased.
Key words: Age, endurance, EMG power spectrum, fatigue, median frequency, Physical Therapy.

Arabic Title Page: التغيرات في التردد المتوسط أثناء الانقباض السكباذي للعضلات المجاورة لعمود الفقرى في فترات العمر المختلفة.
Author : Mohamed Salah El-Dien Mohamed.
Title : Efficacy of high and low tens frequencies on motoneuron excitability in normal subjects.
Dept. : Department of Basic Science.
Supervisors : Awatef Mohamed Labib, Omaima Mohamed Aly Katabei, Ragia Mohamed Kamel.
Degree : Master.
Year : 2003.
Abstract :
Background: Transcutaneous electrical nerve stimulation (TENS) is a modality used to control pain; it was reported to influence the flexion reflex to reduce clinical spasticity, to delay the onset and decrease the magnitude of the soleus stretch reflex, as well as to improve the control of motor functions in hemiparetic subjects. Although many attempts were done, the effect of TENS and the effect of both high and low frequency on motoneuron excitability is still unclear. The purpose of this study was to investigate the effect of high and low TENS frequencies on motoneuron excitability in normal subjects. Subjects: thirty normal male physical therapy of the staff and students with mean age (920.37 ± 3.16), height (170.0 ± 4.49) and weight (75.6 ± 8.4). they assigned randomly into three equal groups. Methods: the peak to peak amplitude of H-reflex and H/M ration was measured before, after application of 30 minutes of TENS on common peroneal nerve at (100 Hz-2Hz) for group I and group II respectively, 5 minutes after and 10 minutes after stimulation. for control group H-reflex and H/M ration was measured and at baseline, after 30, 35, 40, minutes. one way ANOVA with repeated measurement was done to determine the significance differences in the H-amplitude and H/M ration. post hoc test and t-test was performed to distinguish between the effects of the high and low frequency. Results: revealed that high TENS frequency produced significant decrease in H-amplitude (-25.10 %)(p<0.0001) and H/M ration (-30.76 %)(p<0.005) as well as low frequency (p=0.0003) for H-amplitude (-27.50 %) and (p=0.0016) for H/M ration (-40.56 %) and a non significant change in H-amplitude ((p=0.6913) and H/Mn ration (p=0.4744) for control group. there was no significant difference between high and low frequency (p>0.05) with higher tendency in decreasing the motor neuron excitability using low TENS frequency than high TENS frequency. Discussion and conclusion: the finding revealed that high and low TENS frequencies can decrease the motoneuron excitability with a higher tendency in decreasing the motoneuron excitability using low TENS frequency than high TENS frequency, providing physiotherapists with a modality that could be used for treatment of many neurological disorders.
Key words : H-reflex, H/M ration, motor neuron excitability, transcutaneous electrical nerve stimulation (TENS), physical Therapy.

Arabic Title Page : فاعالية التنبئ الكهربائي العصبي عبر الجلد ذو التردد العالي والمنخفض على استجابة الخلية العصبية الحركية للاشخاص الإصعوبة.
Author : Nabil Mahmoud Ismaeel.
Title : Muscle torque responses to different waveforms of neuromuscular electrical stimulation.
Dept. : Department of Basic Science.
Supervisors : Soad Mahmoud Mohamed, Samy Abd El-Samad Nasef, Mohamed Hussien El-Gendy.
Degree : Master.
Year : 2003.
Abstract :
The purpose of this study was to investigate the effective waveform shape (rectangular, trapezoidal or saw tooth) biphasic symmetric of neuromuscular electrical stimulation that could be used to increase the torque of the quadriceps muscle. Subjects: thirty healthy male physical therapy students and employees with mean age (21.2 ± 3.7), weight (75.6±8.4) and height (174.3±6.2) assigned randomly to three equal groups. Methods: the isometric torque of the dominant quadriceps was evaluated at 60 degrees of knee flexion, using biodex II isokinetic dynamometer before electrical stimulation then after the second and fourth weeks of electrical stimulation. Neuromuscular electrical stimulation was administered three times a week for 4 weeks at rectangular biphasic symmetric waveform shape for group I, trapezoidal biphasic symmetric for group II and saw tooth biphasic symmetric for group III. The subjects were stimulated at the maximum tolerated intensity for 15 minutes per session with frequency of 50 Hz and 200 us pulse duration. One way ANOVA was done to determine the significance differences in the quadriceps torques. Conferring post hoc test was performed to distinguish between the effects of the 3 waveform shapes. Results: the results revealed that neuromuscular electrical stimulation produced significant increase in the quadriceps muscle torque after 4 weeks (38.25%, 28.57% and 23.86%) respectively (P<0.0001) there was no significance difference among the 3 waveform shapes (P>0.05). Discussion and conclusion: the finding revealed that neuromuscular electrical stimulation can improve the strength of normal innervated muscles and the rectangular waveform shape have an advantage over the ( trapezoidal and saw tooth) in terms of strength gained.
Key words : electrical stimulation, waveform shapes, muscle torque, Physical Therapy.
Arabic Title Page : استجابة عزم العضلة لأشكال المختلفة للتنبيئة الكهربائي العصبى العضلى.
Author                       : Soheir Shehata Rezk Allah.
Title                       : Effect of neurodynamic tension on carpal tunnel syndrome.
Dept.                       : Department of Basic Science.
Degree                      : Master.
Year                        : 2003.
Abstract

Background : carpal tunnel syndrome (CTS) is a well-known condition in many societies and different levels. This problem gives symptoms such as numbness and pain in fingers supplied by median nerve. This leads to weakness and disabling of the hand. As the hand is essential in performing functions to sustain life, treatment of this problem is of great concern.

The purpose: this study was conducted to investigate the effect of neurodynamic mobilization (NDM) on median motor distal latency (MMDL) and median motor forearm conduction velocity (MMFCV) in patients with CTS. These parameters reflect the degree of severity of CTS.

Subjects: It was conducted on 30 patients suffering from CTS. Their ages ranged from 30 to 60 years. Patients were divided into three groups, each group included 10 patients. All groups received conservative treatment. In addition to ULTT1 for ULTT1 group and ULTT2a for ULTT2a group.

Results: the results showed that NDM (ULTT1 and ULTT2a) led to significant reduction in MMDL and significant increase in MMFCV. For ULTT1, MMDL decreased significantly from 5.77 to 4.93 m sec, and for ULTT2a group, it decreased from 5.057 m sec. For ULTT1 group, MMFCV increased significantly from 45.39 to 51.06 m/sec. For ULTT2a, it increased from 46.11 to 51.86 m/sec.

Discussion: it was suggested that dynamic mobilization of the median nerve might affect the vascular dynamics via improving blood supply to the hypoxic nerve tissues and normalizing the pressure gradient around the nerve. Thus, the axonal transport mechanism and the mechanical features of the nerve fibers and connective tissue improved.

Conclusion: it was concluded that NDM is a beneficial conservative way in treating CTS. Other NDM alternatives and combinations are suggested for future studies.

Key words : neurodynamic, CTS, tension, disrallatenay, conductionveloity, Physical Therapy.

Arabic Title Page : مدى تأثير الشد على العصب الأوسط المحبط عند رعش اليد.
Department of Biomechanics
Author : Ahmed Salamah Yamani.
Title : Isokinetic peak torque of elbow flexors and extensors at different shoulder joint positions in normal male individuals.
Dept. : Department of Biomechanics.
Supervisors : Nahed Ahmed Salem.
Degree : Master.
Year : 2003.
Abstract : The purpose of this study was to investigate the relation between the isokinetic peak torque of elbow flexors and extensors concomitantly with different shoulder joint positions in normal male individuals and to explore the optimum performance of elbow flexors and extensors with respect to shoulder position. Thirty normal male individuals participated in this study. The subjects were chosen randomly from the students of the faculty of physical therapy. The age of the subjects ranged from 17-23 years with a mean age of (19 years and 8 months) years. The weight of all subjects ranged from 57-93kg with a mean weight of (74.97_)kg and their height ranged from 168-190cm with a mean height of (174.83)cm. The peak torque of elbow flexors and extensors was measured by using Akron rehabilitation system in N.m. Each subject performed the movement of elbow flexion from (0) flexion strongly to the mid range (75) flexion, then performed the movement of elbow extension from full flexion to the mid range (75) extension strongly. The movements of elbow flexion and extension were performed from five positions of the shoulder joint (30 hyperextension, 0, 30, 60, and 90 flexion). The results were statistically analyzed using the mean, the standard deviation, one-way analysis (ANOVA), confidence interval test and turkey's comparison. The results revealed significant differences in the means of peak torque of elbow flexors and extensors at different shoulder joint positions. In conclusion, it is very important to consider the shoulder joint position during testing or exercising elbow flexors and extensors.

Key words : Isokinetic, elbow joint, shoulder joint, elbow flexors, elbow extensors, Physical Therapy.

Arabic Title Page : أقصى عزم ايزوكيناتيكي للعضلات الثانية والباسبة لمفصل المرفق مع الأوضاع المختلفة لمفصل الكتف في الذكور الأصحاء.
Author : Ahmed yousry radwan.
Title : Effect of heat on the mechanical strain of connective tissue proper.
Dept. : Department of Biomechanics.
Supervisors : Mohamed Fouad Ibrahim Khalil, Adel Salah El-Din Zohdy, Ghada Mohamed El-Hafez.
Degree : Master.
Year : 2003.
Abstract:
The purpose of this study was to investigate the effect of the use of superficial heating prior stretching the connective tissue proper specified subtype. This was conducted by the use of 48 albino rats throughout this study, 30 of them were utilized in the mechanical experiment while the other 18 were involved in the histological examination. The rats were divided into three groups. The animals of group I were sacrificed after single dose exposure to the infrared source, while those of group II were sacrificed after triple dose exposures, and those of group III were sacrificed after 5 successive exposures. The exposures were administered once per day for successive days. The measured parameters from the mechanical experiment were, the maximum force tolerated by the skin samples before failure, its respective change in extension and the strain of each sample. The histological examination involved the use of the light microscope to provide an observational data in addition to the use of the image analyzer software that had the ability to detect the area percentage of the collagen per samples. The results showed no significant difference between the experimental and the control samples within each group regarding any one of the examined variables although there were some minor histological findings. These results concluded the non-significant effect of superficial heating application prior to stretching regarding the measured variables.

Key words : heat, connective tissue proper strain, Physical Therapy.

Arabic Title Page : اثر الحرارة على تغير طول النسيج الاضلاع الأصيل ميكانيكيا.
Author : Ayman Goda Mohammed Matar.
Title : Isokinetic peak torque of the plantar flexor muscles at different knee joint angles in male subjects.
Dept. : Department of Biomechanics.
Supervisors : Nahed Ahmed Salem.
Degree : Master.
Year : 2003.
Abstract:
The purpose of this study was to investigate and compare the changes of plantar flexor isokinetic peak torque at two ankle positions due to changes in knee joint angle in male subjects. Thirty male healthy volunteers participated in this study (aged 18 - 23 years) with the mean age of (19.57) years. The subjects were assessed by using Akron rehabilitation system for measuring and recording isokinetic peak torque of plantar flexor muscles at (0,30,60,90,120) knee angles at two ankle positions (10 dorsiflexion and 20 plantar flexion). The results were statistically analyzed by using two-way ANOVA with conferring and turkey's post tests, which revealed a significant difference of the first independent variable (different knee angles) and also of the second independent variable (different ankle positions) in their effect on the dependant variable (plantar flexor peak torque), while revealed non significant difference in the interaction between those independent variables. The study proved that changing knee angle position was associated with changing of plantar flexor peak torque and the best position for the highest torque was anatomical knee extension position (0) with dorsi flexion of ankle joint. In conclusion considering this optimum position of knee and ankle joints helps to obtain the highest torque of plantar flexor muscles, to use it in assessment, training and rehabilitation programs.

Key words : Isokinetic, peak torque, plantar flexor, physical Therapy.

Arabic Title Page : اقصى عزم ايزوكيناتيكى للعضلات الباسطة لمفصل الكاحل مع الزوايا المختلفة لمفصل الركبة في الذكور.
Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery
Author : Aisha Abd El-Monam Solieman Hagag.
Title : Effect of pulsed ultrasonic therapy on diabetic foot ulcers.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2003.
Abstract : The aim of this research was to study the effect of pulsed ultrasound therapy on diabetic foot ulcer. Thirty male and female diabetic patient complaining of foot ulcer participated in this study, their ages ranged from 48 - 72 years old. The patient were divided into two equal group, control group, fifteen patients who received the conservative wound care only, and testing group fifteen patient received the pulsed ultrasound therapy in addition to the conservative treatment. The results of this study revealed a significant reduction of ulcer surface areas and ulcer volumes in the testing group, while there was significant increase in ulcer surface areas and ulcer volumes in the control group and significant difference in ulcer surface areas and ulcer volumes at different time internal among the studied groups.
Key words : Pulsed ultrasound, Diabetes mellitus, foot ulcer, Physical Therapy.
Arabic Title Page : تأثير الموجات فوق الصوتية المتجفعة على قرح القدم السكري.
Author : El-Sayed Hassan Abd El-Salam.
Title : Study of chest diseases in primary schools in Cairo (survey).
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2003.
Abstract
The purpose of this study was to study the prevalence of some chest diseases in primary schools children in Cairo governorate. methods: the sample of this study was one thousand child selected randomly from primary schools in Cairo governorate with ages ranging from 6 - 12 years. results: after examination for those children, it was found that 9.8% of the total sample were having chest diseases (8.7% bronchial asthma and 1.1% chronic bronchitis). conclusion: this study had supported the use of both tools in examination (questionnaire and physical performance test) of children who have chest problems.
Key words : bronchial asthma, chronic bronchitis, survey children, Physical Therapy.
Arabic Title Page : الأمراض الصدرية في تلاميذ مدارس المرحلة الابتدائية بالقاهرة (دراسة مسحية).
Author : Dina Youssif Mostafa Al-Reweny.
Title : Effect of selected balance training program on balance in elderly.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2003.
Abstract :
The purpose of this study was to if there was improvement in dynamic balance responses after eight weeks balance training intervention. this intervention included three sections, stretching exercise, strengthening exercise for lower extremities and balance training program. Balance training program included some activities closely related to lifestyle and function and it concentrated on components of movement that often become limited with normal aging. thirty elderly subjects evaluated under three postural conditions before, and after the intervention. balance measured by using biodex stability system. the results of this study indicated that antroposterior and mediolateral mean values deflection of three tested conditions reduced significantly after eight weeks balance program. this reduction in deflections may be due to multiple intervention program applied in this study.
Key words : balance, elderly, training postural control, Physical Therapy.

Arabic Title Page : تأثير برنامج تدريبات الاتزان المختارة على الاتزان في المسنين.
Author : Hany Ezzat Obaya.
Title : Ventilatory functions changes in middle aged patients following open - hart surgeries.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2003.
Abstract : The aim of this study was to determine the different speed of ventilatory function progression following open - heart surgeries between both CABG and AVR. 60 patients participated in the study divided into two equal groups, the first group consisted of thirty patients Head coronary artery by-pass graft (CABG) surgery, the second group consisted of thirty patients had aortic valve replacement surgery (AVR). all patients received a pre-operative physical therapy management and all had the traditional post-operative cardiac rehabilitation program. there was a greater significant improve in ventilatory functions records for both FEV1 and VC following open - Heart surgeries one-month post-operatively. also, VC showed a significant difference between two groups of the patients at non-hospitalization period including, 16 days, 23 days and one-month post-operatively, where the CABG group patient showed more rate of improvement than AVR group. so the physical therapy rehabilitation program following open - heart surgeries is essential in improve patient's ventilatory function.
Key words : Ventilatory functions, hart surgeries, Physical Therapy,
Arabic Title Page : تغييرات الوظائف التنفسية في المرضى متوسطي العمر عقب جراحات القلب المفتوح.
Author : Khalid Taha Yassin Turky.
Title : Cardiac rehabilitation program as a secondary prevention of coronary artery insufficiency.
Supervisors : Awny F. Rahmy, Mohsen A. Salama, Hala M. Ez El-Deen.
Degree : Master.
Year : 2003.
Abstract :
The aim of this study was to measure the effect of cardiac rehabilitation program on ejection fraction in patients with coronary artery disease. forty coronary artery diseased patients (28 males and 12 females) were participated in the study their age ranged from 45 to 55 years. the sample populations divided randomly into two equal groups. the group A was received cardiac rehabilitation program while control group was not receiving cardiac rehabilitation program. the results showed that the resting heart rate, systolic blood pressure, diastolic blood pressure, exercise capacity and myocardial oxygen consumption were statistically significant improved in group A but not change in group B after eight and sixteen weeks of cardiac rehabilitation program. while in both groups ejection fraction was not significant improve after eight weeks. however, it was statistically significant improved after sixteen weeks in group A.
Key words : secondary prevention, coronary, ejection fraction, Physical Therapy.
Arabic Title Page : برنامج تأهيلى كوقاية ثانوية في حالات مرضى قصور الشريان التاجي.
Author: Merille Adel Iskander.
Title: Efficacy of different methods of breathing exercises on ventilatory function in elderly.
Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors: Naguib M. A. Salem, Sherif M. El-Bouhy, Azza Fekry Ismael.
Degree: Master.
Year: 2003.
Abstract: The aim of this study was to investigate the effect of different methods of breathing exercises on ventilatory function in elderly. sixty male and female volunteer subjects were selected from Palestine hospital with age ranged between 75-85 years. they underwent a pre and post ventilatory function test to mark out the values of FVC, FEV, and MVV. they were classified into 3 groups; (Gr. (I) 20 subjects performed incentive spirometer), (Gr (II), 20 subjects performed diaphragmatic breathing exercise), (Gr (III), 20 subjects performed both methods). every subject trained for 30 min 3 time / week for 3 months. the results showed that, Gr II and Gr III were better in improving FVC and FEV 1 but Gr I and Gr III were better in improving MVV.
Key words: breathing exercises, ventilatory function, incentive spirometer, Physical Therapy.
Arabic Title Page: كفاءة تمارين التنفس المختلفة على وظائف التهوية الرئوية في المسنين.
Author : Mona Ahmed Abo Gemra.
Title : Efficacy of electrolipolysis versus abdominal exercises on abdominal fat in young female.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Naguib Salem, Mohamed Abd El-Hamid, Azza Fikery.
Degree : Master.
Year : 2003.
Abstract : This study was done to determine the effect of both electrolipolysis and abdominal exercises, and to determine which one is more effective for reducing abdominal fat in young female. Thirty volunteer girls selected from the student camps of Tanta university their age ranged from 18 to 25 years, (BMI>27.3 k/m2)abdominal skin fold thickness (>21.3 mm), they were randomly assigned into two equal groups. Group (A) performed a program of abdominal exercises group (B) received abdominal electrolipolysis program for two month (one every other day). Both groups received a dietary regimen of 1000 kcal/day. In the present study weight and B.M.I showed no significant difference between both groups A and B before treatment and after two months of treatment program (p>0.05) but abdominal skin fold thickness shows high significant decrease from before to after in group B (p<0.014). These results revealed that abdominal exercises and abdominal electrolipolysis are alternative methods for reduction of abdominal obesity, however, abdominal electrolipolysis is more effective than abdominal exercises in reducing abdominal fat in young females.
Key words : abdominal exercises, abdominal fat, electrolipolysis, Physical Therapy.
Author : Nesreen Ghareb Mohamed Mohamed El-Nahas.
Title : Effects of interval training exercise on the performance of subjects with exercise induced bronchospasm.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Awny Fouad Rahmy, Aida Hussein Mohamed Aly, Azza Fekry Ismail.
Degree : Master.
Year : 2003.
Abstract:
The aim of the study was to investigate the effect of interval work load training on the performance of subjects with exercise induced bronchospasm. Forty subjects were enrolled in this study. They underwent a preliminary ventilatory function test as to mark out the values of FEV1, and MVV index; then they performed exercise capacity test to determine the MWR for each one. They were classified into 3 groups according to their rate of perceived exertion by using borg rating scale; (Gr. (A), n = 2), (Gr. (B), n = 22) and (Gr. (C), n = 16). The ventilatory functions were repeated again, immediately after exercise, after 5, 10 and 15 minutes. All subjects were trained for 3 months in the form of interval training by using 60% and 40% of the MWR. After the training period the pervious tests were repeated and applied by the same order where the results of borg scale were; (Gr. (A), n = 12), (Gr. (B), n = 26) and Gr. (C), n = 2). It was concluded that, the interval training enhances the performance of subjects with EIB, with a significant improvement in the MWR, and decreases their borg score of perceived exertion, as well as improves their ventilatory response to exercise.

Key words : Exercise induced bronchospasm, ventilatory functions, exercise training, performance, Physical Therapy.

Arabic Title Page : تأثير التمرينات المرحلة على اداء الاشخاص ذوى الانتقاب الشعبي الناتج عن التمارين.
Author : Sherin Hassan Mohamed Mehani.
Title : Aerobic training effect on symptomatic mitral valve prolapse in females.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Nagwa Mohamed Hamed Badr, Zeinab Mohamed Helmy, Hamdy Soliman Mahmoud.
Degree : Master.
Year : 2003.
Abstract :
The aim of this research was to study the effect of aerobic training on the personality trait variables and on exercise tolerance indices to aid in symptoms control in mitral valve prolapse syndrome. Forty female complaining of mitral valve prolapse syndrome symptoms participated in this study, their ages ranged from 20-35 years. Twenty patients were trained by aerobic exercise and the other twenty patients were taken as a control group. The results of this study revealed a significant reduction of personality traits for the training group, while revealed insignificant increase for the control group. The results also revealed a significant increase of exercise tolerance indices for the training group, while for the control group, there was insignificant increase.
Key words : aerobic training, symptomatic mitral valve prolapse, Females, Physical Therapy.

Arabic Title Page : تأثير التمرينات الهوائية على اعراض سقوط الصمام الميترالي في السيدات.
Author : Tamer Mahmoud Sabry Mowafy.
Title : Influence of aerobic exercises training on type II diabetic hypertensive patients.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Zeinab Mohamed Helmy EL-Sayed, Alaa Afify, Hala Mohamed Ez El-Dine Hamed.
Degree : Master.
Year : 2003.
Abstract : This research studied the effect of aerobic training (treadmill training) on diabetic (type 2) hypertensive patient from diabetic clinic in Sherpien hospital. Twenty patients were trained by aerobic exercise with treadmill at 80% of maximum heart rate. The other twenty patients were taken as a control group. Both groups were on their medications. The results revealed a significant reduction of fasting and post-prandial blood glucose level for the training group. The results also revealed a significant reduction in systolic and diastolic blood pressure in the training group.
Key words : aerobic in training, females, diabetes (type 2), Physical Therapy.
Arabic Title Page : تأثير التمرينيات الهوائية على مرضى البوال السكري (النوع الثاني) والمصابين بالضغط المرتفع.
Physical Therapy Department for Obstetrics and Gynaecology and its Surgery
Author : Enas Abd El-Shafy Abd El-Azim El-Nimr.
Title : Effect aerobic exercise training on placental blood flow in pre-eclamptic and diabetic patients.
Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors : Salwa Mostafa El-Badry, Mohamed Mostafa Radwan, Amel Mohamed Yossef.
Degree : Master.
Year : 2003.
Abstract:
This study was done to examine the effect of aerobic exercise training on the placental blood flow of pre-eclamptic and diabetic patients. thirty volunteers' pregnant women at 24 weeks' gestation, 15 had pre-eclampsia (PE)(Group A) and 15 had diabetes (Group B) were selected from the in-patients department of obstetrics at Bab El-Sheria, El-Azhar University hospital. both groups (A, B) were enrolled in the same exercise-training program (started by 5 min. warm up, 20 min. of active exercise at 60% of the maximum heart rate and ended by 5 min. cool down), for one month (3 sessions per week). evaluations of all patients were done before and after the end of the exercise training program through measuring maximum systolic, end diastolic velocities of the umbilical artery, systolic / diastolic (S/D) ratio, resistance index (RI) and plasticity index (PI). the results of this study revealed that moderate aerobic exercise training program had a positive effect of increasing the placental blood flow in pre-eclamptic and diabetic pregnant women as it was significantly decreased (P<0.05) the maximum systolic velocity, S/D ratio, RI and PI, while end diastolic velocity increased significantly (P<0.05). accordingly, it could be concluded that moderate aerobics exercise training program is easy to be performed safe and has no harmful effect either on the mother or her fetus, as well as it has a positive effect of improving placental blood flow in pre-eclamptic and diabetic pregnant women.
Key words : Aerobic exercise, placental blood flow, pre-eclampsia, diabetes mellitus, pregnancy, Physical Therapy.

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Physical Therapy Department for Musculoskeletal Disorder and its Surgery
Author : Hossam Ramadan Ail Helal.
Title : Open versus closed kinematic chain exercises in treatment of patellofemoral pain syndrome.
Supervisors : Ahmed Hassan Hussein, Abd El-Aziz Abd El-Aziz El-Sengergy, Yehia Nassef Mohamed.
Degree : Master.
Year : 2003.
Abstract : The purpose of this study was to compare between open and closed kinematic chain exercises results of treatment of patellofemoral pain syndrome thirty patients were randomly divided into two equal groups, the first group received ultrasound, patellar mobilization and open chain exercises the second group received ultrasound, patellar mobilization and closed chain exercises twelve treatment sessions were given for four week It was found that pain and functional activity and Q-angle were increased significantly in each group, but no significant differences were found between both groups, while it was found that the congruence angle improvement was more significant in group (B) than in group (A).
Key words : Patellofemoral pain syndrome, kinematic, pain, Q-angle, congruence angle, open chain, closed chain, Physical Therapy.
Arabic Title Page : تمارين السلسلة الحركية المفتوحة مقابل المغلقة في علاج متلازمة الام مفصل عظمة الرضفة مع اسفل عظمة الفخذ.
Author : Magdoline Micheal Samy Saad.
Title : Lumber stabilization exercises versus combined spinal flexion-extension exercises in treating chronic mechanical low back pain.
Degree : Master.
Year : 2003.
Abstract:
The purpose of this study was to compare the effect of lumber stabilization exercises and combined flexion-extension exercise program on increasing the range of motion of trunk flexion, extension, right bending, reducing pain severity; and reducing functional disability. Both groups had significantly less low back pain after treatment and less functional disability (P < 0.05) but the lumber stabilization exercise group was more effective in reducing pain and reducing functional disability than the combined spinal flexion-extension group (P < 0.05). The combined spinal flexion-extension exercise group was more effective in increasing range of motion of lumbar flexion than the lumbar stabilization exercise program (P < 0.05). There were no significant differences between groups regarding increasing the range of motion of lumbar extension, right trunk bending and left trunk bending.
Key words : low back pain, lumber stabilization, flexion, extension, pain, functional disability, right bending, left bending, Physical Therapy.

Arabic Title Page : تمرينصات التثبيت القطبي مقابل تمرينصات ثني وفرد العمود الفقرى في علاج الماسفل الظهر الميكانيكي المزمن.
Author : Magy Mohsen Kamel.
Degree : Master.
Year : 2003.
Abstract :
background and objectives: this study evaluated the effects of both gallium arsenide (904 nm) laser, and Cyrix technique in treatment of lateral epicondylitis materials and methods:30 patients with lateral epicondylitis with age ranged between 30 and 40 years feel pain in the common extensor tendon with resisted wrist extension and radial deviation with elbow full extended all patients have lateral epicondylitis for at least 4 weeks to 12 weeks these patients were divided randomly into two group , the laser group (Gl), and cyriax group Gll)patients received 3 sessions / week for 4 weeks patients pain free grip strength was assessed by gamer dynamometer at first and then at 12 session results: the findings indicated significant statically difference between pre- and post treatment in both laser and Cyrix group while the differences were not significant statistically between laser and cyriax groups conclusion: It would seem that both laser and cyriax improved pain free grip strength in patients with lateral epicondylitis , but no significant difference in pain free grip strength between laser and cyriax group.
Key words : lateral epicondylitis, handgrip, laser therapy, Cyrix techniques, Physical Therapy.

Arabic Title Page : اشعة الليزر تحت الحمراء العلاجية مقارنة بالعلاج اليدوي في علاج حالات التهاب العضلة الكبرية الباسطة للمعصم.
Author : Yasser Ibrahim Aliseada.
Title : Calcium gluconate intophoresis versus lidocaine topical anesthesia on spastic wrist flexors in stroke patients.
Supervisors : Nahed Ahmad salem, Nawal Abd El-Raouf Abou-Shady, Mohamad Nanil El-Bahrawy.
Degree : Master.
Year : 2003.
Abstract : The purpose of this study was to investigate the effect of both calcium gluconate intophoresis and lidocaine spray topical anesthesia combined with exercise therapy in controlling wrist flexors spasticity which will lead to (increasing range of motion of wrist joint , improving voluntary contraction of wrist extensors and improving hand function of stroke patients). subjects, thirty hemiplegic patients due to cerebro vascular accident with wrist flexors participated in this study . they were diagnosed clinically and radiologically by their own neurologists . the methods , they were randomly assigned to either group one (G)receiving lidocaine spray topical anesthesia in addition to exercises therapy program (prolonoged stretching to wrist flexors , weight bearing exercise for wrist joint , active strengthening exercises for extensors and training manipulative skills of the hand)or group two (GII)receiving calcium gluconate intophoresis and the same exercise program as group one . assessment , subjects in birth groups were evaluated pre and post experimental for spastic wrist flexors by modified ash worth scale , range of motion by digital goniometer , tension of the muscles by tensiometer , dexterity of hands by Purdue pegboard and grip power by dynamometer . therapeutically, subjects in both groups received eighteen session (one session every other day for six weeks). the results , showed that group two was improved more than group one.
Key words : Intophoresis, topical anesthesia, calcium, lidocaine, spasticity, Physical Therapy.
Arabic Title Page : مقارنة كلا من علاج التخليل الكهربائي لإيويات جلوكوزات الكالسيوم والتحذير الموضعى بالليدوكيابين على تصلب عضلات ثني الرسغ في مرضى السكتة الدماغية.
Physical Therapy
Department of Surgery
Title : Effect of pulsed electromagnetic fields on healing of infected burn wound in guinea pigs.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2003.
Abstract:
Background. Electromagnetic fields are used for promotion of healing in various conditions such as bone, cartilage, ligament, and nerve injuries. However, still there are controversies about the use of these fields for promoting skin burn wound healing either in infected or non-infected burn wounds. Objective. The aim of this work was to investigate the effect of electromagnetic fields in the form of square amplitude modulated waves (QAMW) on the healing of infected or non-infected burn wound in guinea pigs. Methods. Fifty males guinea pigs were used in this study. Partial skin thickness burn wound of approximately 4 cm² was induced on the hind limb of each animal. The animals were divided into five equal groups (n=10) namely three control group (A, B, and C) and two study groups (D and E). The wounds of group A, D were infected by pseudomonas aeruginosa bacteria wounds of group C were infected by bacteria treated by 0.5 Hz QAMW for a period of one hour. The animals of the treatment of group (D, E) received 0.5 Hz, QAMW for a period of one hour daily for 15 days. Wound healing was evaluated by measuring the wound surface area (WSA) every 5 days and the survival percentage of animals of each group was calculated. Results showed that the WSA of the treatment groups (D, E) were significantly less than that of the control groups and of significantly high survival percentage than that of the control groups. Conclusion. According to the results of this work it can be concluded that EMF in form of 0.5 Hz QAMW is an effective method in enhancing healing in both infected and non-infected burn wounds.
Key words: Electromagnetic fields, burn, infected wound, Physical Therapy.

Arabic Title Page : تأثير المجالات الكهرومغناطيسية المنتقطة على النتائج جروح الحروق المصابة بالعدوى في الخنازير الريفية.
Author : Ghada Said Mohammed Omar.
Title : Efficacy of silver sulfadiazine phonophoresis on wound healing in acute burn patients.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2003.
Abstract :
The purpose of the current study was to evaluate the efficacy of SSD phonophoresis approaches (continuous and pulsed modes on the rate of healing following acute burn injury. Forty female patients with second degree burn in their anterior aspect of the dominant forearm were divided randomly into two groups: patients in group I received pulsed SSD phonophoresis for 15 min with a frequency of 1 MHz, intensity of 1 W/cm², and with the pulse ratio was set at 1 : 4, and the pulsed duration was set at 2 m.s., while patients in group II received continuous SSD phonophoresis for 5 min with a frequency of 1 MHz, and intensity of 1 W/cm². The parameters investigated included 1. burn surface area measured by tracing the burn wound parameters, and 2. determination of glycosaminoglycan in urine by using cetylpyridinium chloride turbidity method. Both parameters are measured 24 hours post-burn injury and at one week interval for three weeks. Student's t-test was used to compare the variables between both groups of the study and paired t-test for follow up in the same group. Results of the study showed that there was a significant difference between pulsed SSD phonophoresis and continues SSD phonophoresis on the rate of healing in acute second degree burn in the second and third weeks after burn considering BSA parameter while the results showed a significant difference between both groups considering GAG parameter in the first three weeks after burn injury. It could be concluded that SSD phonophoresis might be valuable for enhance acute burn healing and the pulsed SSD phonophoresis is more effective for accelerating the acute burn wound healing.

Key words : Burn healing, phonophoresis, silver sulfadiazine, burn surface area, glycosaminoglycan, Physical Therapy.

Arabic Title Page : فاعليّة الانتقال الجزيئي لـنفّاذ سلفاديازين الفضة عبر الجلد عن طريق الموجات فوق الصوتية على التئام الجروح في مرضى الحروق الحادة.
Author : Montasser Abdullah Fadl.
Title : Tincture benzoic compound phonophoresis for treatment of decubitus ulcers.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Adel A. Nossier, Mohamed Reda M. Awad, Wafaa H. Borhan.
Degree : Master.
Year : 2003.
Abstract:
The bed sores is a difficult barrier to embed an immobilized patients due to lack of hygienic atmosphere and body resistance, as will as increase compression, friction and wetting factors which mainy affect the skin, the first line of body defense mechanism, that delay rehabilitation process, medical and surgical interference required in several such cases which decrease the treatment period and cost.

Key words : Herbal therapy, phonophorses, physical therapy ultrasonic decubitus ulcers.

Arabic Title Page : لعلاج قروح الفراش.
Author : Yasser El-Sayed Mokhtar.
Title : Evaluation of supervised incentive spirometry training regime in the management of pulmonary complications after valvular operation.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2003.

Abstract:
This study was conducted to evaluate the efficacy of supervised incentive spirometry training program in management of pulmonary complications after valvular operation. twenty patients were treated with routine chest physical therapy program. the other twenty patients were treated with routine chest physical therapy in addition to incentive spirometry training program. postoperative pulmonary complications were reduced in both groups and there was on statistical significant difference between the two groups.

Key words : chest physiotherapy, valve surgery, postoperative pulmonary complications, incentive spirometry, Physical Therapy.

Arabic Title Page : تقييم البرنامج التدريبي الملاحظ على القياس الرئوي الحافز في علاج المضاعفات الرئوية بعد العمليات.
Physical Therapy
Department for
Neuromuscular and
Neurosurgical
Disorder and its
Surgery
Author : Ehab Abd El-Rahman Taha.
Title : Influence of interferential therapy combined with specific exercises program on the hip abductors strength and gait in paraparetic patients.
Degree : Master.
Year : 2003.
Abstract:
The purpose of this study was to investigate the effect of interferential therapy stimulation combined with specific exercises program on hip abductor muscles strength, and to investigate its influence on gait parameters in cases of spastic paraparetic patients. Twenty spastic paraparetic patients of both sexes were assigned into control and study groups. Both groups received therapeutic exercises program in the form of mat exercises (strengthening exercises, stretching exercises of hip adductors, endurance and balance exercises), and gait training. The study group received additional interferential stimulation to the hip abductors. All patients in both groups received their treatment for six days/week for four successive weeks. The patients were assessed for muscle strength of hip abductors, muscle tone of both lower limbs, and certain gait parameter. These measures were recorded two times during the period of the study; before treatment, and after treatment. The results of the study group showed significant increase of muscle strength of hip abductors, and improvement of gait parameters compared to the control group. Can be concluded that this combination of interferential current as electrical stimulation and suggested physical therapy program can improve gait paraparetic patients.
Key words : hip abductors, interferential current, gait, paraparesis, Physical Therapy.
Arabic Title Page : تأثير التيار المتداخل العلاجي مع برنامج تمريرات محدد على قوة العضلات الباحة للفخذ والمشي لمرضى الضعف النصفي المستعرض.
Author : El-Badawy Ibrahim Mohammad El Hinidy.

Title : Balance outcome in hemiparetic patients following use of a selected balance program.


Supervisors : Mohammad Sadek Badawy, Ebtsam Mohammad Fahmy, Gehan Mousa Ahmad.

Degree : Master.

Year : 2003.

Abstract:
The purpose of this study was to evaluate the influence of use of a selected balance program on improving balance outcome in hemiparetic patients following cerebrovascular insult. Forty patients participated in the study and classified randomly into two equal groups: study and control groups. Both groups received a conventional physical therapy treatment including tone reduction techniques, trunk control training, upper extremity control exercises, lower extremity exercises. In addition, the study group received also a selected balance program by using the biodex balance system including static balance training and dynamic limits of stability training. The treatment program was conducted three times per week for six weeks. The patients were assessed for: muscle force of quadriceps, hamstrings, dorsi flexors and evertors of the foot by using the tensiometer, static balance and dynamic limits of stability by using the biodex balance system, and berg balance scale. These measures were recorded two times: before the application of the treatment program (pre) and after the end of treatment program (post). The results of this study showed that there was significant improvement of muscle force, static balance, dynamic limits of stability and scores on berg balance scale for both groups, but the improvement was higher in the study group than in the control group. It could be concluded that this selected balance program is effective in improving balance of hemiparetic patients following cerebrovascular insult.

Key words : balance, hemiparesis, stroke, physical Therapy.

Arabic Title Page : نتائج التوازن بعد استعمال برنامج توازن مختار لمرضى الشلل النصفي الطولي (الفالج).
Author : lilian Albert Zaky.
Title : Efficacy of myofascial release in chronic masticatory myofascial pain dysfunction syndrome.
Supervisors : Ahmed Hassan Hussein, Almoatez Bellah Hassan Hosny, Yehia Nassef Mohamed.
Degree : Master.
Year : 2003.
Abstract : The purpose of this study was to investigate the effect of myofascial release in chronic masticatory myofascial pain dysfunction syndrome. thirty patients were randomly divided into two equal groups. the first group received myofascial release of the masticatory muscles followed by an exercises program. the second group received the same exercises program only. six treatment sessions were given for two weeks. it was found that pain intensity was more significantly lowered in group (A) than in group (B), while it was found that the range of motion of active mouth opening was increased significantly in each group, but no significant difference was found between both groups.
Key words : myofascial pain dysfunction syndrome, temporomandibular joint, masticatory muscles, myofascial release, exercises therapy, Physical Therapy.
Arabic Title Page : تأثير انفراج النسيج العضلي الضام على مجموعة الأعراض المصاحبة للاختلال الوظيفي المزمن للنسيج العضلي الضام لع لديات المضغ.
Author : Moussa Abd El-Fattah Youssif Sharaf.

Title : The influence of foot evertors re-education on gait in stroke patients.


Supervisors : Nalema Hamdy Hassan, Hussein Ahmad Shaker, Maggdy Ahmad Arafa.

Degree : Master.

Year : 2003.

Abstract:
The purpose of this study to evaluate the influence of foot evertors re-education in correcting varus abnormal position in stroke patients and to investigate its influence on gait parameters. Twenty stroke patients participated in this study. The program consisted of; quick stretch combined with tapping and synkinetic movement (step I), EMG biofeedback training (step II), and graduated active exercises (step III). The program was conducted three times/ week for six weeks. The patients were assessed for muscle strength of foot evertors, active ROM of subtler version, the degree of varus abnormal position during gait, and certain gait parameters. These measures were recorded at pre treatment, after step I, after step II, and at the end of the six weeks. The results of this study show significant decrease in the degree of varus abnormal position at the end of the re-education program. It can be concluded that this suggested re-education program is effective in decreasing the degree of varus deformity in stroke patients during gait.

Key words : foot evertors, re-education, gait, stroke, Physical Therapy.

Arabic Title Page : تأثير إعادة تأهيل عضلات القدم الطبيعية للخارج على المشي في مرضى السكتة الدماغية.
Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery
Author: Abd El-Aziz Ali Abd El-Aziz Sherief.

Title: Effect of neck, trunk shoulder immobilization on hand function in dyskinetic children.


Degree: Master.

Year: 2003.

Abstract:
To investigate the effect of neck, trunk and shoulder immobilization on hand function in athetoid children. Thirty athetoid cerebral palsied ranging in age from four to six years. They were divided randomly into two groups of equal number. The first group treated by specially designed exercise program. While the study group received the program given to the control group in addition to immobilization of neck, trunk and shoulder. Evaluation was included fine motors skills measured by DDST, time taken to arrange five cubes and number of shape insert board performance in five minutes before, after three months and after six months of treatment program. The results revealed significant improvement the study group more than control group.

Key words: immobilization, fine motor skills, cerebral palsy, Physical Therapy.

Arabic Title Page: تأثير تثبيت الرقبة والظهر والكتف على وظيفة اليد للإطفال ذوى اضطرابات الحركة.
Author : Akram Mohammed Helmy Abdalla.
Title : Effect of selected under water exercises on crouch gait in spastic diplegic children.
Supervisors : Kamal Elsayed Shoukry, Hoda Abdel AzIm El-Talawy, Faten Hassan Abdel Azim.
Degree : Master.
Year : 2003.
Abstract:
The purpose of this study was to evaluate the effects of selected underwater exercises on crouch gait in spastic diplegic children twenty-four spastic diplegic children with crouch pattern of gait, with mean age 8.7 years, participated in this study. They were classified randomly into two groups, study group (I) which received underwater exercises and traditional program, and control group (II), which received traditional program only. The angles of hip, knee and ankle joints were measured during initial contact, mid stance and terminal stance before and three months after application of the treatment program through using videotapes. The results showed that there was highly significant improvement of group (I) and statistically significant improvement of significant difference between group (I) and (II). From the obtained results in this study, it can be concluded that underwater exercises may represent a beneficial therapeutic modality to improve crouch gait pattern in spastic diplegic children.
Key words : Exercises, crouch gait, spastic diplegic children.
Arabic Title Page : تأثير مجموعة من التمرينات تحت الماء على المشاية الجائحة في الأطفال المصابون بالشلل المخى التشنجي.
Author : Gehan Mosad Abd El-Maksoud.
Title : Effect of elbow immobilizer on standing holding on and walking with self support in spastic diplegic cerebral palsied children.
Degree : Master.
Year : 2003.
Abstract:
The purpose of this study was to investigate the effect of elbow immobilizer on standing holding on and walking with self support in spastic diplegic cerebral palsied children. Thirty spastic diplegic cerebral palsied children ranged in age from 20 to 36 months participated in this study. also thirty normal children, fifteen of them ranging in age from 7 to 9 months (able to stand holding on) and another fifteen children with age 12 months (able to walk around furniture). the diplegic children were divided randomly into two groups of equal number. the first study group was treated by physical therapy program while wearing an elbow immobilizer. the second study group treated by the same physical therapy program without wearing an elbow immobilizer. Evaluation was carried out for each child of both study groups before and after six months of treatment and also, for each child of both control groups. it included measuring the joints angles of the axial region, upper and lower extremities. also, the angles of lower limb joints were evaluated during walking with self support by using auto CAD program. the results of the study revealed significant improvement in measuring variable in standing holding on and walking with self support for both study groups. Highly significant improvement was noticed in standing holding on for the first study group. However no significant difference was denoted in walking with self support between both study groups.
Key words : cerebral palsy, diplegia, elbow immobilizer, auto CAD, Physical Therapy.
Arabic Title Page : تأثير مثبتفصل الكوع على الوقوف والمشي المستند ذاتيا للطفل المتقلب.
Author : Mohamed Hafad Abd El-Wanees El-Hamadany.

Title : Efficacy of low intensity laser therapy in treatment of juvenile rheumatoid arthritis.


Supervisors : Hoda Abd El-Aziem El-Talaway, Elham ElSayed Salem, Hala Salah El-Dein Mohamed Talat.

Degree : Master.
Year : 2003.

Abstract :
This study was conducted to examine the effect of (LILT) on JRA 30 children were assigned randomly to 2 groups. subjects in the study group received laser on both knee joints , whereas subjects in the control group received placebo laser . the results showed significant improvement in pain , swelling, morning stiffness and impaired functional activity of both knees of patients in study group compared with those of control group.

Key words : laser therapy, juvenile rheumatoid arthritis, Physical Therapy.

Arabic Title Page : فاعلية الليزر منخفض الشدة في علاج الروماتويد عند الأطفال.
Author : Mohamed Ibrahim Mohamed Fathi.
Title : Neuromuscular electrical stimulation of calf and medial hamstring muscles versus anterior tibial and quadriceps muscles for gait control in hemiparetic children.
Supervisors : Mohamed Tawfik Mahmoud, Elham El-Sayed Salem, Shadia Abd El-Aziz Khalil.
Degree : Master.
Year : 2003.
Abstract : To investigate the effect of (NMES) for calf and medial hamstring muscles versus (NMES) for anterior tibial and quadriceps muscles on gait parameters, thirty spastic hemiparetic cerebral palsied children (20 males, 10 females); ranging in age from 3 to 6 years old (X = 4.44+0.98)were chosen as the sample of the study and divided randomly into two groups A, B spasticity and postural evaluations were conducted before the study, while gait evaluation was done before the study and after 3 months of treatment. the results revealed significant improvement in all measured variables for both groups with greater improvement in the favor of group B.
Key words : electrical stimulation, hemiplegia, pediatrics, Physical Therapy.
Arabic Title Page : تأثير التنبيه العصبي العضلي الكهربائي على عضلات الساق والعظام الخلفية مقارناً بتأثيره على عضلات الفخذ الزراعية والعظمية الأمامية لتنظيم المشي عند مرضى الشلل النصفي في الأطفال.
Department of Basic Science
Author : Ahmed Taha Sayed Ahmed Farrag.
Title : Reliability of reflective markers placement used for motion analysis.
Dept. : Department of Basic Science.
Supervisors : Mohsen Mohamed El Sayyad, Soad Mahmoud Mohamed, Mohamed Hussein Elgendy.
Degree : Master.
Year : 2004.
Abstract:
Background: three dimensional motion analysis is considered one of the most advanced objective methods for analysis of body motion. In spite of the many applications of this method of motion analysis, variation among testers in placement of reflective markers has not been completely examined. The purpose: this study was conducted to investigate the intra-tester motion analysis. Subjects: the study was conducted on 60 normal healthy subjects not suffering from any musculoskeletal of the upper limb. Their ages ranged from 18 to 30 years with a mean of 20.38±2.6 years. Design: test-retest design. Three testers participated in this study, the main investigator and two assistant testers. Each subject was tested by each tester twice with one week apart. Subjects were randomly assigned for testers. Method: 6 markers were placed over the upper limb by each tester while the subject was sitting on a chair. Three 120 Hz infrared cameras were used to capture the position and determine the value of the three co-ordinate of the markers in millimeter. Data were collected and analyzed using the infraclass correlation co-efficient. Results: ICC model (2,1) was used to test intra-tester and inter-tester reliability of marker placement. Intra-tester ICC values for all co-ordinates of all markers were > 0.9 except for the X co-ordinate of the fourth marker which value was 0.892. Inter-tester ICC values were generally higher than intra-tester ICC values. Discussion: it was suggested that variation of ICC values might be attributed to changes in subject position between repeated measurements and due to inter-subject variability. Conclusion: it was concluded that placement of reflective markers had excellent intra and inter-tester reliability for all marker co-ordinates except the X co-ordinate of the fourth marker which had high reliability.

Key words : motion analysis, Physical Therapy.
Arabic Title Page : مصداقية وضع العلامات العاكسة المستخدمة في التحليل الحركي.
Author : Amira Hussin Mohammed.
Title : Proprioception Influence on Shoulder joint Injuries IN Egyptian Handball Players.
Dept. : Department of Basic Science.
Degree : Master.
Year : 2004.
Abstract :
The purpose of the current study was to investigate the relation between shoulder sensibility level of proprioception and the incidence of shoulder injury in Egyptian handball players. thirty-three participants (players) were included at the starting of the work, four players were excluded early as they didn't complete the training and matches. proprioceptive accuracy level firstly was assessed by using two methods active repositioning accuracy test (ARAT) and passive repositioning accuracy test (PRAT) by using the Biodex Medical System. After finishing the season a proposed chick list were filled for recording injury and pain incidence as well as pain intensity level. there was a strong correlation relationship between proprioception deficiency and incidence of injury and pain intensity level. it could be concluded that inaccuracy of the shoulder proprioception may be a cause of injury for Egyptian handball players.

Key words : Shoulder injury, Proprioception, Handball, Physical Therapy.

Arabic Title Page : تأثيرات المستقبلات الحسية على إصابات اليد في لاعبي كرة اليد المصريين.
Author: Amr Abdel Samad Abdel Monem.
Title: Effect of exercise and electrical stimulations on type II muscle fibers.
Dept.: Department of Basic Science.
Supervisors: Fatma Seddik Amin, Maher Ahmed Alkeblawy, Hanan Hosney Abdel Aleem.
Degree: Master.
Year: 2004.
Abstract: Physical therapy interventions can affect muscle fiber types leading to improvement in muscle performance. In the context of this update, physical therapy interventions can be broadly divided into those designed to increase the patient's resistance to fatigue and others designed to increase the patient's force production. The purpose of this study was to investigate the effectiveness of electrical stimulation and exercise on type II (fast-twitch) muscle fibers. Subjects: Thirty healthy male physical therapy students with mean age (18.9 ± 0.88) years, weight (77.8 ± 10.13) kg and height (175.1 ± 3.9) cm assigned randomly to three equal groups. Methods: Measuring the neurophysiological parameters of type II muscle fibers (Mean amplitude, Maximum amplitude, Mean interturn, Total turn and Maximum muscle tension) were performed before and after treatment. Group I received electrical stimulation in the form of faradic current applied on the dominant quadriceps femoris muscle three times a week for a month, group II received progressive resistive exercise (Deform technique) for their quadriceps femoris muscle three times per week for amount, group III received both electrical stimulation and progressive resistive exercise on their quadriceps femoris muscle three times a week one month. One way analysis of variance (ANOVA) was used to determine significant differences in data between and among the groups. Results: The results revealed that the application of both electrical stimulation and progressive resistive exercise produced significant increase (p < 0.01) in the neurophysiological parameters of type II muscle fibers (Mean amplitude, Max. Amplitude, Turn/sec. And Muscular activity). Discussion and conclusion: The finding revealed that the application of both of progressive resistive exercise and electrical stimulation (Group III) had a marked significant effect on type II muscle fibers than the separate application of each of them.
Key words: Electrical stimulation, type II muscle fibers, Physical Therapy.

Arabic Title Page: تأثير كل من التدريب الكهربائي والتمرينات على النوع الثاني من الألياف العضلية.
Author : Dalia Mohammed Mohammed Mosaad.
Title : Computer mouse position as a determinant of posture and muscular load in normal subjects.
Dept. : Department of Basic Science.
Supervisors : Mohsen M.EL-Sayyad, Samy Abd ElSamd, Maher A. El-Kabalawy.
Degree : Master.
Year : 2004.
Abstract:
Background computer mouse become an integral part of office work. the number of studies examined the impact of mouse use on musculoskeletal health is limited. the purpose of this study was to compare kinematics of the right upper extremity and the electromyography activities of upper, lower trapezius, and anterior deltoid muscles in two different computer mouse positions.

Subjects : thirty subjects (15 males, and 15 females), mean age was (22.16=10.92). they were assigned in one group. they assumed one position for fifteen minutes (the traditional one) and then take a recording. after that they assumed the second position (the modified one) for other 15 minutes and take other recording. the recording includes, EMG registered from each selected muscle and capturing of the subjects posture by infrared cameras.

Results: there was a statistically significant decrease in the right upper extremities angles in the modified position except for the wrist ulnar deviation which increase significantly in this position. there was also significant decrease in muscular activities in this position except for lower trapezius. positive correlation in this position between upper trapezius and shoulder abduction was found. Discussion and conclusion: modified mouse position decreased most upper extremity angles and the muscular load over the upper, lower trapezius and anterior deltoid muscles and so it is recommended to be used in computer workstations in different fields.

Key words : Computer Mouse, Ergonomics, EMG, Three-dimensional analysis of motion, Physical Therapy.

Arabic Title Page : وضع فأرة الكمبيوتر كعامل محدد لوضع الجسم والنقل العضلي في الأفراد الطبيعيين.
Author                       : Ibrahim Mostafa Mostafa Abu Amer .
Title                       : Dermatomal somatosensory evoked potential demonstration of nerve root function after 2-way traction.
Dept.                       : Department of Basic Science.
Supervisors                 : Fatma Sedik Amin, Omima Mohamed Aly Kattabei, Mohamed Hussien El-Gendy.
Degree                      : Master.
Year                        : 2004.
Abstract                     : This study was conducted to investigate the effect of 2 way traction on the nerve root function and absolute rotatory angle (ARA)in patients with lower cervical spondylotic. subjects: 30 patients suffering from lower cervical spondylotic radiculopathy with Ruth Jackson radiographic stress lines measured less than 25 were participated in this study. their age ranged from 40 to 50 years with a mean (45.67+2.49). patients were divided into two groups, each group included 15 patients. both groups received conservative treatment. in addition to 2-way traction for study group. method: peak amplitude of dermatomal somatosensory evoked potential (DSSEPs) and ARA were measured before and after the 2-way cervical traction therapy to serve as objective indicator of therapy effectiveness. results: revealed that the 2-way traction produced significant increase in the peak amplitude of DSSEPs (96.43%)(P<0.0001)and ARA (101.03%). (P<0.0001). for the control group, there was no statistically significant change in the peak amplitude of DSSEPs (12.24%)(P=0.0983)and ARA (4.14%)(P=0.14990). for the study group, there was a positive correlation between the peak amplitude of DSSEPs and ARA=0.8074 (P=0.0003). discussion and conclusion: it was concluded that 2-way traction is safe and affection modality to improve the nerve root function and sagittal cervical curve.
Key words                     : 2-way traction, dermatomal somatosensory evoked potentials (DSSEPs), absolute rotatory angle (ARA), Physical Therapy.
Arabic Title Page : ايضا ح عمل الجزء العصبي باستثارة المخ الحسية بعد استخدام الشد ثنائي الاتجاه.
Author : Kadria Hosny Mohamed Battecha.
Title : Some vascular response to different forms of transcutaneous electrical nerve stimulation.
Dept. : Department of Basic Science.
Supervisors : Awaṭef Mohamed Labib, Mostafa Mahmoud Gad, Haytham Mohamed El-Hafez.
Degree : Master.
Year : 2004.
Abstract:
Transcutaneous Electrical Nerve Stimulation (TENS) is a modality used to control pain; it was reported that it has an influence on the vascular responses to increase the blood flow volume and reduce the resistively of the arteries in normal subjects. Although many studies were done, the effect of different forms of TENS on blood is still unclear. The purpose of this study was to determine the effect of different forms of TENS on blood responses. Subjects: forty five normal male faculty of physical therapy students and staff were selected with mean age 18.92±1.5 years, height 174.0±3.2 cm and weight 72.9±6.7 kg. they were assigned randomly into three equal groups. Methods: the blood flow volume, peak systolic velocity and resistivity index was measured by ultrasound Doppler pre and post TENS application for 20 minutes on common peroneal nerve at (100 pps, 2 pps - 150 pps) for group I, group II, and group III, respectively. One way ANOVA with repeated measurements was done to determine the significant increase in vascular responses. Results: there was highly significant increase of blood flow after application of low TENS (44.73%) when compared with other groups, (high TENS and intense TENS). Peak systolic volume showed high significant increase after application of high TENS (62.06%) when compared with other studied groups. Also, there is a significant decrease of resistivity index after application of low TENS (-19.15%) when compared with other groups. Discussion and conclusion the effect of TENS on circulation depends on stimulation intensity and frequency. When the intensity was sufficient to cause a moderate muscle contraction a transient local increased in blood flow occurred.
Key words : Transcutaneous Electrical Nerve Stimulation, TENS, Sympathetic tone, Blood flow, Physical Therapy.

Arabic Title Page : استجابة الأوعية الدموية الجزئية للأشكال المختلفة لجهاز تنبيه العصب الكهربائي عبر الجلد.
Author : Rafeek Elmamoon Mohamed Ahmed.
Title : Mechanical changes of patellofemoral joint and locking mechanism of knee joint after anterior cruciate ligament reconstruction.
Dept. : Department of Biomechanics.
Supervisors : Nahed Ahmed Salem, Abd Elaziz Elsengery, Mamdouh Mahfouz.
Degree : Master.
Year : 2004.
Abstract :
This study was conducted to investigate the mechanical changes of the knee complex after ACL reconstruction using patellar tendon graft. The mechanical changes of the tibiofemoral articulation was investigated by measuring the degree of external rotation of tibia upon femur during gait at ( 0% - 2% - 30% and 40% ) of gait cycle, using three dimensional motion analysis ( Qualysis system ). The mechanical changes of the patellofemoral joint was investigated by measuring the sulcus and congruence angles of the injured side compared with normal side by x-ray imaging using " Merchant " technique. Thirty male subjects with ACL reconstruction using bone patellar tendon-bone auto graft were selected to contribute in this study. The statistical analysis investigated that, the subject with reconstructed ACL has a highly significant decrease in the locking mechanism of the involved knee joint during walking compared with the uninvolved side at initial contact ( 0% and 2% ) and early in the terminal stance at 30% of gait cycle. While there was no significant difference in terminal stance at 40% of gait cycle. This study also showed that there was a highly significant difference between the kinematics of the patellofemoral of the sound and involved side in the patients with ACL reconstruction. Therefore it can be concluded that the rehabilitation program should emphasize on regaining the full knee extension and train the patients on the normal sequences of gait especially at the stance phase.
Key words : knee joint, Anterior cruciate ligament, ACL reconstruction, patellofemoral joint, Mechanical changes, Motion analysis, Screw home mechanism, Physical Therapy.

Arabic Title Page : التغيّرات الميكانيكية في المفصل ما بين الرضة وعظامة الفخذ وطريقة غلق مفصل الركبة بعد جراحات إعادة بناء الرباط الصليبي الأمامي.
Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery
Author : Amany Mohamed Abd El Hafez.
Title : Effect of breathing exercise program on walking distance in elderly.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Aziz Guirguis Aziz, Mohie Eldeen Abd Elzaher, Azza Fikry Ismail.
Degree : Master.
Year : 2004.
Abstract:
The purpose of this study was to determine the effect of breathing exercise program on walking distance in elderly. Method: sixty elderly subjects their age 65-75 years were recruited from El Material teaching hospital and El Faith an elderly club to participate in this study. Assessment included the height, weight, blood pressure, heart rate, respiratory rate, walking distance and spirometric tests as SVC, FVC, FEV1, FEV1/FVC, MVV, PEF, FEF (25-75%). The Subjects were divided into two groups, group (I) received breathing exercise program which consisted of diaphragmatic breathing exercise, exercises connected with breathing and walking training with breathing control and group (II) controlled group. Both groups were examined exactly the same at the beginning of the study, after 4 weeks and after 8 weeks. Results: our results showed that breathing exercise program resulted in an increase in the walking distance and improvement in most of the ventilatory function variables selected and which (PEFR, FEF (25-75%)). Also there was a significant improvement in walking distance, and a significant decrease in pulse rate, respiratory rate and systolic and diastolic pressure. Conclusion: This study support the importance of breathing exercises in maintain and prevention of deterioration of respiratory function in elderly subjects and clarify their need for participation in physical activity programs to maintains and enhance their functional activities level.

Key words: AGING, breathing exercise, Ventilatory Function, Walking, Exercise Training, Physical Therapy.

Arabic Title Page: تأثير برنامج تمارين التنفس على مسافة المشي للمسنين.
Author : Asmaa Mohamed Al-Emrany Badr.
Title : The effects of smoke inhalation on physical fitness among firefighters in Cairo.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Naguib Mohamed Salem, Alaa El-Dein Amin Afifi, Hala Ez-El-Dein Hamed.
Degree : Master.
Year : 2004.
Abstract :
The study was undertaken to evaluate and record the physical fitness investigation that found in firefighters following structural fires. Hundred firefighters working in different brigades in Cairo participated in the study. Each subject performed exercise testing to measure (VO2max, RER, AND HR max). It was concluded that active firefighters develop significant cardiopulmonary disorders as a result of inhalation of fire smoke.
Key words : Firefighter, smoke, fitness, vo2max, Physical Therapy.
Arabic Title Page : تأثير استنشاق دخان الحرائق على اللياقة البدنية لرجال المطافئ العاملون في القاهرة.
Author                      :  Faten Aly Hamza.
Title                       :  The relation between regular exercise and chronic constipation in elderly.
Dept.                       :  Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors                 :  Awny Fouad Rahmy, Zienab Helmy, Aliia Mesalam Mansour.
Degree                      :  Master.
Year                        :  2004.

Abstract
This study aimed to investigate the relation between regular exercise and chronic constipation in elderly thirty young elderly of both sexes participated in this trial, 17 females and 13 males, their age ranged from (64 to 73) years selected subject they were non smokers, non received drug induces constipation or laxative, same routine dietary and suffering from chronic constipation at least three months with mild to moderate physical activity studied during one week of constipation index parameters, frequency, consistency and severity with the equation constipation index = C.S/F per week, subject had exercise test before and after exercise period to determine their heart rate, perceived exertion, blood pressure, exercise tolerance they can perform and cardiogram in addition to their routine daily activities, they exercised thirty minutes on a treadmill with three sessions / week, every other day the total period of the training program was four weeks the results of this study, total constipation index decreased in 10 subjects, increased in 11 subjects, and did not change in 9 subjects using a paired T test total constipation index did not show a significant change from rest (25.03 ± 8.37), P > 0.05 this level of exercise did not improper their constipation.

Key words :  regular exercise, chronic constipation elderly, Physical Therapy.

Arabic Title Page :  العلاقة بين التمرينات المنتظمة والامساك المزمن في المسنين.
Author : Mostafa Ibrahim El-Naggar.
Title : Effect of early mobilization and breathing exercises on arterial blood gases for open heart surgeries in intensive care unit.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Naguib Mohamed Salem, Lotfy Mohamed Aissa, Shehab Mahmoud Abd El-Kader.
Degree : Master.
Year : 2004.
Abstract :
The aim of this study was to determine the efficacy of additional of incentive spirometry or deep breathing exercises to early mobilization in improving the arterial blood gases in patients following open heart surgery. forty five patients who had open heart surgery participated in the study divided into three equal groups. the first group received early mobilization only, the second group received early mobilization with incentive spirometry and the third group received early mobilization with deep breathing exercises. there was a significant increase in PaO2 after 1/2 hour of incentive spirometry and early mobilization than deep breathing exercises.
Key words : Early mobilization, breathing exercises, arterial blood gases, open heart surgery, Physical Therapy.
Arabic Title Page : تأثير الحركة المبكرة وتمارين التنفس على غازات الدم الشرياني لجرحات القلب المفتوح داخل وحدة العناية المركزة.
Physical Therapy Department for Obstetrics and Gynaecology and its Surgery
Author : Abeer Mohamed EI Sayed EI Deeb.
Title : Analysis of gait in the different trimesters of normal pregnancy.
Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors : Salwa Mostafa EL Badry, Amel Mohamed Youset, Ahmed Mohamed EL Halwagy.
Degree : Master.
Year : 2004.
Abstract:
This study was conducted to measure deviations in the gait of normal pregnant women at their 1st, 2nd and 3rd trimesters. Selected kinematics and kinetics gait parameters were performed including pelvic motion in the transverse, coronal and sagittal planes as well as, GRF in the anterior–posterior and vertical directions. Twenty-three pregnancy women at their first trimester were selected from obstetrics outpatient department, at Al Kasr El–Aynee university hospital. Evaluation of all subjects was done by Qualysis system at the 1ST, 2ND and 3rd trimesters showed statistically highly significant increase (p<.001) in anterior pelvic tilting, downward pelvic drop, vertical acceleration of body's C.O.G and a significant increase (p<0.05) in the 2nd peak of vertical GRF as well as, forward propulsion of GRF. Also, results revealed a highly significant decrease (p<0.001) in upward pelvic rise as well as, a significant decrease (p<0.05) in backward pelvic rotation. While, braking force and the 1ST peak of GRF showed non-significant change (p>0.05). So, it can be concluded that changes in pelvic motion during pregnancy affect stability of the pelvis and increase stress on the lumbosacral area. The increased forward propulsion of GRF may lead to increase tendency to falling forward. Also, the increased vertical GRF may indicate that the pregnant women had more propulsion to move the increased weight and size of the pregnant uterus.

Key words : pregnancy, Gait, pelvis, Ground reaction force (GRF), Motion analysis, Physical Therapy.

Arabic Title Page : التحليل الحركي للمشي في المراحل المختلفة من الحمل الطبيعي.
Author : Maha Mohamed Mady.
Title : Efficacy of diclofenac phonophoresis on chronic pelvic inflammatory disease.
Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors : Salwa Mostafa El-Badry, Mehany Mahmoud Abd El-Sattar, Azza Baramoud Nashed.
Degree : Master.
Year : 2004.
Abstract:
The purpose of this study was to determine the efficacy of diclofenac phonophoresis on chronic pelvic inflammatory disease (PID) cases. Twenty-five diagnosed as having chronic PID. They were treated with diclofenac phonophoresis for 10 min, for 18 sessions (i.e. 3 sessions per week-for 6 weeks) interrupted only by menstruation of the patient. The outcome measures included: visual analogue scale (VAS), erythrocyte sedimentation rate (ESR) and white blood corpuscles (WBBCs) count before starting the study and after the end of the 18th treatment session. The results of this study showed a highly significant decrease in the intensity of pain perception, ESR values as well as WBBCs count. Accordingly, it can be concluded that diclofenac phonophoresis was found to be an effective physical therapy modality in treating chronic pelvic inflammatory disease.

Key words : ultrasound pain, PID, NSAID, Physical Therapy.

Arabic Title Page : كفاءة مادة الديكوفيناك المدخلة بواسطة الموجات فوق الصوتية على التهابات الحوض المزمنة.
Physical Therapy Department for Musculoskeletal Disorder and its Surgery
Author: Ibrahim Mohamed Abd El Rahman Ragab.

Title: Effect of exercise's therapy on dynamic knee stability after ACL reconstruction using two different surgical techniques (A comparative study).

Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.


Degree: Master.

Year: 2004.

Abstract:
The purpose of this study was to investigate the functional performance profile that might occur in patients operated with bone patellar tendon bone (BPTB) or semitendinosus (St) grafts for ACL deficient knees. Hence, knee stability and consequently patient's lower extremity performance ability could be assessed. An accelerated rehabilitation program concerning proprioceptive training exercises was applied for three months for 30 subjects then, the newly designed rating scale was applied afterwards. Scores of reconstructed knees compared with those of normal ones were taken and finally given the suitable grade. This scale differs from others as it includes many previously published variables that are affecting greatly knee dynamic stability, classifying them biomechanical and putting levels for evaluating patient's present functional performance which gives a prospective idea about what is needed to obtain the maximal knee stability at a long term. Results showed that most of patients obtained high scores, as there was no significant difference between both groups. As ten patients obtained "excellent" in (group A) where nine patients obtained "excellent" in (group B), four patients obtained "good" in (group A) while three obtained "good" in (group B), and two patients obtained "fair" in both groups. It was concluded that dynamic knee stability isn't altered when applying bone patellar tendon bone or semitendinosus grafts.

Key words: Knee joint, ACL reconstruction, patellar tendon graft, Semitendinosus graft, Dynamic stability, Physical Therapy.

Arabic Title Page: تأثير العلاج بالتمرينيات على الثبات الدينيمكي للركبة بعد إعادة بناء الرباط الصليبي الأمامي باستخدام تقنيتين جراحيتين مختلفتين (دراسة مقارنة).
Author : Mona Ahmed Mohamed Mohamed.
Title : The effect of low level laser therapy versus transcutaneous electrical nerve stimulation on knee osteoarthritis.
Supervisors : Nadia Abd El Azim Fayeiz, Samir El Sayed Selim, Yehia Nasef Mohamed.
Degree : Master.
Year : 2004.
Abstract : This study was the first study to compare between the effect of low level laser therapy and transcutaneous electrical nerve stimulation (TENS) on the treatment of knee osteoarthritis. Methods: sample included in the study was thirty two patients, their age ranged between 45 - 65 year patients main affections were pain and impaired functional movement of the knee joint in form of decreasing 50 - foot walking time (15.24 meter). All the patients had osteoarthritis (OA).
Key words : Low level laser, Laser therapy, Transcutaneous Electrical Nerve Stimulation, TENS, Exercises of knee osteoarthritis, Lasers, Physical Therapy.

Arabic Title Page : تأثير الليزر منخفض الشدة مقابل التنبيه الكهربي العصبي على الالتهاب العظمي المفصلي للركبة.
Author : Sherif Mohamed El-Desouky.
Title : Effect of low intensity laser on the promotion of healing of the grade II injury of the anterior talofibular ligament of the ankle joint.
Supervisors : Nadia Abdel Azim Fayaz, Abdel Salam El Hamamsy, Alaa El Din Abdel Hakim Balbaa.
Degree : Master.
Year : 2004.
Abstract :
The purpose of the current study was to investigate the effect of low intensity (HE NE) laser on the inflammation of the grade II injury of the anterior talofibular ligament of the ankle joint. Thirty subjects suffering from grade II ankle sprain evident by clinical and ultrasonographic examinations participated in this study. Subjects were randomly assigned into two groups. The study group (GI) receiving low intensity He Ne laser therapy, and the control group (GII) receiving sham laser therapy. Subjects in both groups were evaluated pre, during and post treatment by ultrasonography. Subjects in both groups received twelve sessions of laser therapy (one session every other day for four weeks). Group one showed highly significant differences concerning the anterior talofibular ligament thickness of the effected side in comparing pre, during, and post treatment evaluations, compared to each other and the sound side thickness. Group two showed less significant differences concerning the anterior talofibular ligament thickness in favor of group one. Therefore, it was concluded that, the low intensity He Ne laser therapy decreases the inflammation of anterior talofibular ligament grade II injury of the ankle joint and promotes patient's functional outcome.

Key words : ligamentous injuries, ankle sprains, treatment, low intensity laser therapy, Physical Therapy.

Arabic Title Page : تأثير الليزر منخفض الشدة على تحسين التنامي تمزق الدرجة الثانية للرباط العقبي الشظوي الأمامي لمفصل الكاحل.
Physical Therapy Department of Surgery
Author: Ashraf Hassan Mohammed.
Title: Electrical stimulation as an adjunctive treatment for post prostatectomy incontinence.
Dept.: Physical Therapy Department for Surgery.
Supervisors: Wafaa H. Borhan, Mohammed N. Nor El - Dein, Emad T. Ahmed.
Degree: Master.
Year: 2004.
Abstract:
The purpose of the current study was to determine the effectiveness of electrical stimulation in treating post-prostatectomy incontinence. Twenty volunteers suffering from post-prostatectomy incontinence were participated in this study for a treatment period of one month. They were divided equally and randomly into two groups. Patients in the first group had been treated with sham faradic electrical stimulation, three times weekly, for one month. While patients in the second group had been treated with faradic electrical stimulation, three times weekly, for one month. Voiding cystometry and the urethral pressure profile were used to measure the outcomes before starting the study and after one month. The results of the first group showed non significant improvement in the bladder volumes, detrusor pressures voiding time or urethral pressure profile. While the results of the second group showed significant improvement in bladder volumes, detrusor pressures and the urethral pressure profile. It could be concluded that electrical stimulation was found to be an effective physical modality in treating post prostatectomy incontinence.

Key words: Prostatectomy, Electrical Stimulation, Incontinence, Physical Therapy.
Arabic Title Page: التنبيه الكهربائي كعلاج مساعد للتبول اللازادي بعد استئصال البروستاتا.
Author : Ayman Farouk Helal.
Title : Pulmonary responses of walking or cycling training post laparoscopic cholecystectomy.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2004.
Abstract :
This study was designed to evaluate the efficacy of two various methods in the management of laparoscopic cholecystectomy to improve respiratory capacity and to control postoperative pulmonary complications. This study was conducted on forty-five patients, who have had laparoscopic cholecystectomy in the department of general surgery in Ain-Shams university hospitals, their age ranged between 30 to 50 years. Patients were randomly assigned into three equal groups: group A (walking group) received walking program, group B (cycling group) received cycling program and finally group C (traditional chest physical therapy program). Spirometry measures in form of FVC and FEV were taken for all three groups preoperatively, at the 1st, at the 7th, and at the 14th day postoperatively. The results of the current study revealed a significant improvement in FVC and FEV1 at the 7th, and at the 14th day postoperatively in the three groups of the study. The highest percentage of improvement in both respiratory variables was seen in group which received walking program.

Key words : laparoscopic cholecystectomy, pulmonary responses, aerobic training, Physical Therapy.

Arabic Title Page : الاستجابة الرئوية لتدريبات المشي أو الارجومترية لحالات ما بعد الاستئصال بالمنظار الجراحى للمثانة المرارية.
Author : Eriny Ezzat Moussa.
Title : Efficacy of tens application on pain modulation and pulmonary function after valvular surgeries.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Adel Abdel Hamid Nosseir, Abdel Ghany Mohamed Abdel Ghany, Zeinab Mohamed Helmy.
Degree : Master.
Year : 2004.
Abstract : This study was conducted to evaluate the efficacy of TENS on pain modulation, pulmonary functions and analgesics requirements after valvular surgeries. fifteen patients were received TENS with frequency 100 Hz, fifteen patients were received the both frequencies and ten patients were received sham TENS. there was significant reduction in pain scores and there was significant improvement in pulmonary function within the different groups which received TENS application when compared with the sham TENA group. the superiority was for group 3 and group 2 in relieving pain and improving pulmonary functions respectively.
Key words : Transcutaneous electrical nerve stimulation (TENS), Postoperative pain, Valve surgery, Postoperative pulmonary function and analgesics requirements, Physical Therapy.

Arabic Title Page : قدرة تطبيق التدليك العصبي الكهربائي عبر الجلد على تعدل الألم والوظائف الرئوية بعد جراحة الصمامات.
Author : Hany Mohamed Ibrahim Elgohary.
Title : Honey therapy versus ultraviolet radiation in the treatment of pressure ulcer.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2004.
Abstract :
This study was conducted to compare the therapeutic efficacy of both honey therapy and ultra violet radiation in healing of pressure ulcers in patients with complete or incomplete spinal cord injury at Yom el Mostatashfiat rehabilitation center and in-patients departments of neurosurgery unit at Cairo university hospitals. Forty five male patients suffering from pelvic pressure ulcers with complete or incomplete spinal cord injury participated in this study. Fifteen patients received honey therapy and regular wound care (group I), fifteen patients received ultra violet-C radiation and regular wound care (group II), and fifteen received traditional physical therapy and regular wound care. Evaluation of pressure ulcers was performing through measuring the wound surface area (WSA) and volume of pressure ulcers pre, post 7, post 14 and post 21 days by tracing method and a syringe respectively. There was a significant difference between ultra violet-C and honey therapy groups before treatment regarding WSA. While there was no significant difference regarding the volume. There was non-significant difference of the mean values of both WSA and volume after 7, 14 and 21 days from the initiation of treatment. But there was a percentage of improvement in favor of honey therapy. It has been concluded that the application of honey therapy was better than ultra violet-C radiation for treating and improving the rate of healing process of patients with complete or incomplete spinal cord injury and had pelvic pressure ulcers.

Key words : pressure ulcers, honey therapy, ultraviolet-radiation, Physical Therapy.

Arabic Title Page : استخدام عسل النحل مقارنة بالأشعة الفوق بنفسجية في علاج قرح الفراش.
Author : Hisham Galal Mahran.
Title : Comparison of two methods of respiratory care following cholecystectomy.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2004.
Abstract:
The purpose of this study was to arrive at a suitable convenient technique of treatment which would aid in alleviation of respiratory problem following cholecystectomy. forty female patient participated in this work their ages ranged from 30 to 50 years, they were randomly divided into two equal treatment groups; incentive spirometer group (20 patients). and expiratory resistive breathing group (20 patients). group (I)(I.S)received incentive spirometry training by using reflow device. group (I)(I.S)was further subdivided into subgroup I.a:10 patients who had laparoscopic cholecystectomy, and subgroup I.b:10 patients who had open cholecystectomy. group (II)(E.R.B)received expiratory resistive breathing training through using blowing maneuver (blowing of surgical glove). group was further subdivided into subgroup II.a:10 patients who had laparoscopic cholecystectomy, and subgroup II.b:10 patients who had open cholecystomy. the vital capacity was measured for each subgroup 3 times 24 hrs preoperative, 24 the postoperative and 5 days postoperative. the results of this work showed significant decrease in vital capacity after 24 hrs in both types of cholecystectomy (laparoscopic and open), and there was significant increase after applying the incentive spirometer and the blowing maneuver, it concluded that: incentive spirometer and blowing maneuver (expiratory resistive breathing) play an important role in improving chest expansion and mobility in patients who had cholecystomy.
Key words : cholecystectomy, Incentive spirometry, expiratory resistive breathing, Physical Therapy.
Arabic Title Page : المقارنة بين وسيلةين للعناية التنفسية بعد استئصال المرارة.
Author : Samar Mamdouh Ei Hakeem.
Title : Therapeutic results of corticosteroids phonophoresis on post-Burn hypertrophic scars.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2004.
Abstract:
The problem of this study was mainly focused on the management of hypertrophic the main aim of this study was to evaluate the efficacy of corticosteroid phonophoresis approach (pulsed us) and compare it with the other2 methods of delivering corticosteroid (intralesional injection and topical)the variables investigated in the present study were(vascularity ,pliability , height and itching ) of the scar by the modifiedvancouver scale the pliability was assessed by the tonometer. the scar volume was measured by the dental impression material these variables were evaluated before and after3 months of treatment application the pretreatment results of the present study revealed no significant difference for the mean values of all the variables among the 3 groups of the study. there were highly significant difference post treatment in the intralesional group, significant difference in phonophresis and no significant difference before and after treatment in topical group.

Key words : corticosteroids, phonophoresis, hypertophyscar, Physical Therapy.

Arabic Title Page : النتائج العلاجية لانتقال بالوجمات فوق الصوتية لاستيرادات الكورتيزونية لعلاج ندبات ما بعد إصابات الحروق.
Author : Tamer Mohamed Mohamady.
Title : Exercise therapy for post oncological surgery patient.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Adel Abdel Hamid Nossier, Gamal Mostafa, Mohamed Abdel Khalek Khalaf.
Degree : Master.
Year : 2004.
Abstract:
This study was designed as minimal research work have been focused on the role of physical therapy especially exercise therapy in the rehabilitation process of the post-oncological surgery patients. Cancer is a very serious functional problem, the most common cancers being lung cancer in men and breast cancer in women. In recent years, there has been measuring attention issues related to the quality of life of patients with cancer and recognition of the potential for rehabilitation. Some epidemiologic studies found that a significant inverse relation between amount of occupation or leister time physical activity and reduction in all cause cancer risk. This study is work review focused on two main issues research review and protocols issues.
Key words : cancer, oncology, physical therapy, rehabilitation, exercise therapy, Physical Therapy.
Arabic Title Page : التمرينات العلاجية للمرضى ما بعد الاستئصال الجراحي للأورام.
Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery
Author : Amir Abdel-Raouf Fadl EL-Fiky.
Title : Physical therapy management for chemotherapy-induced neuropathy in cancer patients.
Supervisors : Mohammad Sadek Badawy, Zlkry Khaled Zlkry, Salah Abd EL-Monem Sawan.
Degree : Master.
Year : 2004.
Abstract:
The objective of this study was to evaluate the role of physical therapy modalities in managing chemotherapy-induced neuropathy in cancer patients. Thirty patients participated in this study. Patients were randomly divided into study and control groups (fifteen patients on each). The program consisted of, interferential current (step I), and repeated contraction (specific technique of proprioceptive neuromuscular facilitation)(step II). The program was conducted three times/week for six weeks for the study group only. The patients were assessed for location of the site of pain, intensity of pain, active range of motion of ankle dorsal flexion, and level of superficial sensation on their feet. These measures were recorded pre-treatment, and at the end of six weeks. The results of this study showed significant decrease in the intensity of pain and increase level of superficial sensation in patients of study group in comparison to the control group at the end of the program. It can be concluded that this suggested program is effective in decreasing the pain and increasing functional activities in chemotherapy-induced neuropathy in cancer patients.

Key words : physical therapy, pain, polyneuropathy, chemotherapy, cancer.

Arabic Title Page : العلاج الطبيعي لحالات التهابات الاعصاب الطرفيّة الناتجة عن العلاج الكيميائي في مرضى السرطان.
Author: Mohamed Fathi Ramadan El-Sultan.
Title: Influence of a shoe lift insert in hemiparetic gait.
Dept.: Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.
Supervisors: Nawal Abd El-Raouf Abou Shady, Usama Mohamed Rashad, Eman Samir Mohamed Fayez.
Degree: Master.
Year: 2004.
Abstract: The purpose of this study was to evaluate the influence of a lift insert in improving the symmetry of weight bearing between the effected and the non-affected foot in hemiparetic patients. Twenty hemiparetic patients participated in the study, the treatment program consisted of application of a shoe lift insert, in addition and physical therapy program (balance and gait training). The program was conducted three times / week for six weeks. The measurements were recorded at pre treatment, after three weeks and at the end of six weeks of treatment. The results of the study showed significant improvement in the symmetrical weight bearing and parameters of dynamic gait and effective in improving weight bearing under the affected and non affected foot.
Key words: the shoe lift insert, hemiparesis, gait, Physical Therapy.

Arabic Title Page: تأثير استخدام رافع القدم داخل الحذاء على مشي الخذل الجانبي.
Author : Wanees Mohamed EL-Amir Mohamed Rashad.

Title : Trunk muscles torque as a predictor of falling in stroke patients.


Degree : Master.

Year : 2004.

Abstract:
The purpose of this study was to determine the relationship between trunk muscles torque and the risk of falling in stroe patients. forty male patients were randomly assigned to a study group and a control group. both groups received a physical therapy program. the study group received additional strength program for the trunk flexor and extensor muscles. the program was conducted for three times per week, for six weeks. the patients were assessed by using fitness isokinetic dynamometer and biodex stability system before and after treatment. the results showed that the trunk muscles torque can be considered as a predictor of falling in stroke patients.

Key words : trunk, torque, isokinetic, balance, stroke, Physical Therapy.

Arabic Title Page : عزم قوة عضلات الجذع كعامل في حالات شلل السكتة الدماغية.
Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery
Author : Ehab Anwar Mohamed.
Title : Correlative analysis between degree of spasticity and angle of wrist joint during grasping in spastic cerebral palsied children.
Supervisors : Hoda Abd El-Azien El-Talawy, Emam Hassan El-Negamy, Fatma Abd El- Fattah Hegazy.
Degree : Master.
Year : 2004.
Abstract : The purpose of this study was to analyze the relation between angle of wrist joint during grasping and degree of spasticity in spastic hemiplegic children. Fifty spastic hemiplegic children ranged in age from 3 to 6 years old participated in this study. They were classified according to modified Ashworth scale into 5 groups, twenty normal children were also participated to be as a baseline for normative data. A dynamometer was used to measure grip strength and an electronic goniometer to measure angle of wrist joint. all groups were tested using standardized positioning and instruction to exert maximal grip strength, at peak value of grip strength, the angle of wrist joint is measured. Angle of wrist joint showed gradual decline in extension from normal group till group 2, then dramatically ascending in flexion in other groups, grip strength showed great decline in its value from normal to severe spastic cases. A significant correlation was seen between angle of wrist joint and spasticity and between wrist angles and grip strength directly during extension and reversely during flexion. Another pilot experimental study was done by using special designed wrist plaints at 015° and 30° extension to investigate relation between wrist angle and grip strength. No significant correlation between 15 30 degrees in normal group was found while significant correlation was found in spastic group and grip strength at 30 showed the greatest value.
Key words : Grasping, Cerebral Palsy, Hemiplegic, Grip Strength, Wrist Joint, Spasticity, Physical Therapy.
Arabic Title Page : تحليل ارتباطي بين درجة التقلص العضلي وزاوية حركة الرسغ أثناء المسك عند الأطفال المصابين بالشلل الدماغي التصفي القصبي.
Author : Magda Abd El Fattah Mohamed Moussa.
Title : Effect of underwater exercises on dynamic trunk control in spastic diplegic cerebral palsy children.
Supervisors : Kamal El - Sayed Shoukry, Mohamed Tawfik Mahmoud, Elham El-Sayed Salem.
Degree : Master.
Year : 2004.
Abstract:
The aim the study was to investigate the effect of underwater exercises on
dynamic trunk control in spastic diplegic children. thirty diplegic cerebral
palsied children ranging in age from three to six years were involved in
the study. the study was divided randomly into two groups (study and
control)of equal number. the study group treated by specially designed
underwater exercises program. while the control group treated by
traditional physical therapy program. the dynamic postural control of the
trunk was evaluated by measuring the functional sitting ability of each
child at 5 different levels using 5 blocks of the same size and height. the
blocks were placed as one column in front of the child for evaluating the
forward flexion and extension movements. then, 4 blocks were placed at
each side (right and left) for evaluating side bending. the video-camera
was used to record each movement particularly and at each level
separately by removing one block sifter record each level. then the
distance (cm), time (sec) and speed (cm/sec) were analyzed and measured
by auto-CAD for the particular movement evaluation was repeated after
the suggested period of treatment (four months) for both groups. from the
obtained results in this study, it can be concluded underwater exercises
may represent a beneficial therapeutic modality to improve dynamic
trunk control in spastic diplegic cerebral palsy children.
Key words : cerebral palsy, underwater exercises, dynamic trunk control, Physical Therapy.

Arabic Title Page : تأثير التمرينات تحت الماء على التحكم
dيناميكي للجذع في الأطفال المصابين بالشلل
الدماغي الرتبي الإرباعي.
Author : Manal Radwan Salim.
Title : Description of fatal and neonatal upper limb movement patterns.
Degree : Master.
Year : 2004.
Abstract : This study describes and establishes base line data of early movement patterns of the upper limb in both fetal and neonatal periods. The purpose of this study was to clarify developmental sequences of fetal and neonatal movement patterns, to presents a new technique for both fetal and neonate movement assessments, this study was conducted with the cross sectional design comparing upper limb movement patterns in both fetal and neonatal periods. studying a normal sample group of fetuses representing the three stage of pregnancy as well as neonates in the first two days postnatal and first month. fetuses were scanned in their mothers' wombs via real-time three-dimensional ultrasound scanner (four-dimensional ultrasound), while neonates were videotaped. kinematical analysis was done to shoulder elbow instantaneous angular changes, movements units duration amplitude and rate per minute parameters. the results of this study showed that fetal and neonatal movements are more temporally organized than spatially organized. significant differences were presented between fetuses and both neonatal groups in upper limb movement pattern expressions.

Key words : Fetal movement, movement patterns, neonate general movement and development, Physical Therapy.

Arabic Title Page : وصف نموذج حركة الطرف العلوي في الأجنة والأطفال حديثي الولادة.
Author                  : Mostafa Mohamed Asfour.
Title                   : Effect of tonic vibratory reflex on hand function in spastic hemiplegic palseid children.
Degree                  : Master.
Year                    : 2004.
Abstract                : The aim of this study was to investigate the effect of TVR on hand function in spastic hemiplegic cerebral palseid children. Thirty spastic hemiplegic cerebral palseid children (16 males and 14 females), ranging in age from four to seven years participated in this study. Fifteen were right sided and fifteen were left sided. The degree of spasticity ranged from 1 to 2 grades according to the modified Ashworth scale. All patients had been selected from Eltalba hospital-Abu Elrish and from the out-patients clinic of the specialized pediatric hospital-Cairo university. The subjects were divided randomly into two groups of equal number (control and study). The control group received a specially designed program; while the study group received the same exercise program as the control group in addition to high frequency vibratory stimulation. Evaluation of handgrip strength and arrangement of cubes in five minutes was determined for each group before and after three months of treatment. The results revealed significant improvement in the measuring variables for both groups which was highly significant in the study group. Improvement denoted in the study group may be attributed to the combined effects of TVR and designed exercise program, which functionally improve hand function.

Key words               : Hemiplegic cerebral palseid, Tonic vibratory reflex, Hand function, Physical Therapy.

Arabic Title Page       : تأثير الأَنْعَكَاسِ الإَهْتِزَازِيِّ النَفْغُيِّ عَلَى وَظِيفَةِ الْبَدَّ. في أَطْفَالِ الشَّللِ الدِّمْيِيِّ التَشَشْنَجِيِّ "الْفَالِجِ".

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Author : Naglaa Ahmed Zaky Aly.

Title : The effect of contoured foam seat on reaching from sitting in spastic diplegic cerebral palsied children.


Degree : Master.

Year : 2004.

Abstract:
The aim of this study was to evaluate the effect of contoured foam seat on reaching from sitting in spastic diplegic cerebral palsied children. Thirty spastic diplegic children (15 males and 15 females) ranging in age from two to five years old participated in this study. The study sample was classified randomly into one study group and one control group. The study group received a specially designed program while seated on the contoured foam seat, while the control group received the same program while seated on a high chair. Both groups received the traditional exercise program. The angles and velocities of shoulder and elbow joints were evaluated before and after the treatment programs. The results of the study revealed statistically significant improvement in all measuring variables ($p<0.0001$) pre and post treatment in both control and study groups with higher percentage of improvement of the study group. From the obtained results of this study, it can be concluded that improvement in the study group may be attributed to the effect of contoured foam seat on improving reaching ability and so it is considered a beneficial adjunct in improving reaching in spastic diplegic cerebral palsied children.

Key words : CP, Contoured foam seat, reaching, motion analysis, physical therapy.

Arabic Title Page : تأثير مقعد اسفنجي خاص على مهارة توصيل اليد أثناء الجلوس عند الأطفال ذوي الشلل المخي التقلصي المزدوج.
Author                      : Nahed Shukri Thabet.
Title                      : The effect of heavy weight knee immobilizer and pelvic band on standing posture in dyskinetic cerebral palsy children.
Supervisors                : Kamal El-Sayed Shoukry, Faten Hassan Abd El-Aziem, Khaled Ahmed Olama.
Degree                     : Master.
Year                       : 2004.
Abstract
The purpose of this study was to investigate the effect of heavy weight knee immobilizer and pelvic band on standing posture in choreaathetoids cerebral palsied children thirty chorea athetoids children (18 girls and 12 boys) ranged from three to five years participated in this study they were divided randomly into two groups of equal number (control and study) the control group was treated by selected exercise program , while the study group was received the selected physical therapy program given to the control group in addition to immobilization of pelvis and lower limb evaluation was carried out before and after three months of treatment it included measuring the angles of trunk and shoulder joints (ten second after release of holding) by using video camera for recording and analysis by the AutoCAD program also calculate time of stability in second till first falling after release of holding and number of falling per two minutes the results of the study group after the suggested period of treatment revealed significant improvement in the trunk angles , time of stability in second till first falling and number of falling variables there was significant difference between study and control group improvement in the study group may be attributed to the effect of heavy weight knee immobilizer and pelvic band.
Key words                   : immobilizer, standing, dyskinesia, cerebral palsy, physical Therapy.
Arabic Title Page           : تأثير مثبت الركبة وحزام الحوض وثنفل علي التحكم في الوقوف عند الأطفال المصابين بالحركات اللاإرادية نتيجة الشلل الدماغي.
Author : Rasha Abd EL-Moneim Mohamed Ibrahim.

Title : Effect of proprioceptive stimulation on sit to standing pattern in diplegic cerebral-palsied children.


Supervisors : Kamal EL - Sayed shoukry, Mohamed Tawfik Mohmoud, Faten Hassan Abd EL-Aziem.

Degree : Master.

Year : 2004.

Abstract:
The purpose of this study was to investigate the effect of a standing frame as a method of a proprioceptive stimulation and especially selected exercise program on sit to standing pattern in diplegic cerebral palsied children thirty diplegic children their age ranging from three to five years, divided randomly into control and study groups the control group received especially selected exercise program, while the study group was received same physical therapy program given to the control group in addition to the proprioceptive stimulation via the standing frame evaluation was included measurement of the time taken to complete sit to standing pattern by each child individually, and the trunk and lower limb joints angles at 0%, 25%, 50%, 75% and 100% from the time measuring by using AutoCAD analysis program the results of the study revealed significant improvement in most of the measuring variables of the control group and highly significant improvement in all the measuring variables for the study group it may be concluded that proprioceptive stimulation via the standing frame may be used in habilitation of sit to standing pattern of the diplegic children.

Key words : Proprioceptive stimulation, sit to standing pattern, diplegic, cerebral palsy, Physical Therapy.

Arabic Title Page : تأثير تنبيه الإدراك الحسي علي الوقوف من الجلوس في الأطفال من المصابين بالشلل المخی التشنجي.
Author: Safy El-din Mahmoud Abo-Ali.
Title: Muscle tone modulation using non-invasive electrical vestibular stimulation in cerebral palsied children.
Supervisors: Emam Hassan El-Negamy, Ann A. Abd El-Kader, Fatma Hassan Abd El-Azeim.
Degree: Master.
Year: 2004.
Abstract: The purpose of this study was to evaluate the immediate and carry over effect of using transcutaneous electrical nerve stimulation (TENS) binateral vestibular system stimulation on muscle tone modulation in soastic cerebral palsy children. The study was conducted on 10 spastic diplegic cerebral palsied children 5 boys and 5 girls their ages ranged from 14 to 48 months the degree of spasticity was mild to moderate according to modified Ashworth scale (1 + 1o 2). The evaluation included modified Ashworth scale conducted before and after treatment, while Hoffmann reflex and myogenic response ratio was measured before and after each treatment session. TENS vestibular stimulation was applied for 30 minutes using external rubber electrodes reto-biauriclar on the mastoid process. It was performance on 50 consecutive days with 2 days rest, which was followed, by another 5 consecutive days of stimulation. TENS pulse frequency was 100 Hz with intensity of 4 mA. It was combined with the traditional treatment in the form of neurodevelopment techniques (NDT). The results of the present study showed a non-significant changes of CNS excitability in children with spastic diplegic CP who were treated by combining two physical therapy techniques, namely TENS vestibular stimulation and the traditional treatment in the form of (NDT). Technique measured by Hoffmann reflex, myogenic response ratio and modified Ashworth scale. It may be concluded that TENS vestibular stimulation needs further investigations by using longer duration to be used in rehabilitation of spastic diplegic CP children.
Key words: Cerebral palsy, diplegia, electromyography, transcutaneous electrical nerve stimulation, vestibular stimulation.

Arabic Title Page: استخدام التنبيب الكهربائي السطحي الغير ضار للجهاز الذهبي لتعديل النغمة العضليه عند الأطفال المصابين بالشلل الدماغي.
Author                       : Samah Attia Tolba Mohamed El-Shiemy.
Title                       : Effect of postural control exercises in spider cage on standing pattern in spastic diplegic children.
Supervisors                 : Kamal El - Sayed Shoukry, Mohamed Tawfik Mahmoud, Fatma Abd El-Fattah Hegazy.
Degree                      : Master.
Year                        : 2004.
Abstract
The purpose of this study was to investigate the effect of postural control exercises in spider cage on standing pattern in spastic diplegic cerebral palsied children. forty spastic diplegic cerebral palsied children ranged in age from 3 to 5 years participated in this study . The study sample were divided randomly into two groups of equal number (study and control groups) . The study group received postural control exercises inside the spider cage in addition to the selective treatment program given to study group. Evaluation was carried out for each child of both study and control groups before, after two and four months of treatment . It included measuring the scores of standing dimension tasks by using Gross Motor Function Measure scale (GMFM). The results of this study revealed significant improvement in standing pattern for both study and control groups after the treatment. Also, significant improvement was noticed in standing pattern for the study group when compared with control group after the treatment period (p<0.05). This significant difference may be attributed to the effect of postural control exercises in the spider cage on improving standing pattern.

Key words                      : Cerebral palsy, Diplegia, Spider cage, Postural control, Gross Motor Function Measure, GMFM, Physical Therapy.

Arabic Title Page               : تأثير تمارين التحكم في القوام داخل الوحدة الققصية للتمارين على أنموذج الوقوف عند الأطفال المصابين بالشلل التقلصي المزدوج.
Title: Validity of fixed ankle foot orthoses with extra wide base on standing postural control in spastic hemiplegic children.


Supervisors: Hoda Abd El-Aziem El-Talawy, Kamal El - Sayed Shoukry, Gehan Hassan El-Meniawy.

Degree: Master.

Year: 2004.

Abstract:
The purpose of this study was to evaluate the standing postural control in spastic hemiplegic children following the participation in a balance training program on biodex stability system while wearing fixed AFO with extra wide base in addition to the traditional therapeutic exercise program. thirty spastic hemiplegic children, ranged in age from 6 to 8 years old participated in this study. they were classified randomly into two received balance training on Biopdex while wearing traditionally fixed AFO in addition to the traditional therapeutics exercise program. the study group received the same balance training on Biodex but while wearing specially designed fixed AFO with extra wide base in addition to the same exercise program. balance parameters were assessed using Biodex stability system in both groups with and without orthoses, before and after two months of the application of the treatment program. the results of this study revealed statistically highly significant improvement in nearly all of the measuring variables of the study and control groups (P<0.01) when comparing pre and post treatment results, and when comparing the post treatment results of the study and control groups (P<0.01). from the obtained results of this study, it can be concluded that, AFO with extra wide base can be considered a beneficial modality hat may be used to improve standing postural control in spastic hemiplegic children.

Key words: Balance, postural control, cerebral palsy, hemiplegia, ankle foot orthosis, Physical Therapy.

Arabic Title Page: مصداقية جبيرة كاحل القدم الثانى ذات القاعدة الأكثر إلمامًا على التحكم في القوم من وضع الوقوف عند الأطفال المصابين بالشلل النصفي الطولي التقلصي.
Department of Basic Science

Author : Amr Saad - Eldeen Mohamed Shalaby.
Title : Diagnostic specificity of two electro diagnostic tests in carpal tunnel syndrome.
Abstract:
Background: Carpal Tunnel Syndrome (CTS) is a widespread troublesome syndrome that results in pain and paraesthesia in median nerve distributions and weakness in thenar muscles. Nerve Conduction Studies (NCS) are used to confirm CTS diagnosis but up till now about 25% of cases remain undiagnosed by the conventional NCS. Thus, it requires more sensitive and specific test to be applied. The purpose of the study to determine sensitivity and specificity of the Median-to-Ulnar Sensory Nerve Action Potential (MUSNAP) ratio and Median-to-Ulnar Motor Latency Difference (MUMLD) test in patients with CTS as compared to that of the conventional median NCS. Materials and Methods: 30 wrists of 17 healthy subjects were recruited in the normal group with mean age of 28.4 ± 7.7 years. 30 wrists of 18 CTS patients were recruited into the patient group with mean age of 34.03 ± 11.3 years. A TOENNIES neuroscreen plus system was used for assessment. Results: for the normal group, the Median Motor Distal Latency (MMDL) was 3.4 ± 0.3 msec., Median Sensory Distal Latency (MSDL) was 2.8 ± 0.2 msec., MUMLD was 0.23 ± 0.08 msec., and the MUSNAP ratio was 1.16 ± 0.7. For the patient group MMDL was 4.4 ± 1.02 msec., MSDL was 3.5 ± 0.8 msec., MUMLD was 1.4 ± 0.9 msec., and MUSNAP ratio was 1.2 ± 1.02. The sensitivity for the tests was 63.33% for the MMDL, 73.33% for the MSDL, 13.33% for the MUSNAP ratio test, while the highest sensitivity was 96.66% for the MUMLD test. The specificity for the examined tests was 90% for the MMDL, MSDL, and MUSNAP ratio and on the other hand it was 100% for the MUMLD test. Conclusion: it is concluded that 1) As compared to the conventional NCS and MUSNAP ratio the MUMLD test was the most sensitive and specific test in CTS cases, 2) The MUSNAP ratio test has shown the high degree of specificity and lower sensitivity and 3) Lower cutoff points revealed higher sensitivity and lower specificity in MMDL and MSDL.

Key words: Diagnostic specificity, Carpal tunnel syndrome, Electro diagnosis.

Arabic Title Page: التوصيفي التشخيصي لثنين من الاختبارات الكهربائية التشخيصية على حالات التشخيص العصب الوسط عند الرسغ.

Author: Ayman Hussein El-Khatib.
Title: Influence of endurance training on myocardial oxidative stress.
Dept.: Department of Basic Science.
Abstract: The purpose of this study was to determine the effects of endurance treadmill-training program on the levels of oxidative stress markers in rat myocardium. Methods: Thirty rats (15 males and 15 females), the mean age of all rats was 6 weeks old and the mean weight was 150(±10g), were participated in this study and they were chosen randomly. They are divided into 3 groups, control group (N= 10 rats), group (I) (N=10 rats) and group (II) (N=10 rats). Group (I) received treadmill exercises for 9 minutes duration at velocity of 25m/minute, 3 times per week for 4 weeks and group (II) received treadmill exercises for 9 minutes duration at velocity of 25m/minute, 6 times per week for 4 weeks. Results: The rats of all groups were sacrificed; their heart tissues were homogenized in phosphate buffer saline and then were centrifuged to obtain the fluid through which the malondialdehyde (MDA) and the glutathione peroxidase (GPX) were measured. One-way ANOVA showed a significant difference between the three groups of both malondialdehyde and glutathione peroxidase. Conclusion: These results demonstrate that endurance training induced decline in lipid peroxidation such as malondialdehyde and obvious increases in glutathione peroxidase concentration in rat myocardium.

Key words: Endurance training, oxidative stress, lipid per oxidation, glutathione peroxidase.

Arabic Title Page: تأثير تدريبات الإحتمال على إجهاد عضلة القلب نتيجة التأكسد.

Author: Manal Mohamed Ali El Dessouki.
Title: Laser acupuncture versus direct laser in management of plantar fasciitis pain.
The purpose of this study was to investigate the effect of low intensity LASER in chronic planar fasciitis pain in middle age females. Gallium Aluminum Arsenide Infra Red laser was used with power of 10mw and wavelength of 780nm. Twelve patients were divided into two groups, their ages ranged between (30-40) years with a mean of (33.8). Group I included 7 females irradiated with laser over most painful and tender point on the plantar surface of the heel, group II included 5 females irradiated with laser over three traditional acupuncture points (Taixi K. 3, Kunlun UB. 60, Sanyinjiao sp. 6). Five out of the seven females in group I complained of bilateral fasciitis, and four out of group II complained of bilateral fasciitis. Statistical results showed significant pain decrease on visual and modified analogue scales in both groups, there was significant improvement after six sessions where (p<0.05), also there was significant improvement after twelve sessions where (p < 0.05). Statistical results didn’t show significant difference between the two groups where (p>0.05) to justify the most effective method of laser applications for such conditions.

**Key words** : Plantar fasciitis, Laser, chronic pain.

**Arabic Title Page** : تأثير الليزر على نقاط الوجل بالإبر الصينية مقابل الليزر المباشر على نقاط الألم في علاج اللفافة الأخمصية.
Abstract:
The purpose of this study was to investigate the correlation of Galvanic Vestibular Stimulation (GVS) evoked response and balance measurements in hemiparetic patients with disequilibrium. Subjects: Forty Subjects from both sexes with age ranged from 40 to 60 years old were participated in this study. They were assigned into two groups; the study group consisted of twenty hemiparetic patients with mean age of (50.35±12) years, mean height of (169±0.47) cm, mean weight of (80.2±0.55) kg and mean duration of illness (13.55±0.83) months, while the control group consisted of twenty normal subjects with mean age of (50.5±1.14) years, mean height of (169.4±0.662) cm, and mean weight of (78.85±.59) kg. Methods: Changes in H-reflex amplitude and latency following galvanic vestibular stimulation was measured and then correlated with the balance system scores using the Biodex stability system [stability index (static balance) & dynamic limit of stability]. Results: The results of the current study revealed highly significant differences between the two groups in the amplitude of the conditioned H-reflex compared with that of the test H-reflex (P = 0.0001). Conversely, the difference between the two groups in latency was numerical rather than statistical. The percentage of change in H-reflex amplitude of the control group was statistically higher than that of the study group (P < 0.0001). However, the difference between the two groups in the percentage of change in H-reflex latency was non significant. On the other hand there was a highly significant direct proportional correlation between the percentage of change in H-reflex amplitude and the dynamic limit of stability in the study group (P = 0.0001). Discussion and Conclusion: The finding revealed that the “disturbed balance” after stroke might be related to an impairment of the corticovestibular modulation of the vestibular function. The results of the present study suggested that GVS-evoked response could provide a unique and valuable diagnostic information regarding the vestibular function after stroke.

Key words: Disequilibrium, Hemiparesis, H-reflex, Galvanic, Vestibular, Stimulation.
Department of Biomechanics

Author: Amal Abd El Rahman Mohamed Abd El Rahman.
Title: Myoelectric Activity of Neck Extensors with the Change of the
Angle of Writing Arm Support during Sitting.

Dept. : Department of Biomechanics.
Supervisors : Mohamed Fouad Ibrahim, Ghada Mohamed El-Hafez, Salam Mohamed El-Hafez.

Degree : Master.
Year : 2005.

Abstract:
The purpose of this study was to explore changes that may occur in the myoelectric activity of four chosen neck extensor muscles due to changing the angle of the writing arm support between 0°, 10°, and 20° slopes. The studied muscles were; right and left semispinalis capitis and cervicis (Rt and Lt SCC), right and left upper trapezius (Rt and Lt UT). Surface EMG (BIOPAC) of these four muscles was recorded from a group of 30 healthy male students with an average age of 19.3 years (±1.8). The results of the study showed a non significant difference between the percentages of normalized EMG activity of the neck extensor muscles between the 3 examined slopes. However, the mean value of the percentage of normalized EMG activities of the Rt upper trapezius showed a significant difference between slope 0° and slope 20°. It was concluded that the EMG activity of the neck extensor muscles is not affected by slight variations of the inclination angle of the writing arm support. Changes in the level of activity of the upper trapezius muscle appear in larger variations between slopes, as the 0° and 20° slopes.

Key words : Myoelectric activity, writing arm support, neck extensor muscles.

Arabic Title Page : النشاط الكهربائي للعضلات الباسطه للرقبة مع التغيير في زاوية سائد ذراع الكتابة أثناء الجنوس.

Author : Amira Abdallah Abd El Megeid Abdallah.
Title : Effect of a Specifically Designed Computer Mouse Platform on Wrist Positions and Myoelectric
Activity of Wrist Muscles.

Dept. : Department of Biomechanics.
Supervisors : Mohamed Fouad Khalil, Ghada Mohamed El Hafez, Salam Mohamed El Hafez.

Degree : Master.
Year : 2005.

Abstract:
The purpose of this study was to investigate the effect of using four different computer mouse platform slopes on the wrist radial/ulnar deviation and extension/flexion postures and the myoelectric activity of the wrist extensors and flexors. The four computer mouse platform slopes tested were; two horizontal slopes (with and without forearm support), and two downward tilted slopes of 10° and 20°. Thirty male students participated in this study. Each student conducted a ‘point and click’ computer mouse task for 30 minutes at each of the four computer mouse platform slopes, with each slope tested at a separate day. Wrist radial/ulnar deviation and extension/flexion postures’ data and wrist extensors’ and flexors’ surface EMG data were collected before and after task performance. Results revealed that computer mouse use at the 10° downward tilted slope was associated with the least myoelectric activities of the specified muscles with minimal degrees of wrist joint deviations. Consequently, it was concluded that computer mouse use at a 10° downward tilted computer mouse platform slope is much more preferable than its use at any of the other three slopes. This is to reduce the computer related musculoskeletal disorders.

Key words : computer mouse platform slope, electromyography, wrist muscles, wrist positions, computer mouse use.

Arabic Title Page : تأثير استخدام تصميم خاص لقاعدة فأرة الكمبيوتر على أوضاع فصل الرسغ و النشاط الكهربائي لعضلات الرسغ.
Abstract:
The objective of this study was to investigate the effect of assuming different trunk inclination angles on the myoelectrical activity of the erector spinae (ES) and the rectus abdomens (RA) muscles in normal subjects during the pushing activity. Forty normal subjects participated in this study (20 males and 20 females). They were asked to push a cupboard weighing about 300% of his/her weight at different trunk inclinations (0°, 20°, 40°). At each time the EMG activities of both RA and ES were recorded. The results revealed that by increasing the trunk inclination the EMG activities of both RA and ES increases and consequently the load falling on the low back area. So, it may be of mechanical advantage to push with trunk flexion more than 45° (beyond mid range of trunk flexion) to keep the body's C.O.G as close as possible to the pushed object to decrease the moment arm between the pushed object and the spine and consequently decrease the load falling over the back.

Key words: EMG, Pushing, Pulling, Trunk Muscles, Angle.
This study aimed to investigate the changes of foot pressure distribution under normal foot and Hallux Valgus (HV) foot. Also this study was conducted to investigate the best type of orthoses prescribed for HV patients from biomechanical point of view. The study was conducted on 30 normal subjects and 30 HV patients. Measuring average force and maximum pressure under the foot, using "Foot Scan" instrument. The HV group walked on the platform four times; first walking bare footed, second walking with wearing the first type of orthoses (separator), third wearing the second type of orthoses (bunion comforter) and fourth wearing both types of orthoses together. Comparisons done between the five different foot situations using ANOVA revealed that there was significant differences between pressure distribution of normal foot and HV foot. It is concluded that there is a change in pressure distribution in HV patient during walking when using the selected foot orthoses. Using separator orthosis may enable HV patient to walk as normally as in normal subjects.

Key words: Foot Orthoses, Pressure Distribution, Hallux Valgus.
Abstract:
Back ground: Patients with chronic mechanical neck pain showed larger sway areas in standing posture and reduced ability to successfully execute more challenging balance tasks. The purpose of the study was to determine the correlation between neck proprioception defect and balance in chronic mechanical neck pain patients. Subjects: Thirty subjects (13 Females and 17 Males); mean age was (41.5 ±3.7). They were referred nom out clinic of the Faculty of Physical Therapy, suffering from chronic mechanical neck pain (neck pain persisted more than three month). The neck proprioception accuracy level was measured by using CROM device and balance was measured by using Biodex stability system. Results: Active neck repositioning accuracy level was poor in patient with chronic mechanical neck pain. Also balance was disturbed in the same group. There was a statistically significant correlation between cervical proprioception deficit and balance in patient with chronic mechanical neck pain. Conclusion: it is indicated that the proprioception acuity is disturbed in patient with chronic mechanical neck pain. This deficit led to balance disturbances among these patients. This study recommended proprioceptive and balance rehabilitation programs among treatment plan of chronic mechanical neck pain.

Key words: chronic mechanical neck pain, Proprioception, Balance.
Abstract:
Magnetic therapy is considered to be a noninvasive method for treatment of many pathological conditions. Many trials have been carried out to reveal the effect of magnetic field on different body systems but, mechanism of action of magnetic field still not clear. This study was conducted to investigate the effect of prolonged exposure to 50 Hz-1gauss (G) magnetic field on osmotic fragility, morphology of RBCs, and blood viscosity of rats. Twenty healthy male albino rats were used with average weight 130±20 gram (g) and age 2-2.5 months. Animals were divided into 2 equal groups; experimental, and control. Experimental group was exposed to MF for 21 days, 6 hours/ day. Control group was not exposed to any field. Osmotic fragility, morphology of RBCs, and blood viscosity were measured for all animals’ pre exposure, immediately post exposure, and 45 days post exposure for delayed effect studies. The data were statistically analyzed using t test and ANOVA. The results revealed that exposure of the animals to 50Hz-1G MF resulted in significant decrease of RBCs membrane elasticity and permeability as well as irregularity of the cellular membrane. There was significant increase in the blood viscosity after exposure to MF (P< 0.0001), with a percentage of difference of 62.9%. Delayed measurement showed that the newly generated RBCs still affected, reflecting the injuries in the hemopoetic system, while, there was significant increase in the blood viscosity (P<0.0001), with a percentage of difference 43.47%. It was concluded that prolonged exposure to ELF MF has hazardous effects on RBCs membrane, and also affecting blood viscosity, therefore it may be hazardous to physiotherapists.

Key words: extremely low frequency magnetic field (ELF MF), RBC, osmotic fragility, blood viscosity.
Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery
Author : Amira Mohamed Abd EI Aziz Mohamed Afify.

Title : Evaluation of Postural Sway in Patients with Diabetic Peripheral Neuropathy.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.

Supervisors : Azza Abd EI Aziz Abd EI Hady, Farag Abd EI Moneim Aly, Enas Fawzy Youssef.

Degree : Master.

Year : 2005.

Abstract:
This study aimed to affection of postural sway and balance in patients with diabetic peripheral neuropathy (DPN), the effect of visual feedback on balance, and correlation of duration of affection with DPN and degree of balance. Results showed reduced balance control in case of DPN, deterioration on balance was positively correlated to duration of affection, and visual feedback played important role in balance control in patients and norms. It is recommended to add balance training to treatment programs of those patients.

Key words : Diabetes mellitus, diabetic neuropathy, balance, postural sway.

Arabic Title Page : تقييم تأرجح القوام في مرضى البوال السكري المصابين بالتهاب الأعصاب الطرفية.
Author : Ashraf Abdel Maksud Mahrus Elmarakby.
Title : Response of Forced Expiratory Volume at the First Second and Diaphragmatic Motor Nerve Conduction Time to Intermittent Cervical Traction in Cases of Chronic Cervical Spondylosis.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2005.
Abstract:
The aim of this study was to determine the effect of intermittent cervical traction on forced expiratory volume at the first second and phrenic nerve conduction time which is the sole motor supply for the diaphragm. Fifteen patients suffering from multiple cervical spondylotic radiculopathy involving C3, C4 and C5. They received 12 sessions of physical therapy program in form of intermittent cervical traction, hot packs and isometric neck exercises. Forced expiratory volume at the first second (FEV1), maximum voluntary ventilation (MVV) and phrenic nerve conduction studies were tested before and after treatment. There were significant improvement in MVV and phrenic nerve amplitude but there were no significant differences in FEV1 and phrenic nerve latency and duration. It was concluded that, the improvement of diaphragmatic function tested in MVV was due to improvement of phrenic nerve function which occurred as a result of the mechanical effect of intermittent cervical traction.
Key words : Cervical Spondylosis, Diaphragmatic Motor Nerve Conduction Time.
Arabic Title Page : استجابة قوة دفع هواء الزفير في الثانية الأولى زمن توصيل العصب الحركي للحجاب الحاجز لشد الرقبة المتقطع في حالات خشونة الرقبة المؤمنة.
Author: Bahgat Ragy Thabet.
Title: Cardiopulmonary Functions Response to Aerobic Versus Anaerobic Exercise Program in Overweight Adult Subjects.
Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors: Awny Fouad Rahmy, Soliman Nasr Soliman, Azza Fikry Ismail.
Degree: Master.
Year: 2005.
Abstract:
The aim of this study was to determine the effect of aerobic and anaerobic exercises on the cardiopulmonary function differentiate between them. The present work was conducted on forty cases of overweight adult males subjects. Their age ranged between twenty to twenty-eight years old, they were divided into two equal groups. The first group performed aerobic exercise training program, the duration of exercise was twelve weeks from January to April 2005, at a frequency of four sessions per week, the second group performed anaerobic exercise training for the same period, at a frequency of two sessions per week. Cardio pulmonary function was measured for both groups before and after the exercise program then compared the difference. The results indicated that aerobic and anaerobic exercise training program produce significant increase in pulmonary function. The aerobic exercise group indicated a significant improvement in the cardiac function but the anaerobic exercise program indicated that there are no significant changes in the cardiac function so it is recommended to use aerobic exercise and diet in older to reduce weight and improve cardiopulmonary fitness.
Key words: Overweight, Cardiopulmonary Functions, Aerobic exercise, Anaerobic exercise.

Arabic Title Page: استجابة الوظائف القلبية الرئوية لبرنامج تمرينات هوائية مقابل تمرینات لا هوانية للأشخاص البديناء.
Author : Eman Mohamed Salah El Din Ashmawy.

Title : Cardiopulmonary response to different breathing modalities after coronary artery bypass graft in phase I of cardiac rehabilitation program.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.


Degree : Master.

Year : 2005.

Abstract:
The aim of this study was to determine the best method out of incentive spirometry (IS), noninvasive intermittent positive pressure breathing (IPPB) and continuous positive airway pressure (CPAP) on cardiopulmonary response after coronary artery bypass graft in phase I of cardiac rehabilitation program. Forty five patients who had open heart surgery participated in the study divided into three equal groups. The first group received IS, the second group received noninvasive IPPB and the third group received (CPAP). All groups received in addition the usual physiotherapy modalities after coronary artery bypass graft in phase I of cardiac rehabilitation program. The ventilatory function test and respiratory rate were measured before the program and at the tenth postoperative day at the end of the program for the patients in the three groups. There was a more significant increase in ventilatory function test and reduction in respiratory rate and heart rate following incentive spirometry than in noninvasive intermittent positive pressure breathing and continuous positive airway pressure.

Key words : Incentive spirometry, Non-invasive intermittent positive pressure breathing, continuous positive airway pressure breathing, ventilatory function and open heart surgery.

Arabic Title Page : الاستجابة الرئوية القلبية لاستخدام طرق تنفسية مختلفة بعد جراحات ترقيع الشراييات الناجي في المرحلة الأولى من برنامج تأهيل القلب.
Author          : Basant Hamdy El Refay.
Title          : Treadmill walking exercise versus burst - mode transcutaneous electrical nerve stimulation in patients with peripheral arterial occlusive disease.
Dept.          : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors   : Mohamed Tawfik Mohamed Khattab, Zeinab Mohamed Helmy, Neiven Hemamy Mohammed.
Degree        : Master.
Year          : 2005.
Abstract
The aim of this study was to investigate and compare between the effects of treadmill walking exercise and burst-mode TENS on exercise testing parameters and on hemodynamic measurements in peripheral arterial occlusive disease patients. Forty male patients complaining of intermittent claudication participated in this study, their ages ranged from 50-60 years. Twenty patients were trained by treadmill walking exercise and the other twenty patients received burst-mode TENS. The results of this study revealed a significant increase in exercise testing parameters and in skin blood flow in both groups. Exercise training resulted in a significant increase of ABI at rest and after exercise while TENS caused a non significant decrease of ABI at rest and a non significant increase of ABI after exercise.

Key words     : Treadmill walking exercise, burst, transcutaneous electrical nerve stimulation, peripheral arterial occlusive disease.

Arabic Title Page : تمرینات المشی على السیر مقابل التنبیه الكهربی للعصب عبر الجلد في مرضى انسداد الشرايين الطرفیة.
Author : Dalia William Habib Mekhail.
Title : Effect of Stepping Versus Walking Exercise in Management of Intermittent Claudication.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2005.
Abstract:
The purpose of this study was to compare the effectiveness of treadmill and stepping exercise training programs in patients complaining of IC. Forty patients (mean age = 61.5 years) were randomly divided into two groups equal in numbers (treadmill group and stepping group). Each patient in the treadmill group practiced supervised treadmill exercise training program with moderate intensity from 60 to 75% of his/her HR max, three sessions/ week for three months on an electronic treadmill, with progressive increase in speed as tolerated until reach the maximal claudicating pain. Patients in the stepping group practiced supervised stepping exercise training program with moderate intensity from 60 to 75% of his/her HR max until the maximal claudicating pain tolerance, three sessions/ week for three months on a fixed stair. The results showed increased peak exercise performance in all treated patients by (80.63%-48.17% in treadmill and stepping groups respectively), and delayed the onset and progression of claudicating pain during exercise by (100%-46.43% in the treadmill and stepping groups respectively). The magnitude of improvement in patients receiving treadmill training was greater than the response to stepping training, without any significant difference in ABPI.
Key words : Stepping, Intermittent Claudication, Treadmill, Exercise.

Arabic Title Page : تأثير تمرينات صعود الدرج مقارنة بتمرينات المشي في علاج العرق المتفطع.
Author: Fatma Abo El-magd Mohamed Hamed.

Title: Efficacy of specially designed biofeedback system for breathing exercises on ventilatory function in children with moderate persistent asthma.

Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.


Degree: Master.

Year: 2005.

Abstract:
The aim of this study was to investigate the effect of breathing exercises by the use of the specially designed biofeedback system on ventilatory function in children with moderate and severe persistent asthma. Thirty six asthmatic children (19 boys and 17 girls) were participated in the study, their age ranged from 6 to 13 years. They were divided randomly into two groups. The group A comprised of 20 children who received breathing exercises with the specially designed biofeedback system and group B received pursed lips breathing exercises. The results showed that the forced expiratory volume at one second, the forced vital capacity, the peak expiratory flow and the forced mid expiratory flow were significantly improved in both groups but the percentage of improvement of all the variables were significantly higher in group A.

Key words: asthma, children, breathing exercises.

Arabic Title Page:  كفاءة تمارين التنفس بواسطة نظام متخصص للرد الفعلي الاعتكاسي على وظائف التهوية الرئوية للأطفال المصابين بالربو الشعبي متوسط الشدة.
Author : Hanan El Housin El Nhas.
Title : Response of Ventilatory Function to Breathing Exercise in Welders.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Awany F. Rhamy, Mohamed M. El-Batanoni, Azza F. Ismail.
Degree : Master.
Year : 2005.
Abstract:
Background and purpose: This study was intended to determine the effect of different types of breathing exercises in improving the ventilatory functions in welders. Methods: Sixty male welders, age ranged between 20-30 years, have been selected from Abu Al Yazid welding exhaust factory at 6th of October industrial area. Data of each case were collected from the medical examination and spirometric results. To measure forced vital capacity (FVC), forced expiratory volume in the first second (FEV1) and maximum voluntary ventilation (MVV), before period of training the workers were classified randomly into three groups. First group trained by arm exercise connected with breathing. Second group trained by incentive spirometer. Third group trained by both arm exercise and incentive spirometer. The ventilatory function test was performed to each subject pre, after one month also after two months of training to mark out the values of FVC, FEV1 and MVV. Results: Our result showed that breathing exercises program improve ventilatory functions (FVC, FEV1, MVV) after one month and after two months of training. Conclusion: This study supports the importance of arm exercise connected with breathing and incentive spirometer as a method of breathing exercise in improving the ventilatory functions in welders.
Key words: Welding, incentive spirometer, arm exercise with breathing, ventilatory function test.

Arabic Title Page: إستجابة وظائف التنفس الرئوية لتمرينات التنفس لعمال اللحام.
Author                      : Michael Banoub Sorour.
Title                      : Effect of Walking Training on the
                          Quality of Life of the Sedentary
                          Elderly Subjects.
Dept.                      : Physical Therapy Department for
                          Cardiopulmonary Disorder and
                          Geriatrics and its Surgery.
Supervisors                : Nagwa M. Badr, Awny F. Rahmy,
                          Shehab M. Abd El Kader.
Degree                     : Master.
Year                       : 2005.

Abstract
The aim of this study was to determine the efficacy of the walking
training program in improving the quality of life of the sedentary elderly
subjects. Forty elderly subjects of sedentary life participated in the study
divided into two equal groups. The first group received the walking
training program; the second group continued live their sedentary life.
The program continued for eight weeks (three sessions per week). There
was a great significant improvement of the quality of life following the
eight weeks of walking training than the control group. So, this walking
training program can be introduced as a method to improve the quality of
life of the sedentary elderly subjects.

Key words                  : Walking Training, Quality of Life.
Arabic Title Page           : تأثير تدريبات المشي على نوعية الحياة لدى
                          المسنين محدودي النشاط.
Author : Sally Waffik Atta.
Title : Blood oxygenation response to treadmill exercise in elderly.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2005.
Abstract:
Background—The age-related changes in maximal oxygen consumption, maximal walking distance and arterial blood oxygenation was stated by the previous studies. However, the relative effects of treadmill exercise program on arterial blood oxygenation in older subjects are not known and the effects of treadmill exercise program on maximal oxygen consumption and maximal walking distance are inconsistent in the previous studies. So this study was done to investigate the effect of treadmill exercise on blood oxygenation, maximal oxygen consumption, oxygen consumption in upright rest and maximal walking distance.

Methods and Results—Twenty elderly subjects (9 males and 11 females) were subjected for this study. The mean values of their ages were 63.8 ± 3.5 years and 64.2 ± 2.9 years for male and female subjects respectively. The subjects of the study participated in treadmill exercise with training intensity from 60% to 70% of (HR_{max}) in moderate walking exercise. This program was applied 3 times per week over 8 successive weeks. VO2 in upright rest, VO2_{max}, maximal walking distance and arterial oxygen saturation were measured for each subject before and immediately after the last session post 8 weeks. The results of this study indicated no significant increase in VO2 in upright rest, representing changes of 0.8% , significant increase in VO2_{max}, representing changes of 13.09% , highly significant increase in maximal walking distance representing changes of 23 % and significant increase in SaO2, representing changes of 1.4 %.

Conclusions—It can be concluded that participation in moderate intensity walking exercise increased the blood oxygenation, VO2 max and maximal walking distance in elderly subjects with no significance increase in VO2 in upright rest. Male elderly subjects have greater increase in VO2 max and maximal walking distance than female elderly subjects. Female elderly subjects have greater increase in arterial oxygen saturation than male elderly subjects.

Key words : Aging, Blood oxygenation, Exercise, Oxygen consumption, Walking.

Arabic Title Page : استجابة أوكسجين الدم لتمرينات سير المشي عند المسنين.
Author : Samah Alsaid Ahmed Moawd.
Title : Laser Acupuncture and Negative Balanced Diet in Post Menopausal Women with Abdominal Obesity.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Zeinab Mohammed Helmy, Ebahim Nagieb Al Ebrashy, Neiven Hemamy Mohammed.
Degree : Master.
Year : 2005.
Abstract :
The aim of this study is to compare the efficiency of negative balanced diet and negative balanced diet together with laser acupuncture in the therapy of abdominal obesity in post menopausal women. Forty post menopausal obese women, their age ranged between 45 and 60 years, their BMI between 32.8 and 39.8Kg/ m², WHR between 0.9 and .95 and waist circumference between 88 and 103 cm, were selected from the outpatient clinic of Faculty of Physical Therapy. They were assigned into two equal groups A and B. Each of them consisted of 20 participants. Group A received negative balanced diet alone. While group B received laser acupuncture technique plus negative balanced diet. The study lasted for 3 months. Group B received session at a frequency of 2 sessions per week. Evaluation included, body weight, body mass index, waist circumference, waist hip ratio, fasting blood lipid profile and fasting blood glucose. The results showed that after 3months study period, both groups exhibit a statically significant reduction in both anthropometric (BMI by 11 % for group A and 13% for group B, WC(6% for group A and 10% for group B), WHR (10% for group A and 13% for group B) and BFM(100/0 for group A and 14% for group B) and metabolic variables(TG(140/0 for group A and 170/0 for group B), TC(10% for group A and 11% for group B), LDL (80/0 for group A and 13% for group B) and FBG(4% for group A and 5% for group B), but rise in HDL(4% for group A and 60/0 for group B). The mean reduction was higher in the second group of women (laser acupuncture and negative balanced diet). Our results testify that the combination of negative balanced diet and laser acupuncture is characterized by a higher efficiency than a negative balanced diet alone in lowering anthropometric and metabolic variables. In addition laser acupuncture is an additional useful healing method in the therapy of abdominal obesity in post menopausal women.
Key words : laser acupuncture, negative balanced diet, menopause, abdominal obesity.
Arabic Title Page : تأثير الليزر على نقاط الموخز بالابير الصينية والنظام الغذائي على سمنة البطن في السيدات بعد انقطاع الطماس.
Author: Tamer Ibrahim Abo Elyazed.
Title: Low laser puncture therapy outcomes in management of infants with pneumonia.
Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatries and its Surgery.
Supervisors: Azza Fikry Ismai1, Ragaa Maher Ahmed, Shehab M. Abd EI Kader.
Degree: Master.
Year: 2005.
Abstract:
The aim of this study was to determine laser puncture therapy outcomes in management of infants with pneumonia. Thirty infants with bacterial pneumonia participated in the study. They were divided into two equal groups. The first group received laser puncture therapy, traditional physiotherapy and medical treatment; the second group received medical treatment in addition to traditional physiotherapy. The program was continued for two weeks (six sessions per week) there was a significant improvement in general condition, respiratory function, disappearance of clinical manifestation of acute pneumonia. After one week there was a significant improvement in WBC and CRP, ESR. There was no significant improvement in body temperature, RR, RDG, crepitating, Sao2, Paco2 and Pao2, when combined group was compared to the control group. So laser puncture therapy may be introduced as a method in a combined treatment for infants with pneumonia.
Key words: Low laser puncture therapy, pneumonia.

Arabic Title Page: نتائج العلاج بالليزر منخفض الشدة على مرضى الالتهاب الرئوي في الأطفال.
Physical Therapy Department for Musculoskeletal Disorder and its Surgery
Author : Akram Fathy Abd EI Hamid.
Title : Kinematics analysis of the knee joint during stance phase in patients with Torn anterior circulate ligament.
Supervisors : Ahmad Hussan Hussine.
Degree : Master.
Year : 2005.
Abstract :
The purpose of this study was to clarify the important role of the anterior circulate ligament in the stability of the knee during the stance phase and the changes in the displacement of the tibia on the femur in the three dimensions that associated with tom anterior circulate ligament. Thirty patients with complete tear of the anterior circulate ligament participated in the study. The examined variables were knee flexion at heel strike, mid stance, and toe-off, abduction of knee during stance phase, and rotation of tibia on the femur during stance phase. Every patient was examined six times, three times for the affected knee and three times for the unaffected knee, the mean of the three trials of each limb was calculated. It was found that there were statistically significant differences in knee flexion at mid stance and toe-off, knee abduction during the stance phase, and rotation of the tibia on the femur during stance phase between the two groups. But statistically non-significant difference was found between both groups in the knee flexion at heel strike. It was concluded that, the anterior circulate ligament has a very important role in the stability of the knee during walking and the symptoms of instability associated with its tear mainly resulting from the prolonged internal rotation of tibia on the femur and delay in knee joint abduction.
Key words : Kinematics analysis, knee joint, Torn anterior circulate ligament.
Arabic Title Page : التحليل الوصفي لمفصل الركبة خلال المشي لمرضى القطع الكلي للرباط الصليبي الأمامي.
Author : Inas Abdul Hamid Mohamed.
Title : The Role of Electrical Stimulation in Rehabilitation of Hand Flexor Tendon Reconstruction.
Supervisors : Nadia Abdel Azeem Fayaz.
Degree : Master.
Year : 2005.
Abstract : The purpose of this study was to determine the effect of electrical stimulation as the part from the post operative rehabilitative program of hand flexor tendon reconstruction. The subjects of this study consisted of twenty patients with ruptured hand flexor tendon aging between 20 to 45 years old. This sample was divided randomly into two equal groups each of 10 patients. Group (A) received a post operative rehabilitative program consisted of traditional therapeutic exercises in addition to electrical stimulation, while group (B) received the same program of traditional therapeutic exercises without electrical stimulation. The study subject were evaluated through measuring the total ROM of hand flexion and the power of hand flexors muscles through measuring the grip strength. The results of the study clarified a significant difference between group (A) and group (B) indicating the importance of electrical stimulation as an effective part of the post-operative rehabilitation program of such cases.

Key words : Electrical Stimulation, Rehabilitation, Hand Flexor Tendon Reconstruction.

Arabic Title Page : دور التنبية الكهربائي في التأهيل بعد الجراحات
أعادة بناء الاوِتار القاِضة لليد.
Author : Rania Farid sokkar.
Title : Three dimensional analyses of selected parameters of vertebral column in subjects with pes planus.
Degree : Master.
Year : 2005.
Abstract : Flat foot deformity consists of excessive pronated subtler joint also the talar head loses its support because the calcareous assumes a more valgus position therefore ,the talus become more vertically disposed and longitudinal arch consequently flattens these manifestation of abnormal foot mechanics makes the foot unable to absorb the forces of weigh bearing effectively and as a result alter the orthokinematic relation of all body joint from foot to back and finally the mechanics of the human spine will be affected on the long run.
The purpose of the study was to evaluate the spinal shape changes in subjects with pes planus, Sixty subjects (male & female) their age ranged from 18 to 35 years old were randomly assigned into two groups: Group 1 (control group) thirty healthy subjects and Group 2 (study group) thirty subjects with bilateral flexible second-degree flat foot. Each subject in both groups was standing with bared feet one centimeter from the black sheath (the wall) in front of the photo camera of the for metric II system take the picture of the spine and the subject’s trunk had to be bared skin to identify the anatomical landmarks (CP, SP, LD, RD) so the for metric II optical 3D-Spine, Posture and Measurement System was used to determine the geometry of the back surface of human beings based on non-contact 3D- scan from standing position to obtain LD and SR of the spine for each subject measure in millimeters and degrees subsequently. The unpaired t- test was used to identify the difference between study group and the control group regarding the LD and SR of the spine. The results proved that there is a significant difference (p<0.5) between the investigated parameters for both groups therefore there is a relation between pes planus and spinal deviation.
Key words : Pes planus , spinal shape analyses, scoliosis,lateral deviation of the spine, surface rotation of the spine.
Arabic Title Page : التحليل ثلاثي الأبعاد للعمود الفقري في حالات تفلطح.
Author : Sahar Ahmed Abd Albary.
Title : Early weight bearing versus traditional physical therapy program in treatment of inversion ankle sprain.
Supervisors : Bassem G. El Nahass, Alaa Balbaa.,
Degree : Master.
Year : 2005.
Abstract :
Inversion ankle sprains comprise a high percentage of all orthopaedic injuries. Rehabilitation of the patient with lower extremity dysfunction is frequently limited to open kinetic chain exercise due to pain, swelling and weakness in weight bearing positions. This study was designed to assess the effect of early use of a newly designed of unloading technique of a controlled reduction in body weight during activities in comparison the efficiency of the traditional physical therapy program after acute grade I and grade II inversion ankle sprain. Forty patients were included in the study, and were divided into two groups at random. The first group under went the traditional exercise program and the second group followed the early weight bearing program. Subjects were pre-tested and post-tested for the ankle range of motion, pain, and swelling. The results showed that disappearance of pain, swelling and return to normal range of motion in group two by the end of fifth week and also there is an increase for ankle range of motion in the uninvolved leg. This means that return to function can be achieved in a short period by exercise that is performed with a gradual increase in pain-free weight bearing capacity.

Key words : Ankle joint, unloading, rehabilitation, pain-free weight bearing.

Arabic Title Page : التحميل المبكر مقارنة ببرنامج العلاج الطبيعي التقليدي في علاج إصابة الأرتبطة الوحشية لمفصل الكاحل.
Author : Sahar Mawad Abd El Mutilib A. Abd El Bary.
Title : Relationship of Lumbosacral and Pelvic Tilting Angles in Patients With Sacroiliac Joint Dysfunction.
Supervisors : Nadia Abd El Azem Fayaz , Khaled Mohamed El - Shantaly , Enas Fawzy Youssef.
Degree : Master.
Year : 2005.
Abstract:
The aim of this study was to investigate the relationship between lumbosacral and pelvic tilting angles in patients with sacroiliac joint dysfunction and to investigate the sagittal alignment of the lumbosacral and pelvic angles in neutral standing position by using radiographs. 15 males and 18 females participated in the study. The mean age in patients was 39.97 ± 5.934, mean weight was 86.55 ± 12.44Kg , mean height was 164.24 ± 6.59cm and the mean body mass index was 32.26 ± 5.53Kg/m². Lateral radiographic pictures for the lumbosacral spine and pelvis was taken for each patient from neutral standing positions. From the x-ray picture the following were measured: the lumbosacral angle that was measured as the angle between the superior surface of the sacrum and the horizontal plane and the pelvic tilting angle which was measured between the line which connecting the anterior superior iliac spine and posterior superior iliac spine with the horizontal plane. The results showed that both angles increased in Sacroiliac joint dysfunction, there was strong correlation between Lumbosacral angle and Pelvic tilting angle in Sacroiliac joint dysfunction.
Key words : Lumbosacral angle, Pelvic tilting angle, sacroiliac joint dysfunction, low back pain.

Arabic Title Page : العلاقة بين الزاويا القطبية العجزية وزاوية ميل الحوض في مرضى المشكلات الوظيفية للمفصل العجزي الألمنى.
Abstract

The purpose of this study was to determine the effect of different neck positions with intermittent cervical traction in treating patient with cervical radiculopathy, and to identify their effects on neck pain, arm pain and cervical spine ranges of motion. Forty patients suffering from unilateral cervical radiculopathy participated in the study, they were randomly assigned to either group one (G 1) that received intermittent cervical traction from neutral neck position or group two (G2) that received intermittent cervical traction from 25° neck flexion position. Patients in both groups were evaluated pre and post treatment for neck pain, arm pain, neck flexion range of motion, neck extension ROM, neck right bending ROM, neck left bending ROM, neck right rotation ROM and neck left rotation ROM. Patients in both groups received 12 sessions (three sessions a week for 4 weeks). Comparison of the results pre and post treatment showed significant decrease of neck and arm pain and significant increase of all cervical ranges of motion in both groups. Comparison between groups post treatment showed significant decrease of arm pain and significant increase of neck left rotation ROM in group one, and also showed significant increase of neck flexion ROM in group two. No significant differences could be detected in neck pain, neck extension ROM, neck right bending ROM, neck left bending ROM, and neck right rotation RONI between groups. Therefore it was suggested that intermittent cervical traction from neutral neck position was more beneficial in reducing arm pain and increasing left rotation ROM and intermittent cervical traction from 25° neck flexion position was more beneficial in increasing neck flexion ROM and both positions are equally effective in decreasing neck pain and increasing neck extension ROM, neck right bending ROM, neck left bending ROM and neck right rotation ROM in patients with cervical radiculopathy.

Key words: intermittent cervical traction, cervical radiculopathy, neck pain, arm pain, cervical range of motion.
Physical Therapy Department of Surgery
Author: Ahmed Fathy Abd El-Rahman Samhan.

Title: Efficacy of biofeedback exercises of the pelvic-floor muscles in the treatment of erectile dysfunction.

Dept.: Physical Therapy Department for Surgery.

Supervisors: Emam Hassan EL-Negmy, Adel Abdel Hamid Nossir, Mohamed Mohamed Farid Roiah.

Degree: Master.

Year: 2005.

Abstract:
The goal of the study was to evaluate the efficacy of biofeedback exercises of the pelvic-floor muscles in the treatment of erectile dysfunction due to venous leakage. Subjects: thirty patients complaining from erectile dysfunction due to venous leakage with age ranging from 25 to 45 years volunteered to participate in this study, they were randomly assigned into two groups of equal number, 15 patients each (group I and group II) and also 15 normal volunteers on (IIEF-5) with the same age groups were included to be assigned as a control group. Patients in group I received physical therapy in the form of biofeedback exercises of pelvic-floor muscles once/week for four months in addition to medical treatment in the form of venotonic compounds as Ginko glycosides (Ginkor fort) 2 times/day for one month then stop for one month, and then the same medical treatment was repeated 2 times/day for another month before terminating the medical treatment. Patient in group II received the same protocol of medical treatment without the physical therapy program. Evaluation: parameters used for evaluation included Five-Item Version of the International Index of Erectile Function (IIEF-5), Colored Duplex Ultrasonography, and Electromyography (EMG) of pelvic-floor muscles. Results: (IIEF-5) and of the values of an EMG activity in form of amplitude per turn (A/T) by mV of right side and left side of pelvic-floor muscles showed significant improvement in group I at the end of 2 months and 4 months after treatment reaching the values in the control group, while it was non-significant in group II. The results of Colored Duplex ultrasonography, which includes grade of erection and Resistance Index on both sides, showed significant improvement in, group I and non-significant improvement in group II. Conclusion: according to the results that biofeedback exercises of pelvic-floor muscles could be considered as valuable adjacent to medical treatment in the control of patients with erectile dysfunction due to venous leakage.

Key words: Erectile Dysfunction, Venous Leakage, Biofeedback Exercises.

Arabic Title Page: فاعليته تمارين التغذية الرجعية لعضلات قاع الحوض في علاج الخلل الوظيفي الانتصابي.
Author : Ayman Talat Sadek Gado.
Title : The Effect of Hyperbaric Oxygen Therapy versus Pulsed Ultrasonic Therapy on Diabetic Foot Ulcer.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Hala Mohamed Azeldin Hamed, Ibrahim Nagiub Al Ebrashy, Neven Hamamy Mohamed.
Degree : Master.
Year : 2005.
Abstract :
The purpose of this study was to compare between the effects of hyperbaric oxygen therapy and pulsed ultrasonic therapy on diabetic foot ulcer. Thirty patients of both sexes participated in this study. Group (1) received pulsed ultrasonic therapy. Group (2) received hyperbaric oxygen therapy. Both groups received medical treatment. The program was conducted for five times per week for two months. The patients were assessed for ulcer surface area and ulcer volume. These measures were recorded three times during the period of the study; before treatment, after 1 month and at the end of the study period. The results of this study showed significant decrease of two variables of both groups at the end of study period. It was concluded that, the two groups improved at the end of the study period. But HBO therapy seems effective in accelerating the healing rate and shortening hospitalization time in these patients than Ultrasonic. But it cannot be applied for all cases and still ultrasonic is the safe modality to produce nearly similar effects in treatment of grade II diabetic foot ulcer.
Key words : Hyperbaric oxygen Therapy, Ultrasonic Therapy, Diabetes Mellitus, Foot ulcer.
Arabic Title Page : تأثير العلاج بالأكسجين تحت الضغط مقابل العلاج بالوجات فوق الصوتية المتقطعة على قرحة القدم السكري.
Author : Emad El deen Abd EI Naiem Sallam.

Title : Efficacy of Narrow Band Ultraviolet B Versus Topical Psoralen Plus Ultraviolet A in Treatment of Generalized Vitiligo.

Dept. : Physical Therapy Department for Surgery.


Degree : Master.

Year : 2005.

Abstract:
The purpose of the current study was to evaluate the efficacy of narrow band Ultraviolet B Versus Topical Psoralen Plus Ultraviolet A in Treatment of Generalized Vitiligo. Thirty patient, 18 males, and 12 females, age range from 17 to 42 years were randomly assigned into two groups of equal number complaining from moderate to severe generalized vitiligo, were participated in this study: patients in group (A) received NB-UVB three times per week while patients in group (B) received topical PUVA three times per week. Assessment including photography follow up by digital camera and clinical assessment. Results indicating nonsignificant differences in improvement between the two groups. It could be concluded that narrow band UVB is efficient as topical PUV in treatment of generalized vitiligo with fewer side effects.

Key words : Vitiligo, generalized vitiligo, narrow Band UVB, topical PUVA.

Arabic Title Page : فاعلية الأشعة فوق البنفسجية بحدودية المجال مقارنة بالعلاج الضوئي الكيميائي بوفرة لعلاج البوهاق.
Author : Ibrahim Mohamed Ibrahim.
Title : Pressure Garment versus Deep Friction Massage in Controlling Elbow Joint Hypertrophic Scar.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Wafaa Hussien Borhan, Salah Abdel Ghyany, Zakaria Mowafy Emam Mowafy.
Degree : Master.
Year : 2005.
Abstract : The purpose of this study to compare the effect of pressure garment versus massage for controlling hypertrophic scar around elbow joint. A 45 patients with immature hypertrophic scar were enrolled in the procedure of this study. Their age ranged from 20 to 40 years. They were randomly assigned into three equal groups pressure garment, massage and control groups. The evaluation procedure was conducted through using mVSS, dental impression material and standard goniometer, for measurement of scar vascularity, pliability, height, volume and ROM of elbow joint respectively. The pressure garment had statistical significant improvement over both massage and standard therapy, scar volume and ROM of elbow joint. While there were no significant difference between massage therapy and standard physical therapy through out the period of the study.
Key words : Pressure Garment, Deep Friction Massage, Physical Therapy, rehabilitation, hypertrophic scar.
Arabic Title Page : الرداء الاضغط مقابل التدليك الاحتكاكي العميق للتحكم في ندبات ما بعد الحروق لمفصل الكوع.
Author : Intsar Salim Abd EL-Aziz Waked.
Title : Efficacy of Ultraviolet Radiation in the treatment of psoriasis.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Wafaa Hussein Borhan, Zeinab Mohamed El-Khouly, Mohamed Mahmoud Khalaf.
Degree : Master.
Year : 2005.
Abstract:
The purpose of the current study was to determine the effectiveness of ultraviolet radiation in the treatment of psoriasis. Thirty volunteers suffering from plaque psoriasis were participated in this study for a treatment period of three months. They were divided equally and randomly into two groups. Patients in the first group had been treated with ultraviolet B narrow band three times weekly for 3 months. While patients in the second group had been treated with topical therapy [Calcipotriol (Daivonex) 5 times per week in the morning and Clobetasol (Dermovate) daily in the evening] for 3 months. Ultrasonography was used to measure the thickness of the skin before and after 3 months of treatment. The results of first group showed significant improvement while the results of the second group showed a non significant improvement. It could be concluded that UV was found to be an effective physical therapy modality in treating plaque type of psoriasis.
Key words : Ultraviolet Radiation, Psoriasis, Ultrasonography, Thickness of the skin.
Arabic Title Page : فاعلية الاسماء فوق البنفسجية في علاج مرض الصدفية.
Author : Nermeen Mohamed Abdel Haleem.

Title : Efficacy of sodium salicylate iontophoresis in the treatment of plantar warts.

Dept. : Physical Therapy Department for Surgery.

Supervisors : Adel Abdel Hamid Nossir, Samia Mohamed Esmat, Emad Tawfic Ahmed.

Degree : Master.

Year : 2005.

Abstract:
The purpose of the current study was to evaluate the efficacy sodium salicylate iontophoresis in the treatment of plantar warts. Forty patients, 26 male and 14 female, age range from 25 to 35 years, were randomly assigned into two groups of equal number complaining from plantar warts in the sole of the foot, were participated in this study: patients in group I received salicylic acid 6% in Vaseline and 2% sodium salicylate iontophoresis for 25 minutes, one day per week for one month, while patient in group II received salicylic acid 6% in Vaseline and placebo iontophoresis (only with no intensity) for 25 minutes, one day per week for one month. The parameters investigated including 1. VAS, 2. Area of warts by tape measurement, and 3. Skin biopsy for some selected cases. Results of VAS and area of warts indicating a significant improvement in group I and non-significant improvement in group II. It could be concluded that 2% sodium salicylate iontophoresis might be valuable in the treatment of plantar warts.

Key words : Warts, Plantar warts, Sodium Salicylate, iontophoresis.

Arabic Title Page : فاعلية سالسيلات الصوديوم في علاج السوادات الاصطناعية عن طريق انتقال الأيونات بفعل الكهرباء المستمرة.
Author: Noha Fekry Mahmoud.
Title: The efficacy of three different intensities of pulsed micro amperage stimulation on wound healing in guinea pigs.
Dept.: Physical Therapy Department for Surgery.
Supervisors: Adel Abdel Hamed Nossier, Mohammad Deiaa El-Din M. El-Shafei, Mohamed Mahmoud A. Khalaf.
Degree: Master.
Year: 2005.
Abstract:
The aim of this work was to explore the role of micro amperage electrical stimulation in wound healing acceleration and to detect the most suitable intensity used to decrease wound surface area. In the present study 60 male guinea pigs, their weight ranged from 390 to 640 gram, were divided randomly into four equal group: Group (I) (the control group) 15 animals received Sham electrical stimulation and three experimental groups divided according to the received micro amperage stimulation intensity; Group (2) received 100 µA, Group (3) received 300 µA, and Group (4) received 600 µA. Each group was further subdivided into 3 subgroups (A, B, C) according to Treatment duration before measurement; each subgroup consisted of 5 animals. They received electrical stimulation for one, 2, and 3 weeks respectively. The results showed significant differences between the three experimental groups and the control group regarding wound surface area, epithelialization, and collagen density, it showed also that the best results obtained by micro-kamperage stimulation was at intensity of 600 µA followed by 300 µA, and finally 100 µA.
Key words: micro amperage stimulation, wound healing, guinea pigs.
Arabic Title Page: فعالية تنبية ثلاثة أنواع مختلفة من شدة التيار الميكرو- أمبيري المنقطع على التنام الجروح في الخنازير الغينية.
Author : Samah Hosney Nagib.
Title : Efficacy of Early Intervention of the Selective Physical Therapy Program in Postmastectomy Patients.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2005.

Abstract:
The purpose. This study was undertaken to determine if differences existed between a group of 15 patients (experimental group) who had undergone mastectomies and who received early intervention of the selective physical therapy program and a group of 15 similar patients (control group) who did not. Methods. Preoperative and postoperative data were obtained for each patient from forced vital capacity measurement; goniometric measurements of ipsilateral shoulder flexion, abduction, and external rotation; upper extremity volume; and functional assessment of the ipsilateral upper extremity. The postoperative measurements were carried out at the end of one week, the end of 4 weeks, and the end of 12 weeks. The physical therapy program began at the first day after surgery for experimental group. The control group received traditional physical therapy and just instructions for exercises. Results showed a statistically significant increase in forced vital capacity and ipsilateral shoulder range of motion measurements in experimental group compared by the control one. The experimental group also had fewer problems with ipsilateral upper extremity functional tasks that were assessed. There were no significant differences between the groups for upper extremity lymphedema. Conclusions. These results suggested that early physical therapy intervention makes a significant contribution to return to normal function.

Key words : breast cancer, mastectomy, postoperative care, physical therapy.

Arabic Title Page : فاعليه التدخل المبكر لبرنامج العلاج الطبيعي المختار في مرضى استئصال الثدى.
Author: Seham Mohamed Fahmy.
Title: The efficacy of high versus low doses of Helium-Neon laser on healing rate of venous ulcers.
Dept.: Physical Therapy Department for Surgery.
Supervisors: Adel Abd Al Hamed Nossier, Mohammed Yousry Gamal EI Din, Zakaria Mowafy Emam Mowafy.
Degree: Master.
Year: 2005.
Abstract:
The purpose. This study was undertaken to determine the effect of Helium Neon laser on a group of 20 patients (treated by high dose three sessions/week, three months) another similar group of 20 patients (treated by low dose, three sessions/week, three months). Methods Pre and after treatment data were obtained for each patient from wound volume, transcutaneous hemoglobin saturation and total size area measurement. Results. A statistically significant decrease on wound volume and total size area for both groups but transcutaneous hemoglobin oxygen saturation was significantly increase on the low dose group. Conclusion Helium-Neon laser dose as most effective on improving healing and microcirculation.
Key words: Helium-Neon laser. venous ulcers, ulcer volume, transcutaneous oxygen saturation.
Arabic Title Page: آثر العلاج بجرعة عالية مقابل جرعة منخفضة من الهيليوم تيون ليزر على معدل التئام الفرخ الوريدية.
Abstract:
The development of secondary arm lymphedema after removal of auxiliary lymph nodes remains a potential problem for women with breast cancer. This study undertaken to assess the best modality to manage 45 female patients had post-mastectomy lymphedema who divided into three equal groups, first group was control group (CG) (received traditional physical therapy), the second was the ultrasound group (USG) (received ultrasound therapy beside traditional physical therapy and the third was the mechanical pressure group (MPG) (received mechanical pressure therapy beside the traditional physical therapy) Methods. Pretreatment and post treatment data were obtained for each patient from goniometric measurements of ipsilateral shoulder flexion, and abduction, and volumetric measurements of the edematous upper limb. The post treatment measurements were carried out at the end of one month, and the end of two months. Results showed a statistically significant increase in ipsilateral shoulder range of motion measurements in the three groups. The best results achieved in the MPG then USG and finally the CG. There were highly significant differences between the groups for upper extremity lymphedema control. Conclusions. These results suggested that mechanical pressure application with traditional physical therapy program makes a significant contribution to control postmastectomy lymphedema better than ultrasound therapy with traditional physical therapy or traditional physical therapy alone.

Key words: post mastectomy lymphedema, ultrasound, mechanical pressure, physical therapy.
Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery
Author : Ashraf Ahmed Abd El-Moneim.
Title : Effect of Electrical Vestibular Stimulation on Recovery from Gaze Palsy.
Degree : Master.
Year : 2005.
Abstract:
The purpose of this study was to evaluate the effect of galvanic vestibular stimulation (GVS) on recovery from gaze palsy. Twenty patients of gaze palsy from different etiologies (stroke, heridofamial ataxia, head trauma and ocular nerve lesions), both sexes participated in this study (14 males and 6 females) their age ranged from 20 – 63 years with mean age 47.9 ±12.5 years. Duration of gaze palsy ranged from 4 – 24 months with mean of 10.6 ± 5.23. They received galvanic vestibular stimulation three times/ week for four weeks. They were assessed by using three point scale for gaze deviation, line bisection test and line crossing test. These measures were recorded before the vestibular stimulation (pre treatment) and after four weeks (post treatment). Results of this study showed that, there was significant decrease in the grades of gaze deviation, significant improvement in line bisection and significant improvement in line crossing. It was concluded that, galvanic vestibular stimulation is a beneficial central non invasive modality to improve recovery from gaze palsy.
Key words : Vestibular stimulation, Gaze palsy, Visual neglect.
Arabic Title Page : تأثير التنبيه الكهربي لـدهليز الأذن على الشفاء من الشلل الحدقي.
Author : Mohamed EI Sayed Khallaf.
Title : Electromyographic study and three dimensional analysis of scapular movement in stroke patients.
Supervisors : Moshera Darwish, Mohamed Nabil ElBahrawy, Mona M. Nada.
Degree : Master.
Year : 2005.
Abstract:
Background: Scapular movement and muscles function during humeral abduction had been studied in stroke patients. The study was conducted on the affected and non affected side. Objectives: of this study were to determine the influence of scapular kinematics and muscle activation patterns on arm abduction range of motion and the associated shoulder pain. Methods: forty male, stroke patients participated in the study. The analysis was conducted from sitting on a chair. The patients were instructed to abduct his arm (affected then the non affected) in the coronal plane. Upward rotation of the scapula and abduction of humerus were analyzed by using 3dimensional motion analysis system. Electrical activities were recorded from the middle fibers of the deltoid, upper/lower fibers of the trapezius, and the lower five digits of the serratus anterior muscles by electromyography (EMG). Results: There were a significant limitations in the shoulder abduction ROM, and the scapular upward rotation of the affected limb comparing to those of the non affected side. There was also marked decrease in the Electromyographic activities of the selected muscles of the affected side. Conclusion: Disturbance of the scapular kinetics and kinematics is considered as an important cause of shoulder pain in stroke population.
Key words : Biomechanics, EMG, Motion analysis, Range of motion Shoulder pain, Stroke.
Arabic Title Page : دراسة لرسم العضلات والتحليل ثلاثي الأبعاد لحركة عظمية اللوح في مرضى السكتة الدماغية.
The purpose of this study was to evaluate the ground reaction force in stroke patients (mild and moderate spasticity) and to compare them with normal subjects. Thirty stroke patients and fifteen normal subjects participated were included in this study. Stroke patients were assigned into two equal groups, group I with mild spasticity and group II with moderate spasticity. This study calculated kinetic quantities of human gait, by using all components of the ground reaction force (vertical load, horizontal shear forces in the fore-aft and mediolateral directions), both in normal subjects and stroke patients. The results of this study showed varied significant reduction of ground reaction force in all parameters of ground reaction force in both groups (I&II) of stroke patients when compared with control group. The magnitude of ground reaction force was increased significantly in patients with mild spasticity, compared to ones with moderate spasticity. So, assessment of ground reaction force should be considered as a useful evaluating tool for kinetic gait analysis. It also helps in detecting the prognosis of stroke patients by comparing the ground reaction force parameters of the patients with normal parameters.

Key words: stroke, gait analysis, ground reaction force.
Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery
Author: Arafa Hamed Sanosy.
Title: Effect of Hydrotherapy on Ventilatory Functions in children with Down's Syndrome.
Degree: Master.
Year: 2005.
Abstract:
The purpose of this study was to investigate the effect of hydrotherapy on ventilatory functions in Down's syndrome children. Subjects: Thirty Down's syndrome children complainin~from recurrent chest infection, their age ranged between 5-10 years (X 8.13 :f: 0.354 years, they were male and female. The subjects were randomly assigned into the study group a~d coqtrol group, each group included ~ 5 children. Methods: Both groups received selected physical therapy program for three months in addition to hydrotherapy for the study group. Ventilatory functions by using Impulse Oscillometry and Peak Expiratory Flow Meter. Peripheral Oxygen saturation by using Pulseoximeter, and chest expansion by using Palpmeter, were measured before and after treatment to serve as objective indications of therapy effectiveness. Results: No significant difference was recorded before treatment between the two groups. The post treatment findings of the current study revealed high significant improvement in all measured parameters for both groups. There were high significant mean differences between post treatment findings between the two groups in favor of the study group. Conclusion: It was concluded that hydrotherapy is safe and could be an effective modality to improve ventilatory functions in Down's syndrome children. It can be considered as an integral part of the chest physical therapy program for children with Down's syndrome.
Key words: Hydrotherapy, Down's Syndrome, Ventilatory Functions.
Arabic Title Page: تأثير العلاج المائي على الوظائف الرئوية عند أطفال متلازمة داون.
Author : Azza Sayed Mohamed EI- Sayed.
Title : Effect of Three Various Motivations on Management of Head Control in Cerebral Palsied Children.
Supervisors : Kamal EI- Sayed Shoukry, Elham EI- Sayed Salem, Fatma Abd EL- Fattah Hegazy.
Degree : Master.
Year : 2005.
Abstract:
The purpose of this study was to investigate the effect of three various motivations on management of head control in thirty cerebral palsied children, who were divided into three groups (Curiosity, Hunger and Achievement groups). The groups received specific program of head control exercises by using of motivation. Evaluation was carried out for each child of three groups before and after 3 months of treatment. It included determining of head control variables by Auto CAD method. The results revealed a significant improvement in head control variables, for the three groups after the treatment, but no significant difference was noticed when compared post treatment results of each group within the other groups. The significant improvement of head control variables may be attributed to the effect specific program.
Key words : Cerebral palsy, Head control, Motivation.

Arabic Title Page : تأثير ثلاثة دوافع مختلفة في علاج تحكم الرأس في الأطفال المصابين بالشلل المخي.
Author : Fathia Mostafa Ahmed.
Title : Hand Grip Strength and Wrist Joint Range of Motion in Relation to Various Body Postures in Spastic Diplegic Cerebral Palsied Children.
Degree : Master.
Year : 2005.
Abstract : The purpose of this study was to analyze the strength of hand grip and wrist joint range of motion from different positions (supine, prone, side lying, and sitting) in spastic diplegic cerebral palsied children. Forty spastic diplegic cerebral palsied children aged from four to six years participated in this study. Hanoun medical stem was used as a hand dynamometer to measure hand grip strength ld electronic goniometer to measure wrist joint range of motion. All children were tested for the four positions to exert their maximal hand grip and active range of wrist joint. The results of the study showed that sitting position had the highest significant mean values then the supine lying position, then the side lying position and the least was the prone lying position for hand grip and wrist joint extension. For wrist lnt flexion, the highest significant mean values was the sitting position then supine lying then prone lying and the least was the side lying.
Key words : hand grip, wrist joint, body posture, cerebral palsy, diplegia.

Arabic Title Page : علاقة اوضاع الجسم المختلفة بقوة قبض اليد ومدى حركة الرسغ عند الأطفال المصابين بالشلل الدماغي التقلصي المزدوج.

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Author : Ghada Ibrahim Saleh.
Title : Validity of Oral Aerobics in speech improvement in Dysarthric children.
Supervisors : Emam El Negamy, Eman EL Hadidy, Dalia Mostafa.
Degree : Master.
Year : 2005.
Abstract :
The aim of this study was to evaluate the validity of Oral Aerobics in speech improvement in dysarthric children. Thirty spastic dysarthric children and fifteen normal children of both sexes participated in this study, their age ranged from 5 to 10 years old. The thirty dysarthric children was divided randomly into two equal group A (control): this group received only speech sessions and group B (study): this group received both speech sessions in addition to Oral Aerobics and group C (normal): included 15 normal children. The study was carried in the Phoniatic unit, Faculty of Medicine, Cairo University. For evaluation oromotor assessment, articulation test, Computerized Speech Lab.(CSL) and the nasometer were used pre and post treatment. For treatment mirror, tongue depressors bubbles, balloons and candles were used. The collected data was statistically analyzed using unpaired t-test and independent t-test. The results revealed a significant improvement in oral movements, the Phonemes /v/w/, /θ/ /t/, /s/ and in both groups, with more significant improvement was consistenly recorded in the study group.
Key words : Dysarthria, Oral Aerobics, Speech improvement, Arabic Consonants.
Author : Inas Adep Soryal Daud.

Title : Effect of Functional Electrical Stimulation on Reaching in Spastic Hemiplegic Cerebral Palsied Children.


Degree : Master.

Year : 2005.

Abstract :
The purpose of this study was to investigate the effect of functional electrical stimulation combined with especially selected exercise program on reaching kinematic parameters, in hemiplegic cerebral palsied children. Thirty hemiplegic cerebral palsied children (14 girls and 16 boys) ranging in age from three to five years participated in this study. They were divided randomly into two groups of equal numbers (control and study). The control group was treated by especially selected exercise program for reaching abilities, while the study group was received the same program given to the control group in addition to the functional electrical stimulation during the exercise program, via the faradic stimulation with special parameters and special ON / OFF time. Both groups received the traditional exercise program. Evaluation was carried out for each child individually before and after three months of application of different treatment programs, it included measurement of the kinematic parameters of reaching task forward to midline object, including movement time, peak velocity, time to reach peak velocity, percent of reach to peak velocity, number of movement units and percent of time of the first movement time. Also every child evaluated by the modified functional scale of reaching to detect the functional improvement of the evaluated reaching task. The results of the study after the suggested period of treatment revealed significant improvement in most of the measuring variables (p< 0.05) pre and post treatment in both groups with higher percentage of improvement of the study group. From the obtained results of this study, it can be concluded that, improvement in the study group may be attributed to the effect of functional electrical stimulation during the exercise program. So it is considered a beneficial adjunct with the traditional line of treatment in habilitation of reaching function in the hemiplegic cerebral palsied children.

Key words : Functional electrical stimulation, Reaching, hemiplegic cerebral palsy.

Arabic Title Page : تأثير التنبيه الكهربائي الوظيفي على قدرة الوصول للديد عند الأطفال المصابين بالشلل النصفي التقويمي.
Author: Marwa Mohamed Ibrahim Hafez.
Title: Effect of Electrical Stimulation on Standing Posture in Spastic Diplegic Cerebral Palsied Children.
Degree: Master.
Year: 2005.

Abstract:
The purpose of this study was to investigate the role of Electrical Stimulation (E.S.) of quadriceps and anterior tibial muscle group while standing on a standing frame in order to improve the standing ability for spastic diplegic children. The study was conducted on thirty spastic diplegic children (16 females and 14 males); ranging in age from 2 to 4 years old. They were classified randomly into two groups of equal number, (control and study group). The control group received the traditional physical therapy program including standing on the standing frame for 30 minutes, while the study group received the same program in addition to E.S. of both quadriceps and anterior tibial muscles during standing on the standing frame for 30 minutes. Both H/M ratio and the level of motor development were assessed in both groups before and after 3 months of treatment. The results of this study revealed statistically highly significant improvement in both of the measuring variables of the study and control groups (P< 0.0001) when comparing the pre and post treatment results, also, significant difference was recorded when comparing the post treatment results of the study and control groups (P< 0.05) in favor of the study group. From the obtained results of this study, it can be concluded that, E.S. can be used as an adjunct to the traditional physical therapy program in order to improve standing posture in spastic diplegic children.

Key words: Electrical stimulation, spasticity, standing posture, cerebral palsy, diplegia.

Arabic Title Page: تأثير التنبية الكهربائية على وضع الوقف عند الأطفال المصابين بالشلل المخى التشنجي المزدوج.
Author : Marwa Mamdouh Ali.
Title : Effect of Tonic Vibratory Reflex on Reaching in Spastic Hemiparetic Cerebral Palsy Children.
Degree : Master.
Year : 2005.
Abstract :
The aim of this study was to evaluate the effect of tonic vibratory reflex on reaching in spastic hemiparetic cerebral palsy children. Thirty spastic hemiparetic children (16 females and 14 males) ranging in age from three to five years old participated in this study. The study sample was classified randomly into two groups (control and study) of equal numbers. The study group received traditional exercise program and reaching exercise programs after application of tonic vibratory reflex (TVR) for triceps and common extensor origin, while the control group received the same exercise programs as the study group without TVR. In all patients the angles of shoulder, elbow and wrist joints were evaluated during reaching before and after the suggested treatment program. The results collected before application showed no statistically significant difference between the two groups, while the difference between before and after application also significant in both groups. After application the difference between the two groups was statistically significant in favor of the study group. The significant improvement recorded in the control group may be attributed to the effect of traditional and reaching exercise program, while the highly significant improvement recorded in the study group may be attributed to the additional use of T.V.R. In conclusion additional use of T.V.R. to the regular exercise programs can be suggested to improve reaching in spastic hemiparetic C.P. children.
Key words : CP, tonic vibratory reflex, reaching, motion analysis.
Arabic Title Page : تأثير الاهتزاز الكهربائي عالمي التردد على مهارة توصيل اليد في الأطفال المصابين بالتشنج الشمالي التشنجي التقلصي.
Author : Mohamed Abd EI-Fattah Abd EI-Ghafar.

Title : Efficacy of hyperbaric oxygen therapy on spastic cerebral palsy children.


Degree : Master.

Year : 2005.

Abstract : The purpose of this study was to investigate the effect of hyperbaric oxygen therapy in modulation of muscle tone and promotion of motor development in spastic cerebral palsy children. Twenty spastic cerebral palsy ranged in age from 2 to 5 years participated in this study. The study sample was divided into two groups of equal number (control and study groups). The control group was treated by the selected designed. Physical therapy program. The study group received hyperbaric oxygen therapy in addition to the same selected designed physical therapy program. Evaluation was carried out for each child of both study and control groups before, after one month and three months of treatment. It included measuring of degree of spasticity by using EMG apparatus for HIM ratio, and measuring gross motor skills by using Denver developmental screen test. The results of this study revealed significant reduction of spasticity and improvement of gross motor skills for both study and control groups after the treatment (p<0.05). But when compared the results of study and control groups there was non-significant differences in both reduction of spasticity or improvement of gross motor skills. This is non-significant differences may be attributed to small sample size and low number of hyperbaric oxygen therapy sessions.

Key words : Cerebral palsy, hyperbaric oxygen therapy, HIM ratio, Denver, physical therapy program.

Arabic Title Page : تأثير العلاج بالأكسجين تحت الضغط على الأطفال المصابين بالشلل المخي التشنجي.
Author: Mohamed Ahmed Mahmoud Eid.
Title: Efficacy of Low Frequency and Low Intensity Pulsed Magnetic Field in Treatment of Juvenile Rheumatoid Arthritis.
Supervisors: Mohamed Tawfik Mahmoud, Faten Hassan Abd Elaziem, Hala Salah El-Dein Mohamed Talaat.
Degree: Master.
Year: 2005.
Abstract:
The purpose of this study was to examine the effects of low frequency and low intensity pulsed magnetic field therapy on children with polyarticular JRA. Thirty children were assigned randomly into 2 groups. Subjects in the study group (n = 15) received traditional physical therapy program (Infrared radiation, stretching exercises and strengthening exercises in the form of bicycle ergometere and treadmill training) as well as low frequency and low intensity pulsed magnetic field (LFLIPMF), whereas subjects in the control group (n = 15) received traditional physical therapy program only. The following parameters including pain, swelling, laboratory examinations and functional activity (angular displacement of both knee joints during gait cycle) were measured before and after 3 months of treatment. Results: The results showed significant improvement in all parameters of both knee joints in study group compared with those of control group. Conclusion: on the basis of the present data, it is possible to conclude that LFLIPMF is effective as method of management in controlling hallmark signs and symptoms of juvenile rheumatoid arthritis (JRA) at least with the parameters used in the present study.
Key words: Magnetic Field, Juvenile Rheumatoid Arthritis.
Arabic Title Page: فاعلية المجال المغناطيسي المنخفض المنقطع في التردد والشدة في علاج الروماتويد عند الأطفال.
Author : Mohamed Fawzy EI-Banna.
Title : Peripheral Nerve Conduction Velocity Modulation in Hemiparetic Children via Physical Therapy Program.
Degree : Master.
Year : 2005.
Abstract:
The purpose of this study was to establish a relation between the physical therapy program and one of the neurophysiological functions which is the peripheral nerve conduction velocity (NCV) of the upper limb in hemiparetic children. Twenty hemiparetic children ranged in age from 3 to 5 years old participated in this study. They were classified randomly into 2 groups of equal numbers, control and study groups. The control group received a traditional exercise therapy program only. And the study group received reciprocal electrical simulation for wrist-fingers flexors and extensors, in addition to traditional exercise therapy program given to the control group. No statistical difference was recorded between NCV of the two groups pre treatment. Comparing the post-treatment results of the two groups showed some neurophysiological changes in the form of increasing of NCV of the nerves of the affected side in the favor of the study group, but it was statistically non-significant.
Key words : Cerebral palsy, hemiplegia, nerve conduction velocity, reciprocal electrical stimulation.

Arabic Title Page : تدعيل سرعة توصيل الاعصاب الطرفية لمرضى الشلل النصفي لدى الأطفال عن طريق برنامج العلاج الطبيعي.
Author: Rami Mahmoud Mohammed Gharit.
Title: Faradic Stimulation versus Joint Approximation in Treatment of Hemiplegic Cerebral Palsied Children.
Supervisors: Emam EI-Negmy, Hoda Al-Talawy, Khaled Mamdouh.
Degree: Master.
Year: 2005.
Abstract: The purpose of this study was to evaluate and compare the effect of joint approximation (compression) and faradic stimulation in modulation of muscle tone in hemiparetic cerebral palsied children. Twenty children aged between 3 and 5 years old participated in this study. They were divided randomly into two groups of equal number, 10 patients each. One group received faradic stimulation while the other received approximation. Both participating groups received the same traditional physical therapy program. In addition the H/M ratio was recorded before and after the suggested treatment using EMG apparatus. Treatment of each patient in both groups was conducted for 3 months at a 3 times/week basis. The results of this study revealed a significant H/M ratio reduction in the group that received faradic stimulation while an insignificant reduction was recorded in the group that received approximation.
Key words: Cerebral Palsy, Hemiplegia, Approximation, H/M ratio, Faradic stimulation.

Arabic Title Page: التنبية الفاردي مقابل تقريب سطحي المفصل لعلاج مرضى الشلل النصفي التشنجي لدى الأطفال.
Author : Shamekh Mohamed El-Shamy.
Title : Role of Functional Electrical Stimulation in Gait Pattern for Hemiparetic Cerebral Palsied Children.
Degree : Master.
Year : 2005.
Abstract:
The purpose of this study was to evaluate the changes of gait pattern in hemiparetic cerebral palsied children following the application of functional electrical stimulation in addition to a specially designed exercise program. Thirty hemiparetic children, ranged in age from 6 to 8 years old participated in this study. They were classified randomly into two groups of equal number, (control and study). The control group received a specially designed exercise program. The study group received functional electrical stimulation of anterior tibial group in addition to the program given to the control group. Gait parameters were assessed before and after three months of application of the treatment program using motion analysis system. The results of the study revealed significant improvement in all measured variables for both groups with greater improvement in the favor of the study group.

Key words : Functional electrical stimulation, hemiplegia.

Arabic Title Page : دور التنبيه الكهربائي الوظيفي في أمراض المشي لمرضى الشلل النصفي الطويل لدى الأطفال.
Author : Zeinab Ahmed Hussien.
Title : Evaluation of Static and Dynamic Postural Control in Cerebral Palsied Children.
Supervisors : Kamal El Sayed Shoukry, Faten Hasan Abd El-Azeim, Shadia Abd El-Aziz.
Degree : Master.
Year : 2005.
Abstract : The purpose of this study was to evaluate the motor strategies of postural control in right hemiplegic cerebral palsied children. Thirty children perfumed this test, 15 were nominal and others were right hemiplegic cerebral palsied children. All children stood on tilt board and imaged from frontal and lateral view during static and dynamic situations. The results revealed significant difference in angles of motor strategies between nominal and hemiplegic cerebral palsied children.
Key words : hemiplegia, cerebral palsy, postural control, evaluation.
Arabic Title Page : تقييم التحكم الاستاتيكي والإيناميكي في قوام الأطفال المصابين بالشلل الدماغي.
Author : Abeer Ezzat Hakeem.
Title : Influence of different intensity of exercise on lipid per oxidation.
Dept. : Department of Basic Science.
Supervisors : Mohsen Mohammed El Sayyad, Laila Ahmed Rashed.
Degree : Master.
Year : 2006.
Abstract :
The purposes were to investigate the relationship between different exercise intensities and lipid per oxidation, and to evaluate the effect of different intensities of exercise of lipid peroxidation in different genders. Forty healthy non athletic subjects, both sexes were involved aged between 18 - 28 years. The first group was exercised on ergometer at intensity 70% of maximal heart rate for 30 min. The second group was exercised on ergometer at intensity 90% of maximal heart rate for 5 min. Blood samples were taken immediately before and after the exercise session. It showed that both 70% and 90% maximum heart rate exercises have a highly significant effect on lipid per oxidation. Nevertheless 90% maximum heart rate exercise has a highly significant effect on both sexes, but 70% maximum heart rate exercise had no effect on lipid per oxidation in females but had a significant effect on lipid per oxidation in males.
Key words : Ergometer, Exercise, Lipid Peroxidation, Gender.
Arabic Title Page : تأثير الشدة المختلفة للتمرينات على أكسدة الدهون.
Author: Abeer Mahmoud Yussuf.
Title: Relationship between Neuromuscular Electrical Stimulation Amplitude and Muscle Soreness.
Dept.: Department of Basic Science.
Supervisors: Samy Abdel Samad Nasef, Maher El KebIawy, Neveen Abdel Lattif.
Degree: Master.
Year: 2006.
Abstract:
Background: Neuromuscular electrical stimulation is widely used by physical therapists to improve muscle performance, retarding muscle wasting following muscle denervation or immobilization and optimizing recovery of muscle strength during rehabilitation. Although many attempts were done, optimal stimulation amplitude has not been determined yet. The purpose: of this study was to determine the optimal amplitude of neuromuscular electrical stimulation that could be used to increase the torque of the quadriceps muscle. Subjects: Thirty healthy male and female physical therapy students with mean age 21.2 ±3.7 year, weight 75.6 ± 8.4 kg and height 174.3 ± 6.2 cm were assigned randomly to three equal groups. Methods: The isometric torque of the non dominant quadriceps was evaluated at 60 degrees of knee flexion, using Biodex ill isokinetic dynamometer before and after six weeks of electrical stimulation. Neuromuscular electrical stimulation was administered three times a week for 6 weeks at amplitude 18 % of maximum tolerated intensity (MTI) for group I, 69 % of MTI for group n and 91 % of MTI for group m. Results: The results revealed that the amplitude of neuromuscular electrical stimulation produced significant increase in the quadriceps muscle torque in all groups which was (26.95 %, 16.87 % and 15.79 %) respectively. There was no significant difference among the three amplitudes (p < 0.05) for muscle torque and soreness. There was significant difference in muscle torque for female in each group. Discussion and conclusion: The finding revealed that neuromuscular electrical stimulation can improve the strength of normal innervated muscles. This improvement was due to more firing of motor neurons with small dose of electrical stimulation, but when the intensity increased this led to fatigue of some motor neurons and gained less strength.
Key words: Electrical stimulation, Amplitudes, Muscle torque and soreness.

Arabic Title Page: العلاقة بين شدة التنشيط الكهربائي العصبي العضلي والآلام العضلات.
Author : Ahmed Ebrahim Ahmed Elerian.
Title : Validity and Reliability of A Modified electrogoniometer for Measuring Knee, Joint Range of Motion.
Dept. : Department of Basic Science.
Supervisors : Mohsin EI-Sayyad, Sami Abdel El-Asamad.
Degree : Master.
Year : 2006.
Abstract:
Purposes: To investigate the validity and intra and inter tester reliability of a modified Egyptian made electrogoniometer for measuring the normal active range of motion of knee joint. Study Design: It is a test re test study. Methodology: Sixty normal male subjects were involved, aged between 18-24 years. Each one of them was examined firstly by one examiner using the universal and the modified electrogoniometer. Comparison between the same subject active knee range of motion measurement measured by universal and electrogoniometer was made to detect the validity. Comparison between the same subject results measured by the same testers at two different times was done for measurement of inra tester reliability. While For investigation of inter tester reliability, comparison between the same subject results measured by three different examiners was done. Results: The study revealed that there were no significant differences in the measurements between the universal and electrogoniometer for knee flexion (r value and ICC=0.89)and for knee extension(r value and ICC=0.86 and 0.85). Also there were no significant differences between 1st time and 2nd time measurement by the modified electrogoniometer (r for flexion and extension= 0.96 , ICC for flexion and extension was 0.68 and 0.67 respectively). There were no significant differences between three examiner results for the same subject.(ICC for knee flexion and extension =0.98 and 0.65) while F value was 0.014 and 0.059 for knee flexion and extension respectively and the P value was >0.05). Discussion: The electrogoniometer could measure the peripheral and spinal range of motion accurately. Conclusion: The modified electrogoniometer is valid and has a highly intra and inter tester reliability.
Key words : Range of motion, knee joint, goniometry, electrogoniometer.

Arabic Title Page : مدى كفاءة وفاعلية جهاز قياس المدى الحركي لمفصل الركبة.
Author : Ahmed Mohamed Abd El-Rahman.
Title : Isodose Distribution Curves of Selective Electro-therapy Instruments.
Dept. : Department of Basic Science.
Degree : Master.
Year : 2006.

Abstract
Background: In physical therapy electromagnetic fields are used in the treatment of wide variety of diseases. Risk from exposure to electromagnetic field is not completely evaluated because of the absence of dosimetry system that is capable of measuring radiation exposure. Purpose of the current study was to investigate both the electric and magnetic field strength that the physical therapist is exposed to at different distances during the application of selective electrotherapy instruments and to provide the necessary advice to physiotherapist in order to have safe handling of these equipments. Materials: Both the electric and magnetic fields around the apparatus working in interferential, Russian and transcutaneous electrical nerve stimulation (TENS) modes were measured using two measuring equipments: Hand Held / Gauss Tesla Meter and Trifield Meter. Methods: Both the electric and magnetic fields were measured at different locations around the apparatus at two conditions: without earthing of the apparatus and/or cables & with good earthing of the apparatus and/or cables. Results: There was a considerable high electric and magnetic field around the electrotherapy equipments which markedly decreased when the apparatus and / or cables was good earthed. Discussion: The measured values of the electric and magnetic fields around the apparatus used for treatment of patients in electrotherapy and used in the present study are higher than international permissible levels recommended by international unions concerned with non-ionizing radiation protection. The present study concluded that both the electric and the magnetic fields around the apparatus were decreased when the apparatus was good earthed and eliminated to zero value when the electrodes cables was shielded and good earthed.

Key words : Electromagnetic field, Isodose distribution curves, Electrotherapy instruments.

Arabic Title Page : تخطيط منحنى gradation curves of electrotherapy instruments.
Author: Amira Mohamed Mohamed Elgendy.
Title: Efficacy of laser pulse frequencies on nerve conduction velocity.
Dept.: Department of Basic Science.
Supervisors: Fatma Sedik Amin, Emam Hassan Elnegmy, Mohamed Hussien Elgendy.
Degree: Master.
Year: 2006.

Abstract:
Background and objective: It has been claimed that laser may have biostimulation effect on the nerve tissues. This study has been designed to investigate the effect of different laser pulse frequencies (combined He-Ne and infrared laser) on electrophysiological parameters of sensory nerves. Materials and methods: 30 healthy subjects with no history of neurological conditions randomly selected from students and staff members of Faculty of Physical Therapy, Cairo university. They were assigned randomly into two equal groups with mean age of 21.6± 3.15 years for group I and 21.6± 3.29 years for group II. Laser irradiation was applied on the forearm of the dominant limb overlying the course of median nerve with wavelength 850 nm, intensity 4 Joules, peak power 10 W and pulse frequencies 800 Hz for group I and 2000 Hz for group II. Antidromic sensory distal latency and nerve conduction velocity evaluated before laser application and the recordings were subsequently repeated immediately after 15 minutes and 30 minutes after laser application. Results: They revealed that low laser pulse frequency (800 Hz) produced a significant increase in sensory distal latency (P<0.001), with a % increase of (9.23%), and corresponding decrease in nerve conduction velocity (P<0.02), with a % decrease of (7.8%). As well as high laser pulse frequency (2000 Hz) where (P<0.001) and the % of change was (13.89%) for sensory distal latency, and significant decrease in nerve conduction velocity (P<0.02) with a percent of change (10.34%). Indeed there was a significant difference between low and high laser pulse frequencies (800 and 2000 Hz), (P<0.05) with higher tendency in decreasing the sensory nerve conduction velocity using higher laser frequencies than lower frequencies. Conclusion: These results suggest that laser irradiation at the parameters and under conditions used here produced a direct neurophysiological effect in form of a significant increase in conduction latency corresponding to a decrease in sensory conduction velocity of median nerve in normal subjects. The degree of nerve conduction block increased with higher frequencies. This data indicate that lasing could diminish pain sensation mediated by the peripheral nerves.

Key words: Low intensity laser therapy, Pulse frequencies, Nerve conduction velocity.

Arabic Title Page: تأثير ترددات نبض أشعة الليزر على سرعة التوصيل في الأعصاب الطرفية.
Purposes: To compare the difference in repositioning accuracy between low back dysfunction and healthy subjects, and to investigate the difference in the degree of repositioning accuracy in relation to the cause of low back dysfunction. Study Design: A control group one-shot study. Subjects and methods: Forty-five subjects from both sexes were involved, aged between 30 - 50 years. They were divided into three equal groups. Subjects in the first group were normal healthy subjects. Subjects in the second group had a history of non-specific mechanical low back dysfunction, while subjects in the third group had discogenic low back dysfunction. Biodex system 3 pro isokinetic dynamometer, equipped with a special forward reclined back attachment, was used to measure the lumbar repositioning accuracy of the lumbar region. Subjects were required to reproduce a target position (30º flexion). The mean deviation or absolute error (A E) about the 30 º target position was calculated for each subject. Results: The study revealed that there were significant differences in the repositioning accuracy among the three groups. The Absolute errors were greater in the two low back dysfunction groups than in the control group. On the other hand, there were no significant differences in the repositioning accuracy between the two low back dysfunction groups. Discussion: The healthy subjects repositioned their back more accurately to the target position. While, the low back dysfunction groups had a significantly larger absolute error. Conclusion: Differences in proprioception do exist between subjects with back dysfunction and normal subjects. The proprioceptive deficits do exist regardless to the cause of the back dysfunction.

Key words : Low back dysfunction, position sense, proprioception.

Arabic Title Page : دقة إعادة وضع المنطقة الفقطنية في الخلفي الوظيفي للظهر.
Author : Einas Elsayed Mohamed Abu Taleb.
Title : Effect of Posture Correction Exercises on Sensory Nerve Root Function in Patients with Forward Head Position.
Dept. : Department of Basic Science.
Supervisors : Omaima kattabei, Samy Abd El Samad, Hala El Habashy.
Degree : Master.
Year : 2006.
Abstract:
The purpose: The purpose of this study was to investigate the effect of posture correction exercises on nerve root function, forward head position (FHP), neck pain and functional disability in patients (males and females) with FHP. Subjects: 30 patients suffering from chronic neck pain, FHP and forward head displacement beyond 1.5cm were anticipated in this study. Their age ranged from 20 to 35 years with a mean (28.40±3.94). Patients were assigned randomly into two groups (control and study groups), each group included 15 patients who received treatment for three times per week for six weeks. Both groups received traditional treatment in addition to the posture correction exercises for the study group. Method: peak latency of somatosensory evoked potentials (SSEPs) were measured at Erb's point (EP), seventh cervical spine (C7) and cortical points (C3' and C4'), forward head displacement was measured by lateral cervical radiographs, pain using Visual analogue scale (VAS) and functional abilities using neck disability index (NDI) and were all made pre and post the treatment. Results: revealed that posture correction exercises produced significant restoration of the normal latency peaks of SSEPs for EP, C7, C3' and C4' and significant decrease in the forward head displacement on lateral cervical spine x-ray for the study group, significant reduction of pain and significant decrease in neck functional disability for both groups. The traditional treatment produced insignificant effect on the latency peaks of SSEPs and on x-ray. Discussion and Conclusion: For FHP patients emphasis of posture correction exercises in addition to traditional treatment resulted in improvement of the nerve root function, restored sagittal cervical curve, reduced pain level and decreased functional disabilities.
Key words : Posture correction exercises, somatosensory evoked potentials and forward head position.
Arabic Title Page : تأثير تصحيح الوعاء على وظيفة الجذور العصبية الحسية في مرضى وضع الرأس الأمامي.
Author : Eman Ahmed Abd EL- Moez.
Title : Effect of Continuous Versus Intermittent Exercise Bouts on Bone Metabolism in Normal Subjects.
Dept. : Department of Basic Science.
Supervisors : Awatif Mohamed Labeeb, Laila Ahmed Rashed.
Degree : Master.
Year : 2006.

Abstract:
Background: physical exercise plays a role in the maintenance of the skeleton, but the specific mechanisms by which exercise increases bone mass are not well understood. Purpose: The purpose of this study was to investigate the effect of continuous versus intermittent exercise bouts on serum parathyroid hormone (PTH), ionized calcium (Ca$^{2+}$) and bone-alkaline phosphatase (BALP). Subjects: Thirty normal un-trained subjects of both sexes, aged between 20-30 years were randomly assigned into two groups: Continuous exercise group (n=15), and intermittent exercise group (n=15). Materials and Methods: Continuous exercise consisted of running on treadmill for two successive bouts of 20 min. each at 70% and 80% of VO$_{2\text{max}}$ without an intervening recovery period. Intermittent exercise consisted of two bouts of exercise at the same intensities but separated by 40min. of passive recovery. Venous blood samples were collected immediately before and after the session in both groups. Results: The PTH was significantly elevated at the end of exercise sessions in both groups (p<0.0001), but it was significantly higher (p<0.05) at the end of continuous exercise bout compared to intermittent bouts. The Ca$^{2+}$ decreased significantly at the end of exercise sessions in both groups (p<0.0001), however it was significantly lower (p<0.05) at the end of continuous exercise bout compared to intermittent bouts. The (BALP) was significantly increased (p<0.0001) at the end of exercise sessions in both groups, but it was significantly higher (p=0.000) at the end of intermittent exercise bouts compared to continuous bout. Conclusions: The results of this study indicate firstly that a recovery period between two bouts of aerobic exercise might have similar effects to intermittent secretion of PTH; secondly that intermittent exercise programs might have anabolic effects on bone metabolism.

Key words : PTH, recovery, exercise bout, BALP, bone metabolism, aerobic exercise.

Arabic Title Page : تأثير التمرينات المستمرة في مقابل التمرينات المتقطعة على بناء العظام في الأشخاص الأصحاء.
Author : Hisham Mohamed Abd-Elraheem.
Title : Normal Range of Motion of Lower Extremity Joints in Young Adults: Preliminary Study.
Dept. : Department of Basic Science.
Supervisors : Omaima Kattabei, Mohamed El-Gendy, Ragia Mohamed Kamel.
Degree : Master.
Year : 2006.
Abstract:

Purposes: To establish normative data about the normal active range of motion of hip, knee, and ankle joints, compare between AROM of dominant and non-dominant side, and Compare between active range of motion in males and females. Study Design: A one measurement study of active range of motion of hip, knee, and ankle joints. Materials and Methods: The study was conducted in the Faculty of Physical Therapy, Cairo University, to obtain normative values of active range of motion of lower extremity joints, to compare between active range of motion in dominant and non-dominant side, and to compare between active range of motion in males and females. Measurement: Digital electrogoniometer was used to measure active range of motion of lower extremity joints.

Results: The study revealed that; there were statistical significant differences between normal values of active range of motion in the current study and those found in previous studies, there were statistical significant differences between active range of motion in males and females except in hip adduction, knee flexion, and ankle plantar-flexion, these were no statistical significant differences between dominant, and non-dominant side except in hip adduction and ankle dorsi-flexion, and planter flexion in female subjects. Discussion and Conclusion: The normal values of lower extremity joints were different from the values present in previous studies, the active range of motion of the contra-lateral healthy joint may be not a reliable as a reference for the restricted joints.

Key words : Normal range of motion, Lower Extremity, Electrogoniometer.

Arabic Title Page : المدى الطبيعي لحركه مفاصل الأطراف السفلي لصغار البالغين: دراسة تمهيديه.
Author : Magda Ramadan Zahran.
Title : Effects of flat foot on pelvic mechanics and spinal curvatures.
Dept. : Department of Basic Science.
Supervisors : Fatma Sedik Amin, Neveen Abd El Latif Abd El Raoof, Soha Talaat Hamed.
Degree : Master.
Year : 2006.
Abstract:
Background: The manifestations of flat foot make the foot unable to absorb the forces of weight bearing effectively and as a result, the arthrokinematic relation of all body joints from foot to back will be altered. The purpose: of this study was to investigate the effects of flat foot on pelvic mechanics and spinal curvatures. Subjects: 60 subjects (30 males and 30 females). Their age ranged from 18-35 years old. Subjects were assigned randomly into two equal groups. Group A (The control group) included thirty healthy subjects (15 males - 15 females) with mean age of 24.50 ± 3.48 years old, weight 65.00 ± 7.88 kg, height 163.63 ± 9.44 cm and BMI 24.18 ± 0.60 kg/m². And group B (The study group) included thirty subjects (15 males - 15 females) with bilateral flexible second-degree flat foot with mean age of 24.07 ± 3.76 years old, weight 64.50 ± 8.35 kg, height 163.23 ± 9.11 cm and BMI 24.11± 0.60 kg/m².
Method: feet assessment using lateral weight bearing radiographs were performed bilaterally for each subject in both groups to measure the talus first metatarsal angle then 3D assessment of the spine was done for subjects of both groups using FormetricII device to measure pelvic inclination angle, pelvic tilt, lordotic angle, and kyphotic angle. The results: indicated that, there was a significance difference in pelvic inclination, pelvic tilt and lordotic angle P= 0.012, 0.037 & 0.010 respectively between both groups and there was no significant difference in kyphotic angle P= 0.332 between both groups. Conclusion: The study concluded that subjects with bilateral flexible second-degree flat foot have more pelvic inclination, pelvic tilt, and lumbar lordosis than normal subjects.
Key words : Flat foot, Pelvic mechanics, Pelvic tilt, Pelvic inclination, Lumbar lordosis, Thoracic kyphosis.

Arabic Title Page : تأثير تغطط القدم على ميكانيكيّة الحوض وانحناءات العمود الفقّاريّ.
Author : Mahmoud Mohamed Ahmed Ewidea.
Title : Influence of Reflected Marker Size in Accuracy of Motion Analysis.
Dept. : Department of Basic Science.
Supervisors : Mohsen Mohamed El-Sayyad, Neveen Abd El-Itif.
Degree : Master.
Year : 2006.
Abstract:
Background: Three dimensional motion analysis systems are the most advanced tools in the field of movement analysis, in our time many factors influence its accuracy such as marker size however there is little researcher was paid attention to the size of marker as a factor in determining the accuracy of results. The purpose of this study was to investigate the influence of different reflected marker size in accuracy of motion analysis. Subjects: 30 normal healthy subjects their ages ranged from 18 to 24 years with a mean of 19±2.6 years. Design: test-retest, Three 120 Hertz infrared cameras used to capture the position and determine the value of the three co-ordinates of the markers in millimeter. Subject captured using the three different size of markers (3mm, 9mm, 24mm) then after one hour interval repeated capture was taken, then (x,y,z) of every marker in first trial of capturing would added to the same coordinate of the same marker size then divided on number of trials to get the mean of both trial for each marker size. Method: three passive markers placed over the upper limb of definite size while the subjects were sitting on a chair, subject captured by the three different size for two times with one-hour interval then a mean for both trial of every marker size tacked. Data collected and analyzed using the interclass correlation co-efficient. Results: inter class correlation model used to determine interclass correlation co-efficient between every size of markers. Analysis of variance with repeated measurements test and Bonferroni post hoc analysis concluded that large marker has a good effect on accuracy of results p<0.05. Discussion: placement of different size of markers showed high accuracy of large markers due to the higher presentation of the marker in camera volume. Conclusion: It concluded that using of large marker has good results on accuracy of motion capturing.
Key words : passive markers, three dimensional (3D) motion analysis, reflective marker size.
Author : Mohamed Taher Mahmoud EI Desoky.
Title : Efficacy of selected therapeutic exercises program in the treatment of patients with low back dysfunction.
Dept. : Department of Basic Science.
Supervisors : Mohsen EI Sayad, Ahmed Kholeif.
Degree : Master.
Year : 2006.
Abstract :
Background: The effectiveness of therapeutic exercises for treatment of low back dysfunction (LBD) still remains unproved and controversy. exists in the literature about the specific exercise programs which result in improved outcomes. The purpose: this study was conducted to investigate the effect of selected therapeutic exercises program on treatment of patients with LBD. Subjects: sixty patients (42.58±5.36) years suffering from chronic LBD were divided into three groups, each group included 20 patients. Method: the three groups received medical treatment, in addition group (B) received stretching exercises for back and hamstring muscles and group (C) received the same stretching exercises and strengthening exercises for back muscles. Lumbar ROM in flexion, extension, rotation and lateral flexion measured by BROM, pain measured by visual analogue scale (VAS) and functional disabilities measured by Oswestry disability index (ODI) were measured before and after 2, 4 and 6 weeks of treatment. Results: there was significant reduction in pain, functional disabilities and increase in lumbar mobility after treatment in group (B) and group (C) as p-values were (p< 0.000) than group (A) while there was no significant difference in the measured variables after treatment between group (B) and group (C). Discussion: stretching exercises for back and hamstring muscles improve chronic LBD patients as shortening or contracture of the back soft tissues led to pain, functional disabilities and reduction of ROM. Conclusions: For chronic LBD patients isolated stretching exercises of the back and hamstring muscles result in greater reduction in pain intensity, increase lumbar ROM and improve functional activities. The addition of strengthening exercises of the back muscles to the stretching exercises result in more improvement in LBD patients but no statistically significant difference were found in the pain, lumbar ROM or disability measures between the two experimental groups (B and C).
Key words : Low Back Dysfunction, Stretching exercises, strengthening, exercises.

Arabic Title Page : مدى كفاءة برنامج مختار من التمرينات العلاجية في علاج الخلل الوظيفي للظهر.
Author : Noran Ahmed Mohammed.
Title : Effect of electrolipolysis on lipid profile in female subjects.
Dept. : Department of Basic Science.
Supervisors : Omima Katabei, Maher Ahmed Elkeblawy, Laila Ahmed Rashed.
Degree : Master.
Year : 2006.
Abstract : The purpose of this study was to investigate the effect of electrolipolysis on lipid profile in obese female subjects. Subjects: Forty obese female subjects with age ranged from 18 to 35 years old were participated in this study. They were assigned randomly into two equal groups; the study group (B) which consisted of twenty obese female subjects with mean age of (25.55 ± 5.414) years, mean height of (160.15 ± 7.414) cm, mean weight of (87.95 ± 9.688) Kg, mean of body mass index BMI (34.35 ± 3.303) Kg/m². They received electrolipolysis, diet restriction regimen and aerobic exercises. The control group (A) composed of twenty obese female subjects with mean age of (24.65 ± 7.292) years, mean height of (162.2 ± 8.965) cm, mean weight of (93.8 ± 13.609) Kg, mean of BMI of (35.64 ± 3.396) Kg/m². This group was treated with diet restriction regimen and aerobic exercises only. Methods: Assessment was done before and after one month of treatment in both groups. It includes body mass index (BMI), waist hip ratio (WHR) and lipid profile. Results: The results of this study revealed significant difference between the two groups in BMI, WHR, and Lipid profile measurements. As there were a significant decrease in BMI, WHR, Triglycerides, total cholesterol and LDLc with significant increase in HDLc in the study group (B) more than that in the control group (A). Conclusion: The findings of the current study revealed that electrolipolysis is an effective method in reducing weight and anthropometric measurements and improving the metabolic parameters.

Key words : Electrolipolysis, lipid profile, female.

Arabic Title Page : تأثير إذابة الدهون كهربائياً على نسبة الدهون في الدم في الإناث.
Abstract:

Background: Pulsed magnetic field therapy was used to control pain. It was used to decrease sensory nerve conduction velocity through inducing electric current in the tissues so it might have an effect on the alpha motor neuron excitability. The purpose of this study was to study the effect of the low pulsed magnetic field therapy (LPMFT) on motoneuron excitability in normal subjects. Material and method: Thirty male volunteered subjects. Their mean age, weight, height and limb length were (21.66 ±1.86955), (70.525±11.32), (174.53 ±6.7429) and (93.66±6.61725) respectively. They were assigned randomly into two groups: experimental group include 20 subjects while control group include 10 subjects. Experimental group received low pulsed magnetic field with 10 Hz frequency and intensity of 60 G for 30 min at the posterior aspect of the right calf ms. The H reflex amplitude, H/M ratio, H reflex latency and the H intensity threshold were measured before and after application of the LPMFT and after 30 min for the experimental group while pre and post 30 min only for the control group. The results indicated that intensity threshold to elicit the H reflex was decreased significantly where (P value < 0.0001) for experimental group while there was no statistically significant difference in the H reflex amplitude as p<0.4372, H/M ratio P<0.7426 and latency p<0.1049 for the experimental group after application of the LPMFT. The H reflex amplitude, H/M ratio, H reflex latency and H reflex intensity threshold were not changed statistically significantly in the control group as p values were 0.145, 0.117, 0.406 and 0.671 consequently. In addition there was no statistically significant difference between the experimental and control groups in the measured parameters. This study concluded that low pulsed magnetic field with 10 Hz and 60 G increase motoneuron excitability, providing physiotherapists with a modality that could be used for treatment of many neurological disorders.

Key words: H-reflex, H/M ratio, H reflex latency, pulsed magnetic field, alpha motoneuron excitability.

Arabic Title Page: تأثير التيار المغناطيسي المنخفض التردد على استجابة الخلايا العصبية الحركية للأشخاص.
Author : Osama Ahmed Khaled.
Title : Influence of proprioceptive training on knee function in patients with knee osteoarthritis.
Dept. : Department of Basic Science.
Supervisors : Fatma Sedik Amin, Mohamed El-Gendy, Hassan Baraka.
Degree : Master.
Year : 2006.
Abstract :
Background: There is a prominent loss in proprioceptive sensation in patients with knee osteoarthritis compared with control subjects of the same age and gender. Purposes: To investigate the influence of proprioceptive training on knee function in patients with knee osteoarthritis. Study Design: A pre test post test control group design. Materials and methods: Thirty patients with knee osteoarthritis from both sexes were involved, aged between 40– 60 years. They were divided into two equal groups, fifteen patients each. Patients in the first group received a traditional exercise program in the form of stretching and strengthening exercises. Patients in the second group received a proprioceptive training program in addition to stretching and strengthening exercises. Training was done 3 times a week for 8 weeks. Pain level, functional performance and proprioceptive accuracy were measured before and after treatment. Results: there were significant differences between the two groups in pain (p=0.007) and (p=0.009) for the right and left knees respectively, functional performance (p=0.008) and proprioceptive accuracy (p=0.037) and (p=0.014) for the right and left knees respectively. Conclusion: Proprioceptive training proved to be beneficial in improving functional performance, perceived knee pain and proprioceptive accuracy in patients with knee osteoarthritis as compared with traditional exercise program.
Key words : osteoarthritis, knee function proprioceptive training, proprioception.
Arabic Title Page : تأثير تدريب المستقبلات الحسية العميقة على وظيفة الركبة في مرضى خشونة الركبة.
Author : Sameh Refaat Ahmed.
Title : Electromyography study of medial Gastrocnemius muscle following low frequency current stimulation in normal subjects.
Dept. : Department of Basic Science.
Supervisors : Awatef Mohamed Labib, Omaima Kattabei, Hala El-Habashi.
Degree : Master.
Year : 2006.
Abstract : Purposes: to investigate the effect of fatiguing protocol of high and low frequency on compound action potential (CMAP) of medial Gastrocnemius muscle over time. Study Design: (2 x 1) pre-Test post-Test design. Materials and methods: sixty healthy male subjects from were involved, aged between 18– 40 years. They were divided into two equal groups. Subjects in the first group underwent 80Hz frequency stimulation while Subjects in the second group underwent 40Hz frequency stimulation. Subjects were required to tolerate a fatiguing protocol for 20 minutes. Measurement: The amplitude CMAP were measured pre-test, immediately post-test and over interval of 10,20,40 minutes. Results: There was significant decrease in the amplitude CMAP of medial Gastrocnemius muscle following high and low frequency stimulation protocol. There were no significant differences between high and low frequency stimulation on the amplitude of CMAP. Discussion: Subjects who underwent high frequency stimulation (80 Hz) shows rapid fall in the amplitude of CMAP rather than subjects in low frequency stimulation. Furthermore, subjects in group II, the decline in CMAP amplitude comes late after 20 minutes for a little extent and resume to the pre-test value after 40 minutes. Conclusion: Decline in the amplitude of CMAP do exist between individuals before and after high and low frequency stimulation (fatiguing protocol). It was recommended to use low frequency stimulation rather than high frequency stimulation to avoid rapid fatigue of the muscle.
Key words : EMG, High frequency stimulation, Low frequency stimulation, Fatigue.

Arabic Title Page : دراسة رسم العضلات لعضاة السماتة الداخلية بعد استخدام تيار منخفض التردد في الاشخاص الطبيعيين.
Author : Shaimaa El Gharib Ali.
Title : Efficacy of Russian Current and Low Frequency Pulsed Current on Quadriceps Muscle Torque and Soreness.
Dept. : Department of Basic Science.
Supervisors : Mohamed Hussein El-Gendy.
Degree : Master.
Year : 2006.
Abstract:
Background: Neuromuscular electrical stimulation (NMES) is used by therapists in muscle strength rehabilitation. Two types of stimulators have aroused special interest, one type produce low frequency pulsed currents and the other, medium frequency alternating currents modulated at low frequencies as Russian current. The purpose: of this study was to investigate which is more effective in increasing muscle torque and in decreasing pain response (Russian current or low frequency pulsed current). Design and Subjects: A pretest-post test (2×2) design with repeated measurement was used in this study. Thirty healthy female physical therapy student and employees participated in this study, their age ranged between 18-32 with mean age (24.9 ± 0.96), assigned randomly to two equal groups:- group I (n=15 female subjects) had their non dominant quadriceps femoris muscle stimulated with Russian current for ten minutes, 3times/week for 4 weeks. Group II (n=15 female subjects) had their non dominant quadriceps femoris muscle stimulated with rectangular symmetrical biphasic current for ten minutes, 3times/week for 4 weeks. Methods: The isometric torque of the non dominant quadriceps was evaluated at 60 degrees of knee flexion, using Biodex III isokinetic dynamometer before and after training. Each subject was asked to rate their soreness after 48 hours of electrical stimulation every session by using VAS. Dependant t-test was used to distinguish between the two groups before and after electrical stimulation. Independent t-test was used to further distinguish between both types of electrical stimulation. Results: The results revealed that neuromuscular electrical stimulation produced significant increase in the quadriceps muscle torque (25.93% and 15.96%) in group I and group II respectively (p<0.0001). As regard to muscle soreness there was a significant difference between the two groups (p<0.05) during the second week of training. Also there was no significant difference between the two groups in quadriceps muscle torque (p>0.05) at the end of training. Discussion and conclusion: The finding revealed that neuromuscular electrical stimulation can improve the strength of normal innervated muscles and the Russian current have the advantage over the low frequency pulsed current in terms of strength gained without muscle soreness.
Key words : Electric stimulation, Russian current, muscle torque.
Arabic Title Page : تأثير كل من التيار الروسي والتيار المنخفض التردد على عزم وتعب العضلة الرباعية.
Author: Wafaa Mahmoud Amin.
Title: The influence of scapular taping technique on subjects with impingement syndrome.
Dept: Department of Basic Science.
Supervisors: Fatma Seddik Amin, Ragia Mohamed Kamel, Khaled Abd EL-Salam Shohayeb.
Degree: Master.
Year: 2006.

Abstract:
Background: Taping techniques are commonly used in addition to exercise programmes in the rehabilitation of subacromial impingement syndrome (SAIS), but studies on the effect of taping on the scapular kinematics in subjects with SAIS are limited. Purpose: to investigate the influence of taping technique on scapular kinematics, pain level and the function of the shoulder in subjects with unilateral SAIS.

Subjects: 45 subjects their age ranged from 30 to 65 years. 30 subjects with SAIS assigned randomly into two groups: Group (A) taping technique, with mean age of (48.87±12.11), weight (80.17±12.31), and height (165.8±6.72), and group (B) exercise group, with mean age of (49.27±12.06), weight (77.23±11.79), and height (165.67±5.8). Group (C) 15 normal subjects, with mean age of (48.4±21.41), weight (74.23±12.49), and height (165.9±5.64).

Method: a 3-dimensional (3-D) motion analysis system was used to measure scapular kinematics in the scapular plane. Measurements were taken with the arm at side, elevated to horizontal position (90°), and at maximum elevation. Shoulder pain and function was monitored with shoulder pain and disability index (SPADI).

Measurements taken for subjects with SIS pre and post 12 sessions of treatment, both groups A and B received exercises and traditional treatment +scapular taping for group A. Results: there were significant increasing influences of Taping on the upward rotation angle at all arm positions, also it had significant increasing influences on the posterior tilt angle at horizontal position (p=0.006), and at maximum elevation position (p=0.004). Post treatment there were no statistical differences between group C and A, while there were statistical differences between group C and B in upward rotation and posterior tilt angles. In group A there was significant lowering effect on SADI scores more than that in group B (p=<0.0001).

Conclusion: taping improved scapular motion, shoulder function and decreased the pain level so it could be used in rehabilitation of shoulder impingement.

Key words: Traditional treatment, scapular taping, scapular kinematics, shoulder impingement.

Arabic Title Page: تأثير استخدام الأشرطة الطبية اللاصقة لتثبيت عضلة لوح الكتف في الأفراد الذين يعانون من الضغاط أتار عضلات مفصل الكتف تحت تنوء عضلة قمة الکتف.
Author : Waleed Salah Eldin Elsayed.
Title : Influence of therapeutic exercises on selected gait parameters of low back dysfunction.
Dept. : Department of Basic Science.
Supervisors : Omaima Kattabei, Samy Abd Elsamad.
Degree : Master.
Year : 2006.
Abstract:
Purposes: this study was conducted to investigate the effect of low back dysfunction on kinematics parameters of gait and investigate the improvement of gait after application of selected therapeutic program including stretching and strengthening exercises. Design of the study: Pre-test and post-test control group design has been used. Materials and methods: Forty subjects from both sexes were involved, aged from 35 – 50 years. They were divided into two equal groups. Subjects in the first group were control subjects with low back dysfunction receiving medical treatment only. Subjects in the second group had a history of low back dysfunction receiving therapeutic exercises (3 sessions/week for 6 weeks). The results of study revealed that: there were no significant differences of kinematics of gait in control group. While there were a significant differences of kinematics of gait within experimental group but not in all phases of gait. Discussion: There was a significant improvement in the angular kinematics (ROM) of joints of lower extremities in almost phases of gait except some phases unilaterally or bilaterally. The significant differences of results of this study were clearly appeared between control and experimental groups compared to experimental group. Conclusion: It was suggested that the improvement of kinematics of gait, was related to therapeutic program including stretching and strengthening exercises. This program was suggested to be modified to be more effective in all phases of gait.
Key words : Low back dysfunction, gait analysis, therapeutic exercises.
Arabic Title Page : تأثير التمرينات العلاجية على معايير المشي المختارة لمرضى الخلل الوظيفي بالظهر.
Author : Yasser Ramzy Abu El-Mahasen Lasheen.
Title : Influence of Circadian Rhythm on Quadriceps Muscle Torque.
Dept. : Department of Basic Science.
Supervisors : Mohsen Mohammed El-Sayyad, Neveen Abd El-Latif.
Degree : Master.
Year : 2006.
Abstract:

Background: Circadian rhythmicity plays an important role in our biophysiological functions, also affects the human performance and effective movement but, little research had been conducted on the body type in relation to the effect of circadian rhythm on the human muscle performance. The purpose: of this study was to investigate the influence of circadian rhythm on quadriceps muscle torque. Subjects: Thirty healthy male physical therapy students with mean age (20 ± 2.1), weight (75.9 ± 10.95) and height (173.3 ± 4.4) subjects' personality type was determined by morningness/eveningness scale and then assigned into two equal groups. Methods: The isometric peak torque of the dominant quadriceps muscle was evaluated at 60 degree on knee flexion, using biodex III dynamometer before progressive resisted exercise program. Then after four weeks training three times a week for a month on the morning for group I and in the evening for group II, t-test was done to determine the significant difference in the quadriceps torque, also the difference between the morning training group and evening training group. Results: The result revealed that there was no statistical significant difference in the quadriceps muscle peak torque between the two groups also no statistical significant difference between morning and evening modes in both groups I and II. Discussion and conclusion: The finding revealed that circadian rhythm had no statistical significant effect on the human muscle torque and performance throughout the different day times.

Key words : Circadian rhythm, muscle torque.

Arabic Title Page : تأثير الإيقاع البيولوجي على عزم عضلة الفخذ الرقاعية.
Author: Zeinab Mohamed Abdel Wahab Nosier.
Title: Optimum Spinal Position-Based Program in Management of Lumbo-Sacral Radiculopathic Back Pain.
Dept.: Department of Basic Science.
Degree: Master.
Year: 2006.
Abstract:
Background: Postural modification in patients with lumbo-sacral radiculopathy either causes further H-reflex suppression, indicating an increase of root compression, or it affects recovery, indicating decompression of the spinal root. The posture that affects maximum recovery of the H-reflex amplitude is called Optimal Spinal Posture (OSP). It suggested as a therapeutic exercise to decompress the compromised nerve root. The Purpose of this study was to investigate the effect of optimum spinal position in management of Lumbosacral radiculopathic back pain. Methods: Twenty patients were participated in the current study (9 males and 11 females), with mean age were 42.91±9.1 years, weight 68.19±7.9 kg and height 156.06±7.28 cm assigned randomly and equally, in two groups (one control group and one experimental group). Measuring the soleus H-reflex of the affected leg (the peak-to-peak amplitude and the latency to first deflection) were performed before and after treatment to serve as objective indicator of therapy effectiveness. Study group was receiving a selective treatment program based on OSP (OSP of each patient was different according to the posture, i.e. OSP of one patient was in flexion and for other patient in side bending to right). This program was done in addition to conservative treatment in the form of US, IR radiation three times a week for two weeks. Control group received only the conservative treatment (US and IRR) three times per week for two weeks. Results: the results revealed that application of selective treatment that based on OSP in the study group produced a significant increase in the peak-to-peak amplitude of soleus H-Reflex (76.7% at P < 0.05) and decrease in the latency (3.18% at P < 0.05). For the control group, there was no statistically significant change in the peak-to-peak amplitude of soleus H-reflex (0.87% at P > 0.05) and insignificant change in the latency (1.8 % at P > 0.05). Conclusion: The finding revealed that the application of selective treatment based on OSP had a marked significant effect on patients with L5, S1 lumbar radiculopathy, the OSP producing decompression of the spinal root.
Key words: Optimum Spinal Position, H-Reflex, VAS, Radiculopathy.

البرنامج المعتمد على الوضع الابتدائي للمعجمه الفقري في علاج المظهر الناتجة عن اعتصال جذور الأعصاب في المنطقة الفقنية العجزية.
Department of Biomechanics
Author: Hossam Eddein Fawaz.
Title: Effect of Different Trunk Range of Motion on the Isokinetic Peak Torque Ratio of Trunk Flexor and Extensor Muscles.
Dept.: Department of Biomechanics.
Supervisors: Mohamed Fouad Ibrahim Khalil, Salam Mohamed EL-Hafez, Nagui Sobhi Nassif.
Degree: Master.
Year: 2006.

Abstract:
The various methods for the interpretation of trunk isokinetic testing data that have been used before are independent on trunk ROM. Therefore, the purpose of this study was twofold. Firstly, to explore the effect of different trunk ROM (First=30°, Second=50° and Third=70°) and different angular velocities (30°/sec and 60°/sec) on the trunk flexor and extensor muscles strength. Secondly, to compare the trunk flexor and extensor muscles strength at each trunk ROM and angular velocity. Thirty healthy male subjects with a mean age of 19.95(±2.56) years, mean weight of 73.73(±6.44) kg and mean height of 175.33(±3.50) cm volunteered to participate in this study. The study was carried out using the Biodex system 3 Isokinetic dynamometer. The subjects were instructed to perform four consecutive trunk flexion and extension at each trunk ROM in the concentric trunk flexors and extensors contraction mode. The test was conducted firstly at 30°/sec angular velocity and secondly at 60°/sec angular velocity with 30 seconds rest in between the two tested velocities. The results of the two way ANOVA with repeated measures showed that there is a significant difference of both different trunk ROM and angular velocity on the trunk flexors and extensors peak torque (PT) values (p<0.05). However, for the trunk flexors/extensors PT ratio a significant difference of different trunk ROM (p<0.05) and a non-significant difference of different angular velocities (p>0.05) were found. In addition, the paired t-test results showed that the peak trunk extensors torque was significantly greater than the peak trunk flexors torque (p<0.05). Also, the findings demonstrated that the trunk flexors PT and the trunk flexors/extensors PT ratio declined with increasing trunk ROM at the two tested velocities. In contrast, the PT values of the trunk extensors at the two angular velocities increased by increasing the trunk ROM. Furthermore, the trunk flexors and extensors at 60°/sec angular velocity had a lower PT values than 30°/sec angular velocity. It can be concluded that this study can help physical therapists to accurately specify the spinal ROM and the angular velocity that can develop maximal trunk muscles strength. In addition, it can be also concluded that the optimal ROM and angular velocity to obtain the highest torque of trunk flexor and extensor muscles were the first trunk ROM using 30°/sec angular velocity and the third trunk ROM using 30°/sec angular velocity respectively.

Key words: Trunk Range of Motion, Isokinetic, Extensor Muscles.

Arabic Title Page: تأثير اختلاف المدى الحركي للجدع على النسبة بين أقصى عزم إيزوكينتنكي للعضلات القابضة والنابضة للجدع.
Author : Manal Samy Ibrahim.
Title : Measurement of Ground Reaction Force and Myoelectric Activity during Clutch Pedal Operation in Response to Change of Knee Joint Angle.
Dept. : Department of Biomechanics.
Supervisors : Mohamad Fouad Ibrahim Khalil, Ghada Mohammad El Hafez, Salam Mohammad El Hafez.
Degree : Master.
Year : 2006.
Abstract :
The aim of this study was to investigate the most comfortable knee joint angle having the least electromyography (EMG) activities and the least vertical ground reaction force (VGRF) magnitude during clutch operation when driving a vehicle. Thirty normal female volunteers participated in this study. Their mean age was 19.4 (±2.7) years, mean height was 159.6 (±4.4) cm and mean weight was 63.3 (±9.3) kg. Three knee joint flexion angles were examined; 50°, 60° and 70°. An ergonomically designed clutch pedal was used for experimental purpose. The pedal was placed on the force platform. Each subject was instructed to sit on an experimentally adjustable chair facing the pedal with both feet supported on a 20 cm height footrest. Then each subject was asked to fully depress the clutch by the left lower limb and hold for 5 seconds then release slowly. Results revealed that there was a correlation between higher EMG amplitudes and feelings of discomfort (measured by questionnaire) by decreasing the angle of knee flexion. On the other hand, VGRF magnitude did not differ significantly among the three angles. Based on the previous correlation, it can be concluded that the least comfortable knee joint flexion angle was 50° of flexion. The 70° knee joint flexion angle was uncomfortable to some subjects, while the most comfortable angle was 60°.

Key words : Electromyography, Ground Reaction Force, Clutch Pedal, Knee Joint, Comfort Sitting position, Vehicle driving.

Arabic Title Page : قياس رد فعل الأرض والنشاط العضلي الكهربائي أثناء استعمال دوّاسة القابض استجابة لتغيير زاوية مفصل الركبة.
Author : Sobhy Mahmoud Abdel-Wahed Aly.

Title : Lower Extremity Flexors and Extensors Isokinetic Testing During Closed Kinetic Chain.

Dept. : Department of Biomechanics.

Supervisors : Mohamed Fouad Ibrahim Khalil, Salam Mohamed El-Hafez, Nagui Sobhi Nassif.

Degree : Master.

Year : 2006.

Abstract:
The purposes of this study were to determine the lower extremity flexors/extensors ratio in normal individuals during closed kinetic chain (CKC) isokinetic testing, to investigate the effect of velocity on this ratio, and to investigate the relationship between CKC isokinetic strength variables and the functional performance test. Thirty healthy male subjects with a mean age of 19.8 (±2.9) years, mean body mass of 72.2 (±7.4) kg and mean height of 175.1 (±4.6) cm, volunteered to participate in the study. The CKC testing consisted of concentric isokinetic lower extremity flexion and extension at linear velocities of 24.44, 48.89, and 73.33 cm/sec performed using a Biodex system 3-isokinetic dynamometer. The functional performance test consists of single leg hop for distance test and the best distance hopped was recorded. The main outcomes were that the peak force ratios were 0.36 (±0.06), 0.48 (±0.12), and 0.60 (±0.12), at 24.44, 48.89, and 73.33 cm/sec respectively. There was a significant increase in flexors/extensors ratios of peak force (p<0.001) with increased velocity, while total work and average power ratios remained constant around 0.30. Low to moderate direct correlation (r=0.1 to r=0.5 for the flexors and r=0.2 to r=0.4 for the extensors) was reported between CKC isokinetic test and single leg hop for distance test and significant correlation was found at higher velocities. Conclusion: When using this ratio as an evaluative tool, the velocity dependent changes in the flexors/extensors ratio must not be ignored as this may lead to inaccurate evaluations of leg strength. Total work produced and average power generated, were highly relevant measures and were expressed as flexors/extensors ratio which were unaffected by increasing speed. Neither functional testing nor isokinetic tests could be used in isolation to determine both muscle performance and physical function of the lower extremity.

Key words : Isokinetic, Closed Kinetic Chain, Functional Performance, Lower Extremity.

Arabic Title Page : اختبار ايزوكينيتك المغلقة نسبته إلى العضلات الطرفية السفلية، ونظراً الفائدة الرئيسية أثناء السلسلة الحركية المغلقة.
Author : Walaa Sayed Mohamad Mohamad.
Title : Electromyographic activities of Quadriceps And Hamstring Muscles During Ascending And Descending Stairs Of Different Heights.
Dept. : Department of Biomechanics.
Supervisors : Bassem Galal El-Dein El-Nahass, Nagui Sobhi Nassif.
Degree : Master.
Year : 2006.
Abstract : The purpose of this study was to measure and compare the level of myoelectrical activity of the quadriceps and hamstring muscles during ascending and descending stairs of different heights (22.6o, 33.6o) at the stance phase. Surface EMG of these two muscles was recorded from a group of 30 healthy female subjects with an average age of 20.93 years (±2.77). The results revealed that, for the quadriceps muscle there was significant difference that existed between the two groups of stair heights and phases of climbing; however there was no significant difference between the two groups of stair heights but between phases for hamstring muscle. It is concluded that the myoelectrical activity of the quadriceps and hamstring muscles is affected by the phase of stair climbing, while the inclination of the stairs affect the myoelectrical activity of the quadriceps muscle only.

Key words : myoelectrical, stairs, inclination, quadriceps, hamstring.

Arabic Title Page : قياس النشاط العضلي الكهربائي للعضلة ذات الأربعة رؤوس وعضلة الفخذ الخلفيه أثناء صعود ونزول السلم ذات الارتفاعات المختلفة.
Author : Ahmed Abdel Hamied Mohamed Narouz.

Title : Effect of High Voltage Galvanic Current Versus Intermittent Compression Therapy on Reduction of Hand Edema in Diabetic Stroke Patients.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.

Supervisors : Hala Mohamed Ez El Dein Hamed, Soheir A. Abou Elfadl, Nevien Hemamy Mohamed.

Degree : Master.

Year : 2006.

Abstract:
The purpose of this study was to evaluate and compare the effect of intermittent compression therapy and high voltage galvanic stimulation on hand edema reduction in diabetic stroke patients. Thirty patients of both sexes participated in this study. They were divided into two groups equal in number. Group (I) received intermittent compression therapy. Group (II) received high voltage galvanic stimulation. Both groups received conservative treatment. The program was conducted for three times per week for three months. The patients were assessed for hand volume. These measures were recorded three times during the period of the study: before treatment, at the termination of treatment and after two weeks of the termination of treatment. The results showed significant decrease of hand volume in both groups at the end of the study period. It was concluded that both intermittent compression therapy and high voltage galvanic current are effective methods for reduction of hand edema with predominance of intermittent compression therapy as it was more effective. So it is suggested to use intermittent compression therapy in treatment of hand edema in diabetic stroke patients.

Key words : High Voltage Galvanic Current, Intermittent Compression Therapy, Hand Edema, Diabetes mellitus, Stroke.

Arabic Title Page : تأثير العلاج بالتيار الكهربائي عالي الجهد مقابل العلاج بالضغط المتقطع على تورم اليد لدى مرضى السكري والشلل النصفي.
Author : Fadia Sorial Gayed.
Title : Effect of Aerobic Training on Physical Work Capacity among Elderly.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2006.
Abstract : The purpose of this study was to investigate the effect of aerobic training on Physical work capacity among elderly. Forty female elderly subjects participated in this study their age ranged from 65 to 75 years old. The subjects of the study participated in moderate aerobic training calculated as 65% to 75% of their pre determined maximum heart rate. This program was applied three times per week for two months. Cardiopulmonary exercise test was conducted for all subjects before and after the training program to determine the physical work capacity related indices, and their hemodynamic response to exercise. The results of this study revealed improvement in the physical work capacity indices as significant increase in the VO$_2$max, increase anaerobic threshold and significant increase of the forced vital capacity. This in addition to the significant increase of the maximum heart rate, decrease of the resting heart rate, resting and maximum systolic blood pressure.
Key words : Aging, Aerobic training, Physical work capacity.
Arabic Title Page : تأثير التدريبات الهوائية على الكفاءة البدنية لدى المسنين.
Abstract:
This study was designed to investigate the effect of negative balanced diet with or without exercises on bone mineral density (BMD) and anthropometric variables (weight, body mass index, waist to hip ratio), in premenopausal women. Forty females' patients have been participated and randomly divided into two equal numbers. Group I (Diet) this group consisted of 20 patients who instructed to negative balance diet under medical supervision. Group II (Diet+ Exercises); consisted of 20 patients who instructed too negative balanced diets in addition to exercises program (aerobic and resistive training). Anthropometric variables (weight, height, body mass index, waist to hip ratio) and BMD of the femur, measurement was taken at the beginning of study (Pre) and after 12 weeks (Post). Aerobic exercises were performed for 40 minutes on treadmill walking, at an intensity of 65% of heart rate reserve. The resistance training was performed using free weight for all major muscles groups of lower limb (Gluteus maximums, and medieus, quadriceps, hamstring, tibials anterior and calf muscles). The training was performed for each muscle for 12 repetitions, with total duration of 60 minutes, three sessions per week for 12 weeks. results of this study revealed that there were no statistical significance differences (P>0.05) in anthropometric variables (Age, weight, height, body mass index, waist to hip ratio) and BMD between two groups at the beginning of the study. The results of this study showed that; all women in the two interventions group I and group II reported significant reduction (P<0.05) of anthropometric measures (weight, body mass index, and waist to hip ratio) with greater percentage of reduction for group II versus group I. The BMD was significantly reduced in group I with rate of reduction over three month equal to (2.15%) while in group II, BMD was improved with percentage of increased of about (3.2%).From results of current study; in overweight premenopausal women, addition of aerobic and resistive training exercises to negative balanced diet lead to loss of body weight, BMI and waist to hip ratio with maintenance effect on BMD when compared with diet alone.

Key words: Bone mineral density, body mass index, diet, exercises, obesity Premenopausal.
Author : Hany Farid Eid Morsy.
Title : Effect of Low Frequency Magnetic Field on Blood Flow in Diabetic Patients.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2006.
Abstract:
The purpose of this study is to examine the effect of low frequency pulsed magnetic field (LFPMF) therapy on microcirculation in patients with type 2 diabetes mellitus. Twenty patients from Out Patient Clinic of Diabetes in Kasr Al-Aini Hospital were assigned randomly into 2 groups equal in number. The magnet on group (n=10) received LFPMF in addition to oral hypoglycemic drugs, whereas the magnet off group (n=10) received hypoglycemic drugs. The blood perfusion, heart rate, respiratory rate and blood pressure were measured before and after 3 month of treatment. Ankle brachial pressure index (ABPI) was measured before the study to exclude macrovascular complications. Results: The results showed a statistical significant improvement in all parameters in magnet on group compared with magnet off group. Conclusion: It was concluded that LFPMF is effective as a therapeutic method to improve microcirculation in patients with type 2 diabetes mellitus.
Key words : Magnetic Field, Blood Flow, Diabetic Patients.
Arabic Title Page : تأثير المجال المغناطيسي قليل التردد على التدفق الدموي لدى مرضى داء السكر.
Author : Heba Ahmed Ali Abdeen.
Title : Clinical parameters' response to TENS in refractory angina pectoris.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Hala Mohammed Ezz El Din Hamed, Hamdy Soliman Mahmoud, Neiven Hemamy Mohammed.
Degree : Master.
Year : 2006.
Abstract:
The aim of this work was to investigate the effect of TENS application on the clinical parameters in refractory angina patients including: severity of symptoms and 24hour ambulatory ECG reports. Forty male patients, their ages ranged between 42 to 66 years suffering from chronic refractory angina participated in the study. They were divided into two equal groups, the TENS group which received routine medications plus TENS for one hour 3 times a day, and the control group received regular medical treatment only. The period of study was two weeks proceeded by a follow up period of two weeks. The results of this study showed a significant reduction in the intensity of chest pain, frequency of anginal attacks, and rate of short-acting nitrates consumption in the TENS group. Concerning the episodes of ST depression there was also a reduction in the TENS group, over the Control group. While the HRV was not significantly altered in both groups.
Key words : Refractory angina pectoris, TENS.
Arabic Title Page : إستجابة المقاييس الإكلينيكية للتتبية الكهربي للعصب عبر الجلد في الذبحة الصدرية مقاومة.
Author : Intesar Hussain Zaky Ahmed.
Title : Immediate response of incentive spirometry versus non invasive intermittent positive pressure breathing on arterial blood gases post mitral valve replacement.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Zeinab Mohamed Helmy, Lotfy Mohamed Aissa, Neiven Hemamy Mohamed.
Degree : Master.
Year : 2006.
Abstract
The aim of this study was to investigate the effect of incentive spirometry and noninvasive intermittent positive pressure breathing on arterial blood gases post mitral valve replacement. Also to compare between the effect of I.S and non invasive IPPB on arterial blood gases post mitral valve replacement in the intensive care unit. Forty patients who had been operated on for mitral valve replacement participated in this study and divided into two equal groups. First group received incentive spirometry and the second group received non-invasive intermittent positive pressure breathing. Partial pressure of oxygen (PaO₂), partial pressure of carbon dioxide (Paco₂), and H⁺ ion concentration (pH) were recorded at different time intervals. Significant improvement of PaO₂ had been shown two hours after treatment in IS group and non significant improvement of PaO₂ had been shown two hours after treatment in IPPB group. Comparison between two groups showed that non of the two modalities is superior to the other.
Key words : Incentive spirometry, non invasive intermittent positive pressure breathing, arterial blood gases, mitral valve replacement.

Arabic Title Page : التأثير الفوري لجهاز الحافز التنفسي مقابل جهاز ضغط التنفس الإيجابي المتقطع الغير تداخي على غازات الدم الشرياني بعد استبدال الصمام الميترالي.
Author : Karim Ahmed Fathy.
Title : Cardiovascular response to body weight reduction for pre diabetic obese female.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza A. Abdel Hady, Mohamed I. Abdel Maguid, Neemat M. Aly.
Degree : Master.
Year : 2006.
Abstract :
The aim of this study was to determine the efficacy of weight reduction program in avoidance of cardiovascular diseases and improving cardiovascular state in pre diabetic obese female subjects. Thirty pre diabetic obese volunteer females selected from Internal Medicine Department of Kasr El Ainy and October 6th University Hospitals. Their age ranged between 35-45 years, attended a program of weight reduction (aerobic exercises and diet), within 12 weeks. The results can be used as a reference for the present study to show the efficacy of weight reduction program in avoidance of cardiovascular diseases and improvement of cardiovascular state in pre diabetic obese females. Whenever there's high value of body mass index change reduction, it gives the expected improvement of cardiovascular system.

Key words : Cardiovascular, body weight, pre diabetic, obese female.

Arabic Title Page : إستجابة الجهاز الدورى لإنقاص الوزن لدى السيدات البدينات المرضات لمرضى البدال للسكري.
Author : Khaled Mohamed Assem.

Title : Blood Gases Response to Different Body Positions in Patients with Chronic Obstructive Pulmonary Disease in Intensive Care Unit.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.

Supervisors : Awny F. Rahmy, Mohamed Sherif Mohamed Elbohy, Alsayed Abd Elhamed Shanab.

Degree : Master.

Year : 2006.

Abstract :
The purpose of this study was to evaluate blood gases response to different body positions in patients with chronic obstructive pulmonary disease in intensive care unit. Fifty four chronic obstructive pulmonary disease patients, stage III, with mean age 65 ± 5.35 years participated in this study. Three blood samples was drawn from each patient at base line supine position, at side lying position and at prone position, with interval of 2 hours between each sample. Physical therapy program was performed to the patient at each position. The results showed that there was highly significant improvement of blood gases (PaO2, SaO2), at prone position and statistically significant improvement of prone position with statistically significant differences between prone lying position and side lying and supine lying positions. From the obtained results in this study, it can be concluded that prone lying position may represent a beneficial therapeutic modality to improve blood gases in chronic obstructive pulmonary disease patients in intensive care unit.

Key words : Blood Gases, Chronic Obstructive Pulmonary Disease, Intensive Care Unit.

Arabic Title Page : تأثير الأوضاع المختلفة للجسم على غازات الدم لمرضى السدة الرئوية المزمنة في العناية المركزة.
Author                       : Mahmoud Mohamed Nasser.
Title                       : Efficacy Of Low Level LASER Therapy Versus Ultrasonic In Carpal Tunnel Syndrome For Diabetics.
Dept.                       : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree                      : Master.
Year                        : 2006.
Abstract
Background Diabetes Mellitus is a significant problem that frequently restricts patients activity specially hand function due to Carpal Tunnel Syndrome. The purpose of this study was to investigate the efficacy of low level laser therapy Vs ultrasonic therapy in the treatment of CTS for diabetics. Subjects. 30 diabetic patients with CTS (11 males, 19 females), age (44.467±3.3) years were randomly assigned into two groups: group (A) received LASER therapy & group (B) received ultrasonic therapy 3 times/week for six weeks. Results. Pain score was more significantly decreased in group A than in group B, mean was decreased from (7.13±1.3) to (2.87±1.3) and from (7.53±1.5) to (7.07 ±1.49) respectively. Hand grip measurements has more significant increase in group A than group B, mean was increased from (9.4±2.13) to (16.2 ±2.27) and from (9.73±2.12) to (10.87±2.9) respectively. EMG studies indicate that group A was improved more than group B after treatment. Conclusion. LASER therapy is more effective in the treatment of CTS for diabetics than ultrasonic as pain decreased and the hand function improved with laser .than ultrasonic.

Key words : Carpal Tunnel Syndrome, Diabetes mellitus, Ultrasonic Therapy, LASER Therap.

Arabic Title Page : مدى كفاءة الليزر منخفض الشدة في مقابل الموجات فوق الصوتية لعلاج اختناق العصب الأوسط عند الرسغ لمرضى السكر.
Author : Mariam EI-Sayed Mohamed.
Title : Ventilatory Function Response to Supported versus Unsupported Arm Exercise among Elderly.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Hala M. Ezz EI-deen Hamed, Awny Fouad Rahmy, Neveen Hemami Mohamed.
Degree : Master.
Year : 2006.
Abstract:
The aim of this study was to compare the effect of supported versus unsupported arm exercise training on the ventilatory functions in elderly. Thirty elderly subjects (17 male and 13 female) were participated in the study, their age ranged from 60 to 75 years. They were divided into two study groups equal in number. The group I comprised of 15 subjects who received a training program of supported arm exercise and group n received a training program of unsupported arm exercise. The results showed that the forced vital capacity, the vital capacity, the forced expiratory volume in 1st second, the maximum voluntary ventilation and the forced expiratory volume/forced vital capacity ratio were significantly improved in both groups but the percentage of improvement of last three variables was significantly higher in group I.
Key words : elderly, accessory muscles, arm exercise, ventilatory function.
Arabic Title Page : استجابة وظائف التنفس لتمرينيات الذراعين المسنة والغير مسنة لكبار السن.
Author : Mohamed Kotb Khalil Seyam
Title : Blood Gases Response to Respiratory Muscle Training in Patients with Spinal Cord Injury
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2006.
Abstract :
The aim of this study was to investigate the effect of respiratory muscle training in blood gases in patients with spinal cord injury. Twenty patients with acute complete neurological deficit (C3–8), (15 male and 5 female) participated in the study, their age ranged from 21 to 45 years. They were studied after their medical and neurological conditions have stabilized and they were free from any active pulmonary disease. They received daily treatment of inspiratory muscle weight training for six weeks. The arterial blood gases and pulmonary function test are measured before and after exercise program. There were a significant improvements in the arterial blood gases and pulmonary function test following a six weeks of respiratory muscle training program. So respiratory muscle weight training can be used in training of respiratory muscles in patients with spinal cord injury.

Key words : Spinal cord injury, breathing exercise, arterial blood gases, pulmonary function.

Arabic Title Page : استجابة غازات الدم لبرنامج تدريبي لعضلات التنفس لمرضى إصابات النخاع الشوكي.
Author : Mostafa Sayed Abd EI-Fattah.
Title : Glycemic Control Response to A Combined Aerobic and Resistance Exercise versus Aerobic Exercise in Diabetic Patients.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Awny Fouad Rahmy, Shehab Mahmoud Abd EI-Kader, Laila Ahmed Rashed.
Degree : Master.
Year : 2006.
Abstract : The aim of this study was to compare the effect of a combined aerobic & resistance exercise versus aerobic exercise on glycemic control in diabetic patients. Twenty type 2 diabetic patients (10 male and 10 female) participated in the study, their age ranged from 40 to 55 years. They were divided into two equal groups. Group (A) performed a combined aerobic & resistance exercise, while group (B) performed aerobic exercise. The program continued for 8 weeks (three sessions per week). HbA1c and BMI were measured at the beginning and after the exercise program for both groups. Significant reduction in HbA1c was observed in both groups after exercise program. There was a significant reduction of BMI in group (B), but the results of group (A) indicated non significant changes in BMI. So it is recommended to use both resistance and aerobic exercises in order to improve glycemic control in type 2 diabetic patients regardless the reduction in body weight.
Key words : aerobic exercise, resistance exercise, glycemic control, diabetes mellitus.

Arabic Title Page : استجابة التحكم في سكر الدم لبرنامج مركب من التمرينات الهوائية و تدريبات التناوب مقابل التمرينات الهوائية لمرضى داء السكر.
Author : Rehab Farrag Mohammed Ali.
Title : The Effect of Non-Invasive Continuous Positive Airway Pressure on Blood Gases in Patients with Congestive Heart Failure.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Zeinab Mohamed Helmy, Hala Mohamed Ezz EI-Deen, Mostafa Abd - El Salam.
Degree : Master.
Year : 2006.

Abstract:
This study was designed to investigate the effect of continuous positive airway pressure (CPAP), on blood gases (PaO2, PacO2, SaO2, HCO3, and pH), as well as hemodynamic variables (HR, RR, SBP, and DBP) in patients with acute pulmonary edema secondary to congestive heart failure (CHF). Twenty patients (11 females and 9 males) were recruited from emergency department at National Heart Institute, and enrolled in this study. Their age ranged from (50 to 65 years) with mean values of(57±6.3 years). All patients had acute exacerbation of CHF with acute cardiogenic pulmonary edema (ACPE) secondary to either ischemic heart disease (IHD), 11 patients (55%), or ischemic cardiomyopathy (ICM), 9 patients (45%). The blood gases (PaO2, PacO2, SaO2, HCO3, and pH), and hemodynamic variables (HR, RR, SBP, and DBP) had been measured before entry to study (Pre), immediately after (Post I), and after 30 minutes (Post II) of CPAP therapy, through using Acid-Base Analyzer device, and ECG monitor respectively. The results of this study revealed significant reduction of hemodynamic variables (HR, RR, SBP, and DBP), immediately after application of CPAP. These improvements continued after removal of CPAP therapy with 30 minutes. The results showed significant increase in PaO2, and SaO2, immediately after CPAP therapy, while HCO3, and pH increased but not reaches statistical significant level. The results revealed continuous significant reduction (p<.05) in PaCO2 after 30 minutes of the end of CPAP. The results: the CPAP therapy is feasible, safe and well tolerated at emergency setting for patients with ACPE secondary to congestive heart failure. As it relief their clinical and symptomatic signs as well as laboratory finding of blood gases of acute pulmonary edema.

Key words : Continuous positive airway pressure, heart failure, acute cardiogenic pulmonary edema.

Arabic Title Page : تأثير جهاز ضغط الأنف الإيجابي المستمر الغير تداخلي على غازات الدم في مرضى فشل عضلة القلب المحتملين.
Author : Suzan Mahmoud Habshi.
Title : Arterial blood gases response to incentive spirometry versus continuous positive airway pressure after coronary artery bypass graft.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza Fikry Ismail, Lotfy Mohmed Eissa, Shehab Mahmoud Abd El-Khader.
Degree : Master.
Year : 2006.
Abstract : The aim of this study was to determine the efficacy of incentive spirometry and continuous positive airway pressure on improving the arterial blood gases after coronary artery bypass grafting surgery. Thirty patients had coronary artery bypass grafting surgery participated in this study divided into two groups. The first group received incentive spirometry, the second group received continuous positive airway pressure, there were statistical significant increase in PaO\textsubscript{2} and decrease in PaCO\textsubscript{2} after half an hour of using continuous positive airway pressure and after two hours of using incentive pirometry. But there were no statistical significant change in arterial blood gases result after half an hour of using incentive spirometry and after two hours of using continuous positive airway pressure. So continuous positive airway pressure can be introduced as a method of treatment for patients which need immediate increase in arterial blood gases following surgery, and incentive spirometry is easonable intervention for reducing the risk of pulmonary complications after cardiac surgery.
Key words : Arterial blood gases, incentive spirometry, positive airway pressure, coronary artery bypass graft.

Arabic Title Page : استجابة غازات الدم الشرياني لاستخدام جهاز الحافز التنفسي مقارنة بجهاز ضغط التنفس الإيجابي المستمر بعد جراحات ترقيق الشريان التاجي.
Physical Therapy Department for Musculoskeletal Disorder and its Surgery
Author : Ahmed Mohamed Fathy El Shewy.
Title : Pulsed Electromagnetic Field Versus Traditional physical Therapy In The Treatment of Chronic Mechanical Low Back Pain.
Supervisors : Salwa Fadlle Abd ElMajeed, Yasser Hassan El Miligui, Alaa A. Balbaa.
Degree : Master.
Year : 2006.
Abstract:
The purpose of this study was to examine the effects of pulsed electromagnetic field (PEMF) therapy on patients with chronic mechanical low back pain. Thirty patients were assigned randomly in to 2 groups. Subjects in the experimental group (n=15) received traditional physical therapy program (Infrared radiation, ultrasonic, stretching exercises and strengthening exercises for back and abdominal muscles) as well as pulsed electromagnetic field (PEMF), were as subjects in the control group (n == 15) received traditional physical therapy only. The following parameters including pain severity, functional disability and lumbar rang of motion (flexion, extension, right side bending and left side bending) were measured before and after 4 weeks of treatment. Results: The results showed significant improvement in all parameters in experimental group compared with those at control group. Conclusion: on the basis of the present date, it is possible to conclude that PEMF is effective as a method of treatment for chronic mechanical low back pain (CMLBP) patients with the parameters used in the present study.
Key words : Pulsed Electromagnetic Field, Chronic Mechanical Low Back Pain.

المجال الكهرومغناطيسي المتقاطع مقابل العلاج الطبيعي التقليدي في علاج ألم أسفل الظهر الميكانيكي المزمن.
Author                      : Ahmed Samir Mohamed Fathy.

Title                     : Effect of cervical stabilization exercises in treatment of chronic mechanical neck pain.


Supervisors               : Salwa Fadl.

Degree                    : Master.

Year                      : 2006.

Abstract
The purpose of this study was to clarify the importance of cervical stabilization exercises based rehabilitation program in the treatment of chronic mechanical neck pain. A comparison was held between two groups of chronic mechanical neck pain patients (A&B). Both groups received a traditional physical therapy program but group (B) received cervical stabilization exercises based rehabilitation program in addition. Treatment outcome was determined from: 1) scores of Neck Pain and Disability Scale (NPAD) as a self reported measure, 2) cervical range of motion determined by tape measurement to cervical flexion, extension, and right & left side bending and right & left rotation. The results showed a statistically significant decrease in the scores of (NPAD) scale in both groups (A&B) with greater decrease in group (B) (P<0.05). Also a statistically significant increase in cervical range of motion in both groups (A&B) (P<0.05). And there was no statistical difference in range of motion increase in both flexion and left bending between group A and B (P<0.2). While the results showed a statistically significant increase in other cervical range of motion variables in between groups (A&B) with greater increase in group B (P<0.05). Conclusion: The addition of cervical stabilization exercises to the traditional physical therapy program is more effective than traditional physical therapy program in reducing neck pain and functional disability and is more effective in increasing cervical range of motion and is recommended for treating patients with chronic mechanical neck pain.

Key words                   : neck pain, cervical stabilization exercises, Neck Pain and Disability Scale, Physical Therapy, range of motion, assessment.

Arabic Title Page          : تأثير تدريبات التثبيت العيني في علاج ألم العنق الميكانيكية المزمنة.
Introduction: Physical therapists routinely assess relaxed standing posture to help identify possible problems with the spine. The purpose of the study was to assess any deviation in the lumbar lordosis and pelvic inclination in chronic mechanical low back pain patients. Methods: forty subjects participated in this study were assigned randomly into two groups; group (A) twenty healthy subjects with age ranged from 25-44 years old and group (B) twenty patients were diagnosed as chronic mechanical low back pain (CMLBP) with age ranged from 25-48 years old. The lumbar lordosis and the pelvic inclination angles were determined by the formetric II system. The results: the independent samples t-test was used to identify the difference between the experimental and the control group. The healthy subjects and the CMLBP patients assumed the same lordotic curvature as well as the pelvic inclination angle as there was no significance difference, but the healthy males differed from the CMLBP males for the pelvic inclination angle, the healthy males and the healthy females did not assume the same lordotic curve as well as the pelvic inclination angle and they differed from each other, also the same for the CMLBP males and the CMLBP females. Conclusion: Pelvic tilting exercises can be used to modify lumbar curvature as there is a strong correlation between them.

Key words: Low back pain, lumbar lordosis, pelvic inclination, assessment and 3D-analysis.
Author: Mohamed Abdel Monem Abdel Jayed.
Title: Phonophoresis Versus Ultrasound in the Treatment of Frozen Shoulder.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors: Salwa Fadle Abdel Mageed.
Degree: Master.
Year: 2006.
Abstract:
The purpose of this study was to determine the effects of phonophoresis and therapeutic exercises, the effects of ultrasound and therapeutic exercises and to compare both effects in the treatment of posttraumatic second stage frozen shoulder through detecting its effects on shoulder pain, shoulder flexion, abduction and external rotation active range of motion. Forty patients suffering from unilateral frozen shoulder participated in this study; they were randomly assigned to either group (A) that received ultrasound and program of therapeutic exercises and group (B) that received phonophoresis and the same program of exercises. Patients in both groups were evaluated pre, mid and post treatment for shoulder pain, shoulder active flexion ROM, shoulder active abduction ROM and shoulder active external rotation ROM. Patients in both groups received 18 sessions (three sessions every week for 6 weeks). Comparison of the results pre and mid treatment showed non significant improvement in group (A) in all measured variables and non significant improvement in group (B) in all measured variables except for pain which improved significantly in the mid treatment assessment. Post treatment assessment of ultrasound group showed significant improvement in pain and active range of motion, significant improvement of phonophoresis group was detected in all variables. On comparing both groups post treatment the results showed significant reduction of pain and significant improvement of shoulder flexion, abduction and external rotation active range of motion for phonophoresis group more than that of ultrasound group.
Key words: frozen shoulder, exercises, mobilization, physical therapy, shoulder pain, ultrasound, phonophoresis.

Arabic Title Page: تأثير انتقال العقاقير بالموجات فوق الصوتية على حالة النقرس المبكر من خلال العلاج الكنف المتجدد.
Abstract:
The diagnosis of carpal tunnel syndrome is based on a combination of characteristic symptoms and electro-physiologic abnormalities. Nevertheless, an electrodiagnostic study remains an expensive and time consuming procedure not readily accessible to many physicians who are encountering the disease. The purpose of the study was to suggest and establish a reliable measurement to assess and classify CTS and compare these results with NCV tests. Methods: forty subjects participated in this study were assigned randomly into two groups; group (A) twenty healthy subjects with age ranged from 28 to 58 years and group (B) twenty patients were diagnosed as carpal tunnel syndrome with age ranged from 30 to 60 years. Both groups were assessed by using the suggested new scale and the nerve conduction velocity study (NCVS). The results: the dependent samples t-test was used to identify the difference between the assessment results of the suggested new scale and NCVS for both groups. Conclusion: when compared to the motor NCV test, the new score was effective to assess and diagnose CTS. The new score was also reliable to classify and detect degree of severity of CTS. The new score had more sensitivity and specificity than the motor NCV study.

Key words:
Carpal tunnel syndrome, suggested scoring system, nerve conduction velocity study.

Arabic Title Page:
تقييم وتصنيف اختناق العصب الأوسط حول الرسغ باستخدام نظام النقاط.
Abstract:
The purpose of this study was to compare between the efficacy of intermittent lumbar traction and continuous lumbar traction in back and leg pain severity, ankle dorsiflexors strength, ankle calf muscles strength, and functional disability in patients with lumbar disc herniations L4-L5 or L5-S1 level. The results revealed that intermittent lumbar traction produced a significant reduction of back and leg pain with $P<0.05$, a significant increase of the ankle dorsiflexors strength, with $P<0.05$, a significant increase of the calf muscles strength with $P<0.05$ and a significant reduction of functional disability with $P<0.05$. For the continuous lumbar traction there was non significant reduction of back and leg pain severity, non significant increase of the ankle dorsiflexors strength, non significant increase of the calf muscles strength and non significant reduction of functional disability. There was a significant difference between both types of traction in favor of the intermittent lumbar traction.

Key words: Lumbar disc herniation, radiculopathy, traction, pain, disability, ankle muscles strength.
Author : Remon Wadie Adly Mankarious.  
Title : Postural correction rehabilitation program combined with traditional versus sole traditional in chronic mechanical neck pain.  
Supervisors : Ibrhaim Magdy El nagger, Abd EL Aziz El Singergy, Salwa Fadle Abd El Majeed.  
Degree : Master.  
Year : 2006.  
Abstract : The purpose of this study was to compare the effect of postural correction rehabilitation program combined with traditional physical therapy program and traditional physical therapy program on reducing neck pain severity and increasing total head excursion angle. Both groups had significantly less neck pain severity after treatment (P < 0.05) but the postural correction rehabilitation program combined with the traditional program was more effective in reducing pain. The posture correction rehabilitation program combined with the traditional had a significant effect in increasing total head excursion angle while the traditional physical therapy program had no effect in increasing the angle. There was 'a negative relationship between neck severity and total head excursion angle.  
Key words : mechanical neck pain, postural correction, total head excursions angle.

Arabic Title Page : البرنامج التأهيلي التصحيحي والتقليدي مقابل البرنامج التقليدي في الالعاق الميكانيكي.
Physical Therapy
Department of Surgery
Author : Abdul Monem El-Sayed Yousif.
Title : Effect of Para-Incisional and Zusanli Point Electrical Stimulation on Pain Medication Requirements in Post Inguinal Herniorrphy.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2006.
Abstract :
Background: Using of transcutaneous electrical nerve stimulation TENS to relieve postoperative pain still an important and growing area of research. The proper location of TENS electrodes is not been well investigated. The purpose: of the study was to investigate the effect of Para. Incision and stimulation of special acupuncture point (Zusanli) with electrical stimulation on acute pain. Subjects: Forty patients whom underwent elective inguinal herniorrphy were included in current study. Their ages ranged from 30 years old to 50 years old, among this number only 3 patients were females. They were chosen from the surgical ward of Monouf general hospital and were randomly and equally assigned to four groups. Methods: Group A, received electrical stimulation ES on Zusanli (Stomach. 36), group B, received ES on paraincisional. Group C, received ES on Zusanli (St. 36) and paraincisional at the same time and group D, received sham ES on the same location as group A. All groups were stimulated using an adhesive surface electrode. The consumption of pain medication requirements (opioids and nonsteroidal anti-inflammatory drugs) were calculated for each patient. Results: The results showed that the requirements for pain medication were significantly reduced among groups A, and B, p = 0.025 and it was significant reduced in group C, p = 0.0001. Discussion and conclusion: The findings revealed that the best location of TENS electrodes to reduce pain medication requirements postoperatively was on the paraincisional and Zusanli (St. 36) at the same time.
Key words : Postoperative pain, TENS, lower abdominal surgery.
Arabic Title Page : تأثير التنبيه الكهروبي لجانبي الجرح ونقصة زوسانلي على احتياجات الأدوية المثبتة لللآلام فيما بعد إصلاح الفنق الإربي.

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Abstract: The purpose of the current study was to establish intrarater and interrater reliability of saline and dental impression material methods in measuring ulcer volume. Pressure ulcer volume measurements were obtained in 40 patients with third degree ulcers. All patients received the two measuring techniques (filling the ulcer with saline, molding a dental impression material). Known volume of saline was injected into the ulcer to measure its volume. A negative impression mold of alginate (dental impression material) was made, then it was placed in water and volume was obtained by amount of displaced water. Intraclass correlation coefficients (ICCs) for intrarater measurements were 0.99 for each method. The ICC values for interrater measurements were also 0.99 for each method. It could be concluded that intrarater and interrater ulcer volume measurements can be taken reliably with the saline and dental impression material methods.

Key words: Wound healing, Ulcer volume, Measurements.

Arabic Title Page: مصداقة وسيلة المحول الملحي ومادة الانطباع السنى لقياس حجم قرح الفراش.
Author : Akram ahmed maher.
Title : Efficacy of early versus late therapeutic intervention on the functional results after finger flexor tendon repair.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2006.
Abstract :
The study was undertaken to compare between two different starting times of early controlled motion programs, for patients who had flexor tendon repair in zone II, using the Washington regime. Thirty patients participated in the study; fifteen of them received early therapeutic intervention and the other fifteen received delayed therapeutic intervention. Each patient was evaluated through measuring the TAM % and taking the mean of MHGS % It was concluded that the timing for starting therapy is not a significant affecting factor for patients who have flexor tendon repair in zone II.
Key words : finger flexor tendon repair, Washington regime.

Arabic Title Page : مقارنة بين فعالية التدخل المبكر و المتأخر لبرنامج العلاج الطبيعي على النتائج الوظيفية بعد جراحات توصيل الأوتار القابضة لأصابع اليد.
Author: Amira Farag Mohamed.
Title: Different transcutaneous electrical nerve stimulation modes in relation to post mastectomy phantom pain.
Dept.: Physical Therapy Department for Surgery.
Supervisors: Zakaria Mowafy Emam, Alaa Osman, Mohamed Mahmod Khalaf.
Degree: Master.
Year: 2006.
Abstract:
The purpose of this study was to investigate different TENS modes in relation to post mastectomy phantom pain. Forty five post mastectomy phantom pain patients were assigned randomly into one of equal three groups, (acupuncture-like TENS group) who received acupuncture-like TENS only, (conventional TENS group) who received conventional TENS only, and control group (placebo). Methods. Pain was evaluated by using visual analogue scale, and measuring serum cortisol level for each patient pre treatment, after one month and after two months of treatment. The physical therapy program began within the first four months after surgery for all group. Patients in experimental groups received different TENS modes 3 times weekly with duration of 25 min for each session. Results showed a statistically significant decrease of pain in experimental groups compared by the control one. The acupuncture-like TENS group showed decrease of pain more than conventional TENS group but with no significant difference.. Conclusions. The results of the study recommended the use of TENS in the relieve of post mastectomy phantom pain. Acupuncture-like TENS may be more effective in treating such cases.

Key words: breast cancer, mastectomy, phantom pain, conventional TENS, acupuncture, TENS.

Arabic Title Page: علاقة الالتما ا المختلفة للتنبيه العصبي الكهربائي عبر الجلد في علاج الألم الوعيي بعد استئصال الثدي.
Author : Hadaya Musaad Rizk EI-Adl.
Title : Hyperbaric Oxygen Therapy and Burn Healing.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Zakaria Mowafy Emam, Mohamed EL-Sherif M. EI Sarky, Mohamed M. Khalaf.
Degree : Master.
Year : 2006.
Abstract:
Bums are very common, weather caused by chemicals, electricity or fire, and are among the most difficult injuries as well as among the most difficult to treat. In this study, we studied the efficacy of hyperbaric oxygen therapy on bum healing. By collecting sufficient information about therapeutic uses, safe and effective administration. To be a guide or reference for the whole workers in the medical field.
Key words : Hyperbaric Oxygen Therapy, Burn healing.
Arabic Title Page : العلاج بالاكسجين المضغوط والتنام الجروح.
Author : Haidy Nady Asham.
Title : Efficacy of aerobic training program on weight reduction after gastroplasty in female.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Wafaa Hussein Borhan, Alaa Abbas Sabry Moustafa, Mohamed Mahmoud Khallaf.
Degree : Master.
Year : 2006.
Abstract:
The purpose: This study was undertaken to determine if differences on weight reduction existed between a group of 20 morbid obese female patients (Experimental Group) who had undergone Vertical Banded Gastroplasty (VBG) and who received Aerobic training program and other group of 20 obese patients (Control Group) had undergone VBG only. Methods: data were obtained for each patient from history about the presence of any functional, social or economic problems and psychological status; determination body mass index (BMI), serum cholesterol and triglycerides level were done after six weeks postoperative (pre- exercise) and at six months postoperative. The physical therapy program began, six weeks post operative for experimental group. Including aerobic exercises performed on the stationary bicycle, for 40 min, 3 sessions per week for 6 months Results: showed a statistically significant decrease in BMI, total serum cholesterol and triglycerides in both groups, with a higher rate of reduction in experimental group. Conclusion: these results suggested that aerobic training program had a significant effect on weight reduction after Vertical Banded Gastroplasty than VBG only.

Key words : Gastroplasty, Aerobic training program, BMI, Morbid obesity.

Arabic Title Page : تأثير برنامج التدريب الهوائي على إنقاص الوزن بعد عملية تدبيس المعدة في السيدات.
Author : Maha Abd-EI Monem Hassan.
Title : Efficacy of Laser Therapy and Pressure Garment on Post mastectomy Lymph edema and Pain.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Adel Abd-El Hamid Nosseir, Mohammed Abd EI amid El Kalaawy.
Degree : Master.
Year : 2006.
Abstract:
Purpose: this study was designed to evaluate the efficacy of low level laser therapy (LLL T) alone and in combination with pressure garment on post mastectomy lymph edema and pain. Methods: forty-five patients with auxiliary lymph node dissection (ALND), with or without radiotherapy had been participated in this study. These patients were randomly divided into three groups of equal numbers. Group A & B was received laser therapy. For group A pressure garment was wore and it provided pressure of (40 to 60mmHg), while no pressure garment for group B and an traditional physical therapy was conducted for both groups. Group C; received placebo laser therapy in addition to traditional therapy. The measurement of limb volume and serum cortisol level (SCL) was collected before treatment (Pre), immediately after 45 days (Post 1), and After three months surgery (Post 2). Results: The results of patients demographic data of age, duration of lymph edema, clinical characteristics, limb volume and SCI at entry of the study revealed no significant differences (P>0.05), while the mean values of limb volume and SCI at 45 days (Post 1) and post 3 months showed significant differences between groups of the study with greater percentage of improvement for patients in group A. Conclusion: a combination of laser therapy with pressure garment had significant effect on edema reduction and SCL than laser therapy alone. For this a program of laser therapy and pressure garment with additional use of decongestive physical therapy for patients with lymph edema help to reduce limb volume and pain.
Key words : Laser, Lymphedema, Mastectomy, Pain.
Arabic Title Page : فاعلية العلاج بالليزر و الشراب الضاغط على الاستسقاء الليمفاوي و الألم بعد استئصال الثدي.
Author : Marwa Mahamoud Abe EI Moteleb Eid.
Title : Electrical stimulation and Urinary Dysfunction: A Review Study.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Adel Abd EI Hamed Nossier, Abo Zeid Awad Mansour.
Degree : Master.
Year : 2006.
Abstract:
To determine the effect of electrical stimulation on bladder dysfunction, the most recent researches and studies were collected to clarify the safe and effective administration of electrical stimulation in bladder dysfunction. Method of application, repeatability of treatment different parameters used and how to assess the effect of stimulation should be taken in to consideration. In conclusion most of electrical stimulation techniques are in most cases of urinary dysfunction with minimal side effects.

Key words : electrical stimulation, urinary incontinence, dysfunction.

Arabic Title Page : التبيء الكهربائي والخلل الوظيفي للجهاز البولي: دراسة تجميعية.
Author : Mohamed Fetouh Mahmoud Rawash.
Title : Effect of acupuncture-like transcutaneous electrical nerve stimulation on serum cortisol level in post skin grafting.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2006.
Abstract : The aim of this work was to evaluate the effect of acupuncture-Like transcutaneous electrical nerve stimulation (TENS) on the serum cortisol (SCL) and pain levels after grafting of burned leg. Subjects; Forty patients were divided to control group (A), were immobilized by ankle splint and same immobilization done for the study group (B), in addition to TENS. The treatment was started from 1st to 10th day post grafting for 30 minutes daily. Evaluation; SCL by Elecsys 2010 system and pain by Visual analogue scale (VAS). Results; Showed high significant difference of SCL and VAS values between both groups pre and post operative. Conclusion; TENS post skin grafting has decreased SCL and pain.

Key words : Burn, Skin Graft, TENS, Pain, Serum Cortisol level.

Arabic Title Page : تأثير التنبيه العصبي الكهربائي المماثل للتوخز بالآجر الصينية عبر الجلد على مستوى كورتيزول الدم فيما بعد ترقيق الجلد.
Abstract:
The available researches, and studies related to ozone therapy that include; indications, methods of administration, clinical application as well as the biochemical, and biological effects under which it produce its therapeutic action especially in cases of skin dysfunctions were collected to clarify role of ozone therapy in such cases. In conclusion, ozone therapy is an effective method in treatment of skin dysfunctions, if it is used by suitable technique and concentration for each case.

Key words: Ozone therapy, Skin Dysfunction.

The available researches, and studies related to ozone therapy that include; indications, methods of administration, clinical application as well as the biochemical, and biological effects under which it produce its therapeutic action especially in cases of skin dysfunctions were collected to clarify role of ozone therapy in such cases. In conclusion, ozone therapy is an effective method in treatment of skin dysfunctions, if it is used by suitable technique and concentration for each case.

Key words: Ozone therapy, Skin Dysfunction.

Arabic Title Page: العلاج بالأوزون: تاريخه تطبيقاته في الخلل الوظائفي للجلد.
Author : Sherin Mohamed Elsayed.
Title : Effect of multidimensional exercise program on fatigue of cancer patients undergoing chemotherapy.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2006.
Abstract:
The purpose of this study was to determine the effectiveness of exercise program on fatigue of cancer patients undergoing chemotherapy. Forty patients, who had cancer and complaining from fatigue, and in the first cycle of chemotherapy, were participated in this study for the treatment period of six weeks. They were equally and randomly divided into two groups. Patients in control group were treated with chemotherapy only while patients in the study group had chemotherapy in addition to exercise sessions three times per week for six weeks. They all were assessed by cardiopulmonary exercise unit and test battery. Results showed that there were clinical and statistical significant improvement in the functional outcomes and overall abilities in cancer patients (breast, lung and mesothelioma) receiving chemotherapy postoperatively as demonstrated by the significant improvement noticed in all test battery items and the mean values of the maximum heart rate response to exercise assessed in the treatment group more the control group. The previous results forcefully support the adding of a multidimensional exercise program in cancer patients receiving chemotherapy postoperatively as a routine program in the management of post chemotherapy fatigue syndrome.

Key words : Fatigue, Cancer, Chemotherapy, Cardiopulmonary Exercise Unit.

Arabic Title Page : تأثير برنامج التمرينات متعددة الاتجاهات على الإرهاق في مرضى السرطان الخاضعين للعلاج الكيميائي.
Author : Zizi Mohamed Ibrahim Ali.
Title : Acceleration of wound healing with high voltage pulsed galvanic versus micro current stimulation in burned patients.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2006.
Abstract:
Purpose: To evaluate the efficacy of the electrical stimulation (microampere current and high voltage pulsed current) on acceleration of burned wounds healing by using two various methods of evaluation (wound surface area and colon count). Methods: Forty-five patients with dermal burn injuries on the forearm. The Patients were randomly divided into three groups {two studies (electrical stimulation groups) and one control (placebo group)}. The WSA and Colony count had been measured 48 hours after burn injury (Pre), after 10 days Post (1), and 21 days Post (2) from the beginning of treatment for all groups. For Group A (HVPC Group), the HVPC was set for the treatment with following parameters; pulse duration of 100 microsecond, frequency of 80Hz. Voltage ranged from 25 to 80volts, with total duration of treatment of 45 minutes, per day for three week. For group B (Micro amperage Group); the treatment set at, constant current of 50% of duty cycle, at 0.3 Hz with modified square biphasic pulsed waveform and intensity of 600 microamperes .Results:- The result showed that there was significant decrease in WSA also; and colony count in MENS group and HVPC group compared to the control placebo group. In relation to WSA the study revealed that the results obtained in Group B were superior to that of Group A, but in relation to colony count Group A, was superior to Group B. Conclusion:- It was concluded that both high voltage pulsed current and micro amperage electrical stimulation were effective in accelerating wound healing.
Key words : Burn, Colony count, High voltage pulsed current, micro amperage electrical stimulation, wound surface area and wound healing.

Arabic Title Page : تعجيل التنام الجروح بواسطة التيار عالي الفولتية مقابل التنبيه الكهربائي الدقيق لدى مرضى الحروق.
Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery
Author : Adel Ahmad Hassan Almad El Geoshy.

Title : Comparison of Ground Reaction Force between Normal Subjects and Parkinsonian Patients.


Degree : Master.

Year : 2006.

Abstract :
The purpose of this study was to evaluate the ground reaction force components in Parkinsonian patients and to compare them with that of age matched normal subjects. Twenty Parkinsonian patients and ten normal subjects participated in this study. This study calculated kinetic quantities of human gait, by using all components of the ground reaction force (vertical load, horizontal shear forces in the fore-aft and mediolateral directions), both in normal subjects and Parkinsonian patients by using force plate form. The results of this study showed a highly significant reduction of ground reaction force in all parameters of ground reaction force of Parkinsonian patients when compared with control group, except the reduction of the mediolateral component of the first peak which is non significant. So assessment of ground reaction force should be considered as a valuable tool in diagnosis, rehabilitation and prognosis of Parkinsonian patients.

Key words : Parkinson's disease, gait analysis, ground reaction force.

Arabic Title Page : مقارنة قوة رد فعل الأرض لمرضى الشلل الرعاش و الأشخاص الطبيعيين.
Author : Ayman Anwar Nassif.
Title : Transcranial Electromagnetic therapy efficacy on spasticity in Stroke patients.
Degree : Master.
Year : 2006.
Abstract:
Back ground: The purpose of this study was to examine the effect of low frequency and low intensity pulsed magnetic field therapy on spasticity in Stroke patients. Thirty hemiplegic patients were assigned randomly into two equal groups. Subjects in the study group (n = 15) received traditional physical therapy program (stretching, strengthening, balance and gait training exercises) as well as low frequency and low intensity pulsed magnetic field. Whereas subjects in the control group (n = 15) received traditional physical therapy program and sham magnetic therapy. The following parameters including muscle tone, time of "Timed up and go" test, laboratory examinations (3-D motion) were measured before and after six weeks of treatment program. Results: there was non significant improvement in the study group in comparison to control group. Conclusion: it can be concluded that the suggested physical therapy program is effective in improving the control over spasticity and consequently could improve gait in stroke patients. The transcranial electromagnetic therapy (with the frequency and intensity used in this study) adds no benefits other than those gained by physical therapy program.
Key words : Stroke, Spasticity, 3-D Measurements, Pulsed Magnetic Therapy.

Arabic Title Page : كفاءة العلاج الكهرومغناطيسي عبر الجمجمة على التشنج العضلي لمرضى السكتة الدماغية.
Author : Bassam Abd El-Mageed Mohammad Refaat.
Title : Kinematic and Electromyographic Analysis of Reaching Pattern in Stroke Patients.
Supervisors : Nawal Abd El-Raouf Abou Shady, Maha Atif Zaki, Abeer Abo Bakr Elwishy.
Degree : Master.
Year : 2006.
Abstract :
Background: A major prerequisite for successful rehabilitation therapy after stroke is the understanding of the mechanisms underlying motor deficits common to these patients. Objectives: Objectives of this study were to determine the influence of altered muscle activity amplitudes on active ROM and the level of motor impairment of reaching pattern. Methods: thirty stroke patients participated in the study. Their mean age was 48.5± 5.27. Analysis was conducted from sitting on a chair. The patients were instructed to reach for a target placed within their arm's length in forward horizontal plane by the affected then the non affected arm. Shoulder flexion, elbow extension and wrist extension ROM were analyzed by using three-dimensional motion analysis system. Muscular EMG amplitudes were recorded from the clavicular head of pectoralis major, anterior deltoid, lateral head of triceps and radial wrist extensors. The level of motor impairment was measured by the reaching performance scale. Results: There was a significant decrease in EMG amplitudes of the selected muscles and in ROM of shoulder flexion, elbow and wrist extension in the affected arm than the non-affected which intern affect the motor performance of reaching pattern in the affected arm of stroke patients. Conclusion: Reduction of EMG activity amplitudes of the selected muscles was considered as an important cause of limited ROM and increased level of motor impairment of reaching pattern in stroke population.
Key words : Stroke, EMG, 3-D Motion Analysis, Reaching Pattern.

Arabic Title Page : تحليل الحركة الديناميكية ورسم العضلات الكهربية لانموذج وصول اليد في مرضى السكتة الدماغية.
Purpose: this study was designed to evaluate the efficacy of electromagnetic field therapy on chronic low back pain patients. Methods: thirty four patients with chronic low back pain were randomly assigned into group I; (study ) who received pulsed electromagnetic field of (64Hz), amplitude of 300G, duration of treatment was 45 minutes, with static bipolar magnetic therapy), and group II; (control ) who received placebo pulsed electromagnetic field. The patients in both groups received traditional physical therapy in the form of superficial and deep heat, transcutaneous electrical nerve stimulation, and exercises therapy). Outcome measures included, pain intensity on visual analogue scale, functional disability on the Oswestry disability questionnaire, and lumbar range of motion by using modified-modified Schober test. These measurements were taken at baseline (pretreatment) and at the end of treatment (post-treatment). Results: the results showed that both groups were comparable and matched with no significant (P>0.05) differences for age, sex distribution, weight, height and duration of illness, pain intensity functional disability and lumbar range of motion at the entry of the study (pretreatment). Both pulsed electromagnetic field and control groups reported significant reduction of pain intensity and functional disability and increase of lumbar range of motion, when compared with their pretreatment values. Comparing the results of pain intensity, functional disability and lumbar range of motion between both groups revealed highly significant differences in favor of pulsed electromagnetic field. Conclusion: this study recommended the use of pulsed electromagnetic field as adjuvant methods for treatment of chronic low back pain, in addition to traditional therapy.

Key words : Pulsed electromagnetic field, Low Back Pain.

Arabic Title Page : كفاءة العلاج باستخدام المجال الكهرومغناطيسي في مرضى الام اسفل الظهر المزمن.
Author : Islam Mahmoud Abd-allah Al-Azab.

Title : The efficacy of peripheral manipulation for shoulder dysfunction in stroke patients.


Supervisors : Moshera H. Darwish.

Degree : Master.

Year : 2006.

Abstract:
The aim of this work was to investigate the efficacy of peripheral manipulation for shoulder dysfunction in stroke patients. Subjects and Methods: Thirty male hemiparetic stroke patients were assigned randomly into two equal groups; the study group (G1) and the control group (G2). Their ages ranged from 45 to 61 years with mean age 52.27. Both groups received the designed program of treatment. The control group received traditional exercise therapy in addition to Proprioceptive Neuromuscular Facilitation technique. The study group received the same program of treatment as the control group plus peripheral manipulation for the shoulder girdle region. Both groups were treated three times per week for successive six months. Results: The data were collected pre and post treatment for both groups. Three Dimensional Analysis System was used for evaluation of shoulder range of motion. Pain was assessed by Visual Analogue Scale (VAS) and Activities of Daily Living functions (ADL) were examined by Quality of Life Index Scale (QoLI). The results shown that both groups were improved clinically and functionally with significant improvement of study group than control group subjects.

Conclusion: Peripheral manipulation is an effective treatment modality for shoulder dysfunction in stroke patients.

Key words : Peripheral Manipulation, Shoulder Dysfunction, Stroke.

Arabic Title Page : كفاءة التحريك اليدوي الطرففي لاضطرابات الکتف الوظيفية لمرضى السكتة الدماغیة.
Author : Rasha Meselhy Abd Elnaby Hegazy.
Title : Motor Relearning of the Hamstring Muscles in Stroke Patients.
Degree : Master.
Year : 2006.
Abstract:
The purpose of this study was to evaluate the efficacy of motor relearning program of the hamstring muscles on gait parameters in stroke patients. Forty recent stroke patients were included in this study for this purpose. Patients were divided into two equal groups; Study group1 and Study group2. Patients in the study group1 received the conventional program of treatment in addition to the motor relearning program to hamstring muscles, which consisted of biofeedback training as well as motor relearning exercises. While, patients in the study group2 received the conventional physical therapy treatment program only, this composed of neurodevelopmental techniques as well as tone modification methods (Bobath and Brunnstrom Techniques). Both groups were treated three times per week for six successive weeks. Two evaluations were performed pre-treatment and after six weeks (post treatment). The patients were assessed for the angle of knee flexion, hip extension, stride length, speed, cadence, swing and stance phase percent. The results of this study showed that both groups were improved in all measurements. However, the study group1 showed significant improvement than the study group2. It can be concluded that the motor relearning program applied to the hamstring muscles is essential in improving stroke patients' gait parameters.
Key words : Motor Relearning, Stroke, Gait parameters.

Arabic Title Page : إعادة التعليم الحركي لعضلة الفخذ الخلفية في مرضى السكتة الدماغية.
Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery
Author                       : Ahmed Maher Mohammed Gabr.
Title                       : Effect of Faradic Stimulation with Modified Denis Brown Splint in Treatment of Clubfoot.
Degree                      : Master.
Year                        : 2006.
Abstract
Purposes: to determine the effect of faradic stimulation with modified Denis Brown splint in treatment of clubfoot. Study Design: pre and post control group design. Materials and methods: twenty subjects with club feet from both sexes were participated in this study. They were divided into two groups; (A) included 10 subjects treated by faradic stimulation and modified Denis Brown splint (B) included 10 subjects treated with the traditional method by serial plaster casts Results: The study revealed that there were no significant differences between two groups and both of them gave good results in correction of the deformity Conclusion: we can use faradic stimulation with modified Denis Brown splint in treatment of club foot.
Key words                   : Faradic Stimulation, Modified Denis Brown Splint, Clubfoot.
Arabic Title Page           : تأثير التنبيه الفارادي مع جبيره دينيس براون المعدلة في علاج القدم الركضاء.
Author : Amira EI-Sayed Mohamed EI-Bagalaty.

Title : Cold Application Versus Topical Anesthesia Prior to Stretching of Achilles Tendon in Hemiparetic Cerebral Palsied Children.


Degree : Master.

Year : 2006.

Abstract : The purpose of this study was to evaluate and compare the effect of cold application and topical anaesthesia before stretching of Achilles tendon in hemiparetic cerebral palsied children. Twenty hemiparetic children (11 girls, 9 boys) aged between 3 and 5 years old participated in this study. They were divided randomly into two study groups of equal numbers, 10 patients each. Group I, received cold application while group II received topical anaesthesia. Both participating groups received stretching of tendo Achilles, strengthening of anterior tibial (AT) group of muscles in addition to the selected physical therapy program. Evaluation was carried out for each child individually before and after 3 months of application of different treatment programs. It included measurement of ankle excursion and AT muscle strength by using of electro-goineometer and electronic muscle tester respectively. The results of this study revealed a highly significant improvement in both study groups, but in favor in group II, while there was no significant difference between both groups in AT, muscle strength. From the obtained results, it could be concluded that, improvement of group II was attributed to the great effect of topical anaesthesia as an adjunct to the traditional line of treatment and stretching in hemiparetic cerebral palsied children.

Key words : cerebral palsy, hemiparesis, cold application, topical anesthesia, ankle excursion, AT muscle strength.

Arabic Title Page : دراسة مقارنة العلاج بالثلج وبالتخدير السطحي الموضعي قبل إطالة عضلة السماة في علاج حالات الفالج الشققي الطولي التشنجي لدى الأطفال.
Author : Hatem Hassan Allam.
Title : Effect of Treadmill Training on Gait Pattern in Down's Syndrome Children.
Supervisors : Emam Hassan EL-Negmy, Amira ElTohamy, Laila Abd EI – Motaleb.
Degree : Master.
Year : 2006.
Abstract : The purpose of this study was to investigate the effect of treadmill training on some selected kinematic gait parameters in children with Down's syndrome. Thirty Down's syndrome children, their age ranged from 7 to 10 years, participated in this study. The sample divided randomly into two groups of equal number, control and study groups. The control group, received conventional physiotherapy program including balance and it training programs. The study group received the same previous physical therapy program in addition to a specialized treadmill training program. Evaluation was carried out for both groups, before and after the application of the treatment program by using the 3-D motion analysis system. The results of this study revealed that there was a significant improvement in the selected kinematic gait parameters in both groups after the treatment. Also, highly significant difference was noticed in the gait pattern in favor of the study group when compared with the control group.
Key words : Down's syndrome, Gait abnormalities, Kinematic analysis, Treadmill.

Arabic Title Page : تأثير التدريب باستخدام سير المشي المتحرك على سير المشي في الأطفال المصابين بمتلازمة داون.
Author : Mamdouh Gabr Haggag.
Title : Effect of Abduction Hip Splint on Standing Posture Pattern in Spastic Diplegic Cerebral Palsied Children.
Supervisors : Emam Hassan El-Negamy, Faten Hassan Abd El-Azim, Lobna Mansour.
Degree : Master.
Year : 2006.
Abstract:
The purpose of this study was to evaluate the effect of abduction hip splint in combination with traditional physical therapy program on standing posture pattern in spastic diplegic cerebral palsied children. Twenty spastic diplegic children with ten months of age according to Denver developmental screening test participated in this study. They were classified randomly into 2 groups of equal numbers, control and study groups. The formetric instrument system was used to evaluate the spinal geometry in the form of trunk imbalance, pelvic tilt, pelvic torsion, surface rotation, and lateral deviation for both groups before and after three months of application of the treatment programs. The control group received a selected therapeutic exercise program. The study group received the same therapeutic exercise program given to the control group while wearing abduction hip splint. The pre-treatment results revealed non significant difference in all measuring variables between the two groups. With comparing the pre and post-treatment results for the control group, it revealed significant improvement in all measuring variables. Also, with comparing the pre and post-treatment results for the study group, it revealed significant improvement in all measuring variables. In addition, the results revealed significant difference in all measuring variables when comparing the post treatment results of the two groups in favor of the study group.
Key words : Cerebral palsy, diplegia, standing posture, abduction hip splint.

Arabic Title Page : تأثير الجبيرة الفاصلة لمفصل الفخذ على أنموذج الوقوف في حالات الأطفال المصابين بالشلل المخى التصليبي المزدوج.
Author : Marwa Mostafa Ibrahim Ismael.
Title : Geometrical Analysis of The Spine for Brachial Plexus Palsied Children.
Supervisors : Amira Mohamed El-Tohamy, Manal Salah El-Din Abd-Wahab, Hekmat Mohamed El-Sayed El-Ghdban.
Degree : Master.
Year : 2006.
Abstract : The purpose of this study was to evaluate the spinal geometry of brachial plexus palsied children specially those of upper trunk lesion (Erb's type) and compare results with those of normal children to identify the differences between the two groups. Fifteen Erb's palsied children and fifteen normal children participated in this study. All children ranged in age from three to six years. A formetric (rastersterography) system was used for assessing the spinal geometry of both groups. The data of Erb's palsied children was compared with that of normal group through un-paired t-test. The results of this study showed highly significant differences in the spinal parameters including trunk imbalance, surface rotation (rms), surface rotation (max), lateral deviation (rms), lateral deviation (max), kyphotic angle ICT-ITL (max) and kyphotic angle VP-T12 between the two groups except the parameter of kyphotic angle VP-ITL.
Key words : Erb's Palsy, Spinal geometry, Rastersterography.

Arabic Title Page : التحليل الهندسي للعظام الفقري لدى الأطفال المصابين بشلل مخ الولادة.
Author : Nanees Esaam Mohamed.
Title : Effect of Bobath Axillary Roll in Posture Adjustment of Spastic Hemiplegic Cerebral Palsied Children.
Supervisors : Amira Mohamed El-Tohamy, Bothina M. Abd El-Aziz El-Naggar, Heba Mohamed Youssr M. El-Basatiny.
Degree : Master.
Year : 2006.
Abstract:
The purpose of this study was to evaluate the effect of Bobath axillary roll in posture adjustment of spastic hemiplegic cerebral palsied children. The study was conducted on thirty spastic hemiplegic children ranging in age from 4 to 6 years from both sexes. They were classified randomly into two groups of equal numbers control group (A) and study group (B). Both groups received physical therapy program, in addition a specially designed posture correction exercise program, 3 times/week for 3 months but the study group (B) conducted them while wearing Bobath axillary roll. In all patients the posture was evaluated before and after the suggested treatment program by Formetric instrument system. The post treatment trunk imbalance, lateral deviation, pelvic tilt, kyphotic angle and lordotic angle results showed significant improvement of study group (B) which confirm the important of using Bobath axillary roll in rehabilitation program of spastic hemiplegic children.

Key words : Cerebral palsy, hemiplegia, Bobath axillary roll, posture, formetric.

Arabic Title Page : تأثير طية بوباث الإبطية على تعديل القواوم في أطفال الشلل المخى المصابين بالشلل النصفي التصليبي.
Author : Radwa S. abdelRahman.
Title : Effect of Computer Biofeedback Program on Hand 'Performance in Spastic Hemiparetic Cerebral Palsied Children.
Supervisors : Hoda A. El Talawy, khaled A. Mamdouh, Nadia A. Bamia.
Degree : Master.
Year : 2006.
Abstract : The purpose of this study was two fold research. The first part was to investigate the effect of using advanced technology in a form of computer biofeedback program -using joystick movements directed towards improving fine motor abilities and hand grip force through stimulation of visual-motor integration skills, however the second part was to compare this new trends of treatment with the traditional one used for improving fine-motor abilities and hand grip force for spastic hemiparetic cerebral palsied children. Peabody Developmental motor scale, second edition, (PDMS-2) and hand grip . dynamometer were used to assess Visual Motor Integration (VMI) and hand grip force respectively. Thirty young patients with spastic hemiplegic form of cerebral palsy (CP) participated in this study ranging in age from five to seven years. The patients were randomly divided into two groups of equal number. The first group (control group) treated by the traditional treatment used for improving fine-motor abilities, the second group (study group) treated by using a computer biofeedback program with joystick movements in different directions. Patients in both groups received their traditional physical therapy treatment program used for improving their physical activities. The results revealed that the use of a computer feedback program in form of attractive galmes drew the child's attention and maintained his/her concentration for longer periods of time leading to improvement of visual-integrative skills; consequently there was better improvement of fine-motor abilities in the study group than the control group. It was recommended to use advanced technology in a form of attractive games, as a source of augmented feedback in conjunction with the traditional treatment in the habilitation of upper extremities of children with spastic hemiparetic cerebral palsy.

Key words : Computer Biofeedback, Visual-motor integration, Fine motor skills, Hemiplegia, Cerebral palsy.

Arabic Title Page : تأثير برنامج التغذية الحيوية الرجعية بالكمبيوتر على أداء اليد عند أطفال الشلل المخى المصابين بالشلل النصفي التصليبي.
Author : Rania Mohamed Mahmoud Bedair.
Title : Effect of dynamic versus static ankle foot orthosis on lower leg spasticity control in diplegic cerebral palsyed children.
Degree : Master.
Year : 2006.
Abstract : Contractures are among the most common secondary impairments associated with cerebral palsy (CP) particularly for subjects with spastic type. So this study was done to detect the effect of dynamic versus static ankle foot orthoses (AFO) in decreasing calf muscle contracture and controlling spasticity in diplegic CP. 32 spastic diplegic children ranged in age from 2-3 years old participated in this study. They were classified randomly into two groups of equal numbers (group A and group B). Group A received the traditional physical therapy program while wearing static AFO for 8 hours daily they also wore it as a night splint. Group B received the same physical therapy program while wearing dynamic AFO for 8 hours daily and static AFO as a night splint. H/M ratio calculation and passive range of motion (ROM) of ankle dorsiflexion were assessed before and after 3 months of application of orthoses and training of physical therapy program. The results of this study revealed high significant improvement in the measured variables (ROM and H/M ratio) of groups A and B (P< 0.01) when comparing pre and post treatment results, while non significant improvement was revealed when comparing the post treatment results of both groups A and B. From the obtained results of this study, it could be concluded that both static and dynamic AFO are beneficial for subjects with spastic diplegic CP, while there is no difference was found between using either of them on calf muscle contracture and spasticity control.
Key words : cerebral palsy, diplegia, Ankle foot orthoses, Range of motion, H/M ratio.

Arabic Title Page : تأثير جبيرة الكاحل والقدم الثابتة مقابل المتحركة على التحكم في النغم العضلي لدى الأطفال المصابين بالشلل الرباعي التشنجي.
Author : Reham Abd El Monem Abd El Monem Abou El Khier.
Title : Effect of Selective Physiotherapy Program on Back Geometry and Spinal Mobility in Spastic Diplegic Cerebral Palsied Children.
Supervisors : Kamal El Sayed Shokry, Lobna Abd El Gawad Mansour, Hebatalla Mohammed Kamal.
Degree : Master.
Year : 2006.
Abstract :
The purpose of this study was to measure the effect of the selected physiotherapy program on back geometry and spinal mobility in spastic diplegic cerebral palsied children. Trunk imbalance and inclination, pelvic tilt and torsion, lateral deviation and surface rotation in addition to thoracic and lumbar flexion and extension intersegmental range of motion were measured. Twenty spastic diplegic cerebral palsied children aged from four to six years participated in this study. Formetric II and spinal mouse instruments were used to measure the effect of the selective physiotherapy program. All the children were evaluated before and after treatment. The results of the study showed that spastic diplegic cerebral palsied children have functional scoliosis which resulted from pelvic tilt and torsion. After applying selective physiotherapy program for three months all the measured variables significantly improved. Showing that physiotherapy program can improve the biomechanical relation between spine, pelvis and lower limbs during standing and can improve the quality of standing posture.
Key words : back geometry, spinal mobility, standing posture, cerebral palsy, diplegia.
Arabic Title Page : تأثير برناامج علاج طبيعي مختار على جوامعتيه الظهر ومدى حركة العروض الفقري في الأطفال المصابين بالشلل الرباعي التقلسي.
Author : Tamer Mohamed El-Saeed.

Title : Effect of Dynamic Hand Splint on Hand Function in Spastic Hemiparetic Cerebral Palsied Children.


Supervisors : Kamal El-Sayed Shoukry, Hala Ibrahim Ahmed Kassem, Omnia Gamal El-Din Afifi.

Degree : Master.

Year : 2006.

Abstract:
The purpose of this study was to determine the effect of dynamic hand splint on hand function in spastic hemiparetic cerebral palsied children. Thirty hemiparetic children ranged in age from three to six years participated in this study. They were classified randomly into two groups of equal numbers (control and study). A hand held dynamometer for measuring hand grip strength of the affected upper limb and a Peabody developmental motor scale were used for both groups, before and after three months of application of the treatment programs. The control group received a specially designed rehabilitation program while the study group received the same program given to the control group but through using dynamic hand splint. The pre treatment results revealed no significant differences between the two groups. Comparing the pre and post-treatment mean values of the measuring variables of the two groups revealed significant improvement. However, comparing the post treatment results of the two groups revealed highly significant improvement in favor of the study group.

Key words : Cerebral Palsy, Hemiparesis, Hand Function, Orthoses.

Arabic Title Page : تأثير جبيرة اليد الديناميكية على وظائف اليد لدى أطفال النشل المخي المصابين بالخادل النصفي الطولي التشنجي.
Author : Walaa El Sayed Mohamed Mostafa Morsy.

Title : Effect of point percussion therapy exercises techniques on trunk control in spastic diplegic cerebral palsied children.


Supervisors : Kamal EL Sayed Shoukry, Gehan H. EL- Meniawy.

Degree : Master.

Year : 2006.

Abstract:
The purpose of this study was to evaluate the trunk control in spastic diplegic children following the participation in point percussion therapy exercise techniques in addition to the designed therapeutic exercise program. Thirty spastic diplegic children, ranged in age from 1 to 3 years old participated in this study .They were classified randomly into two groups of equal number, (control and study). The control group received the selected therapeutic exercise program .The study group received point percussion therapy exercises techniques in addition to the same exercise program .Rolling and sitting dimensions were assessed using Gross Motor Function Measure (GMFM) , before and after three months of the application of the treatment program .The results of this study revealed statistically highly significant improvement in almost of the measuring variables of the study and control groups ( p < 0.01 ) when comparing pre and post treatment results of the study and control groups ( p < 0.01 ). From the obtained results of this study , it could be concluded that , point percussion therapy exercises techniques had a beneficial effects to be as a modality in addition to traditional techniques used to improve trunk control in spastic diplegic cerebral palsied children.

Key words : trunk control , cerebral palsy , spastic diplegic , point percussion therapy Exercises techniques.

Arabic Title Page : تأثير العلاج باستخدام تمارين الطرق اليدوية النقرى على التحكم في الجذع عند الأطفال المصابين بالتشلل المخى التقلصى المزدوج.
Department of Basic Science
Author: Abeer Ramadan Ebrahim.
Title: Influence of hip rotation angles on myoelectric activity of vastus medialis oblique during straight leg raising.
Dept.: Department of Basic Science.
Degree: Master.
Year: 2007.
Abstract:
Purpose: This study investigated the effect of different hip rotation angles on myoelectric activity of vastus medialis oblique during straight leg raising exercise. Study Design: (3x1) post experimental study. Materials and methods: Thirty healthy female without any history of knee or quadriceps injuries. Their mean age, weight, and height were (20.7± 1.8), (66.1± 9.5), and (161.6± 4.6) respectively. Each subject was asked to perform straight leg raising exercise with different hip rotation angles (neutral position, 30 degrees medial rotation, and 45 degrees lateral rotation) with dominant lower limb. The surface-integrated electromyographic signals of vastus medialis oblique over 10 seconds were collected and mean amplitude was determined. The EMG data of each subject performing straight leg raising exercise with the lateral rotation (45 degrees) and medial rotation (30 degrees) of hip joint were normalized as a ratio to the same subject EMG data of neutral position of hip joint. Results: This study revealed that there was significant difference in EMG amplitude of vastus medialis oblique among different hip rotation angles (P< 0.0001). There was significant difference between normalized EMG activity ratio of vastus medialis oblique muscle at lateral and medial rotation angle of hip joint (P< 0.0001). Conclusion: This study concluded that performing a straight leg raising exercise with lateral hip rotation was the most effective of the three positions as a specific strengthening exercise for vastus medialis oblique muscle. This finding may be important not only for the treatment of patients with patellofemoral pain but also in its prevention.
Key words: Electromyography, vastus medialis oblique, therapeutic exercise, hip rotation, patellofemoral pain syndrome.
Author : Doaa Ibrahim Amin Ali.
Title : Biomechanical Analysis of Sit to Stand Movement.
Dept. : Department of Basic Science.
Supervisors : Mohsen M EL-Sayyed, Abeer Abd EL-Rahman Mohamed.
Degree : Master.
Year : 2007.
Abstract :
Background: Sit to stand task is Very important in Therapeutic Setting and Rehabilitation Medicine as improve the Patient’s mobility. The Purpose: of This Study was to investigate the biomechanical analysis of Sit to Stand Movement from Two different positions normal, forward sit to Stand. Subjects: Thirty normal subjects were divided in Two group (group A15 males) age (26.66± 5.05) (group B15 females) age (25.33 ± 4.06).All was evaluated by Three dimensional motion analysis to Measure hip, Knee, ankle angles synchronized with force platform to measure the vertical ground reaction Force in the Two different position.
Results: There was statistical significance difference in hips; ankle joints angles motion. There was statistical significance difference in vertical ground reaction force between two different positions. Discussion and Conclusions: The forward Sit to stand position is better than normal sit to stand position and facilitate the Task.
Key words : Biomechanics Sit to Stand, Three Dimensional Motion force platform.
Arabic Title Page : التحليل الميكاتيكي للحركة من الجلوس للوقوف.
Author : Doaa Rafat ElAazab Mohamad.
Title : Influence of muscle fatigue on shoulder proprioception.
Dept. : Department of Basic Science.
Degree : Master.
Year : 2007.
Abstract :
Background: Proprioception plays an important role in shoulder joint function and stabilization, while muscle fatigue may alter proprioceptive ability. Purposes: To investigate the influence of muscle fatigue and sex difference on shoulder proprioception. Study Design: A pre test post test design. Materials and Methods: Thirty normal subjects from both sexes were involved, age ranged between 18-25 years. The subjects were divided randomly into two equal groups, fifteen subjects in each group, group A included male subjects while group B included female subjects. Subjects in both groups received fatigue exercises on Biodex isokinetic dynamometer until peak torque of external rotator muscles dropped to 50% of the initial torque. The proprioceptive accuracy was measured pre fatigue and immediately post fatigue exercise. Results: It was found that the proprioceptive accuracy of shoulder joint was decreased significantly after fatigue exercise in both groups where (p=0.01) and (p=0.008) for group A and B respectively. There was no significant difference in the shoulder joint proprioceptive accuracy between both groups pre and post fatigue exercise where (p= -0.49) and (p=0.62) consequently. Conclusion: shoulder joint proprioception is diminished in the presence of shoulder muscle fatigue, suggesting clinical rehabilitation protocols should emphasize increasing muscular endurance.
Key words : Shoulder joint, Proprioception, Muscle fatigue.
Arabic Title Page : تأثير الإجهاد العضلي على المستقبلات الحسية العميقة لمفصل الكتف.
Background: Osteoarthritis of the knee is reported to be a major health problem worldwide. Purposes: To investigate the diclofenac phonophoresis efficacy in knee osteoarthritis. Study Design: A pre test post test control group design. Materials and methods: forty patients with knee osteoarthritis from both sexes were involved, aged between 40–60 years. They were divided into four equal groups, ten patients each. Patients in the first group received a diclofenac phonophoresis in addition to traditional exercise program in the form of stretching and strengthening exercises. Patients in the second group received a therapeutic ultrasound in addition to stretching and strengthening exercises. Patients in the third group received a diclofenac which is topically applied in addition to stretching and strengthening exercises. Patients in the fourth group (control group) received a traditional exercise program. Training was done 3 times a week for 4 weeks. Range of motion, Pain level and functional performance were measured before and after treatment. Results: there were significant differences within the four group before and after treatment and between the four groups after treatment in range of motion, Pain and functional performance. Conclusion: diclofenac phonophoresis proved to be beneficial in improving range of motion, functional performance and perceived knee pain in patients with knee osteoarthritis.

Key words: osteoarthritis, diclofenac phonophoresis, electrogoniometer.
Author: Ghada Abd Elmoniem Abd Allah.
Title: Proprioceptive training influence on knee-ankle relationship during gait.
Dept.: Department of Basic Science.
Degree: Master.
Year: 2007.
Abstract:
Background: Knee osteoarthritis is associated with proprioceptive deficit which is an integral component of motor control, it is theorized that the loss of joint sensation (proprioception) may cause small gait alteration, repetitive micro trauma and ultimately excessive joint loading, proprioceptive training of subjects improves their postural control and may benefit human movement. The Purpose of this study was to investigate the effects of proprioceptive training on knee-ankle relationship during gait. Subjects 30 patients with bilateral knee osteoarthritis (their ages ranged from 45-65 years) were assigned randomly into two groups, group (A) the control group, included subjects with mean age of (55.86 ± 7.4 years), weight (165.26 ± 6.5 kg.) and height (162.53 ± 7.06 cm.). (B) The study group included subjects with mean age of (55.2 ± 6.6 years), weight (89.73 ± 8.8 kg.) and height (162.53 ± 6.07 cm.) Methods: (a) proprioception level of accuracy of the knee were assisted bilaterally using the isokinetic dynamometer system in both group (b) assessment of knee and ankle kinematics during gait were done using 3D motion analysis system to measure the angles of knee flexion and ankle planter flexion at heel strike and loading response, and to measure the angular velocity of the knee and ankle joints. Measurements taken for subjects in both groups before and after twenty four sessions after treatment. Both groups (A) and (B) received exercises and traditional treatment of osteoarthritis in addition to proprioceptive training for group (B). The Results indicated that there were a significant difference between both groups in the angles of knee flexion and ankle planter flexion. At heel strike, (p=0.03) and (p=0.01) for the right lower limb, and for the left lower limb (p=0.04) and (p=0.03), while at loading response, (p=0.04) and (p=0.04) for the right lower limb, and for the left lower limb (p=0.02) and (p=0.03). Also there were a significant difference between both groups in the angular velocity of the knee and ankle joints, at the right lower limb (p=0.05) and (p=0.001), and at the left lower limb (p=0.03) and (p=0.02). There were a significant difference in the level of proprioception accuracy, it was (p=0.04) for right knee and (p=0.01) for left knee. There were strong correlation between ankle and knee joint at the study group it was (p=0.01), (r = 0.96) for heel strike, (p=0.01), (r=0.96) for loading response, and (p=0.01), (r=0.88) for angular velocity. Conclusion proprioceptive training has a significant effect on the kinematics of the lower limb especially knee – ankle relationship in patients with knee osteoarthritis during gait.
Key words: Training, knee flexion, ankle planter flexion, angular velocity, gait, knee osteoarthritis.

Arabic Title Page: تأثير تدريب المؤثرات الحسية العميقه على العلاقة بين مفصل الركبة ومفصل الكاحل خلال المشي.
Author       : Ghada Ismail Mohamed Kamel.
Title        : Influence of smoking on isometric strength of back extensors.
Dept.        : Department of Basic Science.
Degree       : Master.
Year         : 2007.
Abstract
Background: smoking is a bad habit and well known risk factor for many diseases, also the back extensors play an essential role in trunk stability, postural alignment, and movement coordination, controlling active range of lumbar spine. The Purpose: of This Study was to investigate, the effect of smoking and effect of numbers of cigarettes that smoked per day on isometric strength of back extensors, also to detect the relation between angles of trunk flexion and isometric strength of back extensors.
Materials and methods: 40 normal males (30 smokers and 10 non smokers) were assigned into four groups, 10 non-smokers (control group) with mean age 31.4 ± 4.8 years, 10 light smokers with mean age 27.5± 8.1 years, 10 moderate smokers with mean age 28.7± 6.6 years and 10 heavy smokers with mean age 30.5± 5.9 years. Isokinetic dynamometer was used to measure isometric strength of back extensors at three angles of trunk flexion from neutral sitting position (starting position), specially 15°, 30° and 45°to take the whole range. Results: there was statistical significant decrease in isometric strength of back extensors in smokers and there was statistical significant increase in isometric strength of back extensors with increasing the angles of trunk flexion. Conclusions: cigarette smoking had an effect on decreasing the strength of back extensors, and with increasing angle of flexion there was increasing in the isometric strength of back extensors.

Key words       : Smoking, Back Extensors, Isometric Strength.

Arabic Title Page : تأثير التدخين على قوة الإنقباب الساكن لعضلات فرد الظهر.
Author : Hanaa Kenawy Ata.
Title : Variation in Shoulder Rotators Torque Production in the Scapular and Frontal Planes.
Dept. : Department of Basic Science.
Supervisors : Awatif Mohamed Labib, Ragia Mohamed Kamel.
Degree : Master.
Year : 2007.
Abstract:
Background: Isokinetic dynamometry has been employed for assessing the performance of voluntarily contracting muscle. Isokinetic testing may produce a variety of different muscle performance data. For example, torque, peak torque, work and power. Peak torque is the most representative and widely used parameter to evaluate muscle function.
The purpose: To compare torque production in the scapular and frontal planes during isokinetic testing of shoulder rotators and to determine the most efficient position for strength training and therefore rehabilitation of shoulder rotators.
Design and subjects: Single repeated measurement design was used. Thirty healthy female of physical therapy students and employees participated in this study, their age ranged between 18-32 years. Methods: All testing was performed by a single investigator and all subjects were tested both in the scapular and frontal planes for each rotational movement. Subjects were randomly assigned to either plane for initial testing. Each subject performed 3 trials of concentric isokinetic shoulder internal and external rotation in the frontal and scapular planes. The mean peak torque of the three trials was measured. Paired t-test was used to distinguish between shoulder rotators torque production in the scapular and frontal planes.
Results: The results revealed that there was significant difference in shoulder internal rotators torque in the scapular and frontal planes. The torque generated by the shoulder internal rotators was significantly greater in the scapular than in the frontal plane (p<0.014) and there was also significant difference in shoulder external rotators in the scapular and frontal planes. The torque generated by shoulder external rotators was significantly greater in the scapular plane than in the frontal plane (p<0.0001).
Discussion and conclusion: The findings revealed that torque generated by shoulder internal and external rotator muscles during concentric isokinetic contraction varies according to shoulder joint testing position and isokinetic shoulder strengthening and testing should be performed in the scapular plane.
Key words : Isokinetic, Shoulder rotators, Torque.
Arabic Title Page : مدى الاعتدال في العزم الناشئ من عضلات دوران الالكفي في مستوى لوح الالكفي والمستوى الهمى الجانبى.
Author : Magda Gaid Sedhom Guirguis.
Title : Comparison between Delorme and Oxford Resistance Training Techniques.
Dept. : Department of Basic Science.
Supervisors : Omaima Kattabei, Ragia Kamel.
Degree : Master.
Year : 2007.
Abstract:

Purpose to compare the difference between Delorme and Oxford as progressive resistance training techniques in improving muscles strength, also to examine if the gender has an effect on the results of both techniques. Subjects and method Eighty healthy subjects from both sexes were participated in this study, with mean age (21.325 ±1.854) years, with mean weight (67.625 ±7.548) kg. and with mean height (167.10 ±7.29) cm. The subjects were divided into two equal groups, each group subdivided into males and females subgroups. Subjects in the first group (40 subjects) had received Delorme technique, and subjects in the second group (40 subjects) had received Oxford resistance technique on their dominant quadriceps femoris muscle. Biodex system 3 Pro isokinetic dynamometer was used to measure the peak torque to body weight ratio (PK/BW) of the dominant quadriceps femoris muscle for three trials and the mean was calculated. Also, the difference between males and females in both groups was measured. Results The study revealed that there was statistical significant difference in percentage of improvement of the quadriceps muscle PK/BW between the two groups in favor to Delorme technique, also there was statistical significant difference between males and females in group I and between females in group I and II in favor to females. But no statistical significance difference between males and females in group II and no statistical difference between males in group I and II. Discussion and conclusion: The finding revealed that both Delorme and Oxford techniques improve strength but Delorme get better result, and females show better improvement with Delorme technique.

Key words : Strength, Resistance Training, Delorme, Oxford.

Arabic Title Page : مقارنة بين طريقتين دلورم ووخارسفورد في التدريب بالمقاومة.
Author : Mary Nassif.
Title : Influence of progressive pressure release on low back dysfunction.
Dept. : Department of Basic Science.
Supervisors : Mohsen Mohamed El Sayyad, Neveen Abdel Lateef Abdel Raouf, Hassan Mahmoud Baraka.
Degree : Master.
Year : 2007.
Abstract : Background & Purpose: Low back dysfunction is a universal problem striving for a solution. Myofascial dysfunction can be the main source of dysfunction and is characterized by myofascial trigger points. However there are not many controlled studies that have analyzed the effect of manual therapies in their treatment. The purpose of this study was to establish whether progressive pressure release had specific efficacy in management of myofascial trigger points in patients with low back dysfunction. Subjects: Thirty patients with low back dysfunction, aged 20 to 40 years (30.86±5.35), with one or more trigger points in four selected lumbogluteal muscles (quadratus lumborum, piformis, gluteus medius and minimus) participated in the study. Method: Subjects were randomly divided into 2 groups; group (A) was the control group that received myofascial release and spray and stretch, 3 days/week for 4 weeks. Group (B), the treatment group received the same treatment in addition to progressive pressure release, 3 days/week for 4 weeks. Lumbar range of motion was measured by a back range of motion device and trigger point tenderness was measured by an electronic algometer through pressure pain threshold value. Measurements were obtained in the first treatment session, pre-treatment and at the last session, post-treatment. Results: Data obtained was analyzed via paired and independent t-test. There were statistical differences between the 2 groups, where the treatment group showed greater improvement in lumbar range of motion and pain threshold with a p value (P<0.05). Discussion & Conclusion: Progressive pressure release was shown to be effective in reducing trigger point tenderness and in increasing lumbar range of motion, in individuals with low back dysfunction.
Key words : Low back dysfunction, Myofascial trigger points, Progressive pressure release, BROM device, Digital algometer, Pressure pain threshold.
Arabic Title Page : تأثير الضغط المتصاعد على مشاكل أسفل الظهر.
Author : Mohamed Moustafa Mohamed Ahmed.
Title : Influence of Therapeutic Exercise on Circulating Thyroid Hormones as a Factor in Reduction of Body Weight.
Dept. : Department of Basic Science.
Supervisors : Fatma sedik Amin, Mohamed Hussein El Gendy, Laila Ahmed Rashed.
Degree : Master.
Year : 2007.
Abstract:
Purpose To investigate the effect of exercise on Thyroxin(T3),Triiodothyronine T4) and Thyroid Stimulating Hormone(TSH) and reflection of that on Body Mass Index (BMI). This study also conducted to clarify the effect of low caloric diet program on the level of the same hormones and reflection on BMI. Subjects and methods: Two groups of normal male subjects, each group consists of (25 males) aged from 20 to 40 years old with 30-35 BMI participated in this study.. (Group I) had low caloric diet program only for one month. (Group II) had the same low caloric diet program in addition to a program of therapeutic exercise on treadmill with moderate intensity every other day for one month. Evaluation of T3, T4, TSH and BMI were studied before diet in group I and before exercise and diet in group II. Results: This study showed significant increase in T3, T4 after the diet program (group I) accompanied by significant decrease in TSH, and significant decrease in BMI. After the exercise and diet (group II) a more significant increase in T3,T4,with significant decrease in TSH and a significant decrease in BMI. Conclusion: Low caloric diet is effective in increasing the level of circulating thyroid hormones and that is reflected on the body weight by decreasing the body mass index. But both low caloric diet and moderate intensity therapeutic exercise were more effective in increasing the level of circulating thyroid hormones which is reflected on weight reduction.
Key words : Therapeutic exercises, Circulating thyroid hormones, weight reduction.

Arabic Title Page : أثر التمرينات العلاجية على مستوى هرمونات الغدة الدرقية بالدم كعامل يؤدى إلى انخفاض الوزن.
Author       : Mohamed Samy Mohamed.
Title        : Validity of three-dimensional motion analysis system in measurement of the lumbar range of motion.
Dept.        : Department of Basic Science.
Supervisors  : Mohsen M. El-Sayyad, Sahar M. Adel.
Degree       : Master.
Year         : 2007.
Abstract     :
The Purpose of the study was to investigate the validity of the 3-D motion analysis system for measuring the lumbar range of motion. Thirty normal male subjects were involved; each one of them was examined by one examiner using both 3-D motion analysis system and BROM device to measure lumbar range of motion. The results were non statistical difference between BROM device and 3-D motion analysis system for measuring lumbar range of motion. The 3-D motion analysis system is valid instrument for measuring the lumbar range of motion accurately.

Key words     : Validity, 3-D motion analysis, Lumbar range of motion, BROM.

Arabic Title Page    : مدى مصداقية جهاز تحليل الحركة (ثلاثي الأبعاد) في قياس حركة أسفل الظهر.
Author : Mohamed Serag El-Dein Mahgoub Mohamed.
Title : The Effect of Different TENS modes on Treatment of Chronic Low Back Dysfunction.
Dept. : Department of Basic Science.
Supervisors : Omima Kattabei, Maher Keblawy, Houssin Moharm.
Degree : Master.
Year : 2007.

Abstract:
Background: The effectiveness of different TENS modes for treatment of low back dysfunction (LBD) still unproved and controversy exists in the literature about the specific TENS mode which result in improved outcomes. The purpose: of this study was to investigate the effect of different TENS modes (Conventional, Acupuncture, Burst) on treatment of patients with LBD. Subjects: 30 patients (17 males and 13 females) suffering from chronic LBD were anticipated in this study. The mean of their age was (39.4 ±5.5) mean weight (83.3 ±12.2) and mean height (171.8 ±9.2). Patients were assigned randomly into three groups, each group included 10 patients. Method: all groups received ultrasonic as traditional treatment, group (A) received conventional TENS, group (B) received Acupuncture like TENS and group (C) received Burst TENS for four weeks of treatment. Lumbar rang of motion (ROM) in flexion and extension measured by OB Goniometer, pain measured by visual analogue scale (VAS) and functional disabilities measured by Oswestry disability index (ODI) the measurement was done before and after the treatment period of four weeks. The significant level was ≤ 0.05. Results: revealed that there was significant reduction in pain, functional disabilities and increase in lumbar flexion and extension after treatment in the three groups. Group (C) showed significant improvement in all measured variables than group (A and B). Discussion and Conclusion: For patients with chronic LBD, Burst TENS result in greater reduction in pain intensity, increase lumbar ROM and improve functional activities more than the other two groups (conventional and Acupuncture).

Key words : Low Back Dysfunction, conventional TENS, Acupuncture, TENS, Burst TENS.

Arabic Title Page : مدى تأثير الأنظمة المختلفة للتيار المنبه للعصب عبر الجلد في علاج حالات خلل أسفل الظهر.
Author : Nesreen Ahmed A bd El-Galil.
Title : Isometric Muscle Force Responses to Different Waveforms of Neuromuscular Electrical Stimulation.
Dept. : Department of Basic Science.
Supervisors : Fatma Sedeek, Ragia Mohammed Kamel.
Degree : Master.
Year : 2007.
Abstract :
Background : Electrical stimulation is an effective way to regain muscle strength in a weakened muscle, an injured or unused muscle that can be difficult to contract due to pain or weakness. Objectives: The objectives of this study were to investigate the responses of isometric muscle force to different waveform shapes of neuromuscular electrical stimulation. Method: 40 normal volunteers of both sexes participated in the study. Their mean age was 21. ± 3.7 Years mean weight 75.6 ±8.4 Kg and mean height 174.3 ±6.2Cm with four different wave form shape used (triangular , square , fixed monophasic (MF) and fixed diphasic (DF) ), one wave form for each group. Isometric muscle force of quadriceps femoris muscle was tested by Cable Tensiometer before electrical stimulation, after six sessions, and at the end of 12 sessions to evaluate the acquired maximal isometric muscle force. Results: There was a significant increase in the isometric muscle force of quadriceps in all groups, The highest increase in QF isometric force was found in group I(Triangular) where the mean difference was 120.4 (N) then group III (DF) where the mean difference was 115.2 (N) then group II (Square) where the mean difference was 114.4 (N) and the least change was found in group IV(MF) where the mean difference was 107.9(N) Improvement of isometric muscle force in males was more than in females in all four groups. Conclusion: There are no significant differences between different waveforms of neuromuscular electrical stimulation. There is significant difference in improvement between males and females.
Key words : NMES, Waveforms, Isometric Muscle.

Arabic Title Page : استجابة العضلة الاستاتيكية للأشكال المختلفة من التثبيط العضلي العصبي للتيار الكهربائي.
Author : Rania Nagy Karkoucha.
Title : Effect of neurodynamic tension on cervical radiculopathy.
Dept. : Department of Basic Science.
Supervisors : Awatif Mohammed Labib, Sami Abd El Samad Nassif, Hala Rashad El Habashy.
Degree : Master.
Year : 2007.
Abstract : Back ground: Cervical spondylosis is a problem that is frequently encountered by physical therapists. This problem gives symptoms such as pain in the neck and upper extremity as well as neurological signs such as dermatomal parasthesia. So treatment of this problem is of great concern. Purpose: This study was conducted to investigate the effect of neurodynamic tension on F wave latency in patients with cervical spondylosis. Subjects: 30 patients suffering from cervical spondylosis, their ages ranged from 30 to 50 years. Patients were divided into three groups, each group included 10 patients. All groups received conservative treatment in a form of Infrared and Ultrasound. In addition to Upper Limb Tension Test I for group II and Upper Limb Tension Test 2a for group III. Results: The results showed that there was statistical significant increase in F wave latency from 28.1500 m sec. to 28.6400 m sec. for group I (control group). While for group II, F wave latency decreased significantly from 29.4900 to 27.3700 m sec., and for group III which received, it decreased from 29.8600 to 25.340 m sec. Discussion: The improvement gained in group II and group III was due to that the dynamic mobilization of the median nerve might affect the vascular dynamics via improving blood supply to the hypoxic nerve tissues and normalizing the pressure gradient around the nerve. Thus, the axonal transport mechanism and the mechanical features of the nerve fibers and connective tissue improved. Conclusion: It was concluded that neurodynamic tension is a beneficial conservative way in treating cervical spondylosis. Other neurodynamic tension alternatives and combinations are suggested for future studies.
Key words : Cervical Spondylosis, Cervical Radiculopathy, Neurodynamic Tension, F wave latency.

Arabic Title Page : تأثير الشد العصبي على حالات اختلال الجذور العصبية في الفقرات العنقية.
Author : Reham Hussein Diab.
Title : Validity of motion analysis for measuring scoliosis.
Dept. : Department of Basic Science.
Supervisors : Mohsen M. El-Sayyad, Neveen Abd El-Latif, Mohamed Abd-El Fatah Hassan.
Degree : Master.
Year : 2007.
Abstract :
Background Adolescent Idiopathic scoliosis (AIS) is a public health problem that frequently restricts patient activity and affects his psychological condition especially in adolescent period. The purpose of this study to investigate the validity of 3-D motion analysis in assessing Adolescent Idiopathic scoliosis in comparison to cobb angle. Subjects Thirty subjects with Adolescent Idiopathic scoliosis (20 females, 10 males), age (19.4 ± 1.08) years, weigh (59.06 ± 7.96) kilograms, length (164 ± 7.27) centimeters were evaluated by both 3-D motion analysis system and x-ray to measure spinal angles in scoliotic subjects. Results There was non statistical different between x-ray and 3-D motion analysis system for measuring angle of scoliosis where r-value equal (+ 0.89, + 0.86, + 0.96) for thoracic, thoracolumbar and lumbar scoliotic group respectively. Conclusion The correlation analysis between the x-ray and qualysis measurement revealed that there was a strong correlation between the two measurements. It's recommended to include 3-D motion analysis system in physical examination evaluation for treating patients complaining from AIS.
Key words : Validity, Scoliosis, 3-D motion analysis, X-ray.
Arabic Title Page : مدى مصداقية التحليل الحركي في قياس زاوية الانحناء الجانبي للظهر.
Department of Biomechanics
Author : Amani Eid Abdel Tawab.
Title : Effect of Different Terrain Inclinations on Kinetic and Kinematic Parameters of Ankle Joint During Walking.
Dept. : Department of Biomechanics.
Supervisors : Salam Mohamed El-Hafez.
Degree : Master.
Year : 2007.
Abstract:
The purpose of this study was to investigate the effect of walking up three ramps of different slopes (5º- 10º- 15º) on the two peaks of the ground reaction force (GRF), the ankle plantar flexion (PF) and dorsi flexion moments (DF) and the angular displacement of the right ankle joint in two different positions. The first position was the right foot inclination, left foot inclination in which both legs were placed on a ramp of the same slope. The second position was the right foot horizontal, left foot inclination in which the right leg was in direct contact with the horizontal ground and the left one was on a ramp. Thirty male students participated in this study. Their mean age, weight and height were 19.95 (±2.56) years, 73.73 (±6.44) Kg and 175.33 (±3.50) cm respectively. Each student was asked to walk up the three ramps in both positions. Data collection was carried out using the 3-D Motion Analysis System in conjunction with a force platform. The subjects were instructed to perform three trials during walking up each slope in the first and the second positions. Results revealed that in the first position there was no significant difference among the three tested ramps for each of the two peaks of the GRF. There was also no significant difference in the mean value of the ankle PF moment among the three tested ramps while there was a significant increase in the mean value of the ankle DF moments occurred at ramp 10º in relation to ramp 5º & ramp 15º reaching its minimum value at a ramp of 5º. In addition, in the second position there was a significant increase in the mean value of the 2nd peak of the GRF occurred at ramp 15º in relation to ramp 5º. While there was no significant difference among the three tested ramps for each of the ankle PF/DF moments. Consequently, it was concluded that walking up a ramp of 5º is much more preferable than walking up ramp of either 10º or 15º. This to decrease the demand on the dorsi flexors.
Key words : Gait, Inclined Surfaces, GRF, Ankle Moments.
Arabic Title Page : تأثير زوايا ميل السطح المختلفة على التحليل الكينمائي والكينمانيكي لمفصل الكاحل أثناء المشي.
Author : Ghada Abd El Moneim Mohamed Ali.
Title : Effect of Different Work-Rest Schedules on Functional Performance and Myoelectric Activity of Wrist Muscles in Computer Users.
Dept. : Department of Biomechanics.
Supervisors : Ghada Mohamed El-Hafez.
Degree : Master.
Year : 2007.
Abstract:
This study was conducted to explore the changes that may occur in the performance and the myoelectric activity of the wrist flexors and extensors in computer users as a result of applying three different work rest schedules. The studied work rest schedules were; 60min work /10 min rest (long infrequent), 30 min work /5 min rest (long frequent) and 15 min work /2.5 min rest (short frequent). Surface EMG (BIOPAC) of the wrist flexors and extensors were recorded during typing. The study was conducted with thirty data entry operators of both sexes as participants. At each work rest schedule, subjects were instructed to type for a total working period of 1 hour and a 10 min rest break. The results of the study showed significant difference between the three examined work rest schedules for the percentage of normalized EMG activity of the wrist flexors and extensors. The 15/2.5 min schedule followed by the 30/5min schedule resulted in the lower level of muscle activity in relation to the 60/10 min schedule. Although the difference between the levels of the accuracy of performance at the three schedules was insignificant, the highest level was recorded at the third schedule while the lowest level recorded at the first schedule. It was concluded that, the short frequent rest breaks from continuous computer mediated work have a benefit in reducing muscle load. Also it may cause better effect in performance if the subjects addict to use it without interruption of their works. So, the break should be integrated with the task demand to gain more benefits.
Key words : Work-rest schedules, Functional Performance, Myoelectric activity, Wrist muscles, Computer users.

Arabic Title Page : تأثير الجداول الزمنية المختلفة للعمل و الراحة على الأداء الوظيفي و النشاط الكهربائي لعضلات الرسغ لمستخدمي الكمبيوتر.
Author : Lamiaa Kotb EL-Sayyad.
Title : Effect of Backpack Carrying Systems on Gait Kinetics in Idiopathic Scoliotic Patients.
Dept. : Department of Biomechanics.
Supervisors : Salam Mohamed El-Hafez, Hatem A.R.A. Sharf El-Din, Nagui Sobhy Nassif.
Degree : Master.
Year : 2007.
Abstract:
The purpose of this study was to investigate the effect of different backpack carrying systems on hip and knee peak abductor moments in idiopathic scoliotic patients during gait. The carrying systems were bilateral carrying, unilateral carrying (ipsilateral and contralateral to the scoliotic side) and two sac carrying. Twenty scoliotic patients were matched in age, gender and physical activity level with twenty normal subjects participated in this study. Three D motion analysis system and force plat were used for data collection. The results showed that, during free walking without backpack there was significant increase in the hip abductor moment contralateral to scoliotic side. While no significant difference was found between scoliotic ipsilateral side and normals. It was found that using unilateral carrying systems by scoliotic patients significantly increased the hip abductor moment contralaterally. The knee and hip abductor moments showed the least increase during using the two sac carrying system. The comparison between the both sides of scoliotic patients revealed that, unilateral carrying contralateral to the scoliotic side is the system which restores the balance of moment values obtained from the ipsilateral and the contralateral sides. Unfortunately this carrying system caused significant increase in the knee abductor moment contralateral to the scoliotic side in comparison with the other carrying systems. It was concluded that the two sac carrying was the least stressful on the hip and knee, while symmetry between moments acting on both sides of the pelvis was achieved at the hip during unilateral carrying contralateral to the scoliotic side which consequently may decrease the amount of spinal malalignment.
Key words : Scoliosis, Gait, Moment, Backpack, Carrying.
Arabic Title Page : تأثير أنظمة حمل حقيبة الظهر على كينماتيكية المشي عند مرضى الانحناء الجانبي للعمود الفقري.
Author : Nadia Lotfy Radwan Mohammed.
Title : Myoelectric Activity of Neck and Back Extensors at Different Hip Flexion Angles During Bridging Exercise.
Dept. : Department of Biomechanics.
Supervisors : Salam Mohamed El-Hafez, Nagui Sobhi Nassif.
Degree : Master.
Year : 2007.
Abstract:
When describing exercise therapy, it is important to understand the myoelectric activity in healthy conditions. The purpose of the current study was to evaluate the myoelectric activity of neck and back extensors during one of the commonly used bridging stabilization exercises (supine bridge). The investigated exercise is beneficial to stabilize the lumbar spine region. Although others thought that it might be associated with some loads on the cervical spine. Measuring the myoelectric activity of the trunk muscles can reflect the loads on the spine. So the current study was carried out on thirty healthy male students to explore the changes that may occur in the myoelectric activity of neck and back extensors with changing the hip flexion angle while performing bridging exercise. Four hip joint flexion angles were examined 30º, 40º, 50º and single leg extension. Surface electromyography (EMG) was used to pick up the myoelectric signals from the right and left cervical and lumbar erectorspinae muscles. Results of the study showed a non-significant difference between the mean values of the EMG activity of the examined muscles with changing the hip joint flexion angle, however the mean value of the EMG was lower at 40º, 50º hip flexion. It can be concluded that performing bridging exercise with the hip joint flexed at 40º, 50º may be associated with the lower EMG activity of the neck extensors and so the lower load on the cervical region.
Key words : Bridging exercise, myoelectric activity, hip flexion angle.

Arabic Title Page : النشاط الكهربائي للعضلات الباسطة للرقبة والظهر عند زوايا مختلفة لمفصل الفخذ أثناء تمرين رفع الحوض.
Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery
Author : Abdin Mazroua.

Title : Historical review of physical therapy for osteoporosis in geriatrics.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.


Degree : Master.

Year : 2007.

Abstract:
This article is a review to provide evidence based practice of physical therapy for osteoporosis in geriatrics. Search was made over Medline Library, Cochrane library, Ovid library, and National Institute for Health and Clinical Excellence for studies of physical therapy for patient physical therapy for osteoporosis in geriatrics using a variety of key words. Such results are presented in specific technique in six areas for physical therapy intervention. "Therapeutic exercises, fall management, life style - patient education, pain management, therapeutic modalities and psychology, fracture". Using level of evidence the Scottish intercollegiate guide lines network (SIGN), the level of evidence behind intervention for each technique was presented and discussed. From this review a series of clinical and research recommendations were driven to optimize the physical therapy management.

Key words : Osteoporosis, physical therapy, weight bearing exercise.

Arabic Title Page : مسح مرجعي للعلاج الطبيعي للشاشة العظام في المسنين.
Author : Ahmad Hamad.
Title : Effect of weight reduction on ventilatory function in obese women.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2007.
Abstract :
Background & Purpose: The aim of this study was to investigate ventilatory functions in class II obese women before and after weight reduction by low caloric diet regimen and aerobic exercise. Subjects: 30 class II obese females, aged 20-32 years & with BMI 35 - 39.9 kg/m².
Method: Subjects followed a low caloric diet regimen & aerobic exercise in the form of 30 minutes walking on treadmill, three times per week for sixteen weeks. Body weight, BMI, WHR, FVC, FEV₁, FEV₁/FVC% & MVV were measured before, within and after the sixteen weeks. Results: There is a significant decrease in body weight, BMI, WHR & significant increase in ventilatory functions variables. Conclusion: Based on the scope & findings of this study, it was concluded that reduction in body weight using low caloric diet regimen and aerobic exercise, slightly improved ventilatory function.

Key words : Obesity, Body mass index, Ventilatory functions, Spirometer, Pulmonary function test, aerobic exercise, Low caloric diet regimen.

Arabic Title Page : تأثير إنقاص الوزن على وظائف التنهاية الرئوية عند السيدات البدينات.
Author : Ahmed Ibrahiem El-Hassanin.
Title : Effect of ozone therapy versus electro acupuncture on adult obese subjects.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2007.
Abstract : The aim of this study was to compare the effect of ozone therapy versus electro acupuncture on weight reduction in adult obese subjects. Forty five adult obese subjects participated in this study they divided into three groups. The first group received ozone therapy with diet, the second group received acupuncture with diet while the third group received diet only for three months. After three months there were statistical significant improvement in all groups but the group of acupuncture with diet was more better than other groups so acupuncture with diet can be introduced as a good method for weight reduction in adult obese subjects.
Key words : Obesity, Ozone therapy, Electro acupuncture, and Diet.
Arabic Title Page : دراسة تأثير الأوزون العلاجي مقابل الوخز بالإبر الصينية على الأشخاص البالغين.
Author : Ahmed Mohamad Mohamed El Mahdy.
Title : Effect of exercise on complement system in obese females.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Nabil Attia Khattab, Azza Fekri Ismail.
Degree : Master.
Year : 2007.
Abstract:
The aim of this study was to determine the effect of exercise on complement system which can affect the immune system. Thirty obese females age ranged from 20 to 40 years old, participated in this study. They were divided into two groups, group A (Class I obesity) and group B (Class II obesity), both groups received a program of moderate intensity exercise for weight reduction three time/week for four months. The exercise showed a significant decrease in the activity of complement system, with significant in group a more than in group B and the age have a significant effect on complement system. So moderate intensity program for weight reduction have good effect on the complement system which improve the immune system.

Key words : Exercises, obese females.
Arabic Title Page : تأثير التمرينات على العامل المكمل المناعي للسيدات البدينات.
Author : Ahmed Mokhtar Tawfick.
Title : Pulsed Magnetic Field Versus Exercise on Osteoporosis in Elderly.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Al Sayed Abd El Hameed Shanb, Mohamed Galal El-Barkouky, Rasha Mohamed Kamal.
Degree : Master.
Year : 2007.
Abstract : This study was conducted to compare the efficacy of pulsed magnetic field with exercise training in the management of osteoporosis in elderly. Thirty osteoporotic elderly female patients were selected from out clinic of faculty of Physical Therapy, Cairo University, their age ranged from 60 to 70 years. All patients were evaluated by DEXA to measure bone mineral density (BMD) pre study and after three months. Patients were divided randomly into two equal groups, group A (Magnetic) (n=15) received pulsed magnetic therapy for 30 minutes three times per week for three months. While group B (Exercise) (n=15) practiced exercise training program for 50 minutes three times per week for three months. The results proved that magnetic therapy and exercise training program significantly increased BMD with slight non-significant better improvement in magnetic group than exercise group in elderly osteoporotic women. Accordingly, the magnetic therapy and the exercise training could be applied for management of osteoporosis in elderly.
Key words : Osteoporosis, pulsed magnetic field, exercise.

Arabic Title Page : المجال المغناطيسي المتقطع مقابل التمارين على هشاشة العظام في كبار السن.
Author : Ahmed Moustafa El-Kayaty Mohamed.
Title : Low Carbohydrate versus low-fat diet combined with exercise training on young obese females.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza F. Ismail, Dina M. Abaza, Akram A. Sayed.
Degree : Master.
Year : 2007.
Abstract:
Background: Obesity is a complex problem affecting multi systems in humans, so weight reduction is a very important for obese subjects. In the current study the effect of low-carbohydrate versus low-fat diet combined with exercise on obese young females will be investigated. This will provide additional support for the concept of the metabolic advantages with diets representing extremes in macronutrient distribution.
Purpose: To investigate the effect of low Carbohydrate versus low fat diet combined with exercise on weight, BMI, waist to hip ratio (WHR) % & Fat Mass.
Method: Thirty obese young females aged 20-30 years were selected from subjects in the Faculty of Physical Therapy Cairo University and the Faculty of Medicine Al-Azhar University. Their body mass index was ranged from 30 to 39.9 i.e. "obese I, II". The thirty patients were classified into two groups each group consists of fifteen subjects, the first was represented as low carbohydrate diet group with a program of aerobics & the second was low fat diet group with the same program of aerobics. Data were recorded at three intervals before starting, after 5 weeks & after 10 weeks by using dependent & independent T test.
Result: There was a significant difference within groups comparison (P<0.001). But between the both groups the significance appeared only at BMI after 5 weeks (32.05±3.05) at low carbohydrate diet group Vs (34.65±2.99) at low fat diet group ,P= 0.04). After 10 weeks the significance appeared at all anthropometric measures except WHR % (79.13±6.62) at low carbohydrate diet group Vs (83.25±6.39) at low fat diet group P =0.09). the greater reduction appeared at the low carbohydrate diet than low fat diet in the anthropometric measures (after 5 weeks & was greater after 10 weeks). Conclusion: On the short term the low carbohydrate diet with aerobics is more efficient & powerful than low fat diet in controlling the anthropometric measures of obesity.
Key words : Waist to hip ratio, Aerobics, Low fat diet, Low carbohydrate diet.
Arabic Title Page : دراسة مقارنة بين التغذية قليلة النشويات مقابل قليلة الدهون مع برنامج تدريبي على السيدات البدينات صغيرات السن.
Author : Ahmed Sayed Mohamed.
Title : Effect of Aerobic Exercise on Ventilatory functions in Smoking Adolescents.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza Fikry Ismail, Hossam Hosni Massoud, Amany Raafat Mohamed.
Degree : Master.
Year : 2007.
Abstract:
The aim of this study was to determine the effect of aerobic exercise on the ventilatory functions in smoking male adolescents. Sixty cigarette smoking male adolescents participated in the study, their ages ranged from 14 to 19 years. They were divided into two equal groups. The exercise group's subjects performed aerobic exercise, while the control group's subjects did not take part in the exercise intervention program and were instructed to maintain their usual activities during the experimental period. The program continued for 10 weeks (three sessions per week), ventilatory functions were measured at the beginning and after the exercise program for both groups. No statistically significant changes were found in ventilatory functions. The investigation concluded that 10 weeks of aerobic exercise were insufficient to result in significantly positive changes in almost all ventilatory functions, except for the MVV. So, it is recommended to use aerobic exercise in order to improve the MVV in smoking male adolescents.

Key words : aerobic exercise, ventilatory function, smoking, adolescents.

Arabic Title Page : تأثير التمرينات الهوائية على وظائف التهوية الرئوية لدى المراهقين المدخنين.
Author : Ashraf Abd El- Aal Mohamed.
Title : Effect of exercise on serum immunoglobulin-G and Ventilatory functions in males with chronic obstructive pulmonary disease.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : AL Sayed Abd EL Hameed Shanb, Azza Fekry Ismail, Manal EL-Hussini Abo-Farha.
Degree : Master.
Year : 2007.
Abstract : The aim of this study was to investigate the effect of exercise on serum immunoglobulin-G and ventilatory functions in males with chronic obstructive pulmonary disease. Thirty male patients with mild to moderate degree of chronic obstructive pulmonary disease participated in this study, Their age ranged from 45 to 65 years. They were divided into two equal groups; Group (I) fifteen patients received only medical treatment (control group), while Group (II) fifteen patients performed moderate intensity exercise program plus receiving medical treatment. The program continued for 12 weeks, three sessions per week for 36 sessions. Ventilatory functions and serum immunoglobulin-G were measured at the beginning and after the study for both groups. There were significant improvements in ventilatory functions & immunoglobulin-G values in the exercise group without significant changes in the control group. So it was recommended to encourage the COPD patients to participate in exercise program to improve immunological capabilities as well as ventilatory functions.
Key words : aerobic exercise, immunoglobulin-G, ventilatory functions, COPD.
Arabic Title Page : تأثير التمرينات على الأجسام المضادة "ج " ووظائف التهوية عند الرجال المصابين بالسدة الرئوية المزمنة.
Author: Gehan Samir Mohamed Mousa.
Title: Assessment of Ventilatory Function in Patients With Different Causes of Chronic Low Back Pain.
Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree: Master.
Year: 2007.
Abstract:
Study objective: the purpose of this study was to assess the effect of chronic low back pain with different causes on ventilatory function. Setting and participants: One hundred and fifty patients with chronic low back pain. Their age ranged from 30 to 50 years old. Their BMI < 30 Kg/m². The patients were selected from the out patient clinics of El-Mataraia Teaching Hospital. They were assigned into three equal groups I, II and III according to their diagnosis (lumber spondylosis, lumber disc prolapse and sacroiliac dysfunction)and fifty normal control subjects. Clinical assessment was done to exclude any other pathological conditions. Evaluation of participants included body mass index, waist circumference and Visual analogue scale. Assessment of ventilatory functions were done by using spirometry. Results: The results showed that all groups of chronic low back pain a statically significant decreased in all ventilatory parameters. Conclusion: These results suggested a reduction of respiratory function in lumbar disc prolapse group more than other two groups. Because of pain and muscle spasm.
Key words: Ventilatory functions. Spirometry. Visual analogue scale. Chronic low back pain.

Arabic Title Page: تقييم وظائف التهوية في مرضى آلام أسفل الظهر المزمنة ذات النوعيات المختلفة.
Author : Ghada Mohamed Shawky Abd El Halim.

Title : Immediate arterial Blood Gases response after diaphragmatic exercise, incentive spirometry and both in smoker and non-smoker, post coronary artery bypass.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.

Supervisors : Aziz Guirguis Aziz, Abd EL Ghany Mohamed Abdel Ghany, Akarm Abd el Aziz.

Degree : Master.

Year : 2007.

Abstract:
The aim of this study to evaluate the effect of the incentive spirometry, diaphragmatic breathing exercise and both in smoker and non-smoker patients post coronary artery bypass graft on the arterial blood gases (PaO$_2$, PaCO$_2$, H$_2$CO$_3$, and pH). These parameters were recorded pre and post operative (immediately, after 1/2 hour and 2 hours). Ninety patients were selected from national heart institute and were classified into two groups: smoker and non smokers. First group (smoker), fifteen received I.S, fifteen received DB and fifteen received both IS and DB). Second group (non smoker fifteen received IS, fifteen received DB and fifteen received both IS and DB). The results of the current study, revealed that both modalities resulted in improving arterial oxygenation with superiority of IS than DB. The non- smoker subjects showed greater improvement than smoker.

Key words : diaphragmatic breathing (DB), blood gases (PaO$_2$, PaCO$_2$, HCO$_3$, pH), Postoperative pulmonary complications (PPCs), coronary artery bypass graft (CABG), incentive spirometry (IS).

Arabic Title Page : التأثير الفوري على غازات الدم الشرياني بعد تمرينات عضلة الحجاب الحاجز، جهاز الحافز التنفسي في المدخنين وغير المدخنين بعد ترقيق الشريان التاجي.
Author : Hamed Ibrahim Shalabiea.
Title : Enzymatic response to exercise in fatty liver patients.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2007.
Abstract : The aim of this study was to investigate the effect of exercise on liver enzymes, body weight, BMI and W/H ratio in fatty liver patients. Forty patients (male and female) participated in this study. Their age ranged from 30 to 45 years old. They participated in a treadmill exercise program with moderate intensity (65-75% HR max) three times per week for one month and they walked on the other days in fresh air for one hour. Liver enzymes ALT and AST, Waist to Hip Ratio, BMI and body weight were measured for each patient before and immediately after the last session post 4 weeks. The results proved that there are high significant reduction in ALT, AST concentration and high significant reduction in weight, BMI and W/H ratio. It was concluded that participation on a moderate exercise program improve the liver enzymes (ALT and AST) and reduced Waist to Hip Ratio, BMI and weight in fatty liver patients.
Key words : treadmill exercise, liver enzymes, fatty liver.

Arabic Title Page : استجابة الأنزيمات للتمرينات في مرضى الكبد الدهني.
Author : Hasem Abd El-Aziz Yousef Ali.
Title : Effect of hyperbaric oxygen therapy versus laser therapy in management of diabetic foot ulcers.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatics and its Surgery.
Supervisors : Azza A.Abd El-Hady, Shehab M.Abd El-Kader, Heba Kamal Sedrak.
Degree : Master.
Year : 2007.
Abstract : The purpose of this study was to compare between the effect of hyperbaric oxygen therapy and laser therapy on grade II diabetic foot ulcer. Thirty patients of both sexes participated in this study. Group (I) received laser. Group (II) received hyperbaric oxygen therapy. Both groups received medical treatments. The program conducted for five times per week for two months. The patients were assessed for ulcer surface area and ulcer volume. These measures were recorded three times during study, before treatment, after one month and at the end of study after two months. The results of this study showed a significant decrease of two variables of both groups at the end of study. But HBOT seems more effective in accelerating the healing rate and shortening hospitalization time in these patients than laser. But it cannot be applied for all cases and still laser is the safe modality to produce nearly similar effects in treatment of grade II diabetic foot ulcer.
Key words : hyperbaric oxygen therapy, laser, diabetes mellitus, foot ulcer.

Arabic Title Page : تأثير العلاج بالأكسجين تحت الضغط مقابل العلاج بالليزر في علاج قرح القدم السكري.
Author : Heba Mahmoud Abbas Ali.
Title : Effect of Laser Puncture on Ventilatory Function In Asthmatic Patients.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza A. Abdel Hady, Shehab Mahmoud Abd El-Kader, Nahed Mohamed Mostafa.
Degree : Master.
Year : 2007.
Abstract :
Background: Laser therapy has anti-microbial, anti-inflammatory and analgesic effects. And shown improvement in gas exchange and pulmonary function in Respiratory disease. Methods: the study was performed to investigate effect of laser puncture on ventilatory function (FVC, FEV\textsubscript{1} / FVC) and quality of life 6-min walking test in 30 moderate asthmatic male patients. The mean age of patient was 41 years, BMI 26 kg/m\textsuperscript{2} and duration of disease was 76 months. The patients assigned in to 2 equal groups one received real laser puncture and other received placebo laser puncture. Ventilatory function and quality of life was measured before and after 8 weeks of receiving laser puncture. Results: the results showed that there was significant improvement in ventilatory function (FVC, FEV\textsubscript{1}/FVC) in study group after treatment was (24.47%,10.5%) while in control was (17.9%, 3.9%). Also in quality of life 6-min walking test there was significant improvement in study group (41.7%) while in control group was (36.11%). Conclusion: Use of laser puncture therapy procedure significant effect on ventilatory function FVC, FEV\textsubscript{1}/FVC and quality of life 6-min walking test in patient with moderate asthma.
Key words : Laser therapy, bronchial asthma, ventilatory functions, 6-min walking test.

Arabic Title Page : تأثير الليزر الوخزى على وظائف الرئة في مرضى الربو الشعبي.
Author : Mohamed Abd El Haleem Mohamed Shendy.

Title : Effect of Different Body Positions on Ventilation in Patients with Unilateral Lung Diseases.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.


Degree : Master.

Year : 2007.

Abstract :
The aim of this study was to evaluate the effect of different body positions on ventilation in patients with unilateral lung diseases. Thirty patients with unilateral lung diseases their age ranged from 25 to 55 years old participated in this study. Ventilatory function test was performed for each patient after thirty minutes of assuming each of the following body positions (sitting, supine, side lying on the affected position and side lying on the unaffected position). The results showed that there was highly improvement in ventilatory function at sitting position. There were statistically significant differences between sitting position and other positions and between lying on the unaffected and lying on the affected side. It was concluded that sitting position is the best position for pulmonary ventilation and side lying on the unaffected position is the position of choice for improvement of ventilation perfusion ratio in patients with unilateral lung diseases.

Key words : Ventilatory function, Spirometry, Positioning, Unilateral lung diseases.

Arabic Title Page : تأثير الأوضاع المختلفة على التهوية الرئوية في المرضى ذوي أمراض الرئة الواحدة.
Author : Mohamed Ahmed El Bedewy.
Title : Effect of Inspiratory Muscle Training on Selected Blood Gases in Chronic Obstructive Pulmonary Disease Patients.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Al Sayed Abd El- hameed Abd El Raheem, Maysa Mohamed Fouad Sharf EL-din, Akram Abd El-Aziz Sayed.
Degree : Master.
Year : 2007.
Abstract : The aim of this study was to determine the efficacy of inspiratory muscle training on improving the arterial blood gases in chronic obstructive pulmonary disease patients. Forty patients had chronic obstructive pulmonary disease participated in this study. They divided into two groups: The first group is a control group who didn't participate in any physical therapy program. The second group is the study group who received inspiratory muscle training by using threshold inspiratory muscle trainer for eight weeks, three times per week from ten to fifteen minutes per session. There were statistical significant improvements in arterial blood gases (PaO₂, PaCO₂, PH) after eight weeks from using threshold inspiratory muscle trainer. So threshold inspiratory muscle trainer can be introduced as a method of treatment for (COPD) patients to improve the arterial blood gases (PH, PaO₂ and PaCO₂), inspiratory muscle strength and endurance for reducing the risk of pulmonary complications.
Key words : Inspiratory Muscle Training, Arterial Blood Gases, Threshold Inspiratory Muscle Trainer.

Arabic Title Page : تأثير تدريب عضلات الشهيق على بعض غازات الدم المختارة في مرضى السدة الرئوية.
Author : Mohamed Ahmed Zaki Seoudi.
Title : Effect of Electromagnetic Therapy On Diabetic Foot Ulcer.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2007.
Abstract :
The purpose of this study is to examine the effect of low frequency pulsed magnetic field (LFPMF) therapy on diabetic foot ulcer in patients with type 2 diabetes mellitus. Twenty patients from Out Patient Clinic of Diabetes in Kasr Al-Aini Hospital were assigned randomly into 2 groups equal in number. The magnet on group (n=10) received LFPMF in addition to oral hypoglycemic drugs, whereas the magnet off group (n=10) received hypoglycemic drugs. The blood perfusion, heart rate, respiratory rate and blood pressure were measured before and after 3 month of treatment. Ankle brachial pressure index (ABPI) was measured before the study to exclude macrovascular complications. Results: The results showed a statistical non significant improvement in all parameters in magnet on group compared with magnet off group. Conclusion: It was concluded that LFPMF is not effective as a therapeutic method to improve healing of diabetic foot ulcer in patients with type 2 diabetes mellitus.

Key words : Magnetic Field, Blood Flow, Diabetic Patients

Arabic Title Page : تأثير المجال المغناطيسي علي قرحة القدم السكري.
Author : Mohamed Shamakh.
Title : Physical Therapy Interventions for Mechanically Ventilated Patients (Systemic Review Study).
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Nagwa M. Badr, Shehab M. Abd El Kader, Akrem Abd El Aziz.
Degree : Master.
Year : 2007.
Abstract :
Physical therapist plays a role in the multidisciplinary team in management of mechanically ventilated patients. This review was to provide evidence based practice of physical therapy interventions for those patients. Medical libraries were searched using a variety of keywords. Search results were presented in a problem solving approach in six problems usually encountered by physical therapist “Retained Secretions, Ventilator Associated pneumonia, Atelectasis, Respiratory Muscle Weakness, Body De-Conditioning, and Pain & Anxiety”. The Levels of Evidence the Scottish Intercollegiate Guidelines Network (SIGN), were used to detect the level of evidence behind interventions for each problem for the purpose of comparison and discussion. From this review a series of clinical and research recommendations were driven to optimize the physical therapy management.
Key words : Mechanical Ventilation, Physical Therapy, Critical Care, Intensive Care.
Arabic Title Page : مدخلات العلاج الطبيعي للمرضى مستخدمي اجهزة التنفس الاصطناعي (دراسة مرجعية).
Author : Mina Nashat Halim.
Title : Effect of electromagnetic therapy on diabetic polyneuropathy.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2007.
Abstract:
Background: The purpose of study was to examine the effect of electromagnetic therapy in diabetic polyneuropathic patients. Forty diabetic neuropathic patients with sensory manifestations were assigned randomly into two equal groups. Subjects in control group (n = 20) received only medical treatment. Whereas subjects in study group (n =20) received medical treatment in addition to the electromagnetic waves. The following parameters including nerve conduction velocity and pain were measured by nerve conduction velocity and visual analogue scale before and after the treatment course. Results: There is significant increase in the nerve conduction velocity and decrease in pain in the study group in comparison to control group. Conclusion: Electromagnetic therapy is an effective additional tool to physical therapy program in the treatment of diabetic neuropathic patients as it plays an important role in increasing nerve conduction velocity and other sensory manifestations.
Key words : diabetes, diabetic polyneuropathy, nerve conduction study, electromagnetic therapy.
Arabic Title Page : تأثير العلاج الكهرومغناطيسي على التهاب الأعصاب الطرفية لمرضى البوال السكري.
Author : Mona Ahmed Ahmed Abdul Mohsen.

Title : Impact of Ankle Joint Mobility Program on Balance Performance In Diabetic Elderly Subjects.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.


Degree : Master.

Year : 2007.

Abstract:
This research was conducted to study the impact of ankle joint mobility program on balance performance in diabetic elderly subjects. Thirty diabetic elderly patients of both sexes (18 females and 12 males with mean age equal 65.81±5.93) from El Sahel Teaching Hospital, outpatient clinic, participated in this study. All patients were evaluated before the mobility program by the universal goniometer and Biodex balance system then they received the ankle joint mobility program for 6 weeks, then they were reevaluated again by the same devices. The results of this study revealed an improvement in the range of motion in ankle dorsiflexion and planterflexion also an improvement in the balance performance and in consequence the rate of falling can be decreased in these patients.

Key words : Ankle mobility program, Range of motion, Balance, Diabetes mellitus, Elderly.

Arabic Title Page : تأثير برنامج حركة مفصل الكاحل على الاتزان لدى مرضى السكر كبار السن.
Author: Mona Mohamed Taha El-Sayed.
Title: Predicted Peak Oxygen Consumption and Walk Test As A Measure of Exercise Capacity For Chronic Obstructive Pulmonary Disease Patients.
Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors: Nagwa Mohamed Hamed Badr, Hala Mohamed Ezz El Deen, Mohie El-Deen A. Zaher.
Degree: Master.
Year: 2007.
Abstract: Background: Exercise tolerance in COPD patients has multiple determinants that's need safe and accurate test for who can't do active exercise test. Study objective: was to correlate and compare the predicted peak oxygen consumption from resting pulmonary function test and 6 min. walk test as a measure of exercise capacity for patients with COPD. Setting and participants: Forty moderate to severe COPD male patients FEV$_1$ $\leq$ 80 % and FEV$_1$/FVC $<$ 70%. Their age ranged between 45 and 60 years, were selected from Materia teaching hospital. Assessment of pulmonary functions included FVC, FEV$_1$, FEV$_1$/FVC, MVV, and FEF$_{25-75}$. Evaluation of walk test included distance walked, distance weight product, and the oxyhemoglobin saturation, pulse rate, respiratory rate and blood pressure .Results: The results showed that Predicted Peak Oxygen Consumption was highly and significantly correlated with 6 min. walk work and moderate agreement between them. Conclusion: Peak exercise capacity measured by 6MWT could be also estimated with similar accuracy from PFT through predicted VO$_2$max formula in patients with COPD.
Key words: Chronic obstructive pulmonary disease, 6 Minute walk test, predicted peak oxygen consumption, Ventilatory function.

Arabic Title Page: المعالج الأولئى المتوقع لاستهلاك الأكسجين واختبار المشي كمقياس للكفاءة التمرين لمرضى السدة الرئوية المزمنة.
Author: Nabil Talat Elsayed Fayad.

Title: Effect of aerobic exercise on pulmonary hypertension secondary to chronic obstructive pulmonary disease.

Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.

Supervisors: Azza Fekry Ismail, Mohamed Gamal Amer Elkholy, Akram Abd Elaziz Sayed.

Degree: Master.

Year: 2007.

Abstract:
This study was conducted to determine the effect of aerobic exercise training on pulmonary hypertension secondary to chronic obstructive pulmonary disease. For this purpose thirty male patients with pulmonary hypertension secondary to COPD were chosen from outpatient clinic in Tanta University Hospital. Their age ranged between 45 and 55 years old their mean pulmonary artery pressures ranged between 25-35 mmhg. The subjects were divided randomly into two equal groups, A (study group) received moderate intensity aerobic exercise(60%-80% of maximum heart rate) each other day for 8 weeks, while group B (control group)had no exercise, both groups were medically controlled. Both groups were analogues with respect to age and BMI. All cases evaluated by Echocardiography and ventilatory function test which were done before treatment and after 8 weeks of treatment. The results of this study revealed that aerobic exercise in the form of walking on treadmill, at moderate intensity (60-80 % of maximum heart rate), for 30 minutes which was done 3 times/ week, 1 hour after the main meal and medication, together with medical therapy, improved pulmonary functions as well as pulmonary artery pressure. In the study group FEV1 increased by 10.2 %, FVC increased by 6.3 %, FEV1/ FVC by 4.1% and systolic pulmonary artery pressure decreased by 3.2%, diastolic pulmonary artery pressure decreased by 17.5 % and mean pulmonary decreased by 7.4%. so it could be concluded that aerobic exercise in conjunction with medical therapy had an effect in reducing the pulmonary artery pressure and improving pulmonary functions in patients with pulmonary hyper tension secondary to COPD.

Key words: COPD, pulmonary hypertension, aerobic exercise, moderate intensity, pulmonary functions.
Author : Samah Mahmoud Ismail.
Title : Effect Of Treadmill Exercise On Nitric Oxide In Diabetic Patients (Type Two).
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza Fekry Ismail, Al Sayed Abd El Hameed Shanb, Soheir Abdel Fattah Abo El Fadl.
Degree : Master.
Year : 2007.
Abstract : The aim of this study was to investigate the effect of treadmill exercise on nitric oxide (NO) in diabetic patients (type 2). Thirty patients participated in the study, their age ranges from 40 to 55 years. They were divided into two equal groups. The first group (studied), performed a supervised treadmill exercise program (3 sessions / weak, 30 minutes / per session for 8 weeks) in addition to oral hypoglycemic drugs. The second group (control) received only the oral hypoglycemic drugs. Nitric oxide was measured at the beginning and after 8 weeks for both groups. There was a significant increase in the NO level only after the treadmill exercise group. So it is recommended that type 2 diabetic patients participate treadmill exercise to increase the NO level and improve vascular endothelial function.
Key words : treadmill exercise, nitric oxide, diabetes mellitus.
Author : Samer Fahmy Tawadros.
Title : Effect of different aerobic exercise intensities on nitric oxide in males with mild hypertension.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2007.

Abstract:
Background: Nitric Oxide is an endothelium dependent vasodilator. Aerobic exercise enhances endothelium-dependent vasodilatation in hypertensive patients through NO release. Methods and Results: we measured the effect of different intensities of exercise on endothelium-dependent NO release. We measured the level of nitrite in blood before and after different aerobic exercise intensities; mild 50%, Moderate 80% and sever 90% of Maximum Heart Rate (HRm) for 12 weeks. The level of nitric oxide had increased with mild intensity from (23.17±5.93) to (25.80±6.64)µmol/L and with moderate intensity from (23.32±4.62) to (27.44±5.46)µmol/L but decreased with sever intensity from (22.47±4.86) to (18.03±4.92)µmol/L. Conclusion: Exercises performed with moderate intensity at 80% of the patient HR max is the best intensity and of certain benefit for mild hypertensive patients.

Key words: Nitric Oxide, Endothelium, Aerobic exercise.

Arabic Title Page : تأثير التمرينات الهوائية مختلفة الشدة على أكسيد النيتروجين عند الرجال ذوى ارتفاع ضغط الدم المعتدل.
Author : Shaheera Abo El-ftouh Zidan.
Title : Effect of low intensity laser therapy on venous ulcer in lower limbs of Egyptian patients.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza Fekri Ismail, Mohamed Sobhy Teama, Akram Abd El Elaziz.
Degree : Master.
Year : 2007.
Abstract :
The aim of this study was to determine the efficacy of low intensity laser therapy in the treatment of lower limbs venous ulcers. Thirty patients with venous ulcers their age ranged from 30 to 50 yrs old, Participated in this study. They were divided into control and study groups received the same medical treatment. The study group only received the laser therapy for two months in addition to the medical treatment, there was a significant decrease in wound surface area and wound volume after laser therapy but there were less significant changes in wound surface area and wound volume with medical treatment only. So low level laser therapy is an effective modality in the treatment of venous ulcers combined with medical treatment.

Key words : low intensity laser therapy, venous ulcer, lower limbs.

Arabic Title Page : تأثير العلاج بالليزر منخفض الشدة على الفرحة الوريدية في الأطراف السفلية للمرضى المصريين.
Author : Shereen Hamed El-Sayed.
Title : Ventilatory Function in Relation to Different Classes of Obese Women.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza A. Abd El-Hady, Mohyee El Din A. Zaher, Akram Abd El-Aziz Sayed.
Degree : Master.
Year : 2007.
Abstract:
Study objective: was to assess the correlation between the ventilatory function and the different classes of obesity. Setting and participants: Three hundred obese women, their age ranged between 20 and 40 years, their BMI between 30 and $\geq 40$ Kg/m$^2$, WC $\geq 90$ cm, were selected from the out patient clinics of El-Mataria Teaching Hospital. They were assigned into three equal classes I, II and III according to BMI. Each of them consisted of 100 participants. Class I (30 – 34.9 Kg/m$^2$) While Class II (35 -39.9 Kg/m$^2$) and Class III ($\geq 40$ Kg/m$^2$). Clinical assessment was done to exclude any other pathological conditions. Evaluation of obesity included body mass index, percentage of body fat, waist circumference and neck circumference. Assessment of ventilatory function was by FVC, FEV$_1$, FEV$_1$/FVC, MVV, PEF and FEF$_{25-75%}$. Using spirometer. Results and Conclusion The results using pearson correlation coefficients analysis and The stepwise multiple regression analysis showed that all classes exhibit a statically significant compromise in all ventilatory parameters and the compromise increases as obesity increases. These results suggest that abdominal adiposity is a better predictor of pulmonary function than weight or BMI, and investigators should consider it when investigating the determinants of ventilatory function.

Key words : Ventilatory function. Spirometry. Body mass index. Obesity.

Arabic Title Page : العلاقة بين وظائف التنفس والدرجات المختلفة للسمنة في السيدات.

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Author : Yasser Farag Abd El Moneim El-Shandaweely.

Title : Pulmonary Gas Exchange and Quality Of Life in Patients with Left Ventricular Failure.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.


Degree : Master.

Year : 2007.

Abstract:
This study was designed to find the relationship between pulmonary gas exchange and quality of life in left ventricular failure (LVF). The study was conducted on sixty male patients with LVF, NYHA class II&III, selected from National Heart Institute. The mean age (57.24±4.45) years and the mean of LVEF (38.91±2.69%). Patients underwent cardiopulmonary exercise testing and completed the MLHFQ over a 1-year period. The mean duration of left ventricular failure (9.33±4.67 months). The mean of VO2max (11.9 ± 1.07 ml/kg/min). The mean of VE/VCO2 slope (39.98 ± 14.26). The mean of MLHFQ overall scores (63.3±21.73). The mean of MLHFQ physical sub-scores (21.7±7.34) and the mean of MLHFQ psychosocial /symptomatology sub-score (41.6 ±14.44). The results revealed that VO2max had a strong, negative correlation with MLHFQ (r = -0.73 & P=0.001, r= -0.74& P=0.001, and r= -0.70&p=0.001) overall the patients' groups. VE/VCO2 slope had a strong, positive correlation with MLHFQ (r=0.87& P=0.001, r=0.86& P=0.001 and r=0.87&P=0.001) overall the patients' groups. Also, VO2max had a strong negative correlation with VE/VCO2 slope (r= – 0.74 & P=0.001) overall the patients' groups.

Key words : Ventilatory efficiency, maximal oxygen consumption, quality of life, MLHFQ, LVF, left ventricular systolic dysfunction, CHF.

Arabic Title Page : تبادل الغازات الرئوية ونوعية الحياة لدى مرضى هبوط البطين الأيسر.
Physical Therapy Department for Obstetrics and Gynaecology and its Surgery
Thirty pregnant women at the late of the second and early of the third trimesters (26-32 weeks' gestation) with a mean value of (28.2±1.34 weeks' gestation), previously diagnosed with carpal tunnel syndrome (CTS) and their age ranged from 25-35 years with a mean value of (30.00±3.82 yrs) were selected from the Obstetrics Out Patient Department, Kasr El-Aini Hospital, Faculty of Medicine, Cairo University. This study was conducted at the EMG laboratory in the Faculty of Physical Therapy, Cairo University to investigate the changes in conduction velocity and sensory distal latency of the median nerve following LLLT (combined He-Ne and infrared laser) as well as, gliding exercises. The pregnant women received LLLT (830 nm, 9 joules, 100 msec, 10.000 Hz). The application of LLLT was done on 5 points; each point was irradiated for 120 seconds, three times per week, for five weeks (15 treatment sessions). Patients also, performed tendon and median nerve gliding exercises. During both types of gliding exercises, the patient maintained each position for seven seconds. She repeated each set of exercises three times per day throughout the study (five weeks). Pregnant women were assessed electrophysiologically via (SDL, MCV and SCV) of the median nerve and clinically via (VAS, Phalen's test and Tinel sign) before and after the treatment program. The results of the present study revealed that there were a significant (P<0.01) increase in MCV and SCV of the median nerve, highly significant (P<0.001) decrease in median nerve sensory distal latency and also there were significant (P<0.01) and a highly significant (P<0.004) decrease in the number of patients who had a positive Phalen's test and Tinel sign respectively at post-treatment as well as improvement of VAS compared to the pre-treatment results. So, it could be concluded that LLLT and exercises are effective physiotherapeutic modalities for treating carpal tunnel syndrome during pregnancy.

Key words: Carpal tunnel syndrome (CTS), pregnancy, LLLT, median nerve, nerve conduction velocity (NCV).

Arabic Title Page: تأثير الليزر المنخفض الشدة والتمرينات في علاج الضغط على العصب الأوسط للرعس أثناء الحمل.
Author : Eman Abd El Ftah Mohamed.

Title : Effect of low level laser therapy and aerobic exercise training in the treating pain of chronic pelvic inflammatory disease.

Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.

Supervisors : Amel Mohamed Yousef, Mohamed Mostafa Shahin, Hala Mohamed Hanafy.

Degree : Master.

Year : 2007.

Abstract : This study was conducted to determine the effect of low level laser therapy (LLLT) and aerobic exercises training in treating pain of chronic pelvic inflammatory disease (PID). Thirty regularly menstruating patients diagnosed as having chronic PID participated in this study. They were treated with LLLT and aerobic exercise training program which consisted of weight bearing exercises on treadmill followed by specific exercises for hip extensor and abductor muscles as well as posterior pelvic tilting exercise for 18 sessions, 3 sessions per week. All patients were evaluated before and after the end of the treatment using present pain intensity (PPi) scale as well as C-reactive protein (CRP) and pain relief (PR) scale which evaluated only after the end of the treatment. The results of this study showed a statistically highly significant decrease (P<0.001) in the intensity of PID pain perception and CRP after the end of the treatment program. Accordingly, it can be concluded that LLLT and aerobic exercises are effective physical therapy modality for treating chronic PID.

Key words : PID, Pain, LLLT, Aerobics exercises, CRP.

Arabic Title Page : تأثير الليزر المنخفض الشدة والتمريينات الهوائية في علاج التهابات الحوض المزمنة.
Author: Engy Mohamed Ibrahim El Nahas.
Title: Effect of low level laser therapy on wound healing and pain relief after episiotomy.
Dept.: Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors: Fahima Metwally Okeel, Mohamed Amr Hussein El Noury, Azza Baramoud Nashed.
Degree: Master.
Year: 2007.
Abstract:
The purpose of this study was to determine the effect of low level laser therapy on wound healing and pain relief after episiotomy. Thirty women (primipara) having episiotomy were participated in this study, their age ranged from 20-35yrs. They were divided randomly into two groups equal in number groups (A&B), group A (study group) received 4 sessions of low level laser therapy on perineal incision (2 sessions per day for 2 days) with wavelength 670 nm, pulse width 450 microseconds, power 200 mW, pulse frequency 1000Hz and duration 1.5 min/cm², the 1st session was after 12 hrs of episiotomy and they received the prescribed dose of non steroidal anti-inflammatory drug. While group B (control group) received the same dose of non steroidal anti-inflammatory drug as group A. The outcome measures included: present pain intensity scale (PPI) immediately after episiotomy, pain relief scale (PR) after 12, 24, 36 & 48 hrs from episiotomy, and basal cell density (BCD) level, Proliferation marker Ki-67 and quality and arrangement of collagen after three weeks from episiotomy. The results of this study showed that there was no significant difference (P value >0.24) of present pain intensity scores immediately after episiotomy between the two groups, but there was a significant decrease (P value< 0.01) of present pain intensity scores after 12 hrs from episiotomy in group (A) in comparison to group (B) and a highly significant decrease (P value< 0.001) of present pain intensity scores after 24, 36 & 48 hrs from episiotomy in group (A) in comparison to group (B). Also there was a highly significant increase (P value< 0.001) of pain relief scores after 12, 24, 36, 48 hrs from episiotomy in group (A) in comparison to group (B). Also, the results of this study showed a highly significant increase (P value< 0.001) in basal cell density (BCD) level and in proliferation marker Ki-67 in group (A) in comparison to group (B), and the collagen was dense and parallel in group (A), while it was dense and non parallel in group (B) and this indicated better collagen arrangement. According to the results of this study, it was found that low level laser therapy is considered as one of the efficient alternative methods in accelerating wound healing and pain relief after episiotomy.

Key words: Low level laser therapy, pain, wound healing, episiotomy.

Arabic Title Page: تأثير الليزر المنخفض الشدة على التئام الجرح وتخفيف الألم بعد الولادة بشق العجان.
Author       : Gehan Ali Abdel Samea Saaed.
Title        : Effect of Ozone Therapy on Foetoplacental Blood Flow in Hypertensive Pregnant Women.
Dept.        : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors  : Salwa Mostafa El-Badry, Mohamed Nabil Mawsouf, Azza Baramoud Nashed.
Degree       : Master.
Year         : 2007.
Abstract     :
This study was conducted to examine the effect of ozone therapy on foetoplacental blood flow in hypertensive pregnant women. Thirty volunteer hypertensive pregnant women at 24 weeks’ gestation and their age ranged between 20 to 30 years old were participated in this study. They were selected from out patient clinic of the obstetrics and gynaecology department of Kasr EL-Aini University Hospital. Patients were assigned randomly into two groups (A & B) equal in number: Group (A) study group: consisted of fifteen women received ozone therapy, 3 sessions per week for 7 weeks and continued their antihypertensive drug (methyldopa), and Group (B) control group: consisted of fifteen women whom had been treated with the antihypertensive drug (methyldopa) only. Evaluations of all patients were done before starting the study and after 7 weeks through measuring maximum systolic and end diastolic velocities of the umbilical artery, systolic / diastolic (S/D) ratio, resistance index (RI), pulsatility index (PI) and the dose of the antihypertensive drug (methyldopa) before and after the study. The results of this study showed a highly significant (P<0.001) decrease of maximum systolic velocity, (S/D) ratio, RI, PI and the dose of the antihypertensive drug while, there was a highly significant (P<0.001) increase of the end diastolic velocity in group (A). And in group (B), there was a non significant change of maximum systolic velocity and PI while, there was a significant (P<0.05) increase of the end diastolic velocity, a highly significant (P<0.001) increase in the dose of the antihypertensive drug, and a significant (P<0.05) decrease of S/D ratio as well as, RI. Comparison between both groups (A&B) before starting the study reveals that there was non significant difference between them. And at the end of the study, there was non significant difference between them in the maximum systolic velocity and the end diastolic velocity, while there was highly significant (p < 0.001) decrease in the S/D ratio, RI, PI and the antihypertensive drug dose in the study group. Accordingly, it could be concluded that ozone therapy has a positive effect in improving foetoplacental blood flow for the hypertensive pregnant women, as well as, it is a safe modality and has no harmful effects either on the mother or her foetus.

Key words     : Ozone therapy, Placental blood flow, Hypertension, Pregnancy.

Arabic Title Page   : تأثير العلاج بالأوزون على الدورة الدموية المشيمية لدى السيدات الحوامل المصابة بارتفاع ضغط الدم.
<table>
<thead>
<tr>
<th>Author</th>
<th>Ghada Ibrahim Ahmed EL refaye.</th>
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<tbody>
<tr>
<td>Title</td>
<td>Efficacy of Aerobic exercises in alleviating primary Dysmenorrhoa.</td>
</tr>
<tr>
<td>Dept.</td>
<td>Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.</td>
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<tr>
<td>Supervisors</td>
<td>Fahema Metwally Okeel, Iaila Ahmed Rashed, Hala Mohamed Hanafi Emara.</td>
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<td>Degree</td>
<td>Master.</td>
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**Abstract**

This study was carried out in an attempt to determine the efficacy of aerobic exercises in alleviating primary dysmenorrhea. Fifty volunteer, single females with primary dysmenorrhea were selected randomly from the students of Faculty of Physical Therapy, Cairo University. Each subject participated in an aerobic exercise training program for 12 weeks, three times per week, for 36 sessions. PPi scale, PR scale and Plasma cortisol level was measured before and after the end of aerobic exercise training program. The results indicated that PR was highly significant increased as P<0.001 and PPi, P.C.L was highly significant decreased as P<0.001. This study concluded that aerobic exercise training program is an effective method for reducing dysmenorrheic pain.

**Key words**: primary dysmenorrhoea, aerobic exercises, Plasma Cortisol Level.

**Arabic Title Page**: كشفاء التمارين الهوائية في تخفيف الألم المصاحبة لعسر الالام الأولي.
Author : Heba Mohamed Ali Sayed.
Title : Effect of therapeutic ultrasound in the treatment of post partum coccydynia.
Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Degree : Master.
Year : 2007.
Abstract : This study was conducted to determine the effect of therapeutic ultrasound in the treatment of post partum coccydynia. Thirty volunteers' multifarious post partum females with coccydynia. Treated by ultrasonic therapy for 18 sessions, one every other day. They were evaluated before and after the twelve sessions and after the eighteen sessions of treatment using present pain intensity (PPI) scale and plasma cortisol level. The results showed that PPI and plasma cortisol level was highly significant decreased as (P < 0.001). Study concluded that ultrasound therapy is an effective modality in alleviating post partum coccydynia.

Key words : Electrotherapy, ultrasonic therapy, coccydynia post partum, plasma cortisol level.

Arabic Title Page : تأثير الموجات فوق الصوتية في علاج الألم العصعصية بعد الولادة.
This study was conducted to determine the effect of biofeedback relaxation training in alleviating premenstrual disorders. Thirty volunteers’ virgin females suffering from premenstrual tension, the participants of this study were selected from students of Faculty of Physical Therapy, Cairo University. Their age ranged from 18 to 22 years (20.53±1.27 yrs), and their body mass index was ≤ 28 kg/m². Each subject had been treated with relaxation training augmented by biofeedback twice/week for 6 weeks in addition to daily home routine, and assessment of premenstrual tension symptoms was done through assessment of HR, RR, muscle tension (measured by T.G MYO-feedback 420v) and data of daily symptoms report. The result showed a highly significant (P<0.001) decrease in HR, RR, TG MYO 420v data as well as some of symptoms of daily report including: anxiety, irritability, depression, nervous tension, mood swing, feeling out of control, poor coordination, insomnia, confusion, headache and crying compared to pre-treatment assessment. Accordingly, it could be concluded that the biofeedback relaxation training was found to be an effective, noninvasive, safe, cheap, easy to perform, simple and successful adjunct treatment method in reducing premenstrual syndrome.

Key words: Premenstrual Tension, Relaxation Training, Biofeedback.
Author : Marwa Esmael Hasanin Esmael.
Title : Effects of biofeedback-assisted relaxation on preeclampsia.
Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors : Amel Mohamed Yousef, Ekram Mohamed Mesbah, Soheir Mahmoud El-Kosery.
Degree : Master.
Year : 2007.
Abstract:
This study was performed to examine the effect of biofeedback-assisted relaxation on preeclampsia. 35 women were participated in this study. They were divided randomly into two groups, (Group I) included 20 cases were treated with relaxation training in the form of autogenic training assisted by galvanic skin response biofeedback device and (Methyldopa) for 6 weeks (3 sessions per week) and (Group II) included 15 cases were treated with the (Methyldopa) only. Evaluations were done before and after the end of treatment period through measuring the SBP, DBP, HR, proteinuria and the daily doses of (Methyldopa). The results revealed that; in Group I the SBP, DBP, HR, proteinuria and the daily drug doses showed a statistically highly significant reduction (P<0.001) while, for Group II the SBP, DBP, HR and proteinuria showed a statistically significant reduction (P<0.05) whereas, the daily drug doses showed a statistically significant increase (P<0.01). So, it can be concluded that biofeedback-assisted relaxation can be used as an effective treatment for pre-eclampsia.

Key words : Biofeedback-assisted relaxation, Preeclampsia, blood pressure, Proteinuria, Antihypertensive drug.

Arabic Title Page : تأثير الاسترخاء المساعد بالتغذية الرجعية الحيوية في حالات تسمم الحمل.
Author: Manal Manassa Fahim Salib.
Title: Planter foot pressures distribution in different trimesters of normal pregnancy.
Dept.: Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Degree: Master.
Year: 2007.

Abstract:
This study was conducted to determine the changes of the planter foot pressures distribution for the normal pregnant women at their three trimesters. Eighteen normal pregnant women at their first trimester were selected from Outpatient Clinic of Antenatal Care at Kasr El-Aynee University Hospital. Evaluation of all subjects was done by RS Foot Scan International Plate System at their 1st, 2nd and 3rd trimesters of pregnancy for measuring the peak planter foot pressures distribution under the big toe, 1st & 5th metatarsal heads, the heel as well as the vertical ground reaction force (GRF). Results showed statistically highly significant increase (P<0.001) in the planter foot pressures under heel, 1st & 5th metatarsal heads, big toe as well as a statistically significant increase (P<0.005) in the 1st & 2nd peak of vertical GRF between 1st and either 2nd or 3rd trimesters as well as between 2nd and 3rd trimesters of pregnancy. But, there was a statistically non significant difference (P>0.05) in the 1st peak of vertical GRF between 1st & 3rd trimesters and in the 2nd peak of vertical GRF between 2nd & 3rd trimesters of pregnancy. So, it can be concluded that the increase in the planter foot pressures specially on heel and medial side of the foot giving a pronated foot position. Also, the increased vertical GRF may indicate that the pregnant women need more propulsion to move the increased weight and size of the pregnant uterus.

Key words: Pregnancy; Planter foot pressure, Ground reaction force, RS Foot scan plate system.

Arabic Title Page: توزيع الضغوط أسفل القدم في المراحل المختلفة في الحمل الطبيعي.
Author : Noha Mohamed Abd El Hammed Abo El Naga.
Title : Effect of aerobic exercise on maternal blood glucose level and fetal birth weight in pregnant diabetic women.
Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Degree : Master.
Year : 2007.
Abstract:
This study was conducted to determine the effect of moderate intensity aerobic exercise on maternal blood glucose level and fetal birth weight in diabetic pregnant women. Forty pregnant women, who had type II diabetes, or GD and their gestational age were between 20 and 24 weeks, participated in this study. The study sample was divided into two groups equal in number (control and study groups). The control group was treated by diet alone. While, the study group received the same diet therapy and moderate intensity aerobic exercise. All cases evaluated through 3 hours oral glucose tolerance test at the start and the end of the study. Neonatal birth weight was measured immediately after delivery for both groups. The results of this study revealed that aerobic exercise in the form of walking on treadmill, at moderate intensity (60-75 % of maximum heart rate), for 45 minutes, 3 times/week, 1 hour after the main meal and insulin injection, from 20 weeks’ gestation till delivery, in diabetic pregnant women, who had type II diabetes or gestational diabetes mellitus, together with diet therapy (1800-2000 kcal/day), decreased the plasma glucose level and hyperglycemia compared with diet alone. In the study group fasting blood glucose level reduced by 22.8%, 1 hour BGL reduced by 14.3%, 2 hours BGL reduced by 26.7% and 3 hours BGL reduced by 29.7% after treatment. The new born birth weight in the study group is less than those in the control group by 29.5%, so, it could be concluded that aerobic exercise in conjunction with diet therapy had great effect in reducing rate of macrosomia in diabetic pregnant females.
Key words : Diabetic pregnant, Aerobic exercise, Moderate intensity, Type II, GDM, Blood glucose level, Fetal birth weight, Oral glucose tolerance test.

Arabic Title Page : أثر التمرينات الهوائية على مستوى السكر في الدم أثناء الحمل وزن الطفل عند الولادة لدى السيدات المصابات بداء السكر.
Author: Ramy Fawzy Kamel.
Title: Relationship between Spinal Curvatures and Prolapsed Female Genital Organs.
Dept.: Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors: Salwa Mostafa El-Badry, Adel Farouk El-Bigawy, Azza Baramoud Nashed.
Degree: Master.
Year: 2007.
Abstract: This study was conducted to establish a sound relationship between spinal curvatures and the occurrence of female genital organs prolapse. Sixty women were participated in this study, thirty of them were suffering from second degree uterine prolapse and were serving as a study group while, the remaining thirty were normal and healthy and were serving as a control group. Their age ranged between thirty to forty five years old. All women were enrolled to be examined by lateral views of X-rays for the thoracic, lumbar and pelvic inlet angles. The results of this study showed a significant increase in the thoracic kyphosis and pelvic inlet angles whereas; the lumbar lordotic angle was significantly decreased for the study group compared to the control group. Accordingly, it can be concluded that significant changes in the spinal curvatures could be a predisposing factor in developing genital organs prolapse or play an effective role in its occurrence.

Key words: Genital prolapse, Pelvic relaxation, Spinal curvatures.

Arabic Title Page: العلاقة بين انحناءات العمود الفقري وسقوط الأعضاء التناسلية لدى الإناث.
Physical Therapy Department for Musculoskeletal Disorder and its Surgery
Author: Alaa Mohammad Asim Abdel Fatah Shadi.

Title: The effect of two different doses of laser therapy in the treatment of knee osteoarthritis.

Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.

Supervisors: Enas Fawzy Youssef, Hassan Mohammad Neinaa.

Degree: Master.

Year: 2007.

Abstract:
The purpose of this study is to determine the effect of two different doses of low-level laser therapy (LLLT) on reducing pain severity, improving the functional ability, and increasing the active flexion range of motion in patients with knee osteoarthritis. Thirty patients were divided randomly into two equal groups. The first group treated with a laser dose of 3 J/cm², and the second group treated with a laser dose of 6 J/cm². Patients were assessed before and after treatment by visual analogue scale, Western Ontario and McMaster Universities osteoarthritis index (WOMAC), and long arm goniometer. Results: Both laser doses were effective in reducing pain and improving the functional ability and range of motion in knee osteoarthritis. There were no significant differences between both laser doses.

Key words: Low-level laser therapy, osteoarthritis, VAS, range of motion, functional ability.

Arabic Title Page: تأثير استخدام جرعتان مختلفتان من الليزر العلاجي في علاج خشونة مفصل الركبة.
Author: Alaaeldin Abdelsattar Khaireldin.
Title: Assessment of Dynamic Balance after Arthroscopic partial meniscectomy.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors: Ahmed Hassan Hussien, Hisham Mosbah, Enas Fawzy Youssef.
Degree: Master.
Year: 2007.
Abstract:
The aim of this study is to evaluate the dynamic balance in patients with unilateral partial meniscectomy after receiving five weeks of traditional physical therapy program. Twenty patients (18 males & 2 females) and ten healthy (10 males) subjects were included at this study. Results showed that there were no significant differences between dominant limb and non dominant limb in healthy subjects. Over all balance index and antero-posterior balance index were significantly higher in the involved limb than uninvolved limb and normal subjects, while no significance difference in medio-lateral balance index between involved limb, uninvolved limb and healthy subjects.
Key words: meniscal injury, partial meniscectomy, balance, Proprioception.

Arabic Title Page: تقييم الاتزان الدينيمكي بعد الاستئصال الجزئي لضروف الركبة بالمنظار.
Author : Enas Anwar Abd El Aty Mohammed.
Title : The effect of Low-Dye taping on management of patients with unilateral plantar Fascitis.
Degree : Master.
Year : 2007.
Abstract:
This work aims to detect the effect of Low-Dye taping on the treatment of patients with unilateral plantar facilities. Thirty patients participated in the study and 15 normal subjects. The patients were randomly divided into two groups (15 patients) each, the first group treated by traditional physical therapy and the second one was treated by traditional physical therapy in addition to Low-Dye taping. The two patient groups were compared with the healthy volunteers matched in age and sex (15 subjects). Results showed better improvement of pain, function of the foot, foot pressure distribution with using low Dye taping group. It was recommended to add Low-Dye taping to treatment of plantar facilities patients.
Key words : plantar facilities, taping, pain, function, foot pressure.
Arabic Title Page : تأثير شريط داي المنخفض في علاج مرضى إلتهاب صفاق الأخمص أحادي الجانب.
Author : Eslam Elsayed Ali Shohda.
Title : Effect of Biofeedback-Controlled Exercises In Treatment of Patellofemoral Pain Syndrome.
Supervisors : Salwa Fadl Abd El Mageed, Ashraf Abd-Elkader Elnahall.
Degree : Master.
Year : 2007.
Abstract:
The purpose of this study is to clarify the importance of addition of biofeedback to vastus medialis obliquus strengthening exercises in the treatment of patellofemoral pain syndrome (PFPS). A comparison was held between two groups of PFPS patients. Group (A) received a biofeedback controlled Vastus medialis obliquus strengthening exercises, patellar taping and stretching exercises and group (B) received a Vastus medialis obliquus strengthening exercises, patellar taping and stretching exercises. Treatment outcome was determined by: 1) Visual analogue scale (VAS) to assess patellofemoral pain severity and Cincinnati rating system (CRS) to assess knee function. The results showed a statistically significant decrease in (VAS) and a statistically significant increase in (CRS) for both groups (p< 0.05). There was no statistical difference between groups in (VAS) (p>0.05). There was no statistical difference between groups in (CRS) (p>0.05). Conclusion: Combining biofeedback training to Vastus medialis obliquus strengthening exercises for treating PFPS was equally effective like Vastus medialis obliquus strengthening exercises without biofeedback. This may be limited to the use of a Tr20C biofeedback device.

Key words : Patellofemoral Pain Syndrome, Biofeedback, Visual analogue scale and Cincinnati rating system.

Arabic Title Page : تأثير استخدام التمرینات مع التنبیه الرجعي الحسی في علاج آلام مفصل الرضفة مع أسفل الفخذ.
Lateral epicondylitis is a common cause of chronic elbow pain and wrist dysfunction especially in adults. The purpose of this study was to compare the effect of phonophoresis combined with exercises versus ultrasound combined with the same exercises on improving pain score, function score, strength score, and range of elbow motion score in treatment of lateral epicondylitis. Thirty patients suffering from unilateral lateral epicondylitis participated in this study; they were randomly assigned into two groups; one group received ultrasound and a program of therapeutic exercises and another group received phonophoresis and the same therapeutic exercises. Patients in both groups were evaluated pre- during (mid) and post-treatment for pain score, function score, strength score, range of motion score and total score. Patients in both groups received 12 sessions (three sessions every week for 4 weeks). Comparison of the results pre- and during (mid) treatment showed there was significant difference in ultrasound group in all measured variables and significant improvement in phonophoresis group in all measured variables. Post- treatment assessment of ultrasound group showed there was significant difference in all measured variables more than mid- treatment and in post- treatment assessment of group showed there was significant difference in all measured variables more than mid- treatment. On comparing both groups after treatment, the results showed significant improvement and there was no significant difference between groups.

Key words : lateral epicondylitis, exercises, physical therapy, elbow pain, function, strength, range of motion, ultrasound, phonophoresis.
Author : Ghada Mohamed Rashad Qoura.
Title : Assessment of Dynamic Balance in Adolescent Idiopathic Scoliosis.
Supervisors : Salwa Fadle Abd El Mageed, Youssry Mohamed Kamal El Hawary, Mohamed Shawki Abd El Salam.
Degree : Master.
Year : 2007.
Abstract:
The Adolescent idiopathic scoliosis (AIS) is the most common type of scoliosis, it is a twisting deformity in the curve of vertebral column to the lateral side with simultaneous rotation of the vertebrae, which occurs during the growing years from 10 years to the puberty. Background and Purpose: Studies investigating balance problems specific to scoliotic patients showed that those patients reveal variable balance abnormalities. In this study we assessed the difference in balance responses between AIS patients and normal subjects. Subjects: Thirty female patients with AIS with a mean age of (19.5 ± 3.26) years and thirty healthy female subjects with a mean age of (19.36±2.41) years. The Cobb's angle in the AIS ranged from 20º to 40º in the major curves. Both groups were assessed for the dynamic balance to measure the stability index by the Biodex Stability System. Results: There was no significant difference between both groups in dynamic balance test. Conclusion: As there was no significant difference between both groups in balance response, it is not recommended to add balance training as an extra physical therapy program for AIS female patients.
Key words : Adolescent Idiopathic Scoliosis, Balance.
Arabic Title Page : تقييم الاتزان الدينياميكي لمرضى الأحتواء الجانبي للعمود الفقري (الجنف) للمراهقين.
Author: Hanaa Ali Hassan.
Title: Efficacy of low frequency and low intensity pulsed electro magnetic field in treatment of knee osteoarthritis.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors: Salwa Fadle Abd El Majeed, Enas F. Youssef, Mohamed Goda Montaser.
Degree: Master.
Year: 2007.
Abstract:
Purpose: The purpose of this study was to evaluate the effect of low frequency and low intensity pulsed electromagnetic filed on treatment of knee osteoarthritis. Subjects: Thirty patients diagnosed as second degree osteoarthritis participated in this study. Methods: patients were divided randomly into two groups: the first group consisted of 15 patients with a mean age 41.333 (± 5.080) years treated with low frequency and low intensity pulsed electromagnetic filed with intensity 20 guass and frequency 20 hz for 20 min/session, 3 sessions/week each other day for 4 week, and exercise. The second group consisted of 15 patients with a mean age 42.867 (± 5.655) year treated with sham electromagnetic filed and exercise. The patient was assessed before and after treatment by womac index for pain and functional disability. Result: both treatment groups and exercise had a significant reduction of pain and functional disability. Comparison between groups showed a significant difference between both groups in favor of magnetic group. Conclusion: Low frequency and low intensity pulsed electromagnetic filed is more efficient in treatment of patients with osteoarthritis.
Key words: osteoarthritis electromagnetic filed, exercise, pain, disability WOMAC.
Arabic Title Page: تأثير المجال المغناطيسي المنخفض التردد والشدّة في علاج خشونة مفصل الركبة.
Author: Heba Tullah Mohammed Said Zaghloul.

Title: The role of strengthening hip extensors muscle in treatment of chronic mechanical low back pain.

Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.

Supervisors: Ibrahim Magdy El Nagaar, Salwa Fadel, Enas Fawzy Youssef.

Degree: Master.

Year: 2007.

Abstract: The purpose of this study was to investigate the role of strengthening hip extensors muscle in treatment of chronic low back pain on reduction of back pain severity, improving hip extensors power, reduction of functional disability, increasing of spinal flexion range and increasing of spinal extension range of motion. The results revealed that both groups had significant less low back pain after treatment and less functional disability (p <0.05) but the hip extensors group program was more effective in reduction of back pain severity, reduction of functional disability, improving of hip extensors power and increasing of spinal extension range of motion than the flexion-extension group program (p<0.05). The combined flexion-extension exercise group program was more effective in increasing of spinal flexion range of motion than the hip extensors group program (p<0.05). The hip extensors program should be an integral component in additional to combined flexion-extension exercise program in treatment patients with chronic mechanical low back pain.

Key words: low back pain, flexion exercises, extension exercises, functional disability, hip extensors.

Arabic Title Page: دور تقوية العضلات الباسطة لفصل الفخذ في علاج المأسفل الظهر الميكانيكي المزمن.
Author: Ibrahim Metwally Hegazy Douir.
Title: The efficacy of thrust mobilization technique in the treatment of the sacroiliac joint dysfunction.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Degree: Master.
Year: 2007.
Abstract:
The aim of this study is to detect the effect of high velocity low amplitude thrust (HVLAT) mobilization (manipulation) in the treatment of sacroiliac joint dysfunction. Thirty patients participated in this study and selected randomly to be divided into group A (11 males and 4 females) received HVLAT mobilization, corrective exercise, and infrared, and group B (4 males and 11 females) received corrective exercise and infrared. Visual analogue scale and Oswestry disability questionnaire, and modified Schober tests were applied to both groups before and after treatment in addition to measurement of lumbosacral (LSA) and pelvic tilting angles (PTA) from lateral radiographic view. Results showed that there was a significant difference in both groups after treatment. There was more significant improvement in pain, function, and mobility in group A than group B in post treatment, but no significant difference in both groups in LSA and PTA.
Key words: sacroiliac joint dysfunction, manipulation, lumbosacral angle, pelvic tilting angle.
Arabic Title Page: فعالية التحريك بطريقه القوة الدافعة في علاج المشكلات الوظيفية للمفصل العجزي الآلبيه.
Title: A Comparative Study Between Muscle Energy Technique and Spinal Flexion-Extension Exercises Program in Treatment of Chronic Mechanical Low Back Pain.

Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.

Supervisors: Ibrahim Magdy Elnaggar, Enas Fawzy Youssef, Mohamed Abdallah Elsoufy.

Degree: Master.

Year: 2007.

Abstract: The purpose of this study was to compare the effect of muscle energy technique versus combined spinal flexion-extension exercises on reducing pain severity; reducing functional disability; and increasing the range of motion of trunk flexion, extension, right bending, and left bending. Subjects: Forty patients (male and female) diagnosed as chronic mechanical low back pain participated in this study. Methods: Patients were divided randomly into two groups: the first group consisted of 20 (11 male and 9 female) patients with a mean age of 33(±1.58) years treated with the combined spinal flexion-extension exercises program, the second group consisted of 20 (9 male and 11 female) patients with a mean age of 30.20(±1.57) years treated with the muscle energy technique. Both groups were treated for 12 sessions, 3 sessions per week “each other day”. Patients were assessed before, midtreatment and after treatment by Visual Analogue Scale, Oswestry Disability Index, and tape measurement. Results: Both groups had significantly reduced low back pain severity and less functional disability after treatment. The muscle energy technique was more effective in reducing pain and functional disability than the combined spinal flexion-extension exercises. The combined spinal flexion-extension exercise was more effective in increasing lumbar flexion and extension range of motion than the muscle energy technique. There were no significant differences between groups regarding increasing the right and left trunk bending range of motion. Conclusion: The muscle energy technique is more effective than the combined spinal flexion-extension exercises in reducing low back pain severity and functional disability. Spinal flexion-extension exercises are recommended to be used when increasing range of forward flexion and back extension is an additional goal.

Key words: Chronic mechanical low back pain, muscle energy technique, flexion, extension, exercises.

Arabic Title Page: دراسة مقارنة بين تقنية الطاقة العضلية و تمرينات ثنى وفرد العمود الفقري في علاج أسفل الظهر الميكانيكي المزمن.
Author: Nermin Gamil Fakhry Beshara.
Title: Comparison of Spinal Curvatures and Flexibility in Osteoporotic and Normal Women.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors: Nadia Abd Elazim Fayaz, Enas Fawzy Youssef, Mohamed Abdel Latife Shahin.
Degree: Master.
Year: 2007.
Abstract:
A total of 45 women are included in this study. They are divided according to their bone mineral density into three groups, Group I: 16 women with osteoporosis (OP); Group II: 15 women with low bone mineral density (osteopenia) (OST); Group III: 14 women with normal bone mineral density (control group). The thoracic kyphosis, lumbar lordosis, thoracic spine range of motion (ROM) and lumbar spine range of motion (ROM) are measured in the three groups. There are significant differences between the three groups regarding the thoracic kyphosis, lumbar lordosis, thoracic range of motion and lumbar range of motion. It is concluded that osteoporosis is associated with increase of the thoracic kyphosis and lumbar lordosis as well as the decrease of the thoracic and lumbar spine range of motion.

Key words: Spinal Curvatures, Spinal Mobility, Osteoporosis.

Arabic Title Page: مقارنة انحناءات وليونة العظام الفقري في السيدات المصابة بعظام العظام والمصابات بالسيدة الطبيعية.
Author: Samah Saad Al Moogy Zahran.
Title: Effects of bilateral Knee Osteoarthritis on Proprioception and Dynamic balance.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Degree: Master.
Year: 2007.
Abstract:
The purpose of this study was to compare proprioception and dynamic balance in bilateral knee OA patients versus normal controls, and to assess the correlation between them. A comparison was held between two groups; group (A) 50 bilateral knee OA patients and group (B) 50 normal controls. Knee proprioception was measured in both groups by using the OB Goniometer and The Akron Rehabilitation System. Dynamic balance was measured in both groups using The Biodex Balance System. The results of this study showed significant decrease in both knee proprioception and dynamic balance in knee OA patients and showed that there is no correlation between them in knee OA patients.
Key words: Dynamic balance, Knee Osteoarthritis, Proprioception.
Arabic Title Page: تأثيرات الالتهاب المفصلي للركبتين على الاحساس بالوضع و الاتزان الدينايكي.
Author: Shahesta Ahmed Osama.
Title: Effect of Unilateral Back Bag Carrying on Dynamic Balance in Adolescent Idiopathic Scoliosis.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors: Salwa Fadle Abd El Mageed, Abd El Mohsen Arfah.
Degree: Master.
Year: 2007.

Abstract:
Adolescent idiopathic scoliosis (AIS) is the most common type of scoliosis that occurs during the growing years from 10 years to the puberty, it is a spinal deformity in the curve of the vertebral column to the lateral side with a rotation of the vertebra in many major axes.

Background and Purpose: To assess the effect of unilateral carrying backed pack loads at different proportions of body weight in both sides of the curve on dynamic balance in adolescent idiopathic scoliosis (AIS).

Subjects: Thirty female patients with AIS with a mean age of (17.6 ± 1.6) years and fifteen female with a mean age of subjects (17.6 ± 1.6) years. The Cobb's angle ranges from (10 to 25°). Both groups were assessed the effect of unilateral carrying backed pack loads at different proportions of body weight in both sides of the curve on dynamic balance to measure the stability index by Biodex Stability System.

Results: There was significant relation between dynamic balance and carrying loads at different proportions of body weight in both sides of the curve in matched normal subjects.

Key words: Adolescent Idiopathic Scoliosis, Balance, load carrying, back pack.

Arabic Title Page: تقييم تأثير حمل حقيبة الظهر على جانب واحد على الاتزان الدينيميكى لمرضى الانحناء الجانبي للعمر الفقري (الجلف) للمراهقين.
Physical Therapy Department of Surgery
Author                       : Eman Mohamed Othman Mohamed.
Title                       : The Efficacy of Laser Acupuncture Therapy on Postoperative Pain Following Appendectomy.
Dept.                       : Physical Therapy Department for Surgery.
Supervisors                 : Adel Abd El Hamid Nossier, Maged Mohamed Ismail.
Degree                      : Master.
Year                        : 2007.
Abstract
This study was designed to evaluate the efficacy of Laser Acupuncture Therapy on Postoperative Pain Following Appendectomy. Methods: forty post appendectomy patients had been participated in this study. These patients were randomly divided into two groups of equal numbers (N=20 patients). (Group A) was received laser Acupuncture therapy. For group laser was applied on 4 Acupuncture points and it provided for 1 minute and for 10 sessions during the period of the study in addition to traditional therapy, while. (Group B); received traditional therapy only. Assessment of Postoperative Pain had been done by Visual analogue scale (VAS) and Serum C-reactive protein (CRP). Results: showed significant differences between groups of the study with greater percentage of improvement for patients in group A.

Key words                       : Laser Acupuncture, Postoperative Pain, Appendectomy, Pain.

Arabic Title Page
فعالية العلاج بالوخز بالليزر على آلم ما بعد عمليات استئصال الزائدة الدودية.
Abstract

Purpose: to evaluate the efficacy of the laser irradiation on acceleration of burned wounds healing. Methods of evaluation (wound surface area and photographic pictures). Methods: Forty-five patients with dermal burn were randomly divided into three group. Group A the He-Ne 633nm .Group B Ga-As 830nm , duration of treatment of 10 minutes for each area, three week. both group recived medical care and traditional physical therapy .Group C (Control group) they received only medical care and traditional physical therapy. Results: The result showed a significant decrease in WSA also improvement in pictures in He-Ne group and Ga-As group compared to the control group. Also the study revealed that the results obtained in Group A were superior to that of Group B. Conclusion: both Helium Neon and Gallium Arsenide were effective in accelerating wound healing.

Key words : Burn, Helium Neon, Gallium Arsenide, wound surface area and wound healing.
Author : Mary Samir Kawkab Bishai.
Title : Tea Tree Oil Phonophoresis Versus Topical Tea Tree Oil In Treatment of Plantar Warts.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2007.
Abstract:
The purpose of the current study was to evaluate the efficacy of Tea Tree Oil Phonophoresis versus Topical Tea Tree Oil in Treatment of plantar warts. Thirty female patients age ranging 25-35 years, participated in this study and were randomly assigned into two groups of equal number complaining from plantar warts. Patients of Group A recieved Tea Tree Oil Phonophoresis (1MHz Transducer Head, 3W/Cm², 15 minutes, day after day for one month), while patients of Group B received Topical Tea Tree Oil Application day after day for one month. The parameters investigated included: 1. Warts Pain level (by using Visual Analog Scale (VAS)), 2. Warts Diameter (by using a measuring Tape), 3. Skin Biopsy for some selected cases. Results of VAS and Warts Diameter indicated a significant improvement in Group A and Non-significant improvement in Group B. It could be concluded that Tea Tree Oil Phonophoresis might be valuable in treatment of plantar warts.

Key words : Tea Tree Oil, Plantar warts, Phonophoresis, Visual Analog Scale.

Arabic Title Page : انتقال عبر الموجات فوق الصوتية لزيت شجرة الشائى مقارنة بالأستخدام الموضعي لعلاج حالات السنطات الأخمصية.
Author : Neven Awny Abdo.
Title : Therapeutic efficacy of contractubex phonophoresis on controlling burn hypertrophic Scar.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2007.
Abstract : The purpose. This study was undertaken to determine if differences existed between a group of 15 patients (experimental group) who had hypertrophic scars and who received early intervention of physical therapy program as ultrasonic waves with contractubex gel (Phonophoresis) and a group of 15 similar patients (control group) who had hypertrophic scar but did not take ultrasound with contractubex gel. Methods. Phonophoresis by contractubex gel used in treatment, data were obtained for each patient by goniometric measurements of elbow joint, laser doppler measurement, and vancouver scale. Results Showed a statistically significant increase in the phonophoresis effect of scar treatment and elbow range of motion measurements more better in experimental group compared by the control one. Conclusions These results suggested that early physical therapy intervention makes a significant contribution to return to normal function due to decrease the scar and improve the elbow range.
Key words : phonophoresis, contractubex gel, ultrasonic.

Arabic Title Page : تأثير العلاجي لنتقل عقار كونتراكتوبكس عن طريق الموجات الفوق صوتية للتحكم في ندبات ما بعد الحروق.
Author : Shaimaa Abd El-Hamid Abase Mahmoud.
Title : The efficacy of the narrow band ultraviolet in the treatment of acne vulgaris.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2007.

Abstract:
Purpose: The current study was carried out to evaluate the efficacy of the narrow band ultraviolet in the treatment of acne vulgaris. Methods:- Forty patients with acne vulgaris were randomly divided into two groups (UVB group and medication group). The methods of assessment were invastigator globale assessment (IGA), P.acnes count, and photographic method. For UVB Group, the UVB treatment was applied for three times/week at the suberythematic dose. Results:- The results showed that there was significant decrease in acne counts and acnes count in UVB group compared to the control group. In relation to IGA and photographic method the study revealed that the results obtained in (study group) were superior to that of Group B (control group). Conclusion:- It was concluded that narrow band ultraviolet radiation were effective in controlling of acne vulgaris lesion in expression of decreasing numbers of acne lesions, acnes count, and improving the appearance.

Key words : Acne Vulgaris, Propionibacterium Acnes count, Narrow Band Ultraviolet (UVB), Invastigator Globale Assessment (IGA).

Arabic Title Page : فاعلية الأشعة فوق البنفسجية (ب) محدودة المجال في علاج حب الشباب.
Author : Walid Ahmed Ibrahim Saleh.
Title : Response of Hand Functions to Continuous Passive Motion Device in Hand Burn Injury.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2007.
Abstract:
The purpose of this study was to determine the effect of continuous passive motion (CPM) device on hand functions in second degree thermal injured patients. Subjects: Thirty male patients who had second degree thermal hand burns with total body surface area of 20-30 % were included in this study. They were selected from burns unit at El-Mataria teaching hospital. They were classified into two equal groups; Group (A) received standard physical therapy program which consisted of: positioning, active range of motion exercises and splinting; and Group (B) received CPM in addition to standard physical therapy program. Volumeter, goniometer, dynamometer were used to measure hand volume, total active motion (TAM) of fingers and thumb, hand grip and pinch strength respectively. Measurements were made seventy two hours post burn (pre), fourteen days post burn (post I), and twenty one days post burn (post II). Results: There were statistical significant difference in both groups but it was observed that all results concerning hand volume, TAM of fingers and thumb, hand grip and pinch strength in the CPM group (group B) had greater statistical significance improvement than the results concerning the same results of control group (group A). It was concluded that CPM device might be considered as a useful therapeutic tool in the management of acute hand burn with the standard physical therapy program than standard physical therapy alone.
Key words : Continuous passive motion, Hand functions, Thermal burn, Edema, Grip strength, Physical therapy.
Arabic Title Page : استجابة وظائف اليد لجهاز الحركة السلبية المستمره في حروق اليد.
Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery
Author: Lamyaa Ahmed Fergany.
Title: Adverse Neurotension on Epidural Fibrosis following Cervical disc surgery.
Dept.: Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.
Supervisors: Nawal Abd El-Raouf Abou Shady, Magdy Ahmed Arafa, Mohamed Mohee El Dn.
Degree: Master.
Year: 2007.
Abstract: The purpose of this study is to assess the effect of adverse neurotension technique on epidural fibrosis following cervical disc surgery. Thirty patients with symptoms of failed cervical surgery syndrome due to epidural fibrosis. Their age ranged from 40 to 55 years. They were randomly assigned into two equal groups (control and study), The control group (G1) was treated by {ultrasonic, transcutaneous electrical nerve stimulation, ice therapy and therapeutic exercises} and, The study group (G2) was treated by all the above plus adverse neurotension technique. The treatment was applied three days per week every other day for twelve weeks. The patients were assessed three times pre, mid and post-treatment by neck functional disability scale, pain intensity visual analogue scale and neck range of motion using geniometer. Statistically, the results showed that significant improvement occurred in the two groups with the best results for the study group. According to the statistical analysis, adverse neurotension technique with the traditional physical therapy program is considered as an effective technique in rehabilitating failed cervical surgery syndrome patients.

Key words: Failed cervical surgery syndrome, Epidural fibrosis, Adverse neurotension technique.

Arabic Title Page: تأثير الشد الميكانيكي المنعكس على العصب في حالات تليف الجذور العصبية بعد جراحات الاتصال الغضروف في العنق.
Author : Rania El-Sayed Abd El Alim.
Title : Combined Low Intensity Laser and Magnetic Therapy in Treatment of Foot Pain in Diabetic Neuropathy.
Supervisors : Nawal Abd El-Raouf Abou Shady, Sadek Mohamed Helmy, Nashwa Sayed Hamed.
Degree : Master.
Year : 2007.
Abstract : The objective of this study was to evaluate the effect of combined low intensity laser and magnetic therapy in treatment of Foot pain in diabetic neuropathy patients. Twenty patients of both sexes participated in this study. They randomly divided into two equal groups (study and control groups) (ten patients on each). The program consisted of; IR laser therapy followed by magnetic therapy. The program was conducted three times/week for six weeks for both groups. The patients were assessed for pain intensity, active ROM of ankle dorsi flexion and planter flexion, and Rhomberg sign. These measures were recorded pre treatment, and post treatment at the end of six weeks. The results of this study showed significant decrease in pain intensity, improvement of the body stability and increases ankle dorsi flexion and planter flexion of both feet in both groups but there was very high improvement in the patients of the study group more than the patients in the control group. It can be concluded that this suggested program is effective in decreasing the pain intensity and increasing functional activities in diabetic neuropathic patients with foot pain.
Key words : Low intensity laser, Magnetic therapy, Foot pain, Diabetic neuropathy.

Arabic Title Page : تأثير الليزر قصير الشدة مع المجال المغناطيسي في علاج الالام الالتهاب أعصاب القدم السكري.
Author : Shymaa Abd Elhamed Abd ElRahman Ahmed Salem.

Title : The Validity and Reliability of Functional Grading Scales in Relation to Nerve Conduction Study in Bell's Palsy Patients.


Degree : Master.

Year : 2007.

Abstract: The purpose of this study was to determine the relationship between nerve conduction study and functional grading scales and to determine the validity and reliability of functional grading scales in relation to nerve conduction study in evaluation of patients with Bell's palsy. Thirty patients of both sex were included in this study. The patients were assessed by nerve conduction study. Amplitude and latency recorded from frontalis and orbicularis oris muscles at abnormal and normal sides. Also, the patients were assessed by functional grading scales (House Brackmann grading scale and Facial grading scale). This assessment from nerve conduction study and functional grading scales were performed two times, firstly after two weeks and secondly after eight weeks. The result of this study showed that, there was a correlation between functional grading scales and nerve conduction study. It can be concluded that the functional grading scales are valid and reliable in relation to nerve conduction study in evaluation of patients with Bell's palsy.

Key words : Nerve conduction study, Functional grading scales, Bell's palsy.

Arabic Title Page : مدى دقة المقاييس الوظيفية والاعتماد عليها في تقييم أداء عضلات الوجه بسرعة التوصيل العصبي لمرضى الشلل الوجهي.
Abstract

Background: muscle weakness is one of the most prominent consequences of stroke patients. An equally important area for future research is developing a greater understanding of the mechanism underlying post-stroke weakness. Without this information, we are restricted in our efforts to design appropriate rehabilitation interventions. A strong bias has existed against quantifying strength in hemiparetic person, thus the majority of clinical research focused on outcome measures of strength at the activity and participation levels. The purposes of the study were to measure isokinetic peak torque, average power and total work production of knee flexors and extensors during concentric and eccentric contraction and to determine the correlation between isokinetic strength variables and functional activities such as gait speed. Subjects and procedure: Thirty hemiparetic patients with mean age of 52.6 (± 8.22) years, mean body mass of 78.1 (± 14.57) kg and mean height of 162.6 (± 6.95) cm, participated in the study after they had been diagnosed by neurologist. The isokinetic testing consisted of concentric and eccentric isokinetic knee flexion and extension at velocity of 60°/sec performed using a biodex system 3- isokinetic dynamometer. The functional performance test consists of timed get up and go test and the time taken by the patients were recorded. Results: The main outcomes were that the peak torque values during concentric contraction were 25.5 (±17.3), 62.9 (±35.7) and 47.02 (± 17.8), 93.8 (±32.4) knee flexors and extensors of affected and unaffected limb respectively, with significant correlation between flexors and extensors. Total work and average values were completely different than peak torque values. Low to moderate correlation (r= 0.04 to r= 0.56 for flexors and r= 0.02 to r = 0.46 for the extensors) was reported between isokintic testing and timed get up and go for function test Conclusion: Neither functional testing nor isokinetic could be used in isolation to determine both muscle performance and physical function of lower limb in stroke patients.

Key words : Stroke, Isokinetic, Functional performance.

Arabic Title Page : تحليل إيزوكينتكي لعضلات الركبة القابضة والباستة لحالات السكتة الدماغية.
Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery
Author : Abdel Hamed Nabil Deghiedy.
Title : Effect of Strengthening Program of Shoulder Muscles and Hand Functions in Spastic Hemiplegic Children.
Supervisors : Kamal El Sayed Shokry, Azza Kamal El Shahawy, Fatma Moustafa Abd El Aty.
Degree : Master.
Year : 2007.
Abstract
This study determines the effect of strengthening exercises of shoulder muscles on hand functions in spastic hemiplegic cerebral palsied children. This study was carried out on thirty spastic hemiplegic children of both sexes (14 females and 16 males) divided into two equal groups A and B. Their age ranged from six to ten years old. The muscular strength of shoulder flexors and extensors were evaluated by the biodex isokinetic dynammoter. Their hand functions were evaluated by using Peabody development motor scale (PDMS) prior and after three months rehabilitation program. Group A received the traditional physiotherapy program. Group B received strengthening exercises program for shoulder flexors extensors, hand functions training program in addition to the traditional physiotherapy program. Results revealed to better improvement in group B more than group A.
Key words : Strengthening Exercises, Hand Functions and Hemiplegic Children.

Arabic Title Page : تأثير تدريبات تقوية عضلات الكتف على وظائف اليد لدى أطفال الشلل المخبي المصابين بالخلد النصفي والطلوي التشنجي.
Author : Alaa Ramzy Morgan.
Title : Central versus peripheral strategies in training of standing balance in spastic diplegic children.
Supervisors : Kamal EL-Sayed Shoukry, Mohamed El Sayed Al Awaady.
Degree : Master.
Year : 2007.
Abstract : The purpose of this study was to compare the effect of the central strategies versus peripheral strategies in training of standing balance in diplegic cerebral palsy children. Thirty diplegic children their age ranging from nine to twelve years, divided randomly into two groups (group A and group B). The first group received central strategies training, while the second group was received the peripheral strategies training. Evaluation was included measurement of rhythmic weight shift (on axis velocity degree/ second and directional control %) by each children individually by using Balance Master system. The results of the study revealed significant improvement in most of the measured variables of the two groups, but in group two the improvement was better than group one. It may conclude that the peripheral strategies training may be used in habilitation of standing balance of the diplegic children.
Key words : Central strategies, Peripheral strategies, Standing balance, Diplegia, Cerebral palsy.
Arabic Title Page : استراتيجية التدريب الجذعي مقابل التدريب الطرفى على الاتزان عند الطفل المتقلص.
Author: Alshimaa Ramadan Azab.
Title: Effect of iontophoresis in management of juvenile rheumatoid arthritis.
Supervisors: Faten Hassan Abd-Elaziem, Hala Salah Eldien Mohammed.
Degree: Master.
Year: 2007.
Abstract:
The purpose of this study was to examine the effect of iontophoresis in management of juvenile rheumatoid arthritis. Thirty polyarticular JRA children were assigned randomly into two groups of equal numbers. Their age were between 10-14 years, they were recruited from Abu-El-Rish Hospital, Cairo University Hospital and they were treated at outpatient clinic, faculty of physical therapy, Cairo University. The subjects were evaluated for the following parameters knee joints angles (degrees) during stance and swing phase by 3-D motion analysis lab., laboratory examinations, knee circumference and pain intensity before the treatment and after three months of treatment program. Subjects in the control group received selected physical therapy program (stretching exercises, strengthening exercises, infrared radiation and low intensity low frequency pulsed magnetic field), whereas subjects in the study group received the same selected physical therapy program plus iontophoresis therapy. Results: there was significant improvement in the majority of the collected data, in both groups but in favoring to study group. Conclusion: it can be concluded that this suggested physical therapy program plus iontophoresis therapy are effective in improving physical status of JRA children and the selected physical therapy program only is not enough method to improve physical status in poly-articular JRA children.
Key words: JRA, iontophoresis Therapy, 3-D motion analysis.
Arabic Title Page: تأثير التأين الكهربائي في علاج روماتويد الصغير.
Author : Asmaa Abd El-Star Abo Nour.
Title : Effect of Fixed versus Dynamic Ankle Foot Orthosis on Energy Expenditure in Hemiplegic Children.
Supervisors : Elham Elsayed Salem, Zeinab Mohamed Helmy, Hekmat Elsayed Elghdban.
Degree : Master.
Year : 2007.
Abstract: 
The purpose of the study was to investigate and compare the effect of fixed and dynamic ankle foot orthosis on the energy expenditure in hemiplegic children. 30 children 8 to 12 years old participated in the study, classified randomly into 2 groups (A&B). Group A; received the especially designed physical therapy program while wearing fixed AFo. Group B; received the same program while wearing dynamic AFo. Energy expenditure was assessed by ergospirometry system, before and after 3 months. Comparing the pre and post-treatment mean values of the two groups revealed significant improvement. However, comparing the post-treatment results was statically non-significant. It can be concluded that, there were some physiological changes in the energy expenditure but these changes were statically non-significant and need further investigations.

Key words : Cerebral palsy, hemiplegia, ankle foot orthosis, energy expenditure.

Arabic Title Page: 
تأثير جبيرة كاحل القدم الثابتة مقابل المتحركة على الطاقة المستنفذا عند الأطفال المصابين بالشلل الشمالي.
Author : Asmaa Osama Sayed.
Title : The effect of constraint induced therapy on fine motor skills in hemiparetic children.
Supervisors : Elham El Sayed Salem, Omina Gamal El Din Afify.
Degree : Master.
Year : 2007.
Abstract :
The purpose of this study was to evaluate the improvement in hand skills development following the participation in an occupational therapy program and a new technique which is constraint induced therapy in addition to the selected therapeutic exercise program. Thirty spastic hemiplegic children, ranged in age from 2 to 5 years old participated in this study. They were classified randomly into two groups of equal number, (control and study). The control group received selected therapeutic exercise program, and occupational therapy program, and the study group received the same selected therapeutic exercise program and occupational therapy program, in addition to new technique which is constrained induced movement therapy technique. Hand skills development were assessed using the Peabody developmental motor scale and pinch grip were assessed using JAMAR Hand Held Pinch Dynamometer in both groups, before and after six successive weeks of the application of the treatment program. The results of this study revealed statistically highly significant improvement in all of the measuring variables of the study group (P<0.05) when comparing its pre and post treatment results, and when comparing the post treatment results of the control group. From the obtained results of this study, it can be concluded that, constraint induced therapy is an effective technique to improve hand skills among a carefully selected group of hemiparetic children.
Key words : constraint induced therapy, hand skills, cerebral palsy, hemiparasis, pinch grip measurement.

Arabic Title Page : تأثير العلاج المبني على الموانع على المهارات اليدوية الذاتية عند أطفال الشلل المخى المصابين بالخلع النصفي الطولي التشنجي.
Author: Hatem Abd El-Mohsen Abd El-Hameed Emara.
Title: Effect of Functional Electrical Stimulation on Standing in Children with Myelomeningocele.
Supervisors: Elham El-Sayed Salem, Mohamed Tawfik Mahmoud, Saadya Mohamed Abd El Fatah.
Degree: Master.
Year: 2007.
Abstract:
The purpose of this study was to investigate the effect of functional electrical stimulation on standing in children with myelomeningocele. 20 children from 3 to 5 years participated in this study. They were divided into control and study groups and evaluated by rheobase, chronaxie and G M F M scale. Control group received a selected exercise. The study group received the same program in addition to electrical stimulation of quadriceps and gluteus maximus. The pre-treatment results revealed non significant difference. Also, significant improvement was obtained in both groups when comparing their pre and post-treatment results. The post treatment results revealed highly significant difference in favor of study group.
Key words: myelomeningocele, functional electrical stimulation.
Arabic Title Page: تأثير التدريب الكهربائي الوظيفي على الوضع في الأطفال المصابين بفتحة الحبل الشوكي وسحاياهم.
Author: Mariam Michel Abd El–Nour Youssef.
Title: The effect of music therapy for creation of social bond and improvement of fine motor skills in autistic children.
Supervisors: Kamal El – Sayed Shoukry, Ibrahim Mahmoud Badr, Ehab Mohamed Abd El-Kafy.
Degree: Master.
Year: 2007.
Abstract: The aim of this study is to know the effect of music therapy for improving attention, social relations and fine motor skills in autistic children. Twenty autistic children participated in this study. Their age ranged from 6 to 14 years old. They suffered from their inability to use their hands effectively in fine motor skills. They were chosen from some schools of children of special needs and some private clinics. The children were divided randomly into two equal groups. The first group was treated with music therapy in addition to a specially designed occupational therapy program while the second group was treated with occupational therapy program only and the treatment program lasted for three months. Social quotient (SQ) and fine motor quotient (FMQ) were detected before and after three months of treatment. The results of this study showed a significant improvement in both social relations and fine motor skills in the first group, also there was improvement in the fine motor skills in the second group. According to these results, music therapy is considered an effective technique in treating autistic children.
Key words: autism, music therapy, occupational therapy, attention.

Arabic Title Page: تأثير العلاج بالموسيقى على زيادة الانتباه ونمو المهارات الحركية لدى أطفال التوحد.
Author : Mohamed Ali Ibrahim El-Dosoky.
Title : Efficacy of Dynamic Suspension on Gait Pattern in Spastic Children.
Supervisors : Faten Hassen Abd-Elaziem, Kamal El-Sayied Shokry, Mohammed Talat Kashaba.
Degree : Master.
Year : 2007.
Abstract : Evaluate the efficacy of the Dynamic Suspension on Gait Pattern in Spastic Children. Twenty children with spastic diplegia, ranged in age from 5 to 8 years old participated in this study. They were classified randomly into two groups of equal number (control and study). The control group received a selected physical therapy program, while the study group was trained in the dynamic suspension unit in addition to the same physical therapy program given to the control group. Gait parameters and gross motor developmental age were assessed before and after three months of application of the treatment program using motion analysis system and gross motor developmental age by in DDST for both groups. The results of the study revealed significant improvement in all measured variables for both groups. Also showed significance difference between the two groups after application in favor of the study group.
Key words : Dynamic Suspension, Gait, Spastic Children.
Arabic Title Page : فاعلية القفص العنكبوتى الديناميكى على الفردى لدى الأطفال المصابين بالشلل التقليدى.
Author : Mohamed Ameen AL Natour.
Title : Effect of Hyperbaric Oxygen Therapy on Crouch gait.
Supervisors : Amira Mohamed al Tohamy, Lamiaa Mohamed Mohsen, Manal Salah El-Din Abd El wahab.
Degree : Master.
Year : 2007.
Abstract :
Back ground: The purpose of this study was to examine the effect of hyperbaric oxygen therapy on crouch gait. Thirty spastic diplegic children were assigned randomly into two groups (study and control). Subjects in the study group (n = 15) received traditional physical therapy program (stretching, strengthening, balance and gait training exercises) only, whereas subjects in the control group (n = 15) received the same traditional physical therapy program in addition to hyperbaric oxygen therapy. Gait parameters including hips, knees and ankles joints excursion during initial contact phase, step length (meters), gait velocity (meter/second) and cadence (steps/minutes) were measured before, one month and after three months of treatment program by 3D motion analysis. Results: There was a statistically significant improvement in both groups regarding all the measured variables and a statistically significant difference among both groups in favor to the study group. Conclusion: Physical therapy program in addition to hyperbaric oxygen therapy are effective in improving crouch gait in spastic diplegic children.
Key words : Cerebral Palsy, Crouch gait, 3-d Motion analysis, Hyperbaric Oxygen Therapy.
Arabic Title Page : تأثير العلاج بالأكسجين تحت الضغط على المشاية الجائمة.
Author : Mohamed El Saied Mohamed Khalil.
Title : Treadmill Training Versus Chest Physical Therapy on Ventilatory Functions in Down’s Syndrome Children.
Degree : Master.
Year : 2007.
Abstract :
The purpose of this study was to evaluate the effect of the chest physiotherapy program versus treadmill training on ventilatory functions in Down’s syndrome children. Young children with Down's syndrome have many respiratory problems due to immune dysfunction, hypotonia and weakness of respiratory muscles. Thirty Down’s syndrome children aged from 8 to 12 years participated in this study. They were classified randomly into 2 groups of equal number. Zan-680"Ergospirometry system” was used to measure the ventilatory functions. Vital Capacity (VC), Forced Vital Capacity (FVC), Forced Expiratory Volume (FEV1) and Peak Expiratory Flow Rate (PEFR) were measured before and after three Successive months of application of the selected programs. All of the measured variables were significantly improved. Showing that treadmill training could improve the ventilatory functions in Down’s syndrome children.
Key words : Down’s syndrome - ventilatory functions - treadmill - chest physiotherapy.

التدريب باستخدام سير المشي المتحرك مقابل تدريبات التنفس على وظائف الرئة في الأطفال المصابين بمتلازمة داون.
Author: Ragab Kamal Abd Elmohsen Elnaggar.

Title: Effect of Functional Electrical Stimulation on Bone Mineral Density in Erb's Palsied Children.


Supervisors: Emam Hassan Elnegmy, Gehan Hassan Elmeniawy, Rokaya Abd Elshafy Soliman.

Degree: Master.

Year: 2007.

Abstract: The purpose of this study was to investigate the effect of functional electrical stimulation combined with a selected exercise program on bone mineral density in Erb's palsied children. Twenty Erb's palsied children ranging in age from two to five years participated in this study. They were divided randomly into two groups of equal numbers (control and study). The control group was treated by specially designed exercise program, while the study group received the same program given to the control group in addition to the functional electrical stimulation during the exercise program, via the faradic stimulation with special parameters and special ON / OFF time. Both groups received the traditional exercise program. Evaluation was carried out for each child individually before and after three months of application of different treatment programs; it included measurement of the Bone Mineral Density by Dual Energy X-ray Absorptiometry. The results of the study after the suggested period of treatment revealed significant improvement in the measuring variables (p< 0.05) pre and post treatment in both groups with higher percentage of improvement of the study group. From the obtained results of this study, it can be concluded that, improvement in the study group may be attributed to the effect of functional electrical stimulation during the exercise program. So it is considered a beneficial adjunct with the traditional line of treatment in habilitation of Erb's palsied children.

Key words: Functional electrical stimulation, Bone Mineral Density, Erb's palsy.

Arabic Title Page: تأثير التنبه الكهربائي الوظيفي على كثافة العظام عند الأطفال المصابين بالشلل الإريبي.
Author: Rasha Abd El-Sattar Allam.
Title: Effect of Weights on Ground Reaction Force in Hemiparetic Children.
Supervisors: Emam Hassan El-Negmy, Hala Salah El-Din, Fatma Moustafa Abd El-Aty.
Degree: Master.
Year: 2007.
Abstract:
The purpose of this study was to determine the effect of weights on ground reaction force in hemiparetic children. Thirty hemiparetic children ranged in age from six to eight years participated in this study. They were classified randomly into two groups of equal numbers (control and study). A motion analysis system for evaluation was used for both groups, before and after three months of application of the treatment programs. The control group received a physical therapy program while the study group received the same program given to the control group but through using weights. The pre treatment results revealed no significant differences between the two groups. Comparing the pre and post-treatment mean values of the measuring variables of the two groups revealed significant improvement. However, comparing the post treatment results of the two groups revealed highly significant improvement in the study group.
Key words: Cerebral Palsy, Hemiparesis, Ground Reaction Force, Weights.

Arabic Title Page: تأثير إضافة الأوزان على قوة رد فعل الأرض لدى أطفال الخد الاختيائي.
Author: Raymon Ramzy Labeeb Mikhail.
Title: Assessment of clinical instructor's Performance in the Faculty Of Physical Therapy, Cairo university.
Supervisors: Kamal El Sayed Shoukry, Hoda Abd El Azeem El Talawi, Khairia Abo Bakr El Sawi.
Degree: Master.
Year: 2007.
Abstract:
The study aimed to assess 73 clinical instructors from the clinical departments of the Faculty. An assessment questionnaire was developed for the collection of data. It was filled out by both students and Faculty members. Results of the assessment showed increased level of performance with the increase in experience and level of education and there was a significant difference between the results obtained from students and Faculty member. From these results it was concluded that there was inadequate orientation about the profession of clinical instructor; training courses are required to clinical instructors.
Key words: Assessment, clinical instructor's Performance.
Arabic Title Page: تقييم أداء المعريين بكلية العلاج الطبيعي جامعة القاهرة.
Author: Reham Saeed Mahmoud Al-Sakhawi.

Title: Effect of visual motor integration training program on dyspraxia in spastic children.


Degree: Master.

Year: 2007.

Abstract:
The purpose of this study was to investigate the effect of visual motor integration training program on dyspraxia in spastic children. Twenty spastic diplegic cerebral palsied children (age from five to eight years) participated in this study. VMI abilities and praxis process were evaluated to all children before and after three successive months of training program. PDMS-2, RehaCom system, and BOTMP were used to assess the children. They received VMI training program which included grasping and visual motor integration exercises programs, in addition, two programs in RehaCom System. Results showed significant improvement of VMI abilities and praxis process in all participated children.

Key words: Spasticity, Cerebral Palsy, Praxia, Dyspraxia, Visual Perception, Attention, Visual Motor Integration, RehaCom System, PDMS-2, BOTMP.

Arabic Title Page: تأثير تدريب البصري الحركي على اختلال المهارة الحركية للأطفال المصابين بالشلل التشنجي.
Author : Somaia Ali Hamed Ahmed.
Title : Foot Pressure For Normal Versus Club Foot Children.
Supervisors : Faten Hassan Abd El-Azim, Hassan Mohamed El-Barbary, Ehab Mohamed Abd El-Kafy.
Degree : Master.
Year : 2007.
Abstract : The purpose of this study was to evaluate the pressure distribution at certain points of the foot in normal children, and to compare between them and clubfoot children, who had been treated conservatively as a retrospective study. One hundred children ranged in age from two and half to three years participated in this study, group (A) contains 50 normal children from both sexes and group (B) contains 50 children with unilateral Clubfoot selected from Abo El-Rish Hospital. The evaluation had been done through foot scan plat using system from Rs scan international, to evaluate the maximum foot pressure at six selective points represent the all foot areas. The results of this study revealed no significant difference between the unaffected sides with the normal group. And significant reduction of foot pressure at all tested points for the affected side than the normal group, also there is significant reduction of the pressure in affected rather than the unaffected side in clubfoot children.
Key words : Clubfoot, foot pressure, foot scan.

 Mish‘at al-qa‘im li-‘l-‘alif al-‘asim al-‘asim al-mulq al-‘alif al-daw‘i. ضغط القدم للأطفال الأصحاء مقابل الأطفال ذوى القدم الحنفاء.
Author : Tamer Emam Hassan El-Negmy.
Title : Utilization of spider cage for dynamic balance improvement in Spastic hemiparetic cerebral Palsy Children.
Supervisors : Elham El Sayed Salem, Manal Salah El-Din Abd El wahab, Nagi Sobhi Nassif.
Degree : Master.
Year : 2007.
Abstract: Thirty, spastic hemiparetic cerebral palsy children of both sexes with age ranging from 4 to 6 years old with balance problem and abnormal gait pattern subdivided randomly into two groups of equal number, control and study groups. Evaluation was conducted before and after three successive months of treatment using spasticity, balance and gait analysis. The control group received neurodevelopmental techniques outside the spider cage while the study group received the same exercises but inside the spider cage using its facilities. Significant difference was recorded in favor of the study group after the treatment which supports using of spider cage in treatment of hemiparetic cerebral palsy children.
Key words : spider cage, dynamic balance Spastic hemiparetic, cerebral Palsy, Children.

Arabic Title Page : استخدام جهاز قفص العنكبوت لتحسين التوازن الحركي لدى الأطفال المصابين باللازم الشقي.
Author : Wagdy william amin.
Title : Effect of lidocaine phonophoresis in spasticity modulation of spastic hemiplegic children.
Degree : Master.
Year : 2007.
Abstract:
Back ground: The purpose of study was to examine the effect of lidocaine phonophoresis in spasticity modulation of spastic hemiplegic child. Thirty spastic hemiplegic cerebral palsied children were assigned randomly into two equal groups. Subjects in study group (n = 15) received lidocaine phonophoresis in addition to traditional exercise program. Whereas subjects in control group (n =15) received therapeutic ultrasound, topical anesthesia (lidocaine) and traditional exercise treatment. The following parameters including muscle tone and laboratory examination (3-D motion) were measured before and after three months of treatment. Results: there is significant improvement in the study group in comparison to control group. Conclusion: lidocaine phonophoresis is an effective additional tool to physical therapy program in treatment of hemiparetic C.P. children as it plays an important role in decreasing spasticity and improving patient gait pattern.
Key words : cerebral palsy, spasticity, 3-D measurement, lidocaine phonophoresis.

Arabic Title Page : تأثير النيوكوين على الموجات فوق الصوتية في تثبيط التشنج العضلي في الأطفال المصابين بالشلل النصفى التشنجي.
Author : Walaa Mohamed Abd-Allah.
Title : Effect of Coordination Training in Attention Deficit Hyperactivity Disorder.
Supervisors : Faten Hassan Abd - Elazeim, Lobna Abd - Elgawad Mansour.
Degree : Master.
Year : 2007.
Abstract:
Attention Deficit Hyperactivity Disorder (ADHD) is one of the most common behavioral disorders of childhood. The purpose of this study was to investigate the value of the coordination training on the management of attention on Attention Deficit Hyperactivity Disorder children. Thirty ADHD children ranged from 6-9 years participated in this study. These were randomly divided into two equal groups. Study group which received treatment program for three months and control group which did not receive treatment program. This training was divided into movement coordination exercises, early learning fun from Macmillan, eye hand coordination toys, and attention book exercises. The two groups were evaluated at the beginning and after three months by DSM-IV-TR Diagnostic Criteria for ADHD, RehaCom to evaluate attention and concentration and logical reasoning parameters, and BRUININKS-OSERTSKY TEST (BOTMP) to evaluate coordination proficiency. The results of this study revealed significant reduction in symptoms severity and account for inattention items and improvement for attention and concentration levels and reduce its minimum and maximum reaction time, also improvement in logical reasoning levels and reduce its number of error and median reaction time, additionally in motor proficiency. There was significant improvement of motor proficiency for bilateral coordination, upper limb coordination, and visual motor control when comparing study and control group. From the previous data it could be concluded that the coordination training are beneficial therapeutic modalities that can be used to improve attention in ADHD children, while they were not more efficient to reduce hyperactivity for these children.
Key words : Attention Deficit Hyperactivity Disorder (ADHD), Bruininks - Osertsky test of motor proficiency, Coordination training, RehaCom system.

Arabic Title Page : تأثير تدريب التوافق العضلي العصبي للأطفال المصابين بمتلازمة فرط الحركة وقصور الانتباه.
Department of Basic Science
Author : Ahmed Mohamed Mostafa Abo El-Eneen.
Title : Pulsed magnetic Field versus transcutaneous electrical nerve stimulation in treatment of low back dysfunction.
Dept. : Department of Basic Science.
Supervisors : Mohamed Hussien El-Gendy, Ragia Mohamed Kamel, Hassan Mahmoud Baraka.
Degree : Master.
Year : 2008.
Abstract : Background: Chronic low back dysfunction is reported to be a major health problem worldwide. Purposes: To investigate and compare the efficacy of pulsed magnetic field and transcutaneous electrical nerve stimulation in treatment of chronic low back dysfunction. Study Design: A pre test post test control group design. Materials and methods: Thirty patients with chronic low back dysfunction from both sexes were involved, aged between 35–50 years old. The patients were divided into three equal groups, ten patients each. Patients in the first group (control group) received a therapeutic ultrasound. Patients in the second group received pulsed magnetic field and therapeutic ultrasound. Patients in the third group received burst mode of transcutaneous electrical nerve stimulation and therapeutic ultrasound. Treatment was done 3 times a week for 4 weeks. Range of motion, pain level and functional performance were measured before and after treatment. Results: There were significant differences within the three groups before and after treatment and between the three groups after treatment as lumber range of motion of flexion and extension increased, pain level decreased and functional performance improved. Conclusion: Pulsed magnetic field proved to be more beneficial than burst mode of transcutaneous electrical nerve stimulation in improving range of motion, functional performance and perceived back pain in patients with chronic low back dysfunction.
Key words : low back dysfunction, pulsed magnetic field, transcutaneous electrical nerve stimulation.

المجال المغناطيسي المقطع مقابل التيار المندوه للعضب عبر الجلد في علاج خلل الظهر الوظيفي.
Author : Farouk Farouk Ahmed Yousef.
Title : Reactive neuromuscular training in stroke patients Rehabilitation.
Dept. : Department of Basic Science.
Supervisors : Fatma Seddik Amin, Hateem Samir, Sahar Mohammed Adel.
Degree : Master.
Year : 2008.

Abstract:
Background: stroke is reported to be a major health problem worldwide. Objectives: To investigate Reactive neuromuscular training efficacy in stroke Patients Rehabilitation. Study design: A pre-Post test control group design. Subjects and Methods: Thirty Patients with stroke from both sexes were involved, aged between 45-60 years. They were divided into two equal a study and a control groups. Patients in group (A) received Reactive neuromuscular training in addition to Traditional exercise program in the form of stretching and strengthening exercises. Patients in the group received traditional exercise program only (Control group). Integrated electromyography and functional performance were measured before and after treatment. Results: There were significant differences between two groups after treatment in Integrated Electromyography and functional performance. Conclusion: Reactive neuromuscular training proved to be beneficial in improving Muscle co contraction and functional performance in stroke patients.

Key words : Stroke, Reactive neuromuscular training, Electromyography.
Background: Distribution of body weight through the foot depends on the shape of the foot arches. Purpose: To investigate the changes in plantar pressure distribution of flexible second-degree flat feet subjects compared to normal subjects. Subjects: 30 subjects (12 males and 18 females), their age ranged from 18-35 years old. Subjects were assigned randomly into two equal groups. Group A (The study group) included fifteen subjects (6 males - 9 females) with bilateral flexible second-degree flat feet with mean age of 23.46 ± 4.18 years, weight 65.26 ± 8.43 kg, height 165.93 ± 8.95 cm and body mass index (BMI) 23.59 ± 0.80 kg/m². Group B (The control group) included fifteen normal subjects (6 males – 9 females) with mean age of 23.60 ± 4.06 years, weight 65.60 ± 6.83 kg, height 166.46 ± 8.64 cm and BMI 23.61 ± 0.73 kg/m². Method: Feet assessment using lateral weight bearing radiographs were performed bilaterally for each subject in both groups to measure the taller first metatarsal angle, then the foot scan plate system was used to measure the plantar pressure distribution for every subject under six areas of the foot during static condition. Results: There was a significance increase in pressure distribution under the heel and medial metatarsal head in group A than group B and there was no significant difference in pressure distribution under central and lateral metatarsal heads, mid foot and first toe between both groups. Conclusion: This study concluded that subjects with bilateral flexible second-degree flat feet have high pressure under the heel and medial metatarsal head than normal subjects.

Key words: Foot mechanics, Flat foot, Flat foot treatment, Plantar pressure distribution.

Arabic Title Page: توزيع الضغط أسفل القدم المنقفلة: تطبيقاته في العلاج.
Author: Rehab Abd El Hafiez.
Title: The influence of kyphotic posture on the scapular kinematics.
Dept.: Department of Basic Science.
Degree: Master.
Year: 2008.
Abstract:
Background: A kyphotic thoracic spine alters the scapular motion; changing the scapular kinematics leading to shoulder dysfunction. Purpose: To investigate the influence of kyphotic posture on the scapular kinematics (the posterior tilt angle, the upward rotation angle, and the scapulohumeral rhythm). Subjects: 30 subjects (males and females) their age ranged from 18-35 years old were assigned randomly into two groups: Group A (the control group) included 15 subjects with normal thoracic kyphosis angle (21º-33º) with mean age of (23.80 ±5.37), weight (60.93 ±5.19), and height (161.40 ±5.87) and group B (the study group) included 15 subjects with thoracic hyper-kyphosis angle (>33º) with mean age of (23.40 ±4.53), weight (63.67 ±6.20), and height (164.40 ±6.56). Method: A 3-D motion analysis system was used to measure the thoracic kyphosis angle, followed by the scapular kinematics in the scapular plane. Measurements were taken statically, with the arm at side, at horizontal position (90º), and at maximum elevation and dynamically at 30º, 60º, 90º, 120º. Results: Indicated that there was a significance decrease in the posterior tilt angle at rest (p≤0.0126) and highly significant decrease at horizontal elevation (p≤0.0040) and maximum elevation (p≤0.0001) in group B. There was also significant decrease in the upward rotation angle (p≤0.0179) at maximum elevation, a significant decrease in the scapulohumeral rhythm at 120º (p≤0.0174), and high significant decrease at 90º-120º range (p≤0.0004) in group B, and there was no significant difference in the upward rotation angle at rest and at horizontal position, there was no significant difference in the scapulohumeral rhythm at 30º, 60º, 90º, 30º-60º range and at 60º-90º range between both groups. Conclusion: The study concluded that the evaluation for patients suffering from shoulder dysfunction should include thoracic assessment. So that, the ability to use the functional metry are more sensitive than anatomical ones.
Key words: Thoracic Kyphosis, Scapular Kinematics.
Arabic Title Page: تأثير الانحناء الامامي للظهر على كينماتيكة الكتف.
Department of Biomechanics
Author : Mariam Abdelmoneim Abdu Mahmoud Ameer.
Title : Effect of String Vibration Damper of Tennis Racket on Myoelectrical Activity of Wrist Extensors.
Dept. : Department of Biomechanics.
Supervisors : Salam Mohamed El-Hafez, Alaaddin Abdelhakim Balbaa.
Degree : Master.
Year : 2008.
Abstract:
The purpose of this study was to investigate the effect of presence or absence of String Vibration Damper on the myoelectrical activity of wrist extensors during the impact phase of backhand stroke technique. The myoelectrical activity of wrist extensors tends to be changed by the effect of racket handle vibration owing to the stationary racket impact. 15 elite tennis players and 15 novice tennis players with an age ranging from 18-25 years volunteered to participate in this study. Only one racket was used and was impacted by a pressurized ball. The ball was projected at a constant velocity. The ball impacts were near to the racket throat area with and without using the string vibration damper. The participants were not allowed to see the ball impacts, as the stand was placed between the participant and the racket. The experiment was repeated three times at the same day with rest periods in-between. The wrist extensors EMG data were collected with and without using the String Vibration Damper. Results revealed that there was no significant effect of using string vibration damper on the mean values of maximum EMG activity of the examined muscles (P>0.05). But, the insignificant decrease in the myoelectrical activity of tennis beginners indicated that it may be preferable to use the string vibration damper with tennis beginners to protect them against the occurrence of lateral elbow pain. In conclusion, the results of study did not support the concept which refers to the String Vibration Damper reduces the myoelectrical activity of wrist extensor during impact and tends to reduce the incidence of lateral epicondylitis.

Key words : String Vibration Damper, Wrist extensors, Myoelectrical activity Tennis.

Arabic Title Page : تأثير الصمام المهدئ لإهتزازات شبكه مضرب التنس الارضي على النشاط العضلي الكهربى للعضلات الباصطة لمفصل الرسغ.
Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery
Author: Ahmed Abd El-Momen El-Shehawy.
Title: Effect of Exercise training on the psychological state of obese Persons.
Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree: Master.
Year: 2008.

Abstract:
Objective: This study was designed to evaluate the effect of exercise training program combined with diet regimen on body composition and psychological state of obese subjects with and without depression disorders. Materials and methods: Eighty obese subjects of both sex selected from the obesity clinical unit of EL-Kasr EL-Aini University Hospital were included in this study. They were divided into two equal groups. Group A forty (non-depressed obese subjects); and Group B forty (depressed obese subjects). Both groups received exercise and diet therapy for three months. The Clinical assessment including age, weight, height, body mass index (BMI), waist circumference (WC), hip circumference (HC), waist to hip ratio (WHR), and, the presence of depressive traits and the level of serum cortisol were investigated before treatment and after three months. Results: The results of body weight, BMI, WC, HC, WHR, serum cortisol showed significant reduction compared with base line mean values for both groups. There were greater percentage of reduction in group A (non-depressed obese subjects), than group B. There were significant reductions of the psychiatric depressive symptoms for group B (depressed obese subjects), compared with base line (Pre) mean value. Also there were significant reductions in body weight and BMI for group A when compared with group B, but non significance differences related to WC, HC, and WHR between two groups. There was significant difference in cortisol level between two groups and in favoring to group A (non –depressed obese subjects). Conclusion: exercise and diet therapy for obese subjects suffering from depression were helpful for reducing depressive symptoms, cortisol level, as well as reduction of body compositions including body weight, BMI, Waist circumferences, hip circumference and waist to hip ratio.

Key words: Obesity, Cortisol, Depression, body mass index.

Arabic Title Page: تأثير التمرينات على الحالة النفسية للأشخاص البديناء.
Author                  : Atta Akram Ibrahim Ahmed El-Sousai.

Title                   : Responses of Ventilatory Functions to Breathing Exercise versus Breathing Exercise with Chest Mobilizing Exercise In Elderly.

Dept.                   : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.


Degree                  : Master.

Year                    : 2008.

Abstract
This study was performed to investigate the responses of ventilatory functions to breathing exercise versus breathing exercise with chest mobilizing exercise in elderly. Thirty elderly subjects (10 males and 20 females) were recruited from Palestine Hospital (Geriatrics Department). With age ranged between 65-80 years. BMI ranged between 22.1-24.9 Kg/m². They were underwent a pre and post ventilatory functions test to mark out the values of FVC, FEV₁ and MVV. They were classified into two groups of equal numbers; (Group (A) 15 subjects (5 males and 10 females) performed diaphragmatic breathing exercise and incentive spirometer), (Group (B) 15 subjects (5 males and 10 females) performed diaphragmatic breathing exercise, incentive spirometer and chest mobilizing exercise). Every subject trained for 30 min. three times/week for 8 weeks. The results showed that there was significant improvement in ventilatory functions (FVC, FEV₁ and MVV) in group (A) post-exercise was (22.20%, 16.06% and 15.10%), respectively. While in group (B) was (33.12%, 21.27% and 23.90%), respectively.

Key words               : Elderly, ventilatory functions, diaphragmatic breathing exercise, incentive spirometer, chest mobilizing exercise.

Arabic Title Page       : استجابة وظائف التنفس لتمرينات التنفس مقارنة بتمرينات التنفس و تحريك الصدر في كبار السن.
Author: Dina Said Soliman Yacoub.
Title: Changes in lumbosacral region for obese subjects complaining from low back pain.
Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors: Azza Fekry Ismail, Al- Sayed A. Shanb, Omar Moawaya Osman Mohamed.
Degree: Master.
Year: 2008.
Abstract: Was to assess the correlation between different classes of obesity and the angles of the lumbosacral region in patients suffering of chronic low back pain. One-hundred subjects of both sex, their age ranged between 18.5 and 30 years, their body mass index between 18.5 and ≥ 40 kg/m², of both central and peripheral type of obesity were selected. They are arranged in three groups according to their body mass index. Results and Conclusion: The Lumbosacral angle is the most significant compromise in all groups, and increase its significance by increasing body mass index (BMI). The central obesity correlated with the angles of the lumbosacral region more than the peripheral obesity. These results suggest that waist circumference (WC) is considered as best significant predictor of the changes that occur to the angles of the lumbosacral region, and all the angles of lumbosacral region are greater in females than males with a statistical significance (P<0.05).
Arabic Title Page: العلاقة بين زيادة الوزن وزوايا المنطقة القطنية العجزية في حالات تعاني من الألم المزمن أسفل الظهر.
Title : Effect of diaphragmatic breathing exercise in essential hypertension.

Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.

Supervisors : Zahra M. H. Serry, Azza F. Ismail, Bassem E. Foad.

Abstract:
Background: Slow breathing improves arterial baroreflex sensitivity and decrease blood pressure in essential hypertension. The purpose of this study was to investigate the effect of diaphragmatic breathing exercise as a part of life style modification in essential hypertension. Subjects: sixty subjects of both Sexes, 42 males and 18 females, They assigned randomly into two groups equal in number, Group (A) with mean age (46.07 ± 6.27) years and mean Body Mass Index (27.87 ± 1.57) Kg/m² Group (B) with mean age (47.63 ± 6.83) years and mean Body Mass Index (27.92 ± 1.46)Kg/m² Methods: Blood pressure and heart rate were measured before, after one month and two months in the two groups. Group (A) who were instructed to life style modification, group (B) who were instructed to diaphragmatic breathing exercise as a part of life style modification. Each subject practiced diaphragmatic breathing exercise three sessions/week, 15 min, for two months. Results: The results revealed that there was highly statistically significant reduction in Arterial Blood Pressure and Heart Rate in the group (B) than group (A). Discussion and conclusion: The findings revealed that there was decrease in systolic and diastolic blood pressure (from 146.33 ± 8.9 to 142.33 ± 9.26 mmHg, P<0.01. and from 96 ± 4.62 to 92.67 ± 6.4 mmHg, P<0.01 respectively) in group (A), and from (142.17 ± 8.27 to 133 ± 8.67mmHg, P<0.001. and 93.5 ± 3.97 to 87 ± 4.68 mmHg P<0.001, respectively) in group (B). These effects appear potentially in the management of essential hypertension.

Key words : Diaphragmatic, breathing exercise, slow breathing, hypertension.

Arabic Title Page : تأثير تمارينات الحجاب الحاجز التنفسي على ضغط الدم المرتفع الغير ثانوي.
Author : Emad Mohamed Ibrahem Taha.
Title : Effect of Progressive Resistive Exercise on Systemic Hypertension.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Zeinab helmy, Akram Abd-Al-Aziz, Nagwa Eid Sobhy.
Degree : Master.
Year : 2008.
Abstract:
The aim of this study was to assess the effect of progressive resistive exercise (PRE) on essential hypertension. Forty Essential Hypertensive female with mild hypertension participated in the study, their age ranged from 30 to 50 years. They were divided into two equal groups. Group (A) performed the PRE program plus taking their ordinary anti-hypertensive medications while group (B) only took their anti-hypertensive medications. The program continued for 10 weeks (three sessions per week). Blood pressure was measured at the beginning of and after the exercise program for both groups. It can be concluded that PRE program for 10 weeks together with antihypertensive drugs produced significant change of the dose of antihypertensive drugs with significant reduction of the systolic blood pressure.

Key words : Hypertension, Progressive resistive exercise, Females.

Arabic Title Page : تأثير تمريينات المقاومة المتزايدة على ضغط الدم المرتفع

ءٝ٠ ٨٩}
Author : Enas Abd El Salam El Sayed Mohamed.
Title : Blood glucose level response to acute exercise during fasting versus two hours postprandial for type 2 diabetic patients.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza Fikery Ismail, Dina Mohamed Abaza.
Degree : Master.
Year : 2008.
Abstract : This study was conducted to investigate the immediate response of acute exercise on blood glucose level during fasting versus two hours postprandial in type 2 diabetic patients. Twenty five sedentary subjects selected from Al Mataria hospital were the subject of this study. They were all diabetic of type 2 diabetes mellitus. There was a significant difference between pre and post exercise blood glucose levels as a response to acute exercise within two hours postprandial. The percentage of improvement was 10.6%. While there was no significant difference between pre and post exercise fasting blood glucose levels as a response to acute exercise during fasting state. The percentage of improvement of fasting blood glucose level pre and post exercises was 0.12%.
Key words : Acute exercise, Blood glucose, Fasting, Postprandial, Type 2 diabetes.
Arabic Title Page : استجابة مستوى السكر للتدريبات الحادة أثناء الصيام بعد تناول الطعام بساعتين في الدم لمرضى السكر ذو النوع الثاني.
Author: Ereen Fawzy Ghattas.
Title: The effect of different heel height on the balance of elderly women.
Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors: Zahra Mohamed Serry, Mohamed Osman Azzazi, Akram Abd El-aziz Sayed.
Degree: Master.
Year: 2008.
Abstract: Balance which is vital for all activities might be affected by wearing different heel height in elderly women. Purpose: to find if there is a difference in balance while elderly women are wearing different heel height. Methods: 60 volunteers women participated in this study. Balance was measured for them while they were wearing three different heel height using Biodex balance System. Results: The balance was significantly greater with the low heel and medium heel than the high heel. Conclusion: Elderly women who wearing shoes with high heel have poor balance measurements which may be a predisposing factor to falling.
Key words: balance, elderly, heel height, falling.
Arabic Title Page: تأثير ارتفاعات الكعب المختلفة على الاتزان للسيدات المسنات.
Author : Hanaa Tawakol Ragheb Mohamed.
Title : Effect of Different Treadmill Exercise Intensities on Thrombocytes in Mild Hypertensive Females.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza Fikery Ismail, Nadia Kamal Mahmoud Marie, Abeer Ahmed Abdel-Hamed.
Degree : Master.
Year : 2008.
Abstract :
Purpose: This study was conducted to investigate the effect of different exercise intensities on Blood pressure and selected coagulation variables in mild hypertensive females. Materials and methods: Forty-five females their age ranged from 30 to 50 years old selected from El-Zhraa hospital. They were all mild hypertensive for less than five years, their body mass index (BMI) ranged from (30 to 34.9). Each patient participated in an exercise training program on treadmill for twenty minute three times per week for six successive weeks. Walking intensities were low (50%-65% of HR_max), moderate (65%-75% of HR_max) and high (75% to 80% of HR_max) for the groups A, B, and C respectively. Blood pressure and selected coagulation variables were measured before the first session and after the last session of the exercise. Results: The results of this study showed group (A) and (B) has positive effect on blood pressure and all measured coagulation variables than group (C) while the effect of group (B) more significant than the effect of group (A). Conclusion: Moderate intensity of walking exercise greatly affects the blood pressure and the process of blood coagulation and improves the function and responsiveness of blood platelets.
Key words : Walking exercise- Thrombocytes- Mild hypertensive females.
Arabic Title Page : تأثير التمرينات المختلفة الشدة على جهاز المشي الهرموني لصالح الدمومية للسيدات ذوات الارتفاع البسيط لضغط الدم.
Author : Heba Elsayed El Sayed Shehata.
Title : Blood gases response to Incentive spirometer in liver ascitic patients.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza Fikery Ismail, Gamal Abdel Khalek Badra, Elsayed A. Shanab.
Degree : Master.
Year : 2008.
Abstract:
The aim of the study was to investigate the effect of incentive spirometer on arterial blood gases on liver ascites patients. The present work was conducted on thirty cases of liver ascites adult male subjects. Their age ranged from 35 to 55 years old, they were divided into two equal groups. Group (I): moderate ascites, perform breathing exercise using incentive spirometer five to ten times with slow maximal inspiratory maneuver over fifteen minutes. Group (II): tense ascites, perform the same exercise for the same period. Arterial blood gases was measured before, immediately after and two hours after session to compare the difference between each group among three measures. The data was obtained in the present investigation indicated significant improvement in SaO2, PaCo2 PaO2 immediately and continuing in PaO2 for both groups but favor for group (I) without any effect on (PH) among three measurements.
Key words : Ascites, Blood gases, Respiratory dysfunction, Incentive spirometer.
Arabic Title Page : استجابة غازات الدم للحافز التنفسي لمرضى الإستسقاء الكبدى.
Author : Mahmoud Ahmed Labib.
Title : Reliability of clinical risk markers (Arizona Scale) versus exercise stress test in stratifying exercise intensity for cardiac patients.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Zeinab Helmy, Mostafa Abdelsalam, Akram Abd Elaziz Sayed.
Degree : Master.
Year : 2008.
Abstract : Background: the Arizona questionnaire is recently developed disease specific questionnaire for measuring the risk stratification in cardiac patients. Aims: To assess the reliability of the Airzona questionnaire and asses the correlation between the Arizona and stress test. Methods and result: 40 subjects with different cardiac pathology (20 male and 20 Females) Were collected from Al Kasr Alini teaching hospital and, their ages ranged from 40-60 years. The patients underwent stress test followed by Arizona questionnaire at same day to test inter rater reliability then Arizona questionnaire 2 times one weak interval and other researchers conduct Arizona to test intra rater, reliability. The results showed high rate of reliability of the Arizona questionnaire (P= 0.99) and high significant positive correlation with exercise stress in assessing risk stratification for cardiac patients. Conclusion: The Arizona questionnaire showed a high rate of acceptable reliability in assessment of risk stratification for cardiac patients and can be used in conjunction with stress exercise test in risk assessment.
Key words : Reliability, Arizona scale, Exercise test.
Arabic Title Page : مدي دقة المؤشرات الإكلينيكية الخطرة(مقياس الاريزونا) مقابل اختبار الشدة بالتمرينات لتحديد شدة التمرينات لدى مرضى القلب.
Author : Rabab Salah El Din Mohamed.
Title : Chest physical therapy on mechanically ventilated neonates with respiratory distress syndrome.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Elham El Sayed Salem, Azza Fikry Ismail, Mona Youssef Maalawi.
Degree : Master.
Year : 2008.
Abstract :
The aim of this study was to investigate the effect of chest physical therapy on mechanically ventilated neonates with respiratory distress syndrome. Thirty neonates were concluded in the study, their ages ranged from 1-30 days. They were divided into two equal groups. Group (A) was the control group which received medical treatment and mechanical ventilation, group (B) (study group) received the same treatment in addition to chest physical therapy program. The physiotherapy session was conducted daily until the baby weaned off the ventilator. The results showed a significant difference in the vital signs, blood gases, O₂ saturation, ventilatory stay and hospital stay. So chest physiotherapy should be introduced as line of treatment on mechanically ventilated neonates with respiratory distress syndrome.

Key words : chest physical therapy, neonatal respiratory distress syndrome, mechanical ventilation.

Arabic Title Page : العلاج الطبيعي للأمراض الصدرية للأطفال حديثي الولادة المصابين بضائقة التنفس على جهاز التنفس الصناعي.
Author : Safaa Mostafa Ali El-Kholi.
Title : Effect of acute exercise on glutathione as antioxidant in male smokers versus non smokers.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza Fikry Ismail, Fawzy Ahmed Halawa, Amany Raafat Mohamed.
Degree : Master.
Year : 2008.
Abstract : The study was done on 90 males who were classified equally into three groups (non, light and heavy smokers). Then subjects in each group were subdivided into two equal groups (one participated moderate exercise while the other participated high intensity exercise for 30 minutes for one time. Blood GSH was measured before and immediately after exercise. There was significantly increased GSH level in all groups after moderate exercise while after intensive exercise GSH level was significantly decreased in heavy smokers more than light smokers however the reduction in non smokers was non significant. So moderate exercise is better however intensive exercise is harmful especially for smokers.
Key words : acute aerobic exercise, glutathione, smoking, antioxidant.

Arabic Title Page : تأثير التمرين الواحد على الجلوثانيون كمضادات للأكسدة في الرجال المدخنين مقابل الفي غير مدخنين.
Author : Sara Sobhy Zakaria Eldeeb.
Title : Response of Liver Enzymes to Aerobic Exercise in Diabetic Patients.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza Fikry Ismail, Yasser Mohammed Abdel hamid, Yassmin Taha El-Shewi.
Degree : Master.
Year : 2008.
Abstract:
Background. Exercise impact on liver enzymes hasn't been assessed in diabetic patients. Purpose. To evaluate effects of single bout of aerobic exercise on liver enzymes in diabetic patients. Subjects. Fifty patients with type 2 diabetes mellitus DM of both sexes (Group A) and twenty apparently healthy subjects as control group (Group B) were participated in this study. Methods. Liver enzymes (AST, ALT, GGT, ALP, Albumin, and Total Protein) had been measured for both groups at rest and immediately after an aerobic exercise session of 20 minutes at grade 11-12 reported effort using the Borg Scale for rating of perceived exertion (RPE). Results. The results showed that a single bout of aerobic exercise produces significant increase of liver enzymes in diabetic and normal subjects as well. But this increase is more in diabetic patients. Conclusion. For diabetic patients, Light intensity aerobic exercise on a bicycle ergometer for twenty minutes produces significant increase of liver enzymes. So, follow up of liver enzymes is necessary before exercise prescription for diabetic patients.
Key words : Liver enzymes, Diabetes, Exercise.

Arabic Title Page : مدى استجابة انزيمات الكبد للتمرينات الهموئية في مرضى البوال السكري.
Author: Walaa Mohamad El-Sayed El-Sais.
Title: Energy Expenditure of Treadmill And Stationary Bicycle Among Male Runners.
Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree: Master.
Year: 2008.
Abstract:
The purpose of this study was to compare between energy expenditure produced by treadmill and stationary cycle in male runners. Energy expenditure and respiratory measures were recorded by ZAN 600 flow handy II medical device. Thirty male runners participated in this study with an average age of 22.77 years (±2.61), their body mass index (BMI) ranged between 18.5-24.9 kg/m² with an average 23.53±1.5 kg/m². Each participant performed two modes of exercise on separate days in a randomized order. The results revealed that, there was a significant difference (p<0.05) between the two modes of exercise testing in VO₂max but there was no significant difference (p>0.05) in RER, VE and VT.
Key words: Energy expenditure, VO₂max, runners, treadmill, cycle ergometry.

Arabic Title Page: استهلاك الطاقة على السير الكهربائي والعجلة الثابتة بين العدوانيين.
Physical Therapy Department for Obstetrics and Gynaecology and its Surgery
Author : Dina Essam Ebraheem El Tersawy.
Title : Effect of ozone therapy in treating toxoplasmosis in cases with recurrent abortion.
Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors : Amel Mohamed Youssef, Mohamed Nabil Mawsouf, Azza Baramoud Nashed.
Degree : Master.
Year : 2008.
Abstract : This study is conducted to evaluate the effect of ozone therapy in treating toxoplasmosis in cases with recurrent abortion. Thirty toxoplasmatnic patients were participated in this study. Patients were assigned randomly into two groups (15 patients each). Group (A) study group received ozone treatment through rectal insufflations with 250-300 ml of medical ozone gas and in a concentration ranging between 20-40 µg/ml O3 in O2, six sessions per week for 3 weeks. Group (B) medical group received treatment in the form of Spiramycin 3 MIU tablets twice per day for 3 weeks. Evaluation of all patients in both groups was done through measuring immunoglobulin M (IgM) before and after the end of the treatment. The results of the present study showed a highly significant decrease in IgM in the study group (A). Also, in medical group (B) there was a significant decrease in IgM. Comparing between both groups (A & B) before treatment showed non significant difference while after treatment there was a highly significant decrease in IgM in the study group (A) compared to medical group (B). In addition, the recovery rate was about 66.67 % in group (A), while in group (B) was about 26.67 %. Accordingly, it can be concluded that medical ozone is an effective therapeutic modality for treating toxoplasmosis as well as, it is a safe modality and has no harmful effects on the women.
Key words : Ozone therapy, recurrent abortion, immunoglobulin M, toxoplasmosis.

Arabic Title Page : تأثير العلاج بالأوزون في داء المقواسات المسبب لحالات الإجهاض المتكرر.
Author: Mariam Sadik Hilmy Makary.
Title: Optimum Therapeutic Intensity of Ultrasound for Reducing Carpal Tunnel Syndrome in Pregnant Women.
Dept.: Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors: Mohamed Hany, Amel Mohamed Yousef Shehata, Magda Sayed Morsi.
Degree: Master.
Year: 2008.
Abstract:
The purpose of this study was to evaluate the effect of different intensities dose of repeated pulsed US application on CTS in pregnant women, and to determine the optimal intensity dose of pulsed US for reducing CTS during pregnancy. Forty-five pregnant women at the early third trimester complaining from idiopathic CTS (Pain, numbness and tingling of the hand), which confirmed by electrophysiological examination [i.e. delayed MSDL<3.9 msec and reduced MNCV<49.9 m/sec] as well as positive Phalen's test were selected from Obstetric Out patient Clinic at Al-Haram Hospital. Their ages ranged from 25–35 years old, their BMI did not exceed 34Kg/m² and their gravidity ranged from 1-3 times. They assigned randomly into three groups equal in numbers according to the intensity of the applied US as USG₁ (0.5W/Cm²), USG₂ (1.0W/Cm²) and USG₃ (1.5W/Cm²). Each patient was worn a night wrist splint to keep her wrist in a neutral position daily while sleeping. Pulsed US was performed in a circular fashion for ten minutes over the carpal tunnel region as monotherapy at a frequency 1 MHz, pulsed mode 1:4 with a transducer of 4Cm². It was conducted for four weeks, three sessions per week. The results showed that the three groups (USG₁, USG₂ & USG₃) had a statistically significant reduction in MSDL as well as intensity of CTS pain and a statistically significant increase in MNCV except in USG₃ after four weeks of US treatment. ANOVA showed that there was non significant difference in mean of MSDL, MNCV and intensity of CTS pain by chi square test among the three groups before treatment and after four weeks of US treatment. However, the highest percentage of improvement was noted in USG₁ and the lowest percentage of improvement was noted in USG₃. It can be concluded that US at low intensity (0.5W/Cm²) is an effective method in treating CTS among pregnant women.

Key words: Pregnancy, Carpal Tunnel Syndrome, Ultrasound, Nerve Conduction Velocity, Distal Latency, Pain.

Arabic Title Page: الجرعة العلاجية المثلى للموجات فوق الصوتية لتقليل الضغط على عصب الرسغ الأوسط لدى السيدات الحوامل.
This study was conducted to determine the effect of EMG biofeedback in treating primary vaginismus. Forty volunteers married females suffering from primary vaginismus participated in this study, collected from Kasr EL Einy University hospital, their ages ranged from 25-35 years. They were randomly divided into two equal groups (A&B). Group A was treated by EMG biofeedback with vaginal electrode twice/week for three weeks while, group B was treated by sexual therapy program for the same duration. Assessment for each subject was done through TG. myo-feedback 420v and present pain intensity (PPI) scale before and after treatment. Results revealed that there was a highly significant (P<0.001) decrease in post treatment experienced pain values as well as a highly significant (P<0.001) decrease in the post treatment pubococcygeous (PC) muscle spasm values in both groups (A&B), but group (A) showed more improvement than group (B) in both experienced pain and PC muscle spasm after end of treatment program. Accordingly, it could be concluded that EMG biofeedback was found to be an effective, safe, easy to perform, and successful adjunct physical modality in treating primary vaginismus.

**Key words**: Primary vaginismus, EMG biofeedback, Relaxation Training.
Author : Noha Ahmed Fouad Abd el Rahman.

Title : Effect of Ultrasound Therapy on Alleviating Pain and Adhesions in Endometriosis.

Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.

Supervisors : Fahima Metwally Okeel, Serag El Din Mansour, Amel Mohamed Youssef.

Degree : Master.

Year : 2008.

Abstract:
Purpose of the study: This study is conducted to determine the effect of ultrasonic therapy on alleviating pain as well as adhesions in women having endometriosis. Study design: Twenty women suffering from severe pelvic pain and diagnosed as having mild or moderate endometriosis participated in this study. They were treated with ultrasonic therapy for 24 sessions, 3 sessions per week and received the same regimen of hormonal treatment (Medroxyprogesterone acetate 100mg was given before entry in the study and continued all through the study period) as well as they didn’t take any analgesic drugs all through the study period (8 weeks). All patients were evaluated before and after 12 as well as 24 sessions of ultrasonic treatment using present intensity (PPI) scale as well as McGill Pain Questionnaire (MPQ) and pain relief (PR) scale which evaluated after 12 as well as 24 sessions and laparoscopy to determine degree and site of endometriotic adhesions before and after the end of the study. Results: The results of this study showed a statistically highly significant decrease (P<0.001) in the intensity of pain, number of sites of pain and degree of adhesions after the end of ultrasonic therapy treatment. Conclusion: The results of this study concluded that ultrasound therapy had an excellent effect in the management of chronic pain as a result of endometriosis as well as reducing adhesions and can be considered as an alternative method for treating such cases.

Key words : Endometriosis, Laparoscopy, Therapeutic Ultrasound, Pain, Adhesions.

Arabic Title Page : تأثير الموجات فوق الصوتية في تخفيف الأم والتصاقات التغذيد الرحمي.
Author : Noha Mohamed Magdy El Harmeeel.
Title : Antenatal Care between reality and what is expected.
Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Degree : Master.
Year : 2008.
Abstract : This study was conducted to assess the knowledge and practice of physiotherapists, physicians, and pregnant females about antenatal care. 300 pregnant females, 100 physiotherapists and 100 obstetricians participated in this study, each subject had been answered about its questionnaire. The result showed that more awareness is needed for both pregnant females and health providers about benefits of antenatal care.
Key words : Antenatal Care, Exercises, Questionnaire, health providers, pregnancy.
Arabic Title Page : متابعة الحمل بين الواقع والمتوقع.
Physical Therapy Department for Musculoskeletal Disorder and its Surgery
Author                       : Abdelgalil Allam Abdelgalil.
Title                       : The Effect of Cervical Manipulation on Selected Parameters in Patient with Mechanical Neck Pain.
Degree                      : Master.
Year                        : 2008.
Abstract
Mechanical neck pain can be defined as a neck disorder characterized by generalized neck and/or shoulder pain attributed to mechanical dysfunctions of the cervical spine. The purpose of this study was to examine the effect of cervical manipulation on patient with mechanical neck pain. Twenty male and female patients with an age ranging from twenty to forty five years volunteered to participate in this study. Each patient received one session of cervical manipulation. The following parameters including pain severity by the visual analogue scale, cervical range of motion by an OB goniometer (flexion, extension, right side bending, left side bending, rotation to the right and rotation to the left) and the intervertebral mobility by plane X-ray were measured before and after cervical manipulation. Results: the results revealed that there was significant improvement in all parameters tested after cervical manipulation. Conclusion: on the basis of the present data, it is possible to conclude that cervical manipulation is effective method in treating mechanical neck pain.
Key words                   : Manipulation, Mechanical Neck Pain.
Arabic Title Page           : تأثير التحريك اليدوي للرقبة على مقاييس مختارة في مرضى الالام العنقية الميكانيكية.
Author : Abdulrahman Taha Alahmad.
Title : Relationship between kinematic gait analysis and Lysholm knee scale after arthroscopic partial meniscectomy.
Degree : Master.
Year : 2008.
Abstract: The purpose of this study was to examine the relationship between some chosen variables of kinematic gait analysis (stride length, stride time, cadence, speed, right and left stance percentage, right and left peak flexion angle) and Lysholm knee scale total score and subscores after arthroscopic partial meniscectomy. One group of thirty patients after arthroscopic partial meniscectomy aging from 21 to 41 years old were examined by means of kinematic gait analysis and Lysholm knee scale within first week after surgery. Twenty six of the same patients were available to do the same examinations within the sixth week after surgery. Significant improvements were shown by means of both kinematic gait analysis and Lysholm knee scale after six weeks from surgery (P< 0.05). Correlation between kinematic gait analysis variables and Lysholm knee scale were shown to be statistically insignificant (P> 0.05) except for cadence, speed, and stride time at week one post surgery only (P<0.05). Conclusion: Lysholm knee scale alone may be inadequate to describe the walking function and kinematic gait variable after arthroscopic partial meniscectomy. The combination between kinematic gait analysis, Lysholm knee scale, and/or modification of Lysholm knee scale, or even the use of another functional scale may help more accurate description of functional and walking status after arthroscopic partial meniscectomy.
Key words : meniscectomy, Lysholm knee scale, gait analysis.

Arabic Title Page: العلاقة بين تحليل المشي الكيناماتيكي ومقاييس ليشولم للركبة بعد عمليات الاستئصال الجمائي للغضروف الهلالي بالمنظار.
<table>
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<tr>
<th>Author</th>
<th>Ahmed Barakat Bekheet.</th>
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<tr>
<td>Title</td>
<td>The efficacy of laser therapy combined with early therapeutic exercises versus conventional therapeutic exercises after hand flexor repair.</td>
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<tr>
<td>Dept.</td>
<td>Physical Therapy Department for musculoskeletal disorder and its Surgery.</td>
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<td>Degree</td>
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**Abstract**

The aim of the study was to compare between the combined effect of laser and early therapeutic exercises, versus conventional therapeutic exercises after hand flexor tendon repair in zone II. Thirty patients were assigned into two groups, each group was 15 patients. Their ages ranged from 20 to 40 years. Patients in group A were receiving the conventional therapeutic exercises and patients in group B were receiving the same therapeutic exercises combined with laser. The results showed a statistically significant increase in Total Active Motion (TAM) of the proximal interphalangeal (PIP) joints and distal interphalangeal (DIP) joints range of motion as well as maximum hand grip strength for both groups. The results between the two groups showed a highly statistically significant difference in TAM and maximum hand grip strength at three weeks and three months (P<0.01), with favoring to laser treated group. It was concluded that the combination of laser and early therapeutic exercises were effective in treatment after hand flexor tendon repair.

**Key words** : Laser, Flexor tendon, Mobilization, Repair surgery.

**Arabic Title Page** : تأثير العلاج بالليزر والتمرينات العلاجية المبكرة مقابل التمرينات العلاجية التقليدية بعد الإصلاح الجراحي للأوتار القابضة لليد.
Author : Ahmed EL-Prince Mohamed.
Title : The prevalence of low back pain among policemen in great Cairo.
Supervisors : Salwa Fadle Abdel Mageed, Manal Mohamed Ismail, Zen El Abdeen Hassan.
Degree : Master.
Year : 2008.
Abstract:
The purpose of this study was to determine the prevalence of LBP among policemen in great Cairo and to study the impact of years of service and types of service on the prevalence of LBP. This work included 9232 policemen who had a complaint of LBP, whose age ranged between twenty-two to sixty years. The data of this study were collected from the orthopedic medical files at police-force hospitals (Al Agouza and Mubarak Hospitals) in great Cairo and the Administration of Policemen Affair. The results showed that the prevalence of low back pain among policemen in great Cairo along the five years in the period from 2002 to 2006 was 9.85 %. The results also showed a relationship between years of service and low back pain, as with increasing the years of service, there was an increase in incidence of low-back pain among policemen with the highest percentage was found in those who worked for more than twenty years of service. The results also showed that the different types of service had an impact on low-back pain, with the highest percentage which was found in the patrol & riding circuit. Accordingly, it can be concluded that the LBP considered the most common musculoskeletal problem among policemen in great Cairo and there is a strong correlation between years of service and LBP.
Key words : Low- Back Pain, policemen.
Arabic Title Page : معدل انتشار الألم أسفل الظهر بين ضباط الشرطة بالقاهرة الكبرى.
Author : Enas Metwaly Abdelmenam.
Title : Comparative study between the efficacy of continuous versus intermittent traction in treatment of cervical radiculopathy.
Supervisors : Ibrahim Magdy Elnaggar, Hala Rashad El Habashy.
Degree : Master.
Year : 2008.
Abstract :
Purpose: This study investigated the efficacy of the continuous cervical traction versus the intermittent cervical traction in treating C6-C7 radiculopathy patients. Subjects: Thirty patients diagnosed as cervical spondylosis or cervical disc prolapse at the level of C5-C6 and C6-C7 or at the level of C6-C7 suffering from unilateral radiculopathy participated in this study. Methods: Patients were distributed randomly into two experimental groups. The continuous traction group which consisted of 15 patients with a mean age 46.40(±6.01) years, received infrared radiation followed by continuous cervical traction. The intermittent traction group which consisted of 15 patients with a mean age 47.13(±6.69) years, received infrared radiation followed by intermittent cervical traction. Treatment was given 3 times/week, each other day, for 4 consecutive weeks. Patients were evaluated before and after treatment for neck pain severity, arm pain severity, amplitude and latency of flexor carpi radialis H-reflex, and neck mobility. Results: Patients who were treated by either intermittent cervical traction or the continuous cervical traction showed significant improvement in all the measured variables. Between groups comparison after treatment showed significant decrease in neck pain severity and significant increase in frontal and transverse neck mobility in favor of the intermittent traction. There was no significant difference between groups concerning arm pain severity, H-reflex amplitude and latency, and neck sagittal mobility. Conclusion: Both of the intermittent and the continuous cervical traction had a significant effect on neck and arm pain reduction, a significant improvement in nerve function, and a significant increase in neck mobility. However, the intermittent traction was more effective than the continuous type.
Key words : cervical radiculopathy, intermittent traction, continuous traction, flexor carpi radialis H-reflex.
Arabic Title Page : دراسة مقارنة فاعلية الشد المقطع مقابل الشد المستمر في علاج اعتلال جذور الأعصاب العنقية.
Author : Hamed Mohamed EL-Khozamy.
Title : Effect of pulsed electromagnetic field on chronic mechanical neck pain.
Supervisors : Salwa Fadlle Abd El Majeed, Yasser Hassan El Miligui, Enas Fawzy.
Degree : Master.
Year : 2008.

Abstract:
The purpose of this study was to examine the effects of pulsed electromagnetic field (PEMF) therapy on patients with chronic mechanical neck pain. Thirty patients were assigned randomly into 2 groups. Subjects in group (A) (n=15) received traditional physical therapy program (Infrared radiation, ultrasonic, manual traction, stretching exercises and isometric exercises for neck muscles) as well as pulsed electromagnetic field (PEMF), while subjects in group (B) (n = 15) received traditional physical therapy only (Infrared radiation, ultrasonic, manual traction, stretching exercises and static exercises for neck muscles). The following parameters including functional disability and cervical rang of motion (flexion, extension, right side bending, left side bending, right rotation and left rotation) were measured before and after 4 weeks of treatment. Results: The results of the study showed that traditional physical therapy treatment only or in addition to PEMF were effective in reducing pain, functional disability and increasing cervical range of motion with minimal difference between two groups in favor of group (A) but not statistical significant. Conclusion: On the basis of the present data, it is possible to conclude that PEMF combined with traditional physical therapy program is a promising method in treatment of chronic mechanical neck pain (CMNP) patients.

Key words : Pulsed Electromagnetic Field, Mechanical neck Pain, Exercise therapy.

Arabic Title Page : تأثير المجال الكهرومغناطيسي المنقطع على ألم الرقبة الميكانيكي المزمن.
Author : Magdy Mohamed Ali Shabana.
Title : Dynamic balance training versus traditional rehabilitation program in unilateral total hip arthroplasty.
Degree : Master.
Year : 2008.
Abstract : The purpose of this study was to examine the effects of dynamic balance training program on patient with unilateral Total Hip Arthroplasty. Twenty patients were assigned randomly into two groups. Subjects in group B (n=10) received traditional rehabilitation program (Therapeutic exercise, transfer training and gait training) as well as dynamic balance training program while subject in group A (n= 10) received traditional rehabilitation program only. The following parameters including changes of the moment of hip muscles in three plane, dynamic balance impairments and risks of falling were measured initially then at 6 weeks and at 12 weeks of treatment. RESULT: The results showed a significant improvement in dynamic balance and risks of falling in group B compared with those in group A. CONCLUSION: it is possible to conclude that dynamic balance training is an effective method of treatment for unilateral total hip arthroplasty patients with parameters used in the present study.
Key words : Total hip arthroplasty, Dynamic balance training, traditional rehabilitation program.

Arabic Title Page : برنامج التدريب على الاتزان الحركي مقابل برنامج التأهيل التقليدي لمرضى الاستبدال الكلي لمفصل الفخذ لجانب واحد.
Author : Maha Mostafa Mohamed Mohamed.
Title : Effect of Pulsed Electromagnetic Field Therapy on Healing of the Closed Humeral Shaft Fractures.
Degree : Master.
Year : 2008.
Abstract :
The purpose of this study was to assess the effect of pulsed electromagnetic field (PEMF) therapy and exercises on the healing of the closed humeral shaft fractures (CHSFs). Fifteen patients participated in this study. All fractures were externally fixed using the humeral functional brace and treated by PEMF and exercises. Fractures were assessed clinically and radiologically by plain X-rays at 2-4 weeks interval until the evidence of radiological union. Results showed that 13 fractures united clinically at a mean of 4.4 weeks, radiologically at a mean of 10.2 weeks and non union occurred in 2 fractures. It can be expected from the results that PEMF and exercises are effective methods for accelerating healing and reducing incidence of delayed and non union rates of the CHSFs after being properly fixed by functional humeral brace.

Key words : Pulsed Electromagnetic Field, Closed Humeral Shaft Fractures, Functional Humeral Brace.
Author : Mohamed Ahmed Mossad Behiry.
Title : Aerobic Exercises Versus Flexion Exercise Program in Treatment of Chronic Mechanical Low Back Pain.
Supervisors : Ahmed Hassan Hussein, Ashraf Moharam.
Degree : Master.
Year : 2008.
Abstract:
The purpose of this study was to determine the effect of aerobic exercises on the chronic mechanical low back pain conditions. A comparison was held between 15 chronic low back pain patients treated with Williams flexion program and 15 chronic low back pain patients treated with aerobic exercises. Treatment outcomes were determined from 1) Visual analogue scale (VAS), 2) The oswestrey functional disability questionnaire, 3) VO₂ max. Results showed a statistically significant difference in both groups following treatment, also results showed no statistically significant difference between both groups following treatment except for the vo2max in favor of the aerobic exercise group. Thus it was concluded that aerobic exercises are used in improving aerobic fitness for conditions of chronic mechanical low back pain, as well as reducing pain and improving function as the Williams flexion program.
Key words : Chronic mechanical low back pain (CMLBP), VO₂ max, Aerobic exercises.
Arabic Title Page : التمرينات الهوائية مقابل برنامج الثني على علاج آلام أسفل الظهر الميكانيكية المزمنة.
Author : Mohamed Mahamoud El morsy.
Title : The effectiveness of mobilization in management of cervicogenic headache.
Supervisors : Enas Fawzy Youssef, Mohamed Mohamed Ibrahim, Khaled Hassan Mohamed.
Degree : Master.
Year : 2008.
Abstract :
The purpose of this study was to investigate the efficacy of mobilization in the management of cervicogenic headache in patients with chronic mechanical neck pain. Thirty male and female subjects participated in this study. Exercise group (15 patients) or a group (A) that received stretching and strengthen exercises for specific neck muscles. Mobilizing and exercise group (B) this group will consist of 15 patients who will receive low-velocity cervical joints mobilization techniques (in which the cervical segment is moved passively with rhythmical movement), accompanied with stretching and strengthen exercises for specific neck muscles for 12 sessions over four weeks period each other day. Each patient was evaluated pretreatment and one week post treatment. The results of this study showed that significant differences was found between both programs in headache intensity, frequency, neck right and left side bending and neck right and left rotation. No significant difference was found between both programs in headache duration, neck disability index and neck flexion and extension. The combination of exercises and mobilization of the cervical spine is more effective in the management of cervicogenic headache for the patients with chronic mechanical neck pain.

Key words : physical therapy, chronic neck pain, mobilization, cervicogenic headache, neck exercises.

Arabic Title Page : فاعلية التحريك اليدوي في علاج الصداع عنقي المنشأ.
Author : Mohamed Mokhtar Mostafa.
Title : Conservative Management of Mechanical Neck Pain: Systematic Review and Meta – Analysis.
Supervisors : Ahmed Hassan Hussien, Enas fawzy Youssef.
Degree : Master.
Year : 2008.
Abstract :
Neck pain is common musculoskeletal symptom. Effective management of this condition is vital, not only for the relief of symptoms of this condition but also more importantly, for prevention of recurrent episodes of cervical pain, personal suffering and lost work productivity. The purpose of this study was to assess the effectiveness of conservative management of mechanical neck pain and to determine which type of treatment is useful for management of this case. A search of computerized bibliographic databases covering medicine, physiotherapy, allied health, complementary medicine and biological science was undertaken from January 1990 until June 2007. Thirty-two studies met our inclusion criteria. Results of this review showed significant positive effect were reported in the trials of strengthening exercises with active intensive neck muscle training for mechanical neck pain. This review led us to conclude that studies support the long term positive effect of strengthening exercises with intensive active neck training for mechanical neck pain. In general, it was not possible to determine which techniques or dosage was more beneficial or if certain subgroups beneficial more from one form of care than another.
Key words : Mechanical neck pain, chronic neck pain, conservative management, systematic review, meta-analysis.

Arabic Title Page : العلاج التحفظي لحالات آلام الرقبة الميكانيكية: مراجعة منظمة وإستدلال إحصائي.
Author : Nagaty Abd El khalek El Sayed Sallam.

Title : Effect of aerobic exercises on patients with knee osteoarthritis.


Degree : Master.

Year : 2008.

Abstract:
The purpose of this study was to assess the effect of aerobic exercises on patients with knee osteoarthritis. Sixty patients, both males and females, with grade 2-3 OA according to Kellgren-Lawrence scores, were randomly selected and divided into two equal groups. The physiotherapy program was conducted three times a week for 8 weeks, for a total of 24 sessions. In both groups, a hot pack placed on the affected knee for 20 minutes followed by deep heating with ultrasound application for 5 minutes. Then, both groups performed the 4 strengthening exercises including: quadriceps setting exercise, supine lying quadriceps exercise, wall slide and resisted knee extension. The patients in group II after that, performed aerobic exercises in the form of walking on treadmill and cycling on stationary bicycle at an intensity equivalent to 60% to 80% of the maximum heart rate for 30 minutes. All patients in both groups were assessed before and after treatment by using WOMAC scale for pain severity, stiffness and functional disability. Results showed that there were significant improvement in pain severity, stiffness and physical disability in both groups. Comparison between both groups revealed a significant improvement regarding to stiffness and physical disability in favor of group II after treatment. It can be expected from the results that aerobic exercises are effective methods for reducing pain, stiffness and physical disability in patients with knee OA.

Key words : Aerobic Exercises- Knee OA- Pain- Stiffness- Physical Disability.

Arabic Title Page : تأثير التمرينات الهوائية على مرضى خشونة مفصل الركبة.
Abstract
Background: Chronic mechanical neck pain represents a great variety of conditions that causes inappropriate neck function. It is considered one of the most frequently treated and most costly diseases in modern societies. Purposes: To investigate the efficacy of low level laser therapy in chronic mechanical neck pain. Study design: patients were randomly assigned to two treatment groups. Materials and Methods: Thirty patients with chronic mechanical neck pain from both sexes were involved, aged between 18-40 years, they were divided into two equal groups. In group A, patients received low level laser therapy (LLLT) in addition to traditional physical therapy program in the form of infrared, isometric and stretching exercises. In group B, patients received the traditional physical therapy program in the form of infrared, isometric and stretching exercises. Treatment was done 3 times a week for 4 weeks. Neck pain, functional disability and range of motion were measured before and after treatment. Results: in LLLT group A, statistically significant improvements in neck pain, functional disability and range of motion while in group B, significant improvements were detected in neck pain, functional disability and no improvements in range of motion. Conclusion: LLLT proved to be beneficial in improving neck pain, functional disability and range of motion in patients with chronic mechanical neck pain.

Key words: chronic mechanical neck pain, low level laser therapy.

Arabic Title Page: فاعلية الليزر منخفض الشدة العلاجى في ألم الرقبة الميكانيكي الزمن.
Author : Rasha Ragab Ebrahim.
Title : The suggested physical therapy program post TMJ discectomy.
Degree : Master.
Year : 2008.
Abstract :
The purpose of this study was to suggest physical therapy program post TMJ discectomy and compare between the combined effects of the suggested physical therapy program post TMJ discectomy in addition to splint therapy versus the effect of the splint therapy only. Materials and methods: Thirty patients were assigned randomly divided into two equal groups (experimental group A and control group B). Subjects in the experimental group (n=15) received the suggested physical therapy program (Ice packs, active exercises, pulsed ultrasonic, stretching exercises, isometric exercise, stabilization exercises, myofascial release and gentle joint distraction plus superior repositioning splint). Treatment was done three sessions weekly for the first six weeks then twice weekly for the next six weeks for three months, and the subjects in the control group (n = 15) received superior repositioning splint only. Pain severity of TMJ, functional mobility (ROM of mandibular opening and lateral motion to right and to left) and chewing ability were measured after seven days post operative, after six weeks and after three months of treatment. Results: The results showed significant improvement in all parameters in both groups with favoring of experimental group compared with those at control group. Conclusion: The suggested physical therapy program and the splint therapy significantly improved TMJ ROM, chewing ability and reduced pain intensity post TMJ discectomy. But the suggested physical therapy program plus splint therapy were more effective than splint therapy only.
Key words : TMJ discectomy, physiotherapy, occlusal splints, Internal derangement, temporomandibular joint, TMJ surgery.

Arabic Title Page : برنامج العلاج الطبيعي المقتترح بعد إزالة غضروف مفصل الفك الصدغي.
Author : Shymaa Mohamed Zayed.
Title : Effect of electromyographic biofeedback in rehabilitation of anterior cruciate ligament reconstruction.
Supervisors : Salwa Fadel Abdelmajeed, Khaled Ayad, Hisham Musbah.
Degree : Master.
Year : 2008.
Abstract :
The purpose of this study was to investigate the effect of electromyographic biofeedback in rehabilitation of ACL reconstruction on knee pain severity, swelling, stiffness, range of motion and muscle strength. Subjects: Thirty patients with ACL reconstruction participated in this study. Methods: Patients age ranged from 20-40 years old. They were collected from Al Kasr El-Aini- Hospital and they done their operation of ACL reconstruction with Prof. Hisham Mousbah at Al Kasr El-Aini. They were their assessment pre-assessment and post assessment at Biodex laboratory at faculty of physical therapy. They were divided randomly into two equal groups: the first experimental group consist of 15 patients (n=15) with a mean age (29.4±3.77) years treated with biofeedback combined with rehabilitative exercise while the second experimental group consist of 15 patients (n=15) with a mean age (29.13±3.71) years treated with rehabilitative exercise. The results revealed that both groups (Rehabilitative group and Biofeedback group) had significant decrease in knee pain, swelling, stiffness, and significant increase in range of motion and muscle strength (P<0.05) but the rehabilitative exercise program was more effective when compared with biofeedback program. The rehabilitative exercise program should be an integral component in additional to biofeedback in treatment patients with ACL reconstruction.
Key words : Anterior Cruciate Ligament, Reconstruction, Biofeedback, Rehabilitation program.

Arabic Title Page : تأثير التغذية الرجعية الحيوية باستخدام جهاز رسم العضلات الكهربائي في تأهيل إعادة بناء الرباط الصلبامي الأمامي.
Author : Tamer Mohamed Shousha.
Title : Energy expenditure following rehabilitation of the reconstructed anterior cruciate ligament.
Degree : Master.
Year : 2008.
Abstract : The purpose of this study was first to assess the energy expenditure as an index to return to specific activities and second, to determine the net efficacy of the specific exercise program modified by (Ayad et al., 2001) following ACL reconstruction. A comparison was held between a group of 15 ACL reconstructed patients with a group of 15 normal athletes. Both receiving an accelerated rehabilitation program combined with proprioceptive training. Treatment out comes were determined from: 1) Oxygen rate (VO₂ rate) 2) Energy expenditure (EE), 3) Energy expenditure index (EEI) and 4) respiratory exchange ratio (RER). During walking at speed of 3.5 Km/hr. before rehabilitation and 3.5 Km/hr. and 5 km/hr. following rehabilitation. The results showed statistically significant difference following rehabilitation within both groups. While no significant difference was found between both groups. Thus it was concluded that energy expenditure is a useful tool in assessing improvement following rehabilitation besides, it can be used to determine when to return to previous sport activities.
Key words : Knee, Ligament, ACL, Energy expenditure, gait adaptations, Respiratory exchange ratio, oxygen.
Arabic Title Page : الطاقة المستهلكة بعد تأهيل الرباط الصليبي الأمامي الذي أعيد بناءه.
Physical Therapy
Department of Surgery
Author : Ahmed Mamdoh Mohamed Abdel Kader.

Title : Efficacy of laser versus ozone therapy on chronic ulcerations of lower limb.

Dept. : Physical Therapy Department for Surgery.

Supervisors : Zakaria Mowafy Emam Mowafy, Mohamed Nabil Mawsouf, Mohamed Taher Ahmed.

Degree : Master.

Year : 2008.

Abstract:
Purpose: to evaluate the efficacy of laser versus ozone therapy on chronic ulcerations of lower limb. Methods of evaluation (wound surface area, wound volume measurement, ulcer perimeter healing improvement% and ulcer volume healing improvement%). Methods: Forty-five (27 males and 18 females) patients with ischaemic chronic ulcerations and limited or incipient skin necrosis due to oblitative atherosclerosis affecting the lower limbs were randomly divided into three group. Group (A) received the laser .Group (B) received ozone therapy , duration of treatment was 15 minutes, two months. Both groups received also the traditional treatment. Group (C) (Control group) received only the traditional treatment. Results: The result showed that ozone is more beneficial in decreasing ulcer surface area and volume as well as increasing ulcer perimeter and volume healing improvement% than the laser. Conclusion: Both ozone (to greater extent) and laser (to lesser extent) were effective in accelerating healing of the lower limb chronic ulcerations.

Key words : Laser, ozone, lower limb chronic ulcerations.

Arabic Title Page : فاعلية الليزر مقابل العلاج بالاوزون على التقرحات المزمنة بالطرف السفلي.
Author : Amr Bayoumi Salama.
Title : The Effect of Exercise Program Intervention for Children with Acute Lymphoblastic Leukemia.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2008.
Abstract : Purpose: The purpose was to investigate the effect of a 12 weeks supervised conditioning program including both resistance and aerobic training on measures of aerobic fitness, muscular strength, and cancer related fatigue in children receiving treatment for acute lymphoblastic leukemia (ALL). Subject: Forty children in the maintenance phase of treatment against ALL selected from National Cancer Institute aged 6:12 years were randomly assigned to exercise and control group. Procedures: The children of exercise group performed three sessions per week for 12 weeks of resistance and aerobic training while control had no any exercise intervention. Before and after training a treadmill test determining VO2peak, muscle strength of upper and lower limb by hand held dynamometry, and level of fatigue by Iowa fatigue scale were assessed. Results: After training significant increases in VO2peak, upper- and lower muscle strength with significant decrease in fatigue level were shown in the exercise group but no significant change in control group. Conclusion: young children in the maintenance phase of treatment against ALL can safely perform both aerobic and resistance training. Training results in significant increase in measures of aerobic fitness and strength with decrease in fatigue.
Key words : ALL, Aerobic training, Resistance exercise, Physical fitness, Muscle strength, Fatigue.
Arabic Title Page : تأثير التدخل ببرنامج تمرينات على الأطفال المصابين بسرطان الدم الليمفاوي الحاد.
Author                    : Asmaa Fawzi El Sayed.
Title                      : Efficacy of two different pulsed electromagnetic field therapy programmes on diabetic foot ulcers.
Dept.                      : Physical Therapy Department for Surgery.
Degree                     : Master.
Year                       : 2008.
Abstract
Purpose: to evaluate the efficacy of the pulsed electromagnetic field therapy on acceleration of diabetic foot ulcers. Methods of evaluation (wound surface area and ulcer volume). Methods:- Forty-five male patients with type II diabetes mellitus and all suffering from unilateral grade II (Full thickness) diabetic foot ulcer were randomly divided into three group. Group A the first programme of the pulsed electromagnetic field therapy. Group B the second programme of the pulsed electromagnetic field therapy, duration of treatment of 20 minutes, three months. Both group recived medical care and traditional physical therapy. Group C (Control group) they received only medical care and traditional physical therapy. Results:- The result showed the second program of PEMFT in more beneficial in decreasing ulcer surface area and ulcer volume measurement and improving healing of the diabetic foot ulcers than the first program of PEMFT. Conclusion:- both the first programme and the second programme of pulsed electromagnetic field therapy were effective in accelerating ulcer healing in diabetic foot ulcers.

Key words                   : Diabetes Pulsed Electromagnetic Field Therapy, Wound Surface Area And Ulcer Volume.

Arabic Title Page                      : تأثير برنامجين مختلفين للعلاج بالمجال الكهرومغناطيسي المتقطع على قـرح القدم السكرية.
Author : Ayman Mohamed El Metwaly.
Title : The effect of pulsed electromagnetic field on motor conduction velocity in peripheral burn neuropathy.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Zakaria Mowafy Emam Mowafy, Ann Abd El Kader.
Degree : Master.
Year : 2008.
Abstract:
Purpose: to determine the effect of pulsed electromagnetic field on motor conduction velocity in peripheral burn neuropathy. Methods of evaluation: (Measurement of the common peroneal nerve motor conduction velocity). Methods: 30 male and female patients with peripheral burn neuropathy of the common peroneal nerve were divided into two groups. Group (A) received the true pulsed electromagnetic field therapy and routine physical therapy. Group (B) received the false pulsed electromagnetic field therapy and the same routine physical therapy, duration of treatment was 20 minutes daily for 3 weeks as a total period of treatment. Results: Result showed that the pulsed electromagnetic field therapy was effective and beneficial in increasing the motor conduction velocity of the neuropathic common peroneal nerve. Conclusion: pulsed electromagnetic field therapy is advantageous and fruitful in peripheral burn neuropathy via its depressor effects in decreasing the dominant sympathetic tone in burned patients, decreasing the reflex muscle spasm, increasing the peripheral circulation, decreasing oedema and inflammation, relieving the compressive ischaemic pain and improving the nerve functions.
Key words : Pulse electromagnetic field therapy, peripheral neuropathy, Burn, and electrodiagnosis.
Arabic Title Page : علاقة العلاج بالمجالي الكهرومغناطيسي النابض بسرعة توصيل الأعصاب الطرفية المعتدلة لمرضى الحروق.
Prepared by Nerveen Abd El Salam Abd El Kader Ahmed

Author : Emad Makram Ghattas.
Title : Comparative study between mesotherapy and aerobic exercises in treatment of outer female thigh adiposity.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Wafaa Hessien Borhan, Ashraf El-Sebaie Mohammed, Emad Makram Ghttas.
Degree : Master.
Year : 2008.
Abstract :
Purpose: to evaluate the efficacy of the aerobic exercises and mesotherapy on the localized adipose tissue in the female's outer area of thigh. Methods of evaluation (Measurement of the thigh circumference, thigh skin fold, ultrasonographic depth of the fatty pad, photographic analysis of the fatty pad size,and the plasma catecholamines level).
Methods:- 40 female patients with localized adipose tissue in the outer area of their thighs, were divided into two groups. Group (A) received aerobic exercises training .Group (B) received mesotherapy application, duration of treatment was 45 minutes , every other day for the aerobic training, while mesotherapy was repeated every two weeks for 2 months as a total period of treatment. Results:- Result showed that both aerobic exercises training and mesotherapy were effective, but aerobic exercises training was more fruitful and beneficial in decreasing the localized adiposity.
Conclusion: - both were effective in decreasing the localized adiposity, but aerobic exercises are more advantageous.
Key words : Aerobic exercises, Mesotherapy, Catecholamines, Photographic analysis, Ultrasonography.

Arabic Title Page :
دراسة مقارنة بين الميزوثيرابي والتمرينات الهوائية في علاج السمنة الموضعية في منطقة الفخذ الخارجية للسيدات.

Author : Khadra Mohamed Ali.
Title: Effects of microcurrent stimulation versus pulsed electromagnetic field on wound healing in burned patients.

Dept.: Physical Therapy Department for Surgery.

Supervisors: Wafaa Hussin Borhan, Salah El Din Abd AlGhany, Amal Mohamed Abd Elbaky.

Degree: Master.

Year: 2008.

Abstract:

Purpose: The purpose of the current study was to evaluate the efficacy of the pulsed electromagnetic field therapy versus microcurrent electrical stimulation on burned wounds healing by using wound surface area (WSA), maximum wound length (MWL), and duration of healing.

Methods: Forty-five patients with dermal burn injuries on the forearm were arranged in the present study randomly divided into three equal groups. The first group received pulsed electrical magnetic field. The second group was treated with microcurrent electrical stimulation and the third group (control) received only traditional physical therapy program.

Assessment: The WSA and MWL had been measured 48 hours after burn injury (Pre), after 14 days Post (1), and after one month Post (2) from the beginning of treatment for all groups. For Group A (Pulsed electromagnetic field Group), the PEMF was set for the treatment with power supply: 230v/50 Hz, with total duration of treatment of 20 minutes, per day for four weeks. For group B (Micro amperage Group), the treatment was set at constant current of 50% of duty cycle, at 0.3 Hz with modified square biphasic pulsed waveform and intensity of 600 microamperes with duration 45 min.

Results: The results showed that there was highly significant decrease in WSA, maximum length and duration of healing in MENS group and PEMF group as compared with the control group. In relation to WSA and MWL the study revealed that the results obtained in Group A were superior to that of Group B but no significant difference after 14 days, on the other hand was reported after one month group B was superior to that of group A but no significant difference.

Conclusion: It was concluded that both pulsed electromagnetic field and micro amperage electrical stimulation were effective in accelerating wound healing.

Key words: Burn, Pulsed Electromagnetic, Micro Amperage Electrical Stimulation, Wound Healing.
Author: Mahmoud Ibrahim Naser Bolbol.
Title: Effects of laser puncture versus microcurrent stimulation on prostatodynia and pelvic myoneuropathy.
Dept.: Physical Therapy Department for Surgery.
Supervisors: Zakaria Mowafy Emam Mowafy, Ahmed Abd Alateef Moharum.
Degree: Master.
Year: 2008.

Abstract:
Purpose: to evaluate the efficacy of the laser puncture and the microcurrent stimulation on prostatodynia and pelvic myoneuropathy. Methods of evaluation (Measurement of the serum cortisol level and the prostatitis symptom severity index). Methods:- 45 male patients with prostatodynia and pelvic myoneuropathy, were divided into three groups. Group (A) received the laser puncture plus the traditional physical therapy. Group (B) received the microcurrent stimulation plus the traditional physical therapy. Group (C) received the traditional physical therapy only, duration of treatment was 15 minutes, 3 times weekly for 3 months as a total period of treatment. Results:- Result showed that both the laser puncture and the microcurrent stimulation were effective, but the microcurrent application was more fruitful and beneficial in decreasing the prostatodynia and pelvic myoneuropathy. Conclusion:- both were effective in decreasing the prostatodynia and pelvic myoneuropathy, but microcurrent application is more advantageous.

Key words: Microcurrent, prostatodynia, pelvic myoneuropathy, serum cortisol level, prostatitis symptom severity index, Laser.

Arabic Title Page: تأثيرات البوخز بالليزر مقابل التنبيه الكهربائي الدقيق على آلام البروستاتا و الاعتلال العصبي العضلي للحوض.
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<th>Author</th>
<th>Marwa Hamed Abd El Aziz Emara.</th>
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<td>Title</td>
<td>Pulsed Electromagnetic field therapy efficacy on genitofemoral and ilioinguinal postoperative neuralgia.</td>
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<td>Dept.</td>
<td>Physical Therapy Department for Surgery.</td>
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<td>Supervisors</td>
<td>Zakaria Mowafy Emam Mowafy, Ahmed Sherif Kareem.</td>
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<td>Abstract</td>
<td>Purpose: to evaluate the efficacy of the thoracolumbar pulsed electromagnetic field therapy and the local inguinal pulsed electromagnetic field therapy on the genitofemoral and ilioinguinal postoperative neuralgia. Methods of evaluation (Measurement of the serum cortisol level and the etodolac intake ). Methods:- 40 patients with postoperative genitofemoral and ilioinguinal neuralgia, were divided into two groups. Group (A) received the thoracolumbar pulsed electromagnetic field therapy .Group (B) received the local inguinal pulsed electromagnetic field therapy, duration of treatment was 20 minutes , every other day for the 3 months as a total period of treatment. Results:- Result showed that both the thoracolumbar and local inguinal pulsed electromagnetic field therapies were effective, but the thoracolumbar application was more fruitful and beneficial in decreasing the genitofemoral and ilioinguinal postoperative neuralgia. Conclusion: - both were effective in decreasing the postoperative genitofemoral and ilioinguinal neuralgia, but thoracolumbar application is more advantageous due to its depressor effects on the dominant sympathetic tone in such painful conditions.</td>
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<tr>
<td>Key words</td>
<td>pulsed electromagnetic field therapy, genitofemoral, ilioinguinal postoperative neuralgia, serum cortisol level, etodolac intake.</td>
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**Arabic Title Page :** فعالية العلاج بالمجال الكهرومغناطيسي النابض على آلام العصب الفخذي التناسلي والأربي الحرقفي بعد الجراحة.
Author : Meriam Fahmy Kelada.

Title : Selected physical therapy program versus abdominoplasty for the treatment of abdominal wall weakness and fat accumulation.

Dept. : Physical Therapy Department for Surgery.

Supervisors : Zakaria Mowafy Emam Mowafy, Ahmad Sherif Kareem, Amal Mohamed Abd El Baky.

Degree : Master.

Year : 2008.

Abstract :
Purposes: this study was designed to determine the efficacy of physical therapy in improving the abdominal muscles strength and reducing fat accumulation in the lax abdominal muscles and excess skin fat, as well as to tighten the abdominal wall muscles by Comparing between surgical abdominoplasty (Tummy Tuck) and non surgical (Physical therapy program). Methods: forty female patients were selected from the waiting list for abdominoplasty and diagnosed as needed surgical abdominoplasty, grouped randomly to two groups. Group A: (Non-Surgical group) composed of 20 persons who received physical therapy program (exercise and NMES) to abdominal muscles (Non-Surgical group). Group B: (Surgical group) 20 persons who undergo surgical operation (Tummy Tuck). Data regarding patient age, pre and post intervention weight, height, BMI, EMG, and abdominal circumference (umbilical and inter-tubercle levels) were calculated. Results: The results demonstrated non significant differences in age, body mass index, abdominal circumference and electromyography (EMG) before starting study. There is a great significant change in EMG in (P<0.0001) non-surgical group and conversely significant decrease in EMG in surgical group (P<0.05), and highly significant difference decrease (P<0.0001) in abdominal skin fold between two groups, and also Abdominal circumference at two levels (Umbilical and inter-tubercle) were statistically significant, where it was found that by comparing between two groups there is decrease at umbilical level in two groups but highly significantly in non-surgical group (P <0.0001), but was statistically significant change in surgical group at level of inter-tubercle(P<0.0001). Conclusion: the findings of this study showed that physiotherapy has many benefits than surgical treatment in lax abdomen and fat accumulation because physiotherapy is more beneficial in increasing muscle power and decreasing abdominal contour as well as abdominal fat accumulation, also surgical treatment has a decrease effect in abdominal musculature, and the only benefit is the decrease in abdominal fat at level of umbilicus.

Key words : Abdominoplasty, Tummy Tuck, exercise, EMG, NMES.

Arabic Title Page : برنامج العلاج الطبيعي المختار مقابل جراحه البطن التقويمية لإصلاح ضعف عضلات جدار البطن و تراكم الدهون.
Author : Rania Mostasfa Kamal.
Title : The efficacy of pulsed versus continuous ultrasound in acceleration of the venous ulcer healing.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2008.
Abstract : Purpose: to evaluate the efficacy of the pulsed versus continuous ultrasound in accelerating of the venous ulcers healing. Methods of evaluation (wound surface area and colony count). Methods:- Forty-five (27 males and 18 females) patients with leg venous ulcers were randomly divided into three group. Group (A) received the pulsed ultrasound. Group (B) received the continuous ultrasound , duration of treatment was 10 minutes, two months. Both groups received also the conservative ulcer care .Group (C) (Control group) received only the conservative ulcer care. Results:- The result showed that the pulsed ultrasound is more beneficial in decreasing ulcer surface area and colony count as well as improving healing of the venous ulcers than the continuous ultrasound. Conclusion: - both the pulsed (to greater extent) and the continuous ultrasound (to lesser extent) were effective in accelerating ulcer healing in venous ulcers.
Key words : Ultrasound, Venous ulcerations, wound surface area, Colony count.
Arabic Title Page : فعالية الموجات فوق الصوتية الناخبة مقابل المستمرة في تعجيل التئام الفرخ الوريدية.
Author : Samia Ahmed Youssef.
Title : Flow-oriented incentive spirometer versus Volume-oriented spirometer training on pulmonary ventilation after upper abdominal surgery.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Adel Abdel Hamid Nossier, Ashraf Mohamed Mohsen.
Degree : Master.
Year : 2008.
Abstract : This study was designed to evaluate the efficacy of two various methods in the management of upper abdominal surgery to improve respiratory capacity and to control postoperative pulmonary complications. This study was conducted on forty–five female patients who have had upper abdominal surgery in the department of general surgery in EL Mataria Teaching Hospital, their age ranged between 20 to 50 years, patients were randomly assigned into three equal groups: group A (flow–oriented incentive spirometer group) received triflo training program, group B (volume–oriented incentive spirometer group) received coach training program and group C (Traditional chest physical therapy program). Spirometry measures in form of FVC and FEV₁ were taken for all three groups preoperative, at the 1st and at the 7th day postoperatively, the results of the current study revealed a significant improvement in FVC and FEV₁, at the 7th day postoperatively in the three groups of the study, the highest percentage of improvement in the both respiratory variables was seen in groups which received volume–oriented incentive spirometer training program.
Key words : Upper Abdominal surgery, incentive spirometer, pulmonary responses.

Arabic Title Page : التدريب باستخدام القياس الرئوي الحافز التدفقي مقابل القياس الحجمي على التهوية الرئوية بعد عمليات البطن العلوي.
Author : Walid Mohamed El-sayed Mohamed.
Title : Role of mechanical strengthening exercises on hand grip following dorsal skin graft.
Dept. : Physical Therapy Department for Surgery.
Degree : Master.
Year : 2008.
Abstract :
The purpose of the study is to investigate the efficacy of mechanical strengthening exercises on hand grip strength following early excision and graft of dorsal hand burn. Subjects: forty male patients with age 20-40 had early excision and graft of dorsal hand burn due to thermal agent was included in the current study. They were recruited from burn unit of El-kasr El-Aini Hospital, Cairo, Egypt. They were randomly divided into two equal groups: Group (A); who consisted of 20 patients received traditional physical therapy program (positioning, splinting, ultrasonic waves, passive, active assisted, active range of motion exercises and moderately resisted exercises) and Group (B); who consisted of 20 patients received mechanical strengthening exercises in addition to the same traditional physical therapy program. All patients were underwent same medical, nursing and wound care management. dynamometer was used to measure hand grip strength. Measurements were made after three weeks of skin graft operation and after seven weeks of skin graft operation. Results: There were statistical significant difference in both groups but it was observed that all results concerning grip strength in the experimental group (group B) had greater statistical significance improvement than the results concerning the same results of control group (group A). It was concluded that mechanical strengthening exercises might be considered as a useful therapeutic tool in the management of post operative reconstruction of hand burn (skin graft) with the traditional physical therapy program than traditional physical therapy alone.
Key words : Hand held dynamometer, Thermal burn, Skin graft, Grip strength, Mechanical strengthening exercises, Physical therapy.
Arabic Title Page : دور تمريينات التقوية الميكانيكية على قبضة اليد تبعا لترقيق جلد ظاهر اليد.
Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery
Author : Ahmed Metwally El-Shinnawy.
Title : Moment changes of lower limb during gait in stroke patients.
Degree : Master.
Year : 2008.
Abstract : The purpose of this study was to evaluate moment changes during gait in stroke patients (affected and none affected side) and compare them with normal subjects. Twenty stroke patients and ten normal subjects were assigned into two groups. This work studied kinetic quantities of human gait, by calculating moment of hip extensor, adductor, internal rotators, knee extension and ankle planter flexion both in normal and stroke. This study revealed highly statistically significant difference of analysis of variance with increased moment of stroke patients than normal subjects and of affected side of stroke patients was higher than none affected side. Moment could be considered as a method for assessment and follow up.
Key words : Stroke, Moment.
Arabic Title Page : تغيرات العزم في الطرف السفلي أثناء المشي في مرضى السكتة الدماغية.
Author : Kareem Mohamed Kamel Ghonaim.
Title : Influence of the severity of lumbar discogenic lesion on kinematic gait parameters.
Supervisors : Nahed Ahmad Salem, Usama Mohammad Rashad, Hassan Esmail EL Shafi.
Degree : Master.
Year : 2008.

Abstract:
 Purposes: This study was conducted to investigate the effects of lumbar discogenic lesion on kinematic parameters of gait and difference between gait kinematic parameters in normal subjects and patients with the different degrees of L4-L5 lumbar discogenic lesion. Materials and methods: Forty five subjects "males only" were involved, aged between 30-45 years; they were divided into three equal groups. Group (A) normal subjects, group (B) patients with L4-5 lumbar disc prolapse with sensory manifestations and group (C) patients with L4-5 lumbar disc prolapse with sensory and motor manifestations. 3-D motion analysis lab was used to measure the kinematics gait parameters of the lower extremities of hip, ankle joints and stride length and cadence were measured for all groups.

Results: There were significant differences among the three groups in hip motion at frontal plane (abduction and adduction) at the midstance. And ankle motion at sagittal (dorsiflexion and planter flexion) plane at the midswing, with the lowest mean value was in patients with motor affection in both. However there was no significant difference between patients with sensory affection and normal subjects, in hip motion at frontal plane (abduction and adduction) at the midstance and in ankle motion at sagittal (dorsiflexion and planter flexion) plane at the midswing. Also, there was a significant difference among the three groups for both stride length and cadence measurements. The lowest mean value was in patients with motor affection. And also, there was a significant decrease in mean value in patients with sensory affection compared with normal subjects.

Discussion and Conclusion: There was significant difference in angular kinematics at hip & ankle joints, stride length and cadence between patients with lumbar discogenic lesion and normal subjects. The significant differences of results of this study were clearly appeared between normal subjects and patients with motor affection. On conclusion, lumbar discogenic lesion can change the kinematics parameters of the gait.

Key words : kinematics, lumbar disc prolapse, gait parameters.

Arabic Title Page : تأثير شدة إصابة الغضروف القطني على القياسات الكينماتيكية للمشي.
Author: Mahmoud Yassin Elzanaty.

Title: Influence of Ankle Training Program on Dynamic Balance in Patients with Diabetic Peripheral Neuropathy.


Supervisors: Moshera H. Darwish, Mona M. Abd Elmonem Nada, Enas Elsayed.

Degree: Master.

Year: 2008.

Abstract:
Background: The purpose of this study was to determine the influence of the training program to ankle region on dynamic balance in thirty females diabetic peripheral neuropathy patients. In addition, to investigate the validity of using multi-directional reach test as a tool in assess dynamic balance. The patients were assigned randomly into two equal groups (GI & GII). The patients in the control group received selected balance exercise whereas, the patients in the study group received selected balance exercise in addition to a design program directed mainly to ankle muscles from different positions. The following parameter including rhythmic weight shift test and tandem walk test through Computerized Posturography Device and Clinically by Multi-Direction Reach Test.

Results: There was significant differences between both groups at all different testes. While in forward-backward direction of rhythmic weight shift there was no significant difference at slow speed and also in end-sway of tandem walk test. There was significant differences between both groups in four reach directions of Multi-Direction Reach Test.

Conclusion: The suggested ankle training is effective in treatment of balance disturbance and consequently could decrease risk of fall in diabetic peripheral neuropathy patients. The multi-directional reach test is a valid and inexpensive tool in assesses dynamic balance.

Key words: Diabetic Peripheral Neuropathy, Dynamic Balance, Computerized Posturography Device, Multi-Direction Reach Test.

Arabic Title Page: تأثير برنامج تدريبي للكاحل على الالتباس الحركي في مرضى إلتهاب الأعصاب الطرفية السكري.
Author: Moataz Mohamed Talaat El Semary.

Title: Biomechanical Analysis of Sit-To-Walk Movement in Parkinson’s Patients.

Dept.: Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.


Degree: Master.

Year: 2008.

Abstract:
The aim of this study was to evaluate the ankle-knee-hip interaction during sit-to-walk (STW) movement and clinical functional abilities of the lower limbs in Parkinson’s patients. Methods: Twenty male patients, ages ranged from 55 to 70 years, stage II & III according to modified Hoehn and Yahr (1997) classification of disabilities and ten male healthy elderly subjects, ages ranged from 55 to 70 years, participated in this study. All subjects were assessed for; clinical functional abilities of the lower limbs, ground reaction force (GRF) & spatiotemporal data and range of motion (ROM) of hip, knee and ankle joints during STW movement. The results showed very significant differences in the GRF among the normal subjects and Parkinson’s patients during STW movement. There was significant differences in hip, knee and ankle joints ROM during STW. There was significant differences in spatiotemporal findings during STW movement. The Parkinson's disease patients did not merge the two tasks of STW while the elderly subjects merged it. There was an impairment in clinical functional abilities of the lower limbs in Parkinson’s patients. Conclusion: A continuum of STW performance and clinical functional abilities whereby the healthy elderly people performed the task more efficiently than PD patients.

Key words: Parkinson's disease, GRF, 3-D motion analysis, joints interaction, STW, Spatiotemporal parameters.

Arabic Title Page: التحليل الميكانيكي الحيوي للحركة من الجلوس حتى المشي في مرضى الشلل الرعاش.
Author : Shimaa Abdelalim Mahmoud.

Title : Efficacy of ultrasound Conduction velocity in peripheral diabetic neuropathy.


Degree : Master.

Year : 2008.

Abstract:

Background: Peripheral diabetic neuropathy is reported to be a major health problem worldwide. Purpose: To investigate the ultrasound efficacy in peripheral diabetic neuropathy. Study Design: A pre and post test design. Materials and methods: Thirty patients with peripheral diabetic neuropathy from both sexes were involved, aged between (45-65) years. They were randomly divided into two equal groups, fifteen patients each. Patients in the first group received hypoglycemic drugs in addition to placebo ultrasound treatment (control group). Patients in the second group hypoglycemic drugs in addition to a therapeutic ultrasound treatment (study group). Treatment sessions were done three times per week for seven weeks. Electrophysiological studies for (Peroneal & Sural nerves) and pain assessment were performed bilaterally before and after treatment. Results: there were significant differences (P< 0.05) between the two groups in sensory and motor (increased conduction velocity, decreased distal latency and increased amplitude), and in reduction of neuropathic pain. Conclusion: ultrasound therapy proved to be beneficial in improving nerve functions (increased conduction velocity, amplitude and decreased distal latency), and neuropathic pain control in patients with symmetrical peripheral diabetic neuropathy.

Key words : Diabetic neuropathy, Ultrasound therapy, Conduction studies.

Arabic Title Page : تأثير إذابة الدهون كهربياً مقابل الميتاكورمين في علاج متلازمة تكيسات المبايض.
Title : Effect of a Cognitive Task on Voluntary Step Execution in Stroke Patients.


Supervisors : Nawal Abd El Raouf Abu Shady, Sadek Mohamed Helmy, Waleed Talat Mansour.

Degree : Master.

Year : 2008.

Abstract: Background: During everyday locomotion, one may often be required to quickly initiate a step to avoid potentially threatening situations such as collisions, obstacles, and falls. Objectives: To investigate voluntary step execution of stroke patients during single and dual task conditions and to compare it with those of older adult subjects. Methods: Fifteen stroke patients (study group) and fifteen healthy older adults (control group) from both sexes participated in this study. The age ranged from 50 to 60 years for both groups. Rapid forward voluntary stepping was performed as a reaction time task while standing on a force platform and (1) awaiting a cutaneous cue (single task) and (2) awaiting a cutaneous cue while performing an attention-demanding Strop task (dual task).The step initiation phase, preparatory and swing phases were extracted from ground reaction force data. Results: Stroke patients were significantly longer than healthy older adults in all step parameters duration during dual task condition, particularly step initiation phase duration. Conclusion: The significant increase in step initiation time during the dual task in stroke patients suggests that they lacked sufficient attentional capacity to divide attention between a voluntary postural task and a cognitive task or their capacity was limited by slowness of information processing speed.

Key words : Stroke, Attention, Strop task, Force platform.

Arabic Title Page : تأثير المهمة الإدراكية على التنفيذ الإرادي للخطوة في مرضى السكتة الدماغية.
Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery
Author : Amira Hussein Hussein Mohamed.
Title : Instantaneous Effect of Prolonged Stretch on Monosynaptic Excitability in Hemiplegic Cerebral Palsied Children.
Degree : Master.
Year : 2008.
Abstract :
The purpose of this study was to evaluate changes of motor neuron excitability and to clarify the instantaneous effect resulting from consequent repetitive sessions of passive stretching applied to the planter flexor muscles of spastic hemiplegic cerebral palsied children. Twenty children of spastic hemiplegic cerebral palsied aged from 4 to 6 years participated in this study. All children participated in this study as a one group. Their degree of spasticity ranged from 1 to 2 according to Modified Ashworth scale. All children were subjected to measure the ratio of Huffman reflex to myotatic reflex (H/M ratio) using computerized electromyographic (EMG) apparatus. The measurement procedure (H/M ratio) was measured from triceps soleus muscle. This measurement was done before and after applying stretching. The after stretching measurements include the first measurement after 30 min of stretching, the second measurement after one hour of stretching, and the third measurement after two hour of stretching. The stretching was applied through using Knee-ankle foot orthoses. The results of this study revealed a significant H/M ratios reduction. The results also showed a significant increasing in the H/M ratios reduction with increasing the time of stretching. From the obtained results it can be concluded that the prolonged stretch had an instantaneous reductive effect on motor neuron excitability and this effect increased by increasing the time of stretch.

Key words : Spastic cerebral palsy, motor neuron excitability, prolonged stretch and H/M ratio.

Arabic Title Page : التأثير الحمضي للشد على التشنج العضلي في حالات الفالج الشقى عند الأطفال.
Author : Amira Mahmoud Abd El-Kader.
Title : Static and Dynamic Plantar Pressure Measurement in Hemiparetic Children in Relation to Normal.
Supervisors : Faten Hassan Abd El-Azeim, Yehia Nour El-Din Tarraf.
Degree : Master.
Year : 2008.
Abstract :
The purpose of this study was to evaluate the plantar pressure distribution of hemiparetic children and compare it with normal children. Sixty-five children aged between 4 and 6 years old participated in this study. They were classified into two groups, group A contain 50 hemiparetic children and group B contain 15 normal children and the static and dynamic plantar pressure distribution was measured for both group using Foot Scan Plate System. The results of this study revealed that there is a significant differences between plantar pressure distribution in the affected foot and normal foot, also the unaffected foot show a significant differences from the normal foot distribution. When compare plantar pressure distribution of both the affected and unaffected foot there were significant increase in the unaffected foot. This abnormal plantar pressure distribution is a compensatory mechanism to the affected foot pathology.
Key words : Cerebral Palsy, Hemiplegia, Foot pressure.

Arabic Title Page : قياس الضغط الأخمصى السكونى والديناميكي عند الأطفال المصابين بالفائج الشفي مقارنة بالأصحاء.
Author : Amira Mahmoud Abd ELMonem Eid.
Title : Effect of low intensity low frequency pulsed magnetic field on the bone density in spastic diplegic children.
Supervisors : Emam Hassan Elnegamy, Rokaya Abd Elshafy Soliman.
Degree : Master.
Year : 2008.
Abstract :
The purpose of this study was to investigate the effect of low intensity low frequency pulsed magnetic field on bone density in spastic diplegic children. Twenty children with age ranged from 2 to 4 years, >10 months according to Denver Developmental Screening Test participated in this study, divided randomly into two groups of equal numbers (A&B). Dual Energy X-ray Absorptiometry device was used to measure bone density before and after three months for both groups, group A received a specially designed exercise program, while group B received low intensity low frequency pulsed magnetic field in addition to same program given to group A. Results: revealed significant improvement in bone density in both groups (P<0.05) when comparing pre and post-treatment results but in favoring to group B.

Key words : Low Intensity Low Frequency Pulsed Magnetic Fields, Bone Density, Spasitic Diplegia.

Arabic Title Page : تأثير المجال المغناطيسي المنخفض التردد و الشدة على كثافة العظام عند الأطفال المصابين بالشلل التقلصي المزدوج.
Author: Dalia Mohamed Abd El Wahab Mohamed El Baz.

Title: Posterior Selective Rhizotomy in Management of Children with Spastic Cerebral Palsy: Systematic Review.


Degree: Master.

Year: 2008.

Abstract:
Children with spastic cerebral palsy (CP) experience substantial disability which is attributed to their spasticity. Spasticity is the result of decreased inhibition from multiple upper motor neuron and interneuron inputs and possible increased excitability of alpha motor neurons. Sensory afferents from muscle which are thought to provide the primary input for the stretch reflex have a predominantly excitatory effect on alpha motor neurons. Selective posterior rhizotomy (SPR) has become a commonly used treatment to reduce spasticity and improve function. There is general agreement that SPR results in acute and often dramatic decreases in clinical spasticity in the lower extremities of children with spastic CP. Corresponding changes in deep tendon reflexes, clonus, and other manifestations of upper motor neuron injury have been documented.

Key words: Cerebral palsy, selective posterior rhizotomy, spastic diplegia, physical therapy.

Arabic Title Page: شق الجذر الخلفي الإنتقائي لعلاج الأطفال ذوى الشلل الدماغي التقلصي: فحص منهجي.
Title: Effect of gravity force stimulation program on spinal curvatures in spastic hemiplegic palsied children.


Supervisors: Kamal Al Sayed Shoukry, Manal Salah El Dein Abd Al Wahab, Ehab Ragaa Abd Al Raof.

Degree: Master.

Year: 2008.

Abstract:
The purpose of this study was to determine the effect of gravity force stimulation program on spinal curvatures in spastic hemiplegic children. The study was conducted in the outpatient clinic of physical therapy faculty, Cairo University. Thirty hemiplegic palsied children participated in this study of both sexes ranging age from four to six years. They were divided into two groups equal in number; control and study groups (A and B) respectively, the control group received traditional physical therapy program and the study group received the same program plus standing and walking with less possible external support while wearing a 10 mm lift on the shoe of the unaffected lower limb. Both groups were subjected to the same evaluation procedure using for metric II to assess their spinal geometry before and after three successive months of treatment. The post treatment mean values for both groups revealed a statistically significant difference. In addition, the post treatment results indicated a significant difference in favor to the study group.

Key words: Gravity, spinal curvature, hemiplegia.

Arabic Title Page: تأثير برنامج تنبيه بقوة الجاذبية على الانحناءات الفقرية عند الأطفال المصابين بالشلل الشمالي.

Author: Engi Ahmed Gamal El-Din.
Title : Effect of continuous passive movement on mechanical back pain in young female with idiopathic scoliosis.


Degree : Master.

Year : 2008.

Abstract :
The purpose of this study was to determine the effect of continuous passive movement on mechanical back pain in young female with idiopathic scoliosis. Thirty idiopathic scoliotic children ranged in age from twelve to fourteen years participated in this study. They were classified randomly into two groups of equal numbers (control and study). A scoliometer for measuring differences in pelvic, level of pain, straight leg raising (degrees) and Cobb's angle (degrees) for measurement of scoliosis were used for both groups, before and after three months of application of the treatment programs. The control group received a specially designed physical therapy program while the study group received the same program given to the control group in addition to continuous passive movement. The pre treatment results revealed no significant differences in the parameters used for evaluation between the two groups. Comparing the pre and post-treatment mean values of the measuring variables of the two groups revealed significant improvement. However, comparing the post treatment results of the two groups revealed no significant difference.

Key words : Idiopathic Scoliosis, Spinal Column, Continuous Passive Movement.

Arabic Title Page : تأثير الحركة السالية المستمرة على الأم الظهر لدى الأطفال المصابين بالجنف.
Author : Georgina Ageeb.
Title : Efficacy of Constraint Induced Therapy on the Unaffected side on the Upper Extremity Function in Hemiplegic Children.
Supervisors : Amira Mohamed, Manal salah, Marian yossry, Georgina Ageeb.
Degree : Master.
Year : 2008.
Abstract :
Background & Purpose: There is some question as to the efficacy of current physical therapy treatment approaches to hemiplegic cerebral palsy. Until recently, few major theoretical or therapeutic advances were available to provide a basis for the development of new interventions for children with hemiplegia. The purpose of this study was to establish whether constraint induced movement therapy had specific efficacy in management of upper extremity function in hemiplegic children.
Subjects: Thirty hemiplegic children, aged 3 to 6 years, with a history of insult of more than one year, participated in the study. Method: Subjects were randomly divided into 2 groups; group (I) was the control group that received traditional physical therapy treatment, 3 days/week for 4 weeks. Group (II), the study group received the same treatment in addition to constraint induced movement therapy, 3 days/week for 4 weeks. Upper extremity function was measured by the Quality of upper extremity skill test. Measurements were obtained in the first treatment session, pre-treatment and at the last session, post-treatment. Results: Data obtained was analyzed via paired and independent t-test. There were statistical differences between the 2 groups, where the study group showed greater improvement in upper extremity function with a t-value of (4.29) and p-value of (P < 0.05). Discussion & Conclusion: Constraint induced movement therapy was shown to be effective in improving upper extremity, in children with hemiplegia.
Key words : Hemiplegia, Cerebral Palsy, Constraint Induced Movement Therapy, QUEST, Upper Extremity Function.
Arabic Title Page : تأثير تثبيت الذراع المواجهة علي أداء الطرف الأعلى الوظيفي عند الأطفال المصابين بالشلل النصفي.
Author: Mostafa Soliman Mostafa Ali.
Title: Boston brace versus electrical stimulation on scoliosis in spastic hemiplegic children.
Degree: Master.
Year: 2008.
Abstract:
The purpose of this study was to compare the effect of using Boston brace and electrical stimulation on the correction of scoliosis in spastic hemiplegic children. The study was conducted on thirty spastic hemiplegic children ranging in age from 6 to 8 years from both sexes. They were classified randomly into two groups of equal numbers group (A) and group (B). group A received Boston brace in addition to especially designed exercise therapy program, while group B received electrical stimulation on the convex side of scoliosis in addition to the same exercise. In all patients the posture was evaluated before and after the suggested treatment program by Formetric instrument system. The post treatment mean values showed significant improvement of both groups when comparing their pre and post treatment results. but upon comparing the post treatment results of both groups there was non significant improvement which confirms the importance of using Boston brace or electrical stimulation in the correction of scoliosis but the electrical stimulation can be used as an alternative to Boston brace to avoid the side effects of brace of spastic hemiplegic children.
Key words: Boston brace, electrical stimulation, Formetric, scoliosis.

Arabic Title Page: جهاز بوسطن مقابل التنبية الكهربائي على الانحناء الجانبي للعمود الفقري لدى الأطفال المصابين بالفعالج الشمالي التشنجي.
Author : Omnia Moh. Ezzat.
Title : Role of Hip Flexors Strengthening on Triceps Sura Shortening in Adolescent Female.
Degree : Master.
Year : 2008.
Abstract : The purpose of the study was to determine the role of hip flexors strength by applying maximum resistance on triceps sura tightness in adolescent female. Thirty female children with age ranged from 12 to 14 years old, suffering from bilateral mild shortening of the triceps sura muscle participated in this study. They were evaluated using Opto-electronic motion analysis and Tensiometer before and after 3 months of treatment. The results of this study revealed highly statistically significant improvement in all the measuring variables of in group B when comparing the post treatment mean values of the two groups. It can be concluded that there is an interrelation between applying maximum resisted exercises to the hip flexors and facilitation of the ankle dorsiflexors.
Key words : Triceps Sura, Hip Flexors, Adolescent Female, Strengthening, Shortening.

Arabic Title Page : تأثير تقوية عضلات الفخذ القابضة في علاج حالات قصر عضلة السمنة بين الفتيات في سن المراهقة.
Author: Safi Mahmoud Mahmoud Ahmed.

Title: Measurement of femoral anteversion angle and hip abductors muscle torque in spastic hemiplegic cerebral palsy.


Degree: Master.

Year: 2008.

Abstract:
The purpose of this study was to measure femoral anteversion angle and hip abductors muscle torque in spastic hemiplegic cerebral palsy. Fifty spastic hemiplegic children of both sexes ranged in age from eight to ten years participated in this study. Computed topography scan for measuring femoral anteversion angle and Biodex isokinetic dynamometer for measurement of hip abductors muscle torque including torque peak, average peak torque, peak torque at speed of 30º/sec. and 90º/sec. were used for both hips. Comparing the mean values of the measuring variables of the two hips revealed significant difference (p<0.05) in favor to unaffected side. Studying correlation between femoral anteversion angle and torque peak revealed weak inverse proportion.

Key words: Cerebral Palsy, Spastic Hemiplegia, Femoral Anteversion, Muscle Torque.

Arabic Title Page: قياس زاوية الانحناء الأمامي لعظمة الفخذ وعزم العضلات الجانبية للمصابين بالشلل النصفي.
The aim of this work was to investigate the effect of auditory biofeedback on hand functions in hemiparetic children.

Subjects and Methods: thirty-hemiparetic cerebral palsy children were assigned randomly into two groups of equal number; the study group and the control group. Their ages ranged from six to eight years old. The control group received selected exercise therapy in addition to Neurodevelopmental therapy. The study group received the same program of treatment as the control group plus auditory feedback on wrist extensors muscles. Both groups received three sessions per week for three successive months. Results: The data were collected pre and post treatment for both groups. Evaluation procedures were carried out to evaluate the degree of visual-motor integration and grasping through using Peabody Developmental Motor Scale Second Edition (PDMS-2), also using the Digital Goniometer to evaluate the wrist joint flexion and extension range of motion. The results shown that both groups were improved clinically and functionally after treatment period with significant difference of study group who received auditory biofeedback in favor of control group. Conclusion: auditory biofeedback is an effective treatment modality for hand dysfunction in hemiparetic cerebral palsy children.

Key words: auditory biofeedback, hand functions, hemiparesis, cerebral palsy children.

Arabic Title Page: تأثير التغذية الصوتية المرجعة على وظائف اليدين في الأطفال المصابين بالشلل النصفي الطولي.
Author : Walaa Abd El – Hakiem Abd El – Nabi.

Title : Effect of dynamic suspension on back geometry in spastic diplegic children.


Degree : Master.

Year : 2008.

Abstract:
The purpose of this study was to investigate the effect of dynamic suspension on back geometry in spastic diplegic children. Thirty spastic diplegic children ranged in age from five to seven years participated in the study. They were randomly divided into 2 groups of equal numbers; the control group received selected physical therapy program and study group received the same program in addition to gait training in the dynamic suspension. Evaluation of back geometry was conducted by using formetric instrumentation system for both groups before and after treatment. The results showed a significant improvement in all measured variables among both groups in favor to the study group.

Key words : Dynamic suspension, back geometry, spastic diplegia.

Arabic Title Page : تأثير التعليم الدينيكي على جيومتيرية الظهر عند الأطفال المصابين بالشلل التقلصى المزدوج.
Department of Basic Science
Author : Abeer Abd EL-Fttah Ali Khaleel.
Title : Effect of Gender on Thoracic and Lumbar Vertebral Curvatures and Flexibility in Normal Subjects.
Dept. : Department of Basic Science.
Supervisors : Ragia Mohamed Kamel, Neveen Abd El Latif Abd El Raoof.
Degree : Master.
Year : 2009.
Abstract :
Background: Sagittal spinal curves and flexibility present a wide range for normal individuals within normal limits. Purpose: To investigate the effect of gender on thoracic and lumbar vertebral curvatures and flexibility in normal subjects. Subjects: 40 normal subjects from both genders participated in this study and assigned into two groups: Group (A) included 20 normal males with mean age of (21.45±2.15) years, height (177.3±7.56) cm, weight (75.95±7.81) kg, and BMI (23.56±1.038) kg/m² and Group (B) included 20 normal females with mean age of (21.65±2.48) years, height (159.9±6.86) cm, weight (60.22±8.084) kg, and BMI (23.45±1.308) kg/m². Methods: Assessment of thoracic and lumbar curvatures using the Formetric system was used to measure the lordotic angle and kyphotic angle, while the new noninvasive electronic device Spinal mouse was used to measure the thoracic and lumbar spine range of motion. Results: There were significant differences in the thoracic and lumbar curvatures between both genders P= 0.0132, 0.0039 respectively, and there was a significant difference in the lumbar flexibility between both genders P= 0.361 while there was no significant difference in thoracic flexibility between both genders P= 0.5352. Conclusion: This study concluded that normal females had higher thoracic and lumbar curvatures than normal males, also normal females had higher lumbar spine ROM than normal males while there was no significant difference between normal females had males regarding thoracic spine ROM.
Key words : Thoracic curvature, lumbar curvature, thoracic flexibility, lumbar flexibility, lordotic angle, kyphotic angle.

Arabic Title Page : تأثير نوع الجنس على احتججات ومرنة الفقرات الصدرية والقطنانية في الأشخاص الطبيعيين.
### Abstract

Background: knee osteoarthritis affect large proportion of population, the prevalence of osteoarthritis is increasing with aging in industrial countries, osteoarthritis which was recognized as an important source of disability and handicap which lead to considerable socioeconomic costs due to medical and surgical interventions and frequent work absence. 

Purposes: To investigate and compare the efficacy of pulsed magnetic field and low level laser therapy in treatment of knee osteoarthritis. 

Study Design: A pre test post test control group design. Materials and methods: Thirty patients with moderate to sever osteoarthritis from both sexes were involved, aged between 40-60 years old. The patients were divided into three equal groups, ten patients each. Patients in the first group (control group) received an exercises program. Patients in the second group received pulsed magnetic field and exercises program. Patients in the third group received low level laser therapy and exercises program. Treatment was done 3 times a week for 4 weeks. Range of motion, pain level and functional performance were measured before and after treatment. Results: There were significant differences within the three groups before and after treatment and between the three groups after treatment as knee range of motion increased, pain level decreased and functional performance improved. Conclusion: Pulsed magnetic field proved to be more beneficial than low level laser therapy in improving range of motion, functional performance and knee pain in patients with moderate to sever knee osteoarthritis.

### Key words

knee Osteoarthritis, pulsed magnetic field, low level laser therapy.
Author: Alaa Abo-Srie Amin.
Title: Effect of declophenac phonophoresis versus low level laser therapy on osteoarthritis knee.
Dept.: Department of Basic Science.
Supervisors: Mohamed El-Gendy, Azza Mohamed Ateya, Mohamed El Sayed Shabana.
Degree: Master.
Year: 2009.
Abstract:
Background: Osteoarthritis of the knee is reported to be a major health problem worldwide. Purposes: To compare between the declophenac phonophoresis and low level laser therapy in the treatment of knee osteoarthritis. Study Design: A pre test post test design. Materials and methods: thirty patients with knee osteoarthritis from both genders were selected, aged between 40–60 years. They were divided into two equal groups, fifteen patients each. Patients in the first group received declophenac phonophoresis in addition to traditional exercise program in the form of stretching and strengthening exercises. Patients in the second group received laser therapy in addition to the same traditional exercise program. The program was done 3 times a week for 4 weeks. Pain level, Range of motion of the knee joint and functional performance was measured before and after treatment. Results: there were significant differences within the two groups before and after treatment and between the two groups after treatment in Pain, range of motion and functional disability. Conclusion: declophenac phonophoresis was proved to be more beneficial in reducing knee pain, improving range of motion and reducing of functional disability in patients with knee osteoarthritis.
Key words: osteoarthritis, declophenac phonophoresis, laser, electrogoniometer.

Arabic Title Page: تأثير مادة الديكلوفيناك المدخلة بواسطة الموجات فوق الصوتية في مقابل الليزر منخفض الشدة على الالتهاب العظمي المفصلي للركبة.
Author : Amaly Refat El-Mahdy Herz.
Title : Laser versus diclofenac phonophoresis in treatment of plantar facilities pain.
Dept. : Department of Basic Science.
Supervisors : Samy Abd El-Samad, Maher El-Keblawy, Yasser El-Meligy.
Degree : Master.
Year : 2009.
Abstract:
Thirty patients with chronic plantar facilities from both sexes were involved, aged between 30-50 years. They were divided into two equal groups, 15 patients each, patients in the first group received laser therapy in addition to stretching exercises, patients in the second group received diclofenac phonophoresis in addition to stretching exercise, training was done three times a week for 4 weeks, pain level and foot function were measured before and after treatment. There was significant difference within both group in decreasing pain and improve function of the foot pre and post treatment and there were no significant difference between treatment groups in decreasing pain and improve function of the foot Laser and diclofenac phonophoresis proved to be beneficial in improving pain and the function of the foot.
Key words : Laser, Diclofenac Phonophoresis, Plantar Falsities.

Arabic Title Page : العلاج بالليزر مقارنة بمادة الديكلوفيناك المدخلة بواسطة الموجات فوق الصوتية في علاج الألم الناشئ عن إلتهاب اللفافة الأخمصية بالقدم.
Author : Noha Soliman Abd EL Hafeez.
Title : Effect of local laser versus laser acupuncture in treatment of shoulder impingement syndrome.
Dept. : Department of Basic Science.
Supervisors : Maher El Keblawy, Samir EL Sayed Selim, Abeer Abd EL Rahman.
Degree : Master.
Year : 2009.
Abstract:
Background: Shoulder impingement syndrome had a very high occurrence. Purpose: compare between local laser and laser acupuncture in the treatment of shoulder impingement. Methodology: Thirty patients aged between 25 to 40 years were assigned into three equal groups. Group (A) received laser over acupuncture points 3J/ point, group (B) received laser over trigger points 3J/point and group (C) received sham laser. The measurements are VAS, SPADI, and electrogoniometer.
Result: laser acupuncture was more effective than local laser in treatment of shoulder impingement syndrome. Conclusion: Using laser acupuncture is effective treatment for shoulder impingement syndrome.
Key words : Shoulder impingement, Laser, Acupuncture.

Arabic Title Page : تأثير الليزر الموضعي مقابل الليزر على نقاط الوخز بالإبر الصينية في علاج متلازمة إنسشار الكتف.
Author : Rania Reda Mohamed Abdou.
Title : Validation of Twin Axial Electrogoniometer in angular measurement.
Dept. : Department of Basic Science.
Supervisors : Mohsen M. El Sayyad, Amal Fawzy, Neven Abdel Latef.
Degree : Master.
Year : 2009.
Abstract:
Background: Range of Motion measurement in Physical Therapy is very important to allow recording the state of the joint motion. Purpose: this study investigates the validity of a twin axial electrogoniometer in measuring joint angles (hip and knee). Methodology: Thirty normal subjects were assigned into one group, all the subjects were measured by the use of the electrogoniometer and the 3 Dimensional Motion Analysis system to measure Hip and Knee angles during sit to stand movement. Results: The study revealed that there was no statistical significant difference level in hip and knee joint angles between the electrogoniometer and the 3 Dimensional Motion Analysis systems during sit to stand movement. Discussion: The electrogoniometer may be considered as valid instrument in measuring joint Range of Motion during functional activity of daily living.
Key words : Sit to stand, Range of motion, Three dimensional motion analyses, Electrogoniometer.

Arabic Title Page : مدى مصداقية الجهاز الكهربائي ثنائي الابعاد لقياس حركة المفاصل.
Author : Salwa Mostafa Atteya.
Title : Electro acupuncture versus ultrasound in knee osteoarthritis.
Dept. : Department of Basic Science.
Degree : Master.
Year : 2009.
Abstract :
Background: Osteoarthritis of the knee is reported to be a major health problem worldwide. Purpose: to compare between electro acupuncture and ultrasound efficacy in knee osteoarthritis. Study Design: A pretest posttest control experimental group design. Materials and methods: thirty patients with knee osteoarthritis from both sexes were involved, aged between 38-50 years. They were divided into three equal groups, ten patients each. Patients in the first group received electro acupuncture in addition to a traditional exercise program in the form of stretching and strengthening exercises. Patients in the second group received therapeutic ultrasound in addition to stretching and strengthening exercises. Patients in the third group (control group) received a traditional exercise program. Treatment was done 3 times a week for 4 weeks. Range of motion, pain level and functional performance were measured before and after treatment. Results: there were significant differences within the three groups before and after treatment and between the three groups after treatment in range of motion (P<0.0001), pain (P<0.0009) and functional performance (P<0.001) Conclusion: electro acupuncture proved to be beneficial and had the upper hand over ultrasound in improving range of motion, functional performance and perceived knee pain in patients with knee osteoarthritis.
Key words : osteoarthritis, electroacupuncture, ultrasound.
Arabic Title Page : مقابلة الإبر الصينية الكهربية مع الموجات فوق الصوتية في الالتهاب المفصلي العظمي للركبة.
The purpose of this study was to investigate the effect of structural anthropometry of the hand (hand length, palm length, palm breadth, fingers lengths, fingers breadths, wrist circumference, and forearm circumference) and functional anthropometry of the hand (grip reach and elbow grip length) on the hand grip strength in normal Faculty students. One hundred normal students volunteered to participate in this study (50 males and 50 females). The mean age of the male group was 20.6 ± 1.26 years and female group was 20.14 ± 0.82 years. The mean weight of the male group was 76.44 ± 9.86 kg and the female group was 62.77 ± 9.54 kg. The mean height of the male group was 176.64 ± 6.66 cm and the female group was 157.16 ± 14.74 cm. Comparison between male and female groups was performed by using statistical unpaired t-test. The correlation among each one of the structural and functional anthropometry and the hand grip strength were studied using Multiple regression analysis and the Pearson Product Moment Correlation Coefficient (r). All statistical analysis was performed using Stat Graphics Plus software with a significance level of 0.05. Statistical analysis revealed that there were significant differences (p < 0.05) between males and females regarding the eight variables (hand length, palm length, wrist circumference, MCP joint circumference, forearm circumference, grip reach, elbow grip length, and hand grip strength. For the remaining eleven variables, statistical test showed no significant differences between males and females. Regarding the relationship between hand length, palm length, palm breadth, fingers lengths, wrist circumference, MCP joint circumference, forearm circumference, grip reach, elbow grip length, statistical analysis revealed a significant moderate strong relationship between each one of these variables and the hand grip length except for the thumb finger length. Similarly the correlation coefficient between each finger breadth and hand grip strength indicated a relatively weak relationship. The study supports the need for pre-employment screening and it is also useful for ergo-design application of hand tools and devices. The data are also needed in sports to search the talented individuals.

Key words: hand anthropometry, grip strength.
Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery
Author : Abdelrhman Agamy.
Title : Physical Therapy Interventions For chronic obstructive pulmonary diseased Patients (Systemic Review Study).
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza A. Abdel Hady, Zahra M. H. Serry.
Degree : Master.
Year : 2009.
Abstract :
Physical therapist plays a role in the multidisciplinary team in management of chronic obstructive pulmonary disease patients. This review was to provide evidence based practice of physical therapy interventions for those patients. Medical libraries were searched using a variety of keywords. Search results were presented in a problem solving approach in six problems usually encountered by physical therapist “airway clearance, respiratory muscle weakness, body de-conditioning, pulmonary rehabilitation, dyspnea and quality of life”. The Levels of Evidence the Scottish Intercollegiate Guidelines Network were used to detect the level of evidence behind interventions for each problem for the purpose of comparison and discussion. From this review a series of clinical and research recommendations were driven to optimize the physical therapy management.

Key words : COPD, Physical Therapy, Airway clearance, Quality of Life.

Arabic Title Page : مدخلات العلاج الطبيعي لمرضى الانسداد الرئوي المزمن (دراسة مرجعية).
Author : Ahmed Abd Elmoniem Ibrahiem.
Title : Effect of Manual Hyperinflation on Selected Arterial Blood Gases In Mechanically Ventilated Patients.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2009.
Abstract: The aim of this study was to investigate the effect of manual hyperinflation on selected arterial blood gases in mechanically ventilated patients. Forty mechanically ventilated patients were randomly selected from Cairo university hospitals (critical care department), their ages ranged from 40 to 60 years. They were divided into two equal groups study and control group ,20 patients for each group, each patient of the study group received both manual hyperinflation for 15 min and chest physiotherapy for 15 min with frequency thee sessions per day for three successive days, each patient of the control group received only chest physiotherapy for 15 min with frequency three sessions per day for three successive days, Pre and post study arterial blood gases assessment was done for each patient of both groups, the result of our study revealed statistically difference in selected arterial blood gases that showed improvement in patients in both control and study group but this improvement was high statistically significant in study group only, So, it is recommended to use manual hyperinflation with chest physiotherapy in order to improve the arterial blood gases in mechanically ventilated patients.
Key words : manual hyperinflation, arterial blood gases, mechanically ventilated patients.

Arabic Title Page : تأثير التنفيخ اليدوي على غازات الدم الشريانية المختارة لدى مرضى جهاز التنفس الصناعي.
Author: Gaber Sayed Amin Soliman.
Title: Efficacy of Aerobic Exercise on Blood Coagulation in Obese Females.
Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors: Zeinab Mohamed Helmy, Sherin Hassan Mohammed, Nadia Ibrahim Ahmed Sewelam.
Degree: Master.
Year: 2009.
Abstract:
Thirty obese females aged 30-40 years were included in the present study. Their body mass index (BMI) ranged between (30 to ≥34.9). They were classified into two groups, each group was consisted of fifteen subjects, the first group was that on Low-calorie diet with aerobic exercise (30 min, walking exercises, 3 times/week), the second was those on Low-calorie diet only without aerobic exercises. The biochemical changes in blood coagulation (platelet aggregation and fibrinogen) were measured at the beginning of the study and after twelve weeks. The results showed that low-calorie diet with aerobic exercise caused greater decrease in Platelet aggregation (-18.5mg/dL; P<0.05 vs. -4.6 mg/dL; P>0.05) when compared with low-calorie diet without aerobics. Changes of Fibrinogen level did not differ statistically between the two groups (P>0.05). It is concluded that aerobic exercise with low calorie diet showed significant improvement in controlling blood coagulation (platelet aggregation and fibrinogen) more than the low calorie diet without aerobic exercises in obese females.
Key words: blood Coagulation, Obese females, Aerobic exercise.

Arabic Title Page: كفاءة التمرينات الهوائية على تجلط الدم في السيدات البدينات.
Author : Hany Mohamed Ghanem.
Title : Effect of ultrasonic and stretching tendon Achilles on ankle performance in patients with diabetic foot ulcer.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Zahra M. H. Serry, Dina Mohammed Abaza, Akram Abd El Aziz EL Sayed.
Degree : Master.
Year : 2009.
Abstract :
This study was done to assess the effect of US and passive static stretching on increasing extensibility of tendon Achilles and on ankle performance. 30 patients with diabetic foot ulcer, their age ranged between 40 to 70 years, diagnosed as type2 diabetes (non-insulin dependant diabetes mellitus) for at least 10 years having diabetic foot ulcer within 2 months. The patients are divided into 2 groups. Group I are 15 patients having diabetic foot ulcer received medical treatment and physical therapy sessions in form of continuous US on Achilles tendon, slow passive stretching exercise for Achilles tendon and active assisted exercise for dorsi flexor muscles. (tibialis anterior). Group II are 15 patients having diabetic foot ulcer received medical treatment only. Clinical assessment was done to exclude any other pathological conditions. Evaluation of the patients before and after treatment included measuring ankle dorsi flexion range of motion (ROM) using electricgoniometer, assessing the load bearing pain using visual analogue scale and testing tibialis anterior muscle power by manual muscle testing. The results that used descriptive analysis (mean ±SD) and T paired test showed that group I who received physical therapy sessions and medical treatment had significant increase in ankle muscle performance while group II who received medical treatment only had significant decrease in ankle muscle performance.
Key words : Ultrasonic, Achilles tendon, diabetic foot ulcer, Stretching.
Arabic Title Page : تأثير الموجات فوق صوتية وتمارين الإطالة لوتر الإكينس على أداء مفصل الكاحل لمرضى القدم السكري.
Author : Heba Mohamed Ali Abd El Hafiz.
Title : Relationship between ventilatory functions and work capacity in patients with liver cirrhosis.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Nagwa M. Badr, Dalia I. Attia.
Degree : Master.
Year : 2009.
Abstract:
The aim of this study was to determine the Relationship between ventilatory functions and work capacity in patients with liver cirrhosis. This study was conducted on Forty five patients with liver cirrhosis, their age ranged between 40-60 years old. The patients were classified from mild to severe forms of the disease {Child-Pugh scores of A (n=15), B (n=15) or C (n=15)}. All patients performed ventilatory function tests and six minute walk test and chronic liver disease question air (CLDQ). The data obtained in the present study indicated that the severity of cirrhosis has a significant effect on the ventilatory functions, the work capacity and the quality of life in those patients. Also there was significant correlation between the 6MWT as work capacity measurement and the ventilatory function tests as well as the quality of life.
Key words : liver cirrhosis, ventilatory functions, work capacity.
Arabic Title Page : العلاقة بين وظائف التنفس وسرعة الشغله في مرضى التليف الكيدي.
Author : Ibrahim Ismail Ibrahim.
Title : Skeletal Muscles Strength and Blood Flow Response to Electrical Stimulation in Chronic Heart Failure.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2009.
Abstract : Purpose: The aim of this study was to evaluate the effect of low frequency electrical stimulation of quadriceps and calf muscles on muscles strength and blood flow in patients with chronic heart failure (CHF). Methods: Fifty patients with chronic heart failure (CHF) were randomly selected from Cairo university hospital, their ages ranged from 40 to 60 years. They were divided into two groups, thirty patients for study group, and twenty patients for control group. Each patient in the study group received both low frequency electrical stimulation with frequency 5 sessions per week for three successive weeks, in addition to medical treatment. Each patient of the control group received the same medical treatment, Pre and post study muscles strength and blood flow assessment was done for each patient of both groups. Results: The result of this study revealed statistically significant difference in muscles strength and blood flow that showed a statistically significant improvement in patients for the study group in comparison to control group there. Conclusion: Low frequency electrical stimulation of quadriceps and calf muscles improve muscles strength and blood flow in patients with chronic heart failure. Thus we recommend to use electrical stimulation of quadriceps and calf muscles in order to improve muscles strength and blood flow in patients with chronic heart failure.
Key words : Electrical stimulation, skeletal muscles, chronic heart failure.

Arabic Title Page : استجابه عضلات الهيكلية وسريان الدم بالاطراف السفلية للتنبيب الكهربائي في فشل القلب المزمن.
Author: Mohamed Nabeel Abdel Fattah Ahmad.

Title: Effect of upper versus lower limb exercises on blood glucose level in type 2 diabetes patients.

Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.

Supervisors: Azza Fikery Ismail, Nadia Marie.

Degree: Master.

Year: 2009.

Abstract:
This study was conducted to investigate the effect of upper versus lower limbs exercises on blood glucose level in type 2 diabetic patients. Forty sedentary subjects from both sex (20 male and 20 female) their age ranged from 40 to 60 years, onset of disease ranged from 3 to 6 years with body mass index ranged from (30 to 34.9) selected from the diabetes out clinic in Al Mataria hospital. All patients have hyperglycemia tested by a two hours plasma glucose ≥200 mg/dl (11.1mmol/l) during an OGTT. The test should be performed as described by the World Health Organization, using a glucose load containing the equivalent of 75-g anhydrous glucose dissolved in water. Patients assigned into two groups, group (A) upper limb group and group (B) lower limb group, each group will be 20 patients from both sex (10 male and 10 female) for each group. Performing exercises for 30 minutes and within 75% to 85% of their maximum heart rate. The blood sample was taken from antecupital vein in 2 hours postprandial state immediately before exercises and after performing exercises. There was significant difference in post treatment values between both groups. The percentage of decrease in blood glucose level between pre and post exercise training in upper limb group (A) was 12.82% were the percentage of decrease in blood glucose level between pre and post exercise training in lower limb group (B) was 6.31%.

Key words: Acute exercise, Blood glucose, Postprandial, Type 2 diabetes.

Arabic Title Page: تأثير تمارين الطرف العلوي مقارنة بالطرف السفلي على مستوى سكر الدم في مرضى السكر ذو النوع الثاني.
Author : Mosab Rabil El-Said.
Title : Timed vital capacity response to electrical stimulation in central obesity for adult males.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Azza A. Abdel Hady, Osama Safwat Lewis.
Degree : Master.
Year : 2009.
Abstract:
Purpose: To determine timed vital capacity response to electrical stimulation in form of faradic stimulation in central obesity for adult males. Methods of evaluation: Measurement of $FEV_1$, $FVC$, $(FEV_1/FVC) \times 100$ by discovery hand-held computerized (electronic) spirometer. Subjects: Forty adult males with central obesity their age between 25-35 were divided randomly into two groups of equal numbers 20 subjects for each. Group (A) received faradic stimulation on abdominal muscles (20 min) plus regular static abdominal exercise program (10 repetitions), for two months every other day while group (B) received regular static abdominal exercise program (10 repetitions) for two months every other day. Results: No significant difference was recorded between the two groups in the first record while there is significant difference in favor of patient in group (A). The results suggest that the faradic electrical stimulation of abdominal muscles improve the timed vital capacity. Conclusion: It can be concluded that faradic electrical stimulation of abdominal muscles is effective in treatment of central obesity in adult males by decrease waist circumference, body mass index, forced expiratory volume in 1st second, $(FEV_1/FVC) \times 100$ and increased forced vital capacity.

Key words : timed vital capacity, electrical stimulation, central obesity, spirometry.

Arabic Title Page : استجابة السعة الحيوية المؤقتة للتنبيه الكهربائي للسمنة المركزية للرجال للبالغين.
Author : Nagey Louis Nossief.
Title : Effect of Resistive Exercise on Plasma Lipoproteins in Sedentary Middle – Aged Men.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors : Zahra Mohamed Hassan Serry, Lila Ahmed rashed, Abeer Ahmed Abd El-Hamid.
Degree : Master.
Year : 2009.
Abstract:
The aim of this study was to determine the effect of resistive exercise on the plasma lipoproteins in sedentary middle-aged men. Forty five sedentary middle-aged men participated in the study, their ages ranged from 40 to 50 years. They were divided into two groups. The exercise group subjects performed resistive exercise, while the control group's subjects were instructed to maintain their usual activities during the experimental period. The program continued for 8 weeks (three sessions per week), plasma lipoproteins were measured at the beginning and after the exercise program for both groups. There were statistically significant changes found in plasma lipoproteins in the exercise group subjects only. The study concluded that 8 weeks of resistive exercise were sufficient to result in significantly positive changes in plasma lipoproteins by 8.31% decrease in TC, 13.48% decrease TG, 19.85% decrease in LDL-C and 18.85% increase in HDL –C in sedentary middle-aged men. So, it is recommended to use resistive exercise in order to improve the plasma lipoproteins in sedentary middle-aged men.
Key words : Resistive exercise, plasma lipoproteins, sedentary.
Arabic Title Page : تأثير تمريينات المقاومة على دهون الدم لدى الرجال متوسطي العمر الغير نشطين.
Author: Rania Amin Gaid.
Title: Effect of Low Intensity Laser on Elderly with Intermittent Claudication.
Dept.: Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree: Master.
Year: 2009.
Abstract:
The aim of this study was to assess the effect of low intensity laser on elderly with intermittent claudicating. Thirty elderly patients with intermittent claudicating participated in this study, their ages ranged between 60 to 75 years. They were divided into two equal groups. Group (A) received low intensity laser (LIL) plus heel raise exercise (HRE) program, while group (B) performed the heel raise exercise only. The program continued for 4 weeks (three sessions per week). Laser Doppler flowmetry (LDF), ankle brachial pressure index (ABPI) and walking parameters (claudicating onset time, maximum walking time and maximum walking distance) were measured at the beginning of and after the treatment program for both groups. The results of this study revealed that a significant improvement of (LDF) and walking parameters in both groups but more in group (A), while a significant improvement of (ABPI) was in group (A) only. It can be concluded that LIL plus HRE for 4 weeks produced a significant improvement of intermittent claudicating in elderly.
Key words: Low Intensity Laser, Intermittent Claudicating, Heel Raise Exercise.

Arabic Title Page: تأثير الليزر المنخفض الشدة على العجز المتقطع في كبار السن.
Author : Walid Kamal Mohamed Abd El Basset.
Title : Low-carbohydrate versus Low-fat diet combined with exercise training on blood lipid profile in obese females.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Degree : Master.
Year : 2009.
Abstract:
Forty five obese females aged 20-32 years are included in the present study. Their BMI ranged between (35 to ≥40). They were classified into three groups each group consists of fifteen subjects, the first group was those on Low-carbohydrate diet (1500 cal/d, 38.7g CHO/d) with aerobic exercise (40 min. walking Ex. 3 times/week), the second was those on Low-fat diet (1500 cal/d, 16.9g fat/d) with the same aerobics and the third group was those on aerobic exercise only (control group). The biochemical changes in serum (total cholesterol, TG, LDLs and HDLs) were measured at the beginning of the study and after twelve weeks. The results showed that low-carbohydrate diet had greater effect to decrease in serum triglycerides (-18.1mg/dL; P<0.05 vs. -6.1 mg/dL; P>0.05) and greater increase in HDLs (+3.431mg/dL; P<0.05 vs. +1.93 mg/dL; P>0.05) when compared with low-fat diet. Changes of Total cholesterol and LDLs levels did not differ statistically between the three groups (P<0.05).
Key words : Low-carbohydrate, Low-fat, BMI, Cholesterol, Triglyceride, LDLs, HDLs.

Arabic Title Page : دراسة مقارنة بين التغذية قليلة الشوائب مقابل قليلة الدهون مع برنامج تدريبي على نسبة دهن الدم في السيدات البدينات.
Physical Therapy Department for Obstetrics and Gynaecology and its Surgery
Author: Afaf Mohamad Mahmoud.
Title: Effect of post-operative pelvic floor exercises program for female stress urinary incontinence.
Dept.: Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Degree: Master.
Year: 2009.
Abstract:
The purpose of the study was to assess the effect of post-operative PFME program in symptomatic relief of female SUI after urethro-vaginoplasty operation. Thirty volunteer women diagnosed with severe degree of SUI and were admitted to urethro-vaginoplasty operation, their age ranged from 35-50 years were participated in this study. They were divided randomly into two groups, (Group A) included 15 women whom had been treated with operation in addition routine medical care and post-operative PFME program while (Group B) included 15 women whom had been treated with operation in addition to routine medical care alone. Evaluation of IVP in both groups (A & B) were done before 1st session, after 3 months and after 6 months. However the SCRS was done after six months for both groups. The obtained results showed a highly statistically significant increase in the IVP (P<0.01) in group (A) compared with group (B) that showed statistically significant increase (P<0.05). Comparative analysis in group (A) to that of group (B) indicated statistically significant (P<0.05) improvement in the subjective curing rate score in favouring to group (A). Accordingly, conclusion: use of PFME program after urethro-vaginoplasty operation appears to be safe and effective in the symptomatic relief of severe cases of female SUI.
Key words: Stress urinary incontinence, pelvic floor muscles exercises, urethro-vaginoplasty operation for stress urinary incontinence.

Arabic Title Page: تأثير برنامج تدريبات عضلات الحوض الرافعة بعد العمليات الجراحية في علاج السلس البولي الاجهادى لدى السيدات.
Author : Shreen Rashad Abo Elmagd.
Title : Effect of Electrolipolysis Versus Metformin in The Treatment of Polycystic Ovarian Syndrome.
Dept. : Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors : Amel Mohamed Youssef, Adel Farouk El Begawy, Azza Barmoud Nashed.
Degree : Master.
Year : 2009.
Abstract:
This study was conducted to determine which is more effective electrolipolysis or metformin in the management of obese polycystic ovarian syndrome (PCOS). Thirty obese patients with PCOS, their BMI > 32 Kg/m² and waist/hip ratio >0.8. Patients assigned into two equal groups. Group (A) received electrolipolysis and Group (B) received metformin. Both groups followed the same hypo caloric diet/day. Evaluations were done before and after treatment (4 months) through measuring weight, BMI, waist /hip ratio, LH/FSH ratio, fasting glucose/insulin ratio and follicle size. Results showed that; there was a statistically non significant difference between both groups before treatment, while after treatment there was a statistically significant decrease in weight, BMI, waist/hip ratio, LH/FSH ratio, in favor to group (A). But, fasting glucose/insulin ratio and follicle size were a statistically significant increased in favor to group (A). It could be concluded that electrolipolysis is more effective than metformin in treating obese PCOS patients.
Key words : Obesity, Polycystic ovarian syndrome, Electrolipolysis, Insulin resistance, Metformin.
Arabic Title Page : تأثير إذابة الدهون كهربياً مقابل اليميغورمين في علاج متلازمة تكيسات المبايض.
Physical Therapy Department for Musculoskeletal Disorder and its Surgery
Author: Abdelhalim Zaghloul Elsayed Nada.
Title: The incidence of osteoporosis and osteopenia among knee osteoarthritic patients.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Degree: Master.
Year: 2009.
Abstract:
Introduction: It has been suggested that bone mineral density is adapted to habitual skeletal loading condition, osteoporosis is a silent disease. It was critical to recognize who was at risk of osteoporosis. Purpose: The purpose of this study is to determine the incidence of osteoporosis and osteopenia among knee osteoarthritic patients. Methods: Sixteen patients (males and females) participated in this study all patients had primary knee osteoarthritis and evaluated by using Kellgren / Lawrence (K / L) scale. Bone mineral density (BMD) was measured by Dual Energy X-ray Absorpiometry (DXA). Results: The incidence of osteoporosis and osteopenia among patients with knee osteoarthritis were 17.8% and 43.3% respectively. Conclusion: Patients with knee osteoarthritis were not at risk of osteoporotic fractures.
Key words: Knee osteoarthritis (OA), Bone mineral density (BMD), Osteoporosis (OP), Osteopenia and Dual Energy X-ray Absorpiometry (DXA).

Arabic Title Page: معدل حدوث وهن العظام بين مرضى خشونة مفصل الركبة.
Author: Abd Elhamed Mohamed Abd Elhady.
Title: Strengthening Versus Endurance Exercises in Treatment Of Chronic Mechanical Neck Pain.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Degree: Master.
Year: 2009.
Abstract:
The purpose of this study is to determine the effect of strength and endurance exercises on pain, disability and range of motion in chronic mechanical neck pain and to detect which is more effective, strength, endurance or both in the treatment of chronic mechanical neck pain. Twenty male and female subjects participated in this study. The strength training group or group (A): this group consisted of ten patients, who received strength exercises accompanied with traditional treatment in the form of ultrasonic, infrared and cervical traction. The endurance training group or group (B): this group consisted of ten patients, who received endurance exercises accompanied with traditional treatment in the form of ultrasonic, infrared and cervical traction, for 12 sessions over four weeks period each other day. Each patient was evaluated pretreatment and post treatment. The results of this study showed that no significant difference was found between strength and endurance programs in neck pain and disability scale and neck flexion and extension, neck right and left side bending and neck right and left rotation.
Key words: chronic mechanical neck pain, physical therapy, neck exercises, strength, endurance.

Arabic Title Page: تمرینات التقویة مقابل قوة التحمل فی علاج آلام الرقبة المیکاتیکیه المزمنة.
Author: Alshaimaa Kadry Abd Elaal.
Title: Assessment of Hip Abductors Deficiency in the Recurrent Lateral Ankle Sprain.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Degree: Master.
Year: 2009.
Abstract:
Background: Lateral ankle sprains are one of the most common injuries among athletes and other young, active adults, and the history of at least one previous ankle sprain is the most common predisposing factor for recurrent lateral ankle sprain. The Purpose of this study was to examine the hip abductors (mainly gluteus medius) deficiency in the recurrent lateral ankle sprain. Methods: thirty patients with recurrent lateral ankle sprain (group I) and thirty normal subjects (group II), with an age ranging from eighteen to thirty years old participated in this study. Each subject stood on a designed ankle inversion platform which led to sudden ankle inversion of tested foot, and at the same time the amplitude and the latency of right and left gluteus medius muscles responses were measured and recorded by electromyography unit. Results: the results revealed that there were no statistically significant differences between patients group (I) and control group (II) regarding amplitude and latency of right and left hip abductor muscle responses. In addition, no statistically significant difference was found in comparison between right and left gluteus medius regarding amplitude and latency within patients group (I) after assessment of patients with recurrent ankle sprain. Conclusion: on the basis of the present data, it was possible to conclude that there is no significant deficiency of right and left hip abductor muscle in patients with recurrent ankle sprain.
Key words: Hip abductors, Gluteus medius muscle, Recurrent lateral ankle sprain.
Arabic Title Page: تقييم القصور في العضلات المُنسبة لمفصل الفخذ في الإلتواء الخارجي المتكرر لمفصل الكاحل.
Author: Khaled Mohamed Al Shorbagy.
Title: Plyometric Exercises versus Progressive Resisted Exercises in the Treatment of Lateral Ankle Sprain in Athletes.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors: Ahmed Hassan Hussein, Hisham Misbah Soliman, Manal Mohamed Ismail.
Degree: Master.
Year: 2009.
Abstract:
Ankle sprain are the most common injuries sustained by athlete. After an initial ankle sprain, the athlete is susceptible to long term disability, especially without adequate care. The purpose of this study was to compare the effectiveness of using plyometric exercises program versus the progressive resistive program in the treatment of lateral ankle sprain in athletes. Thirty volunteers athletes with age ranged from 20 to 35 years, practicing different types of sports as football, basketball, handball and running, from both sexes with grades I or II unilateral lateral ankle sprain participated in the study, at least 3 weeks after the acute injury. They were randomly assigned to either the plyometric group or the progressive resistive group. Both groups received 6 weeks of training, the first group received plyometric training while the second group received progressive resistive training. Isokinetic strength and a scoring scale of functional performance were tested for both groups before and after the training period. Results showed improvement of isokinetic evertors and invertors' peak torques and functional performance of athletes in both groups. However, the improvement in peak torque values for the plyometric group was greater than that of the progressive resistive group, but this difference was not significant. The functional scores of plyometric group were significantly higher than that of progressive resistive group. It was concluded that plyometrics are more effective than progressive resistive exercises in regaining and improving functional performance of athletes after lateral ankle sprain injury, but both types of training are equally effective in improving isokinetic strength. We recommend the use of plyometric training for athletes as it combines both strength and performance enhancement that are essential for participation in any type of sport.

Key words: Plyometric Exercises, Ankle Sprain, Athletes.

Arabic Title Page: التمرينات البليومترية مقابل المقاومة المتقدمة في علاج الأذى الخارجي لمفصل الكاحل في الرياضيين.
Author: Mohamed Ahmed Abdel Fatah Abdel Mageed.

Title: Combined Effect of Closed-kinetic Chain Exercises and Conventional Physical Therapy after Fractures of Lower End of Radius.

Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.


Degree: Master.

Year: 2009.

Abstract:
BACKGROUND: The distal radius is the most common fracture site in the upper extremity; it causes functional problems and disabling complications. Treatment of these common fracture and their dysfunctional sequelae continues to challenge surgeons and therapists.

OBJECTIVE: The purpose of this study was to investigate the effect of closed-kinetic chain exercises combined with traditional physical therapy versus traditional physical therapy program after stable distal radius fractures.

METHODS: Thirty patients had participated in this study; they were assigned into two experimental groups. With age ranged for twenty to forty years. Group A consisted of 15 patients (10 males and 5 females) with mean age 28.27 (± 7.71) years, received closed kinetic chain exercises program and conventional physical therapy. Group B consisted of 15 patients (11 males and 4 females) with mean age of 26.67 (± 5.56) years, received a conventional physical therapy program only. Treatment was given 3 times/ week, every other day, for 4 consecutive weeks. Patients were evaluated pre and post treatment for their pain severity, function of the wrist joint, grip strength, wrist joint’s ROM, and proprioception at 30° wrist flexion and at 30° wrist extension.

RESULTS: The results revealed that there were significant differences between both groups regarding the improvement in function, grip strength, and range of motion of flexion and extension. While there were no significant differences between groups regarding improvement in pain, range of motion of radial and ulnar deviation, and in joint position sense.

CONCLUSION: Adding closed-kinetic chain exercises to the conventional physical therapy program after distal radius fractures significantly improved function, grip strength, and wrist joint’s range of motion, and did not significantly improve pain severity and joint position sense at the selected angles.

Key words: distal radius fractures, closed-kinetic chain exercises, physical therapy.

Arabic Title Page: التأثير المشترك لتمرينات السلسلة الحركية المغلقة والعلاج الطبيعي التقليدي بعد كسور النهاية السفلية لعظمة الكعبرة.
Author  : Mohamed Ali Mohamed.
Title  : The combined effect of mobilization and therapeutic exercises versus therapeutic exercises in treatment of shoulder impingement syndrome.
Supervisors : Ibrahim Magdy Elnaggar, Samir Elsayed Seleem, Hatem Mohammed Elazizi.
Degree  : Master.
Year  : 2009.
Abstract  :
Purpose: We investigated the combined effect of mobilization and therapeutic exercises in treatment of shoulder impingement syndrome.
Subjects: Thirty patients diagnosed as shoulder impingement syndrome stage II Neer classification due to mechanical causes. Methods: Patients were randomly distributed into two equal groups. The first experimental group consisted of 15 patients with a mean age of 36.47(±6.68) years; received infrared radiation followed by a program of therapeutic exercises. The second experimental group consisted of 15 patients with a mean age of 36.26(±6.54) years; received infrared radiation followed by a combined program of mobilization techniques and therapeutic exercises identical to those applied to the first group. Treatment was given 3 times per week, each other day, for 4 consecutive weeks. Patients were evaluated pretreatment and post treatment for shoulder pain severity, shoulder functional disability, shoulder flexion, abduction and internal rotation motions and shoulder acromiohumeral distance in adduction and abduction using ultrasonography. Results: Patients of both groups showed significant improvement in all the measured variables. In between groups difference the second group showed a significant improvement than the first group in all the measured variables. Conclusion: Both of the therapeutic exercises and the combination of therapeutic exercises and mobilization had a significant effect on decreasing shoulder pain severity and shoulder functional disability. Also there were an increasing in shoulder flexion, abduction, internal rotation motions. As well as the (AHD) both in adduction and abduction. However, the combination of mobilization and therapeutic exercises were more effective than the therapeutic exercises alone in the treatment of shoulder impingement syndrome patients.

Key words  : acromiohumeral distance (AHD), therapeutic exercises, impingement syndrome, joint mobilization.

Arabic Title Page  : التأثير المشترك للمعالجة اليدوية والتمريّنات العلاجية في مقابل التمرينات العلاجية في علاج متلازمة انصهار الكتف.
Author: Reda Sayed Ahmed Aweda.
Title: The Effect of balance training on stability and foot function in cases of unilateral plantar fasciitis.
Dept.: Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors: Ahmed Hassan Hussein, Sherif Mamdouh Amr, Manal Mohamed Ismail.
Degree: Master.
Year: 2009.
Abstract:
The purpose of this study was to investigate the effect of balance training on stability and foot functions in cases of chronic unilateral plantar fasciitis. Twenty-eight patients were assigned randomly to 2 equal groups (control and experimental). The control group received the traditional physical therapy program in form of ultrasound, stretching exercises, and strengthening exercises. The experimental group received the same program in addition to balance training. Each group received 12 sessions every other day. Balance and foot functions were assessed before and after treatment by using Biodex balance system and foot disability questionnaire respectively. Results: the results of the study showed significant improvements of balance in the experimental group in both eyes open and closed conditions except the mediolateral stability index in eyes open condition. At the same time, there was no significant improvement of all measured parameters of balance in the control group in both eyes open and closed conditions. The foot function disability improved in both groups. The experimental group significantly improved than the other group. Conclusion: Combining balance training exercises on balance board with the traditional physical therapy program of chronic plantar fasciitis are effective in improving balance and foot functional disability for those patients.

Key words: Plantar fasciitis, Balance exercise, foot function, stability.

Arabic Title Page: تأثير تمرينات التوازن على الثبات ووظيفة القدم في حالات التهاب صفاق الأخمص لإحدى القدمين.
Physical Therapy
Department of Surgery
Author : Asmaa Mohamed Abd El-Khalek Shoaiip.

Title : Effete of honey therapy versus gallium aluminium arsenide laser in treatment of pressure ulcers.

Dept. : Physical Therapy Department for Surgery.


Degree : Master.

Year : 2009.

Abstract:

Purpose: to evaluate the efficacy of the honey therapy versus Ga-As laser in accelerating pressure ulcers healing. Methods of evaluation (wound surface area and wound volume). Methods:- Forty-five (30 males and 15 females) complete or incomplete spinal cord injury patients with pressure ulcers were randomly divided into three group. Group (A) received honey therapy plus the regular wound care and traditional physical therapy .Group (B) received Ga-As laser plus the regular wound care and traditional physical therapy , duration of treatment was 10 minutes , every other day for 3 weeks. Group (C) (Control group) received only the regular wound care and traditional physical therapy. Results:- Result showed that both honey therapy and Ga-As laser were effective, but honey therapy was more fruitful and beneficial in decreasing ulcer surface area and ulcer volume as well as improving healing of pressure ulcers than the Ga-As laser. Conclusion: - both were effective in accelerating pressure ulcer healing, but honey therapy is more advantageous.

Key words : Honey therapy, Laser, Pressure ulcers, wound surface area, wound volume.

Arabic Title Page : تأثير العلاج بعسل النحل مقابل جاليوم ألمونيوم أرسنيد ليزرقي علاج فرح القراش.
Author: Dalia Gamal Khater Amin.
Title: Physical Therapy Versus Surgical Treatment on Abdominal Adiposity in Female.
Dept.: Physical Therapy Department for Surgery.
Supervisors: Wafaa Hussein Borhan, Salah Abdel Ghani.
Degree: Master.
Year: 2009.
Abstract:
The purpose: this study was undertaken to investigation the efficacy of alternative intervention of a program of aerobic physical activity versus the mesotherapy in dissolution of the subcutaneous adipose tissue on the females abdomen. Forty five female patients with ages ranging from 30-45 years were randomly assigned into three groups of equal number suffering from localized fat deposits at the abdominal area and their weights were ranged from 80-100 kg were participated in this study. Patients in group (A) received the abdominal exercise (45 minutes session day after day for two successive months), while patients in group (B) received the mesotherapy (phosphatidylcholine subcutaneous injection that repeated every two weeks to the localized fatty area at the abdomen for 2 successive months). While patients in group (C) underwent abdominoplasty. Results: The results of this study supports the expectation that the application of abdominal exercise training, abdominoplasty and mesotherapy had a valuable effects on the abdominal localized adipose tissue in females as evidenced by the significant decreases in ACM ad ASF. But abdominal exercise training and abdominoplasty were more fruitful than the mesotherapy. Conclusion: abdominal exercise training and abdominoplasty were more fruitful than the mesotherapy.

Key words: mesotherapy, abdominal exercises, liposuction, abdominal adiposity.

Arabic Title Page: العلاج الطبيعي مقابل العلاج الجراحي في سمنة البطن عند السيدات.
Author : Erey Sobhy Wahba.
Title : Efficacy of Helium Neon Laser Irradiation on segmental vitiligo.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Zakaria Mowafy Emam Mowafy, Mohamed Abd El Naeem Salam.
Degree : Master.
Year : 2009.
Abstract:
The purpose: This study was undertaken to evaluate the efficacy of He Ne LASER versus Topical Corticosteroids in Treatment of segmental vitiligo. Forty patients males and females, age range from 20-45 years were randomly assigned into two groups of equal number complaining from moderate degree of segmental vitiligo, were participated in this study: patients in group (A) (Study group) received He Ne laser two times per week for 3 months while patients in group (B) (Control group) received topical corticosteroids two times per day for 3 months. Assessment including photography follow up by digital camera, evaluation of regitmentation by grid method and clinical assessment. Result: Both laser topical steroids were effective in improving the segmental vitiligo, but laser was more beneficial and without any side effects. Conclusion: He Ne laser is efficient in the treatment of segmental vitiligo.

Key words : Vitiligo, segmental vitiligo, He Ne laser.

Arabic Title Page : فاعلية اشعاع الهيليوم نيون ليزر على مرضى البهاق الجزئي.
Author : Mariam Shawky Raid.
Title : Efficacy of aerobic exercises versus electrical stimulation in treatment of the centrally obese women postmastectomy.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Zakaria Mowafy Emam Mowafy, Hanaa Mohammed Gamil.
Degree : Master.
Year : 2009.
Abstract :
Purpose: to evaluate the efficacy of the aerobic exercises and electrical stimulation on the central obesity in women postmastectomy. Methods of evaluation (Measurement of the abdomen circumference, abdominal skin fold, body mass index and body fat %). Methods: - 40 female patients with central obesity postmastectomy, were divided into two groups. Group (A) received aerobic exercises training. Group (B) received electrical stimulation, duration of treatment was 20 minutes, every other day for 3 months as a total period of treatment. Results: - Results showed that both aerobic exercises training and electrical stimulation were effective, but aerobic exercises training were more fruitful and beneficial in decreasing the central obesity. Conclusion: - The two treatment methods were effective in decreasing the central obesity as evidenced by the highly decrease in ACM, ASF, BMI and BF%. , but aerobic exercises was more advantageous.
Key words : Aerobic exercises, Electrical stimulation and obesity.
Arabic Title Page : فاعلية التمارين الهوائية مقابل التنبه الكهربائي في علاج البدانة المركزية بعد استئصال الثدي لدى النساء.
Author  : Nancy Hassan Abo El Nour.
Title  : The efficacy of the light emitting diode in the treatment of acne vulgaris.
Dept.  : Physical Therapy Department for Surgery.
Supervisors  : Wafaa Hussein Borhan, Abeer Attia Tawfik.
Degree  : Master.
Year  : 2009.
Abstract  
Purpose: The current study was carried out to evaluate the efficacy of the combined blue and red light emitting diode (LED) in the treatment of acne vulgaris. Methods: - Forty patients with acne vulgaris were randomly divided into two equal groups (LED group and medication group). The methods of assessment included investigator's global assessment (IGA) and photographic method. For LED Group, they received LED therapy for two times/week for one month plus topical aknemycin (2 times/day) for one month while medication group received only topical aknemycin (2 times/day) for one month Results: - The results showed that there was significant decrease in acne counts in LED group compared with the control group. In relation to IGA and photographic method the study revealed that the results obtained in study group were superior to that of control group, Conclusion: - It was concluded that combined blue and red LED was effective in controlling of acne vulgaris lesion in expression of decreasing numbers of acne lesions and improving the appearance.
Key words  : Acne Vulgaris, Light Emitting Diode (LED), Investigator’s Global Assessment (IGA).

Arabic Title Page  : فاعلية الضوء المنبعث من الصمام الثنائي في علاج حب الشباب.
Author: Nesrin Afify Abd-Elrashid.
Title: The efficacy of low level laser therapy on Herpes Simplex Lesions.
Dept.: Physical Therapy Department for Surgery.
Supervisors: Wafaa Hussein Borhan, Hany Mohamed Ez El-Din El Nazer.
Degree: Master.
Year: 2009.
Abstract:
Purpose: To evaluate the efficacy of low level laser therapy in the treatment of recurrent herpes simplex (improving cutaneous manifestations and relieving pain). Methods: Forty patients with recurrent Herpes Simplex Type I (oral and perioral Herpes Simplex Type I) infection. The patients were randomly divided into two equal groups, study group (laser irradiation group) and control group. The VAS and Lab assessment (IgG, IgM, PCR) had been measured within 48 hours from the appearance of the cutaneous manifestations (pre), after 7 days (post 1), and after 14 days (post 2), from the beginning of treatment for all groups. For Group A (laser irradiation group); the Ga-As group was set for the treatment with; wavelength: 690 nm and a duration of treatment 10 minutes for each area, per day (1 cm²/day), daily, for two weeks. Also patients received medical care (Topical Acyclovir 5% cream). Results: The results showed that there were a significant decrease in pain, faster improvement of cutaneous manifestations and normalization of lab findings in group A patients (laser irradiation group), compared to the Group B patients (control group). Conclusion: Low level laser therapy was effective in treating patients with recurrent Herpes Simplex I.
Key words: Herpes, Gallium Arsenide, IgG, IgM, PCR and HSV1.

Arabic Title Page: فاعلية العلاج بالليزر على إصابات القوباء البسيطة.
Author : Rania Mohamed Tawfik Rashad.
Title : Gastrocnemius myotendinous junction electrical stimulation efficacy on gait in stroke patients.
Dept. : Physical Therapy Department for Surgery.
Supervisors : Nawal Abd El-Raouf Abou Shady, Forayssa EL-Sayed Mohamed Talaat.
Degree : Master.
Year : 2009.
Abstract:
Back ground: The purpose of this study was to examine the effect of electrical stimulation applied to the muscle-tendon junction of spastic gastrocnemius on gait in stroke patients. Thirty hemiplegic patients were selected from Faculty of Physical Therapy, Cairo University Out-patient Clinic and from Kasr EL-Ainy hospital and divided into two equal groups. Subjects in the study group (n = 15) received the designed physical therapy program as well as surface electrical stimulation to the muscle-tendon junction of spastic gastrocnemius whereas subjects in control group (n = 15) received the designed physical therapy program only. The following parameters including muscle tone, time of ten-meter walking test and laboratory examinations (3-D motion) were measured before and after six weeks of treatment program. Results: there was significant improvement in the study group in comparison to the control group regarding the grades of spasticity according to MAS, time of ten-meter walking test and the measured kinematic gait parameters. Conclusion: it can be concluded that Surface electrical stimulation applied to the muscle-tendon junction of spastic gastrocnemius is effective in controlling spasticity, improving ten-meter walking time and kinematic gait parameters in stroke patients.

Key words : Stroke, Spasticity, 3-D motion, Electrical Stimulation, Gait.

Arabic Title Page : كفاءة التنبيه الكهربائي لنقطة الاتصال الورتي لعضلة بطان الساق على المشي في مرضى السكتة الدماغية.
Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery
Author : Mohamed M. Reda Mahmoud Hassan Sharaf.


Degree : Master.

Year : 2009.

Abstract:
Objectives: The objectives of this study were to determine the influence of bilateral symmetrical arm training on the co-contraction of the elbow joint flexor and extensor muscles and to find out if there was a correlation between the co-contraction index and the upper extremity functional activity in stroke patients. Subjects and methods: Thirty stroke patients were assigned into two equal groups, a control and a study group. The control group received traditional physical therapy program, whereas, the study group received traditional physical therapy program, in addition to bilateral symmetrical arm training. The patients were assessed clinically with the Brunström-Fugl-Meyer scale which was recorded twice (before and after treatment) and the co-contraction index was calculated four times; before, after two months, after four months and after six months of treatment. Results: There was a significant difference between both groups in The Brunstrom-Fugl-Meyer scale scores and co-contraction index before and after treatment. Additionally, a high negative correlation was detected between Brunstrom-Fugl-Meyer scale scores and Co-contraction index. Conclusion: Bilateral symmetrical arm training is effective in improving motor functions of the upper extremity in stroke patients.

Key words : Stroke, Bilateral Symmetrical Arm Training, Co-contraction, EMG.

Arabic Title Page : التدريب الثني المتماثل لذراع: تأثيره على الانقباض المشترك لعضلات الكوع في مرضى السكتة الدماغية.
Author : Mohamed Rasmi Moursi.
Title : Influence of transcranial magnetic stimulation on elbow and wrist flexors spasticity during reaching performance in stroke patients.
Supervisors : Abul Alim Abdul Fattah Atteya, Adel Hassanein Al Saed, Nevein Mohamed Mohamed Gharib.
Degree : Master.
Year : 2009.
Abstract:
The purpose of this study was to evaluate the influence of transcranial magnetic stimulation on elbow and wrist flexor muscles spasticity and subsequently reaching performance in Stroke patients. Thirty hemiparetic patients were assigned randomly into two equal groups. The patients in the study group (n = 15) received traditional physical therapy program for the affected upper extremities including (stretching, strengthening, weight bearing exercises) as well as transcranial magnetic stimulation. Whereas the patients in the control group (n = 15) received traditional physical therapy program only. The following parameters including reaching performance scale, muscle tone, muscle power and extension range of motion of elbow and wrist joints by (3-D motion analysis) were measured before and after six weeks of the treatment program. The results revealed that there was significant improvement in the study group in comparison to control group. It was concluded that the suggested physical therapy program is effective in improving elbow and wrist flexors spasticity and consequently could improve reaching performance in stroke patients. Moreover TMS adds benefits other than those gained by physical therapy program only.
Key words : Stroke, Spasticity, Transcranial magnetic stimulation, reaching performance.

Arabic Title Page : فاعليّة التنبّيبي المغناطيسي على الجمجمة على الشلل التشنجي لعضلات الكوع والرّكبتين أثناء الأداء الوظيفي في مرضى السكتة الدماغية.
Author : Nagwa Ibrahim Mohammed Rehab.
Title : Segmental trunk and hip joint motion analysis during sit–to-stand task in stroke patients.
Supervisors : Abdulaleem Abdulfattah Atteya, Nevein Mohammad Gharib, Nirmeen Adel Abdel-Gaffar.
Degree : Master.
Year : 2009.
Abstract : The purposes of this study were to evaluate the segmental trunk (including thoracic and lumbar spine) and hip joint movements during sit-to-stand task, and to assess balance in both stroke patients and healthy normal subjects. Thirty stroke patients and ten normal subjects participated in this study. Patients were divided into two equal groups according to the degree of spasticity of the affected lower limb measured by Modified Ashworth Scale. All subjects were assessed for balance by Berg balance scale and for the range of motion of thoracic, lumbar spine and hip joint by three-dimensional motion analysis system during sit-to-stand task. The results showed significant differences in balance score and in thoracic, lumbar spine and hip joint range of motion (during the two phases of sit-to-stand movement except the second phase for the hip joint) among the three groups. It was concluded that stroke patients had altered pattern of movements of thoracic, lumbar spine and hip joint during sit-to-stand task that appear in the form of increasing thoracic, lumbar spine and hip joint flexion during pre buttock lift-off phase and a longer sit-to-stand duration as compared to normal subjects.

Key words : Stroke, sit-to-stand, segmental trunk, hip, three-dimensional motion analysis, balance.

Arabic Title Page : تحليل حركة الجذع الجزئية ومفصل الفخذ أثناء مهمة القيام من وضع الجلوس في مرضى السكتة الدماغية.
Author: Zizy Mostafa Youssof.

Title: Efficacy of Pulsed Electromagnetic Therapy on Neck Pain in Cervical Spondylosis.

Dept.: Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.

Supervisors: Nawal Abd El-Raouf Abou Shady, Shereen Fathi Shaer, Waleed Talat Mansour.

Degree: Master.

Year: 2009.

Abstract:

Background: The purpose of this study was to examine the effect of pulsed electromagnetic field therapy on pain in cervical spondylosis. Forty five patients of both sexes, their age ranged between 35 and 52 years were assigned randomly into three equal groups. Subjects in the group I (n = 15) received pulsed electromagnetic field in addition to traditional physical therapy program (Infrared radiation, Ultrasound therapy, and therapeutic exercises. Whereas subjects in group II (n = 15) received Pulsed electromagnetic field therapy only and subjects in group III (n = 15) received traditional physical therapy program only. The following parameters including pain intensity on Visual Analog Scale, Neck Pain And Disability scale, cervical range of motion using Cervical Range of Motion device were measured before and after six weeks of treatment program. Results: There was a significant improvement inside each group in comparing the pre and post treatment scores of pain with the best results for group I. Conclusion: It can be concluded that the suggested Pulsed electromagnetic field therapy program is effective in relieving neck pain in cervical spondylosis and the results were magnified significantly when it is combined with the traditional physical therapy program.

Key words: Cervical spondylosis, Pulsed electromagnetic field, Pain.

Arabic Title Page: كفاءة المجال الكهرومغناطيسي النابض على الام خشونه الرقبة.
Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery
Author: Badriyah Khalil Al-Abbad.
Title: Treadmill Training Versus Endurance Exercises in Improving Muscle Strength and Functional Activity in Down's syndrome Children.
Degree: Master.
Year: 2009.
Abstract:
The purpose of this study was to investigate the effect of treadmill training on muscle strengthening of the quadriceps femoris and hamstring muscles in Down's syndrome children. Thirty Down's syndrome children, their age ranged from 12-15 years, participated in this study, the sample was divided randomly in two groups of equal number, group I and group II. Group I received a specialized treadmill training program. Group II received Endurance exercise in the form of Delorme resistance exercise. Evaluation was carried out for the two groups, before and after the application of the treatment program by using Biodex dynamometer system and Bruininks-Oseretsty test of motor proficiency. The results of this study revealed that there was a significant improvement in muscle strength in the two groups after treatment when compared with their pre-treatment results. Also, highly significant difference was noticed between the post-treatment results of the two groups in favor of group I.

Key words: Down's syndrome, Treadmill training, Quadriceps femoris, Hamstring muscles strength.

Arabic Title Page: مقارنة بين استخدام سير المشي المتحرك وتمرينات التحمل في زيادة القوة العضلية والوظائف الحركية لدى الأطفال المصابين بمتلازمة دوان.
Author: Doaa Tammam Atia.
Title: Effect of static versus dynamic hand splint on grasping in spastic hemiparetic children.
Supervisors: Faten Hassan Abd El-Azim, Hatem Abd El-Rahman.
Degree: Master.
Year: 2009.
Abstract:
The purpose of this study was to compare the effect of using static and dynamic splint on grasping in spastic hemiparetic children. The study was conducted on thirty spastic hemiparetic children ranging in age from five to seven years from both sexes. They were classified into two groups of equal numbers group (A) and group (B). Both groups received the same exercise program for one and half hour, three sessions per week for three successive months while using static splint in group A and the dynamic one in group B. In all patients the hand grip was evaluated by JAMAR hand held dynamometer while the Peabody Developmental Motor Scale in the form of fine motor quotient (grasping and visual motor integration items) was used to evaluate hand function before and after three months. The mean values showed significant improvement of both groups when comparing their pre and post treatment results in all measuring variables. But upon comparing the post treatment results of both groups there were non significant difference. The results also showed a significant correlation between fine motor quotient and grip strength. This confirms the importance of using either static or dynamic hand splint with the exercise program to improve grasping in hemiparetic children.

Key words: Hemiparesis, static hand splint, dynamic hand splint, grasping, Peabody Developmental Motor Scale.

Arabic Title Page: تأثير جبيرة اليد الثابتة مقارنة بالجيبيرة المتحركة على قدرة قبضة اليد لدى الأطفال المصابين بالخلط الشقي.
Author : Hamada El-Sayed Abd Allah.
Title : Effect of Unweighing System Therapy Using Treadmill on Balance in Spastic Diplegic Children.
Degree : Master.
Year : 2009.
Abstract : The purpose of this study was to evaluate balance in spastic diplegic cerebral palsyed children following physical therapy program including, treadmill training with partial body weight support using the unweighing system in addition to regular exercise program. Thirty spastic diaplegic children participated in this study. They were classified into two groups of equal number, (control and study); the control group received the therapeutic exercise program based on neurodevelopmental technique whereas the study group received treadmill training with the suspension system using partial body weight bearing 30% relief of total body weight in addition to the same therapeutic exercise program. The treatment program was conducted for both groups three days per week, day after day over a period of three successive months. Balance parameters were assessed using the Biodex stability system for both groups before and after three months of the application of the treatment program. The measuring variables were overall balance index, mediolateral stability index and anteroposterior stability index. The results of this study revealed statistically significant improvement (P<0.05) in the measuring variables for both the control and study groups in favor to study group. So treadmill training with partial body weight bearing suspension can be added as an additional therapeutic modality to improve balance during locomotion and functional abilities of diplegic children.
Key words : Balance, Diplegic, Treadmill, Suspension System.
Arabic Title Page : تأثير المشي على السير المتحرك مع التحميل الجزئي للوزن على الاتزان في حالات الشلل التقلصى المزدوج.
Author : Heba Saad Abd- El Tawab Abu- El Azm.
Title : Coordination Assessment for Normal Children.
Supervisors : Elham El Sayed Salem.
Degree : Master.
Year : 2009.
Abstract:
The purpose of this study was to evaluate development of coordination for a sample of Egyptian children. Two hundred normal children ranged in age from six to eight years participated in this study. They were classified into two groups of equal numbers (100 aged from 6-7 years and 100 aged from 7-8 years), Quick neurological screening test QNST was used for both groups to assess 15 areas of neurological integration, 15 observed tasks were used for both groups. The evaluation results revealed significant differences between mean values of QNST for children of both groups in favor of group B. However both groups within normal range. Comparing boys and girls mean values of QNST between both groups revealed significant differences in favor of group B. Assessment of development of coordination for a sample of Egyptian children ranging from 6-8 years old was normal.
Key words : Coordination, Quick Neurological Screening test, normal children.

Arabic Title Page : تقييم التوافق العضلي العصبي عند الأطفال الأصحاء.
Objective: The aim of this review was to assess the effectiveness of electrical stimulation (ES) in children with cerebral palsy (CP).

Methods: Design: Systematic review. A search was made in Medline and Ovid; all studies were after 2000 except one was in 1997. Only randomized controlled trials (RCTs) on certain types of electrical stimulation (Neuromuscular electrical stimulation, functional electrical stimulation and threshold or therapeutic electrical stimulation) in children with diagnosed CP were included. Ages were between eight months and eighteen years. Outcome measures were: Spasticity and motor skills.

Results: 16 trials were identified, five trials were excluded by title and abstracts and another one was excluded after obtaining the full text. We used studies on the effect of ES on spasticity, strength, range of motion, functional abilities, gait, contracture and life style. Conclusions: Due to the heterogeneity of the studies in population, interventions and outcomes; Spasticity and motor skills were found effective in some studies and ineffective in others. Well-designed trials are needed especially for different electrical stimulation interventions.

Key words: Systematic review, Cerebral palsy, electrical stimulation, spasticity and motor skills.

Arabic Title Page: إجراء فحص منهجي للتنبيه الكهربائي في حالات الشلل الدماغي.
Author: Shereen Ali Amin.
Title: Effect of Aquatic Therapy on Reaching for Infantile Hemiparesis.
Supervisors: Faten Hassan Abd El-Azim, Mostafa El Sherbini.
Degree: Master.
Year: 2009.
Abstract:
The purpose of this study was to demonstrate the effect of using aquatic therapy combined with selected physical therapy exercise program in addition to specially designed exercise program for reaching ability for improvement of reaching kinematics in hemiplegic cerebral palsied children. Method: Thirty spastic hemiparetic children were participated in this study, their age ranged from 4 to 6 years of both sexes. They were classified into two groups of equal numbers, the control group received traditional exercise program in addition to special exercise for reaching abilities for 2 hours with 5 min rest every 30 min. While the study group received the same program in addition to 1 hour aquatic exercise program with 30 min rest in-between, The program of both groups were conducted over three times/week for three months. In all patients, reaching task was evaluated before and after three months by using three dimensional motion analysis (3D) and modified functional scale for reaching.
Results: The post treatment mean values showed significant improvement of all reaching variables, which indicates significant improvement in all patients in both groups but with a greater significant improvement in the study group. Conclusion: From the obtained results of this study, it could be concluded that, aquatic therapy in addition to specially designed exercise program for reaching ability could be beneficial therapeutic measure for improving reaching ability in spastic hemiparetic children.
Key words: Hemiplegia, Aquatic therapy, reaching movement, 3D.
Arabic Title Page: تأثير العلاج المائي على قدرة الوصول عند الأطفال المصابين بالخدل الشقي.
Author: Sherif Ahmed Wagdy El-Shennawy.

Title: Comparative Study between Surgical and Conservative Treatment of Children with Upper Obstetric Brachial Plexus Palsy.


Supervisors: Kamal El-Sayed Shoukry, Yasser Ahmady El-Safoury.

Degree: Master.

Year: 2009.

Abstract:
The purpose of this study was to differentiate between the effect of surgery (muscle transfer) and that of conservative treatment (a predetermined physical therapy program) on shoulder abduction and external rotation in obstetric brachial plexus palsy (OBPP) children. To achieve this goal, a modified digital electrogoniometer was used to examine thirty OBPP children (C5, 6, and 7 lesions) aging between 3 and 5 years. All children graded 3 or 4 according to the Mallet scale. Measurements of the degrees of shoulder abduction and external rotation were done before and after treatment; whether surgery (Group A: 15 child) or physical therapy (Group B: 15 child). The results of the study revealed a significant difference between the pre and post treatment mean values of shoulder abduction for group A. Also in group A, there was a high significant difference between the mean values of shoulder external rotation. While for group B, the difference between the mean values of both variables was highly significant. Comparing the post treatment results of both groups, the results revealed a high significant difference, with group B having higher mean values of both abduction and external rotation. It was thus concluded that, it may be more convenient for those patients to undergo a well organized physical therapy program and postpone surgery for a more appropriate time; as decided by the orthopedic surgeon.

Key words: Obstetric brachial plexus palsy, digital electrogoniometer, and Mallet scale.

Arabic Title Page: دراسة مقارنة بين العلاج الجراحي والتحفيزي عند الأطفال المصابين بشلل الضفيرة العضدية العلوي أثناء الولادة.
Author : Tayseer Saber Abd El Dayem.
Title : Effect of Constraint Induced Therapy on Hand Function of Erb's palsied Children.
Supervisors : Elham Elsayed Salem, Hatem Abd El Rahman Sharaf El Din.
Degree : Master.
Year : 2009.
Abstract:
The purpose of the study was to determine the efficacy of Constraint Induced Therapy on hand functions (gross & fine motor activities) in children having Erb's palsy. Thirty children of both sexes having unilateral erb's palsy, their ages ranged from 2.5 to 4 years old participated in this study. They were evaluated using Peabody Developmental Motor Scale before and after the treatment program. The children were classified randomly into two groups of equal number. Group A: received selected physical therapy program, where group B, received Constraint Induced Therapy in addition to the program given to group A. The results of the study revealed statistically high significant improvement in nearly all of the measured variables of both groups in favor of group B. From the obtained results of this study, it can be concluded that there is an interaction between applying Constraint Induced Therapy and improvement of hand functions in Erb's palsied children.
Key words : CIT, Erb's palsy, Hand functions.
Arabic Title Page : تأثير العلاج المبني على الموانع على وظائف اليد لدى الأطفال المصابين بضالع الولادة.