

Department of Basic Science
Master Degree
2020

Author	:	Ahmed Hassan Mohamed Salem.
Title	:	Effect Of Seated Break Time On Prolonged Standing Low Back Pain Developers.
Dept.	:	Department of Basic Science.
Supervisors	1.	Awatif Labeb.
	2.	Mohamed Serag Eldein Mahgoub.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Pan American Health Organization cited low back pain as one of three occupational problems that should be under surveillance, despite a high prevalence of low back pain (LBP) development during prolonged standing. Objectives: to investigate the effect of seated break time on prolonged standing low back pain developers. Methods: 60 subjects participated in this study. They were randomly distributed into two equal groups; group I involved 30 subjects where stand for 15 min. and sit for 5 min. Group II involved 30 subjects where stand for 30min and sit 10 min throughout the workday for 8 hours. The study is one shot study. The VAS to measure (pain) & BROM to measure (flexion and extension of thoracic and lumbar ROM). Results: There was no significant improvement in stand to sit ratio of 3:1 which did not allow for complete and lasting recovery of LBP developed in response to prolonged standing. low back pain developers (LBDP) utilized a limited range of their lumbar spine angle and demonstrated increased lumbar spine extension and thoracic flexion. Conclusions: Prolonged standing in the workplace has the potential to result in LBP for workers.</p>		
Key words	1.	Seated Break Time.
	2.	Occupational Standing.
	3.	Low Back Pain
	4.	Occupational Standing.
Classification number	:	000.000.
Pagination	:	71 p.
Arabic Title Page	:	التقييم الكمي للاحساس العميق لمفصل الكتف في حالات الالم العنقى المزمن.
Library register number	:	7269-7270.

Author	:	Ahmed Mohamed Mahmoud Abdou.
Title	:	Influence of bilateral flexible flat foot on weight bearing and non-weight bearing knee proprioception.
Dept.	:	Department of Basic Science.
Supervisors	1.	Neveen Abdel Latif Abdel Raouf.
	2.	Shimaa Taha Abu El kasem.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Proprioceptive information plays an important role in joint stabilization, body coordination and proper function. Flatfoot affect the mechanics of lower limb as foot pronation causes tibial internal rotation, which causes knee valgus. Flat foot deformity may alter the proprioception of knee joint and that may predispose to joint injury. Objective: to investigate the effect of bilateral flexible second degree flatfoot on weight bearing and non-weight bearing knee proprioception. Methods: Thirty-two males and females subjects with age ranged from 18-25 years old were assigned into two equal groups, Group A (normal group) and group B (flat foot group). Lateral weight bearing radiographs were performed bilaterally for each subject in both groups to determine the degree of flat foot by measuring the talus first metatarsal angle and to confirm normal subjects. Active repositioning test of knee flexion was measured in weight bearing and non-weight bearing state by digital goniometer to assess proprioception in form of joint reposition error of knee joint. Results: MANOVA revealed that there was no statistically significant difference in reposition error of knee joint in the flatfoot group compared with control group in weight bearing state as $p \text{ value} \geq 0.05$. There was statistically significant difference in reposition error of knee joint in the flatfoot group compared with control group in non-weight bearing state as $p \text{ value} \leq 0.05$. There was statistically significant difference in reposition error of knee joint in non-weight bearing state compared with weight bearing state in flatfoot group as $p \text{ value} \leq 0.05$. Conclusion: The findings indicate that flat foot affect knee proprioception in non-weight bearing state more than weight bearing state.</p>		
Key words	1.	knee Proprioception.
	2.	non-weight-bearing.
	3.	weight-bearing.
	4.	flexible flatfoot.
Classification number	:	000.000.
Pagination	:	120 p.
Arabic Title Page	:	تأثير تفلطح القدم المرن على الاحساس الداخلى لمفصل الركبه فى وضع التحميل وغير التحميل للجسم.
Library register number	:	7071-7072.

Author	:	Alzahraa Fekry Mohamed Saad Morshed.
Title	:	Alteration of Cervical Proprioception in Postural Scoliosis.
Dept.	:	Department of Basic Science.
Supervisors	1.	Neveen Abdel Latif.
	2.	Nabil M Abdel-Aal.
Degree	:	Master.
Year	:	2020.
Abstract	:	<p>Background: Postural scoliosis is the most common deformity of the spine. Cervical proprioception function may be affected in patients who suffered from postural scoliosis. Objective: To assess and analyzes the impairment on cervical proprioception function in patients with postural scoliosis, and to determine the correlation between Cobb's angle and cervical proprioception function. Patients and Methods: Sixty subjects from both sexes represented the sample of the study. Their age ranges from 20-30 years old. Subjects were assigned into two equal groups. Group (I) thirty patients diagnosed with postural scoliosis based on x-ray in addition to thirty normal matched subject's group (II). Cervical range of motion device (CROM) via NHP and THP tests was used for assessment of proprioception error in all directions(flexion, extension, side bending right, side bending left, rotation right and rotation left). Degree of postural scoliosis was determined by measuring Cobb's angle. Results: There was a significant ($p < 0.05$) positive correlation between cobb's angle and absolute angular error from NHP and THP in all directions (flexion, extension, right side bending, left side bending, right rotation and left rotation). There was a significant ($p < 0.05$) increase in flexion, extension, right side bending, left side bending, right rotation and left rotation of absolute angular errors in NHP and THP in patients group compared with control group. Conclusion: Postural scoliosis was associated with reduced proprioception. Progression of postural scoliosis was concomitant with increase the Cobb's angle and increase error value of proprioception.</p>
Key words	1.	postural scoliosis.
	2.	CROM.
	3.	proprioception function.
Classification number	:	000.000.
Pagination	:	81 p.
Arabic Title Page	:	التغير في المستقبلات الحسية للرقبة في مرضى انحناء العمود الفقري الوضعي.
Library register number	:	7139-7140.

Author	:	Basant Saied Abdel Rahman Abdel Kader.
Title	:	Influence Of Smartphone Addiction On Cervical Positioning Sense And Range Of Motion Among Undergraduate College Students.
Dept.	:	Department of Basic Science.
Supervisors	1.	Rania Nagy Karkousha.
	2.	Dalia Mohammed Mosaad.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background the prevalence most popular gadget is increasing among under graduate students they use it for purpose other than science and learning, the long use of smart phone would be predisposing factor to musculoskeletal disorder, early neck pain, neck problems and poor work habits that load cervical as a work-related neck injury. Purpose this study was conducted to study the effect of smart phone addiction on cervical positioning sense, cervical Range of motion and neck function among undergraduate colleague students. Design Cross-sectional observational study. Methods one hundred students selected from different physical therapy colleges in Cairo based on self- reporting questionnaire smart phone addiction scale SAS sv for selection, the students were assigned into two groups (Group A consist of group 62 students that are non –addicted smart phone participant users) and (Group B consist of 38 students that are addicted smart phone users) , joint position sense, cervical ROM assessed by cervical range of motion CROM ,and Copenhagen neck function disability scale to assess neck function. Result There were no statistical significant differences between both groups regarding’s cervical poisoning sense. there were statically significant differences between both groups in all direction except (extension, right lateral flexion and right rotation), with regard the cervical range of motion there were statistical significant differences between both group in all direction except extension, and with regard Copenhagen neck function they was appeared high significance effect among smart phone addicted group. Conclusion It was concluded that smart phone addiction affect cervical positioning sense and range of motion and, it’s recommended that under graduate college students must not use smart phone in it is addicted manner to prevent long term neck disability. Ergonomics advises for smart phone use will be one of physical therapy preventive therapy program.</p>		
Key words	1.	Smartphone addiction
	2.	Cervical poisoning sense
	3.	Range of motion.
	4.	Under graduate college students.
Classification number	:	000.000.
Pagination	:	77 p.
Arabic Title Page	:	تأثير ادمان التليفون الذكي (المحمول) على احساس بوضع العنق والمدى الحركي بين الطلاب الجامعيين مرحلة الدراسة
Library register number	:	6973-6974.

Author	:	Doaa Hamdy Mahmoud Mohamed.
Title	:	Correlation Between Forearm Positions Across Elbow Joint and Ulnar Nerve Conduction Velocity Among Mobile Hand-Held Users.
Dept.	:	Department of Basic Science.
Supervisors	1.	Amir Mohamed Saleh.
	2.	Magda Ramadan Zahran.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Mobile hand-held devices usage can expose forearm and hand to intense stresses at certain positions that may lead to peripheral nerve disorders. Purpose: To find the correlation between forearm positions across elbow joint and ulnar nerve conduction velocity among mobile-hand held devices users. Subjects: Fifty healthy subjects from both genders, their age ranged from 20 to 40 years old. Method: Electromyography was used for measuring ulnar nerve conduction velocity across elbow joint at different angles (0° extension, 45°, 90° and 120° flexion) with different forearm positions (supination and pronation). Results: There was statistical significant indirect strong correlation between ulnar nerve conduction velocity at the different elbow flexion angles with forearm supination and pronation (p-value < 0.05). Conclusion: The best position for elbow joint during using mobile hand-held devices is 0° and 45° elbow flexion with forearm supination.</p>		
Key words	1.	Ulnar nerve conduction velocity
	2.	elbow joint angles
	3.	forearm positions
	4.	mobile hand-held users
Classification number	:	000.000.
Pagination	:	83 p.
Arabic Title Page	:	العلاقة بين أوضاع الساعد لمفصل الكوع على سرعة توصيل العصب الزندي لمستخدم الأجهزة المحمولة باليـد.
Library register number	:	7217-7218.

Author	:	Esraa Hany Sayed Bakr.
Title	:	Correlation Between Handgrip Strength and Shoulder Torque IN Egyptian Tennis Players.
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohamed Hussein El-Gendy.
	2.	Mohamed Ibrahim Abdelhay.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Shoulder stability is very important for distal hand mobility and this concept may affect the performance of tennis players. Shoulder rotators have important role in shoulder joint stability. Purpose: This study was to investigate the correlation between shoulder torque and hand grip strength in Egyptian tennis players. Design of the study: Correlational one-shot study. Subjects: Eighty-four players from both genders with age ranging from 17 to 25 years were assigned to one group. Methodology: Hand grip dynamometer was used for measuring grip strength and isokinetic machine was used for measuring shoulder torque for internal and external rotators. Results: There was significant correlation between hand grip strength and shoulder internal rotators' peak torque ($r = 0.81$, $p = 0.0001$) and significant correlations between hand grip strength and shoulder external rotators' peak torque ($r = 0.89$, $p = 0.0001$). Conclusion: There was a significant correlation between hand grip strength and shoulder torque in tennis players.</p>		
Key words	1.	Hand grip.
	2.	Egyptian Tennis Players.
	3.	Shoulder Torque.
Classification number	:	000.000.
Pagination	:	85 p.
Arabic Title Page	:	العلاقة بين قبضه اليد وعزم الكتف في لاعبي التنس المصريين.
Library register number	:	7245-7246.

Author	:	Fatma Alzahraa Mohamed Ali Ramadan.
Title	:	Effect of Lumbar Hyperlordosis Correction on Craniovertebral Angle in Low Back Pain Patients.
Dept.	:	Department of Basic Science.
Supervisors	1.	Awatef Mohamed Labib.
	2.	Magda Gaid Sedhom.
	3.	Shimaa Taha abu El Kasem.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: The lumbosacral region is the most important region in the vertebral column in terms of mobility and weight bearing. Changes in lumbar lordosis can result in compensatory adjustments in the cervical spine. Objectives: to investigate the effect of lumbar hyperlordosis correction on craniovertebral angle, low back pain level and lumbar range of motion in chronic low back pain patients. Subjects: 30 patients of both genders diagnosed as chronic low back pain with lumbar hyperlordosis (cobb angle > 40 degrees) assigned randomly into 2 groups. (Experimental group A): 15 patients received muscle energy technique. Their mean age and BMI were 21.8 ± 2 years, and 24.01 kg/m^2 respectively. (Control group B): 15 patients received William program. Their mean age and BMI were 22.2 ± 1.85 years, and $23.57 \pm 3.12 \text{ kg/m}^2$ respectively. Treatment was given 3sessions/week for 4 weeks. Methods: Lumbar lordosis angle was measured by plain X ray imaging, craniovertebral angle by photographic method, pain intensity by numerical rating scale, lumbar range of motion by tape. Results: There was a significant increase in craniovertebral angle, increase in lumbar range of motion and decrease of pain on numerical rating scale post treatment in group A and B ($p > 0.001$). Conclusion: lumbar hyperlordosis correction had a positive effect on back pain intensity, lumbar range of motion and craniovertebral angle.</p>		
Key words	1.	lumbar hyperlordosis.
	2.	craniovertebral angle.
	3.	Low back pain.
Classification number	:	000.000.
Pagination	:	91 p.
Arabic Title Page	:	تأثير تصحيح التقوس المفرط للفقرات القطنية علي زاوية القحفي الفقري في المرضى الذين يعانون من آلام أسفل الظهر.
Library register number	:	7209-7210.

Author	:	Hatem Mostafa Ahmed Hassan.
Title	:	Influence Of High Intensity Laser Therapy On Patients With Cervical Myofascial Trigger Points.
Dept.	:	Department of Basic Science.
Supervisors	1.	Enas Abu Taleb
	2.	Yasser Ramzy Lasheen
	3.	Fairouz Hatem Ameen
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Myofascial pain syndrome (MPS) of the trapezius is one of the main causes of neck pain. It is characterized by deep, intense pain of the muscle and its fascia and by the presence of one or more myofascial trigger points(MTrP). High intensity laser therapy (HILT) is superior to the traditional physical therapy modalities in its ability to reach and stimulate deeper and larger joints. Aim of the study: This study was conducted to investigate the effect of HILT on pressure pain threshold, pain intensity, neck functional activities and cervical range of motion in patients with cervical MTrP in the upper trapezius muscle. Subject and methods: The study was designed as a randomized control trial (pre-test post-test experimental design study), 50 patients (32 female and 18 male) having MTrP in the upper trapezius muscle with age from 20 to 40 years old with body mass index less than 25 kg/m² were assigned into 2 groups and received treatment program as follows: group A received traditional treatment only(transcutaneous electrical nerve stimulation (TENS), ultrasound massage (US), stretching and ischemic compression(IC)) while group B received HILT+ traditional treatment. The outcome measures included pressure pain threshold (PPT) by pressure algometer, pain intensity by visual analogue scale(VAS), neck functional activities by neck disability index (NDI) and cervical range of motion measured by CROM device. Results: both groups showed difference in the outcome measures in the post treatment assessment, but the HILT group (group A) showed a significant improvement over the control group (group B) at p-value <0.001 Conclusion: HILT is an effective physical therapy modality that may provide better outcomes for a patient with cervical MTrP.</p>		
Key words	1.	high intensity laser therapy
	2.	cervical myofascial trigger points
	3.	myofascial pain syndrome
Classification number	:	000.000.
Pagination	:	105 p.
Arabic Title Page	:	تأثير الليزر عالي الشده على المرضى ذوى نقاط الألم العضلي الليفي العنقي.
Library register number	:	7125-7126.

Author	:	Hend Ibrahim Mohamed El-Mawgere.
Title	:	The effect of lumbar lordosis rehabilitation on s1 alpha motor neuron excitability in chronic nonspecific low back pain.
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohamed Hussein El-Gendy.
	2.	Amr Abd-Alla Azzam.
	3.	Salah El-Din Bassit Ahmed.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Chronic nonspecific low back pain (CNLBP) represents a significant public health problem and an economic burden to employers. Purpose: This current study was designed to investigate the effect of lumbar lordosis rehabilitation in form of Denneroll traction on S1 alpha motor nerve excitability and absolute rotatory angle in patients with chronic nonspecific low back pain. Subjects and methods: This study was conducted in the Outpatient Clinic of Cleopatra Hospital and from the outpatient clinic, Faculty of Physical Therapy, Cairo University, Egypt. This study was conducted from March 2017 to July 2018. Patients would randomly be divided into two equal groups using coin toss method (Heads for one group and tails for another group): Group (A) (control Group): composed of 15 patients with nonspecific CNLBP who received conservative treatment only in form of ultrasound therapy plus stretching and strengthening exercises for 10 weeks. Group (B) (study Group): composed of 15 patients with nonspecific CNLBP who received lumbar lordosis rehabilitation in form Denneroll traction plus conservative treatment in form of ultrasound therapy plus stretching and strengthening exercises for 10 weeks. H reflex amplitude, H/M ratio and absolute refractory area were measured before and after treatment. Results: The obtained results of the present study indicated a significant difference of the measured variables (H-reflex amplitude, H/M ratio and ARA) after ten weeks of treatment program in the participated patients of both groups when compared to the results before the treatment. Comparing the post- treatment results of both groups (study and control) revealed significant difference in the mean values of H/M ratio and ARA in favor of the study group. Conclusion: Lumbar lordosis rehabilitation in form of Denneroll traction had superior statistically significant effect on S1 alpha motor nerve excitability in form of H/M ratio only and absolute rotatory angle in patients with chronic nonspecific low back pain.</p>		
Key words	1.	Lumbar lordosis rehabilitation
	2.	S1 alpha motor nerve excitability
	3.	absolute rotatory angle
	4.	Chronic nonspecific low back pain
Classification number	:	000.000.
Pagination	:	95 p.
Arabic Title Page	:	تأثير إعادة تأهيل التحذب القطني على استثارة الخلايا العصبية الحركية الفا بالفقرة العجزية الاولى في آلام أسفل الظهر المزمنة غير المحددة.
Library register number	:	7293-7294-.

Author	:	Hoda Ibrahim Abbas.
Title	:	Effect of Cervicogenic headache on cervical proprioception: A Cross-sectional Study.
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohamed H. El-Gendy.
	2.	Mayada A. Mahmoud.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Cervicogenic Headache is typically chronic type of headache , presented as unilateral cephalgia, and is believed to be acquired by musculoskeletal dysfunction of the neck. Cervical proprioception has a significant job in keeping up ordinary spinal development, stability and maintaining the balance of the body as a whole. Objective : to investigate the impact of cervicogenic headache on cervical active repositioning accuracy and cervical range of motion. Materials and Methods: Fourty subjects of both genders (28 females and 12 males) were selected and allocated into 2 groups, Cervicogenic Headache (CGH) group comprising of 15 females and 5 males and control group (13 females and 7 males). Their age ranged from (20) to (40) years. Cervical proprioception and range of motion were evaluated by CROM device. Active repositioning accuracy was used to test cervical proprioception: subjects were asked to relocate their heads as accurately as possible to a previously remembered head position following an active movement (flexion, extension and left and right rotations). Results: There was a significant effect of Cervicogenic Headache on cervical reposition error in all tested cervical movements: cervical flexion reposition error (p = 0.001), cervical extension reposition error (p = 0.0001), cervical Right rotation reposition error (p = 0.0001) and cervical Left rotation reposition error (p = 0.0001) and there was statistical significant decrease in ROM values of all tested cervical movements (flexion, extention and right & left rotation). Conclusion: There was a direct relationship between CGH and the increase in cervical reposition error and limited ROM contrasted with healthy subjects. These effects should be considered in the rehabilitation program of patients with CGH.</p>		
Key words	1.	Cervicogenic Headache.
	2.	cervical range of motion.
	3.	cervical proprioception.
	4.	cervical reposition error.
	5.	neck musculoskeletal dysfunction.
Classification number	:	000.000.
Pagination	:	99 p.
Arabic Title Page	:	تقييم المستقبلات الحسيه العميقه بالرقبه في المرضى ذوي الصداع ذو المنشأ العنقي.
Library register number	:	7085-7086.

Author	:	Mahinour Muhammed Osama.
Title	:	Prevalence of Work Related Musculoskeletal Disorders Among Egyptian Fighter Pilots.
Dept.	:	Department of Basic Science.
Supervisors	1.	Neveen Abdel latif Abdel Raouf.
	2.	Amira Hussin Draz.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Fighter pilots are known to be prone to have work related musculoskeletal disorders (WMSDs) where they are exposing to high gravitational forces and high accelerations during the flight with their aircrafts. Objective of the study: To investigate the prevalence of work related musculoskeletal disorders in different body parts and to identify association between risk factors and musculoskeletal disorders among the Egyptian fighter pilots. Methods: Ninety fighter pilots were involved in this research; they were recruited from different Egyptian airbases to assess musculoskeletal disorders. An ethical approval and informed consent were signed by each participant. The participants were asked to answer Cornell Musculoskeletal Discomfort Questionnaire (CMDQ). Results: The prevalence of WMSDs of the study group for different body regions was reported that the lower back (77.77%) was the most affected part, neck (61%), hip/Buttocks (51.1%) and upper back (43.33%). Lowest prevalence of WMSDs was reported for left upper arm (8.9%) and left wrist and knees (10%). No WMSDs were reported for forearm, legs and feet. And there was an association/correlation between age, factors and work related musculoskeletal disorders (WMSDs) among Egyptian fighter pilots. Conclusion: There was a high prevalence of work related musculoskeletal disorders among Egyptian fighter pilots, Mostly in lower back, neck, hip/buttocks disorders and upper back disorders, consequently. Additionally, there was an association between risk factors and work related musculoskeletal disorders (WMSDs) among Egyptian fighter pilots. The prevalence of WMSDs among fighter pilots in Egypt is near to values reported for the counterparts around the world.</p>		
Key words	1.	Cornell questionnaire
	2.	Egyptian Fighter Pilots.
	3.	G-forces
	4.	Prevalence.
	5.	Work Related Musculoskeletal Disorders.
Classification number	:	000.000.
Pagination	:	98 p.
Arabic Title Page	:	معدل انتشار اضطرابات الجهاز العضلي العظمي الناتجة عن العمل بين الطيارين الحربيين المصريين.
Library register number	:	7037-7038.

Author	:	Mohamed Abd Elaziz Emam Mohamed.
Title	:	The Effect of Cervicogenic Headache on The Myoelectrical Activities of Suboccipital Muscles and Functional Activities of The Neck in Different Ages.
Dept.	:	Department of Basic Science.
Supervisors	1.	Fatma Seddik Amin.
	2.	Radwa Azmy.
	3.	Doaa Ibrahim Amin.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Headache is the most prevalent pain disorder, and thereby it represents a major health problem, disturbing both quality of life and work productivity. Cervicogenic Headache (CGH) is typically chronic, presented as unilateral cephalgia, and is believed to be acquired by musculoskeletal dysfunction of the neck. The suboccipital muscles are a group of four muscles located posteriorly at the highest point of the cervical spine. They have been identified as playing a role in cervical pain, and are therefore a target for rehabilitation and intervention in Cervicogenic Headache. Purpose of this study: To investigate the effect of cervicogenic headache on myoelectrical activities of suboccipital muscles, functional activities and Range of Motion (ROM) of neck. Subjects and methods: Sixty subjects of both sex They were assigned according to age into 4 equal group (Group A, B, C and D). Their age ranged from 18 to 35 years old for Group (A) and (C) with mean age of (28±5.31). Regarding Group (B) and (D) the patients' age range was 36-55 with mean age of (47.43±5.39). Patient Groups (Group (A) & (B)) and Healthy Groups (Group (C) and (D)) each subject sat on a comfortable chair and the head and neck were slightly flexed to allow access to the suboccipital region. They were assessed using Natus nicoleet Vikingquest Electromyography device was used to analyze the motor unit potentials by quantitative measures. Cervical Range of motion (CROM) device was used to measure cervical ROM. Neck disability index was also used to measure functional activities of neck. The assessment done once for every subject. Results: The results of current study concluded that there was non significant difference in myoelectrical activities between cervicogenic patients and normal subjects, there was statistical significant decrease in ROM values of flexion, right & left side bending and right & left rotation in G (A) & G (B) than G (C) & G (D), there was decrease in extension ROM in G (A) & G (B) than G (C) & G (D) but with non-statistical significant difference and Comparison between Neck disability index (NDI) showed that there was decrease in functional activities in G (A) & G (B) than G (C) & G (D). Conclusion: Using of EMG in the diagnosis of CGH yields negative results. The current study provides suggestion for suboccipital muscle alterations in patients with CGH but it cannot provide evidence for a contribution of the neck to chronic headache symptoms. There was decrease in ROM and functional activities in headache patients than normal subjects</p>		
Key words	1.	Cervicogenic Headache .
	2.	Electromyography.
	3.	The suboccipital muscles.
	4.	Myoelectrical Activities.
	5.	Neck in Different Ages.
	6.	Neck disability index..
Classification number	:	000.000.
Pagination	:	141 p.
Arabic Title Page	:	تأثير الصداع ذي المنشأ العنقي على النشاط العضلي الكهربائي لعضلات تحت القذالي والأنشطة الوظيفية للرقبة في مختلف الأعمار.
Library register number	:	7043-7044.

Author	:	Mohamed Elsayed Mohamed Ali Helal.
Title	:	Neural mobilization versus myofascial release to stabilization exercises after lumbar spine fusion: a randomized controlled trial.
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohsen M. El-Sayyad.
	2.	Nabil M. Abdel-Aal.
	3.	Hassan Hussein Ahmed.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background and Objectives: To investigate the effect of adding neural mobilization versus myofascial release to stabilization exercises on disability, pain, and lumbar range of motion in patients with lumbar spine fusion. Materials and Methods: The study design is a parallel-groups, randomized controlled trial. Sixty patients who have undergone lumbar spine fusion were randomly divided into three equal groups. Group (I) received neural mobilization and stabilization exercises, group (II) received myofascial release and stabilization exercises, and group (III) received stabilization exercises only. Each group received three sessions per week for four weeks. Disability, pain, and back range of motion were assessed using Oswestry disability index, visual analogue scale and back range of motion device respectively, before starting treatment, after finishing treatment and one month later as a follow up. Results: Statistically significant differences were found among the groups regarding disability and pain ($P < 0.05$) in favor of neural mobilization group, but there were no statistically significant differences among groups regarding lumbar range of motion ($P > 0.05$). Regarding the within-group effect, there were statistically significant differences in all outcome measures after 1 month of treatment, as well as, after 1 month of follow up in each group ($P < 0.05$). Conclusion: Patients who received neural mobilization or myofascial release combined with stabilization exercises had better improvement, in favor of the neural mobilization group, regarding disability and pain than patients who received stabilization exercises alone after lumbar spine fusion. No differences were found among the groups regarding lumbar range of motion.</p>		
Key words	1.	Neural mobilization
	2.	Myofascial release
	3.	Lumbar spine fusion,
	4.	Pain, Disability.
	5.	stabilization exercises.
	6.	Range of motion.
	7.	randomized controlled trial.
Classification number	:	000.000.
Pagination	:	105 p.
Arabic Title Page	:	تقنية تحريك العصب مقابل الانفراج العضلي الليفي إلى تمارين التثبيت مابعد جراحة تثبيت الفقرات القطنية: تجربة عشوائية محكمة.
Library register number	:	7185-7186.

Author	:	Mohamed Ragab Gaber.
Title	:	Ultrasound Versus Nerve Gliding In The Treatment Of Cubital Tunnel Syndrome.
Dept.	:	Department of Basic Science.
Supervisors	1.	Fatma Seddik
	2.	Sherif Ahmed Khalid
		Mohamed Serag El-Dein
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Cubital tunnel syndrome (CuTS) is the second most common entrapment neuropathy of the arm. Conservative treatment is the treatment of choice in mild to moderate cases. Elbow splints and avoiding flexion of the involved elbow constitute majority of the conservative treatment. Purpose of the study: to compare the effect of ultrasound with that of nerve gliding in treating patients with cubital tunnel syndrome. Materials and methods: This study was a randomized trial. Forty patients with cubital tunnel syndrome were divided randomly into two groups. Group A received ultrasound treatment at a frequency of 1 MHz, an intensity of 1.5 W/cm², in continuous mode for five minutes three times per week for six consecutive weeks. Group B received nerve gliding exercises three times for the same period. Both groups used elbow rigid night splint through the duration of treatment. Pain intensity level, hand grip strength and disability level of upper limb were assessed pre- and post-treatment. Results: showed that both groups improved in all variables with superior improvement in group B (P<0.05). Conclusion: nerve gliding exercises has significant superior effect on pain intensity level, hand grip strength and disability level of upper limb rather than ultrasound in the treatment of CuTS.</p>		
Key words	1.	Nerve gliding exercise
	2.	Cubital tunnel syndrome.
	3.	Ultrasound
Classification number	:	000.000.
Pagination	:	90 p.
Arabic Title Page	:	الموجات فوق الصوتية ام انزلاق العصب الزندي اكثر تأثيرا في علاج متلازمة النفق المرفقي " تجربة مراقبة عشوائية.
Library register number	:	7337-7338.

Author	:	Mohamed Soliman Mohamed Soliman.
Title	:	Effect of Smartphone Duration Use on Scapular Muscles Strength in Normal Subjects.
Dept.	:	Department of Basic Science.
Supervisors	1.	Maher Ahmed Elkeblawy.
	2.	Doaa Ibrahim Amin.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: The use of hand-held devices such as smartphone has been associated with shoulder pain and scapular muscles imbalance as a result of hyperactivity and tightness, Purpose of this study was to investigate the effect of smartphone duration use on pain of the upper back and scapular muscles strength (lower trapezius, rhomboids major and rhomboids minor) in normal subjects, Methods: This study was cross sectional observational study; Eighty normal adults 20-30 years age, with right hand dominance were recruited for this study. The subjects must have at least 6 months experience in using smartphone and divided into two groups: Group A (who uses smartphone less than 4 hours daily), Group B (who uses smartphone more than 4 hours daily), subjects will be assessed once time. Upper back pain and strength were assessed; pain by VAS scale and strength with break test by pull and push dynamometer, Results: subjects in the two groups showed significant pain accentuation after smartphone usage, depends on the duration. Furthermore, changes in pain severity with smartphone use were different between the two groups ($P<0.05$). For scapular adductor muscles strength, the right dominant side was diminished but not reach to cause significant difference($P>0.05$) and the left side have increase in strength with significant difference ($P<0.05$), Conclusion: Smartphone continuous use for more than 4 hours daily increase shoulder and parascapular pain and decrease strength of scapular adductor muscles in right dominant side due to sustained prolonged hyperactivity leading to weakness and increase the strength of left side due to hyperactivity of left side during holding or static postures and bilateral hand texting.</p>		
Key words	1.	Upper back pain
	2.	Smartphone
	3.	Scapular muscle strength
	4.	Pull and push dynamometer.
	5.	Normal Subjects.
Classification number	:	000.000.
Pagination	:	67 p.
Arabic Title Page	:	تأثير استخدام الهواتف الذكية لفترات زمنية على وظيفة اللوح الكتفي في الأصحاء.
Library register number	:	7081-7082.

Author	:	Mostafa Gomaa Mahmoud Ali.
Title	:	Effect of Different Lumbar Lordotic Angles on Dynamic Postural Stability in Young Adults.
Dept.	:	Department of Basic Science.
Supervisors	1.	Neveen Abdel Latif.
	2.	Magda Gaid Sedhom,
	3.	Nesma Ahmed Helmy.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Lumbar lordosis is a key component in maintaining the balance. Improper postural alignment and excessive curvature of the spine such as lordosis and kyphosis have a negative influence on our balance system. Objective: This study was conducted to investigate the effect of different lumbar lordotic angles on dynamic postural stability and limits of stability in young adults. Subjects: 100 healthy males assigned into two equal groups according to lumbar lordotic angle (LLA); Group (A) with a mean LLA± SD of 50.38° ± 4.34°. Their mean ± SD age and BMI were 21.48 ± 1.52 years, and 22.83 ± 1.77 kg/m² respectively. Group (B) with mean LLA± SD of 66.89° ± 4.03° also, mean ± SD age and BMI were 21.34 ± 1.4 years and 22.5 ± 1.57 kg/m² respectively. Methods: X-ray was done to measure the LLA using Cobb's angle method and Biodex Balance System to assess dynamic postural stability and limits of stability. Results: MANOVA test revealed that there was a significant effect of LLA on dynamic postural stability and limits of stability (p= 0.0001). There was a significant increase in the OSI, APSI and MLSI of the group B compared to group A (p≤ 0.05). There was a significant decrease in the limits of stability of the group B compared to group A (p= 0.0001). Conclusion: It was concluded that the difference in LLA had an effect on dynamic postural stability and limits of stability in young adults.</p>		
Key words	1.	Lumbar lordotic angles.
	2.	Dynamic postural stability.
	3.	Limits of stability.
	4.	Young Adults.
	5.	Biodex Balance System.
Classification number	:	000.000.
Pagination	:	79 p.
Arabic Title Page	:	
Library register number	:	6957-6958.

Author	:	Nada Atef Mohammed Mohammed.
Title	:	Influence of body mass index on ankle proprioception in adult females.
Dept.	:	Department of Basic Science.
Supervisors	1.	Awatef Mohamed Labib.
	2.	Mohamed Hussein El Gendy.
	3.	Olfat Ibrahim Ali.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Proprioceptive sense plays an important role of protective reflex response against harmful forces on joint. Load on musculoskeletal system increases with higher body weights and joint becomes prone to injuries. Purpose of study: This study was conducted to investigate the effect of body mass index on ankle proprioception in adult females. Material and method: Eighty-seven adult females participated in the study, their age between (18-35) years old. Subjects were divided into three groups; each group consists of 29 female patients. Group A: Females with BMI (18-24.9) Kg/m². Group B: Females with BMI (25-29.9) Kg/m², Group C: Females with BMI (30-34.9) Kg/m². The isokinetic dynamometer was used to measure ankle joint proprioception. Results: The results showed that there was a significant difference in ankle active repositioning error between normal subjects and obese subjects (p value<0.05). However there was no significant difference in ankle active repositioning error between normal and overweight subjects and between overweight and obese persons (p value>0.05). Conclusion: Obese adult females with BMI between (30:34.9) Kg/m² have deficit on their ankle proprioception.</p>		
Key words	1.	Ankle.
	2.	Proprioception.
	3.	body mass index.
	4.	adult females.
	5.	BMI.
	6.	Obesity.
Classification number	:	000.000.
Pagination	:	85 p.
Arabic Title Page	:	تأثير مؤشر كتلة الجسم علي المستقبلات الحسية العميقة لمفصل الكاحل في الإناث البالغات.
Library register number	:	6977-6978.

Author	:	Nahla Mahmoud El Amrawy.
Title	:	The Efficacy of Intra Articular Ozone Injection versus Topical Ozone Therapy on Knee Osteoarthritis.
Dept.	:	Department of Basic Science.
Supervisors	1.	Fatma Seddik Amin.
	2.	Ehab El Sayed Kamel.
	3.	Maha Mostafa Mohammed.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Osteoarthritis is a disabling disease that leads to severe morbidity and deterioration of physical activity. The intra-articular injections of ozone have been documented as a treatment of osteoarthritis since the 1995s. Purpose: To examine the effect of intra-articular ozone injection versus ozone topical application on osteoarthritic knee treated with traditional physical therapy program in terms of knee joint pain, range of motion, health status and physical function. Methods: Forty five participants, from both sexes with grade II knee osteoarthritis (Kellgren and Lawrence classification) with age ranged from 40-55 years, were randomly assigned into 3 equal groups, group A: received physical therapy program (Ultrasonic, Transcutaneous electrical nerve stimulation, stretching and strengthening exercise), group B: received intra-articular ozone injection with physical therapy program, group C: received ozone topical application with physical therapy program. All patients assessed for knee pain intensity using visual analogue scale, knee joint range of motion using the digital water level (inclinometer), health status and physical function with Dutch McMaster Toronto Arthritis Patient Preference Questionnaire pre and post treatment. Treatment program of physiotherapy was applied for 6 weeks, 3 sessions per week; each session was 1hour, while ozone therapy was applied for 6 weeks, 2 sessions per week, and topical application of ozone gel twice per day for 6 weeks. Results: There was significant improvement in all groups at all out come measures with a significant difference between all groups in favor of group B ($P < 0.05$). Conclusion: Adding intra-articular ozone injection to physical therapy program can soothe pain, increase range of motion and improve the functional activity level in patients with knee osteoarthritis, more than using the physical therapy program alone. While adding ozone topical application to physical therapy program has no additional effect in the management of patients with knee osteoarthritis.</p>		
Key words	1.	Knee osteoarthritis.
	2.	Intra Articular Ozone Injection.
	3.	Ozone therapy.
	4.	Physiotherapy.
Classification number	:	000.000.
Pagination	:	134 p.
Arabic Title Page	:	فاعلية العلاج بحقن الأوزون داخل المفصل ضد العلاج بالأوزون الموضعي في مرضي خشونه الركبة.
Library register number	:	7205-7206.

Author	:	Nour Ali Abou El Elaa.
Title	:	Effect of gender on appetite regulation following resistance exercise in central obese subjects.
Dept.	:	Department of Basic Science.
Supervisors	1.	Ahmed Ebrahim Elerin.
	2.	Marwa Shafiek.
	3.	Heba Abdin.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Obesity is a growing global health concern, with a rapid increase. The regulation of appetite and energy intake is influenced by gut hormones. Leptin is peptide hormones with adipostatic and orexigenic effect. Leptin is secreted by fat tissues which results in reduced food intake and increased energy expenditure. Obesity is often associated with high leptin levels and exogenous leptin resistance. Purpose: to investigate the effect of sex difference on total leptin exists after resistance exercise program in central obese subjects. Methods: This study was conducted on 12 central obese volunteer subjects. Patients were subdivided according to gender difference into 2 groups (group A: 6 female and group B: 6 male), each group received resistance exercise program, (14 exercises, 3 times/ week) for 14 week with low calorie diet of 1000 to 1200 kcal/ d. Concentrations of leptin, lactate and HOMA IR were measured at the beginning of the study and just immediately after treatment protocol.. Results: The results showed that the resistance exercise training resulted in a significant decrease in leptin regarding male group more than female (p < 0.01). Conclusion: Resistance exercise with low calorie diet decreased body weight and plasma leptin level which decreased in male group better than female group.</p>		
Key words	1.	Obesity.
	2.	Low calorie diet.
	3.	Leptin.
	4.	Resistance exercise.
Classification number	:	000.000.
Pagination	:	122 p.
Arabic Title Page	:	تأثير نوع الجنس على تنظيم الشهية في أعقاب ممارسة تمارين المقاومة في مرضى السمنة المركزية.
Library register number	:	7197-7198.

Author	:	Ragwa Tawfeq Moustafa Mohamed.
Title	:	Validity and reliability of the Arabic version of Low Back Pain Rating scale in patient with low back pain.
Dept.	:	Department of Basic Science.
Supervisors	1.	Wadida Hassan Abd Elkader Elsayed.
	2.	Olfat Ibrahim Ali.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Low back pain (LBP) is a very common health problem worldwide and a major cause of disability affecting performance at work and general well-being. As an Arabic version has not been developed with full cross-culture adaptation, The LBPR questionnaires was translated into Arabic language, as it is less costly and time consuming than generating a new measure, and to test its validity and reliability. Purpose: The purposes of this study were to translate and cross culturally adapt the Low Back Pain Rating scale (LBPRS) to Arabic language and to test the validity, and reliability of the Arabic version of LBPRS in Arabic-speaking patients with LBP complaints. The ultimate goal was to get an instrument in Arabic language that would facilitate international research in LBP as well as to serve Arabic health practitioners in their everyday clinical practice. Methods: Sixty-five patients with low back pain, 20 experts were included in this study.150 Sheets (including retest sheets) were filled out in this study. Forward translation, development of initially translated version. Backward translation, development of pre-final version by comparing both of the two backward translations and the original version by the research team and testing of pre-final version using two expert panels each panel contains ten experts. One panel tested the clarity and the other tested the proportion of relevance. Then, testing of the final version on patients was conducted. Clarity index, expert proportion of relevance, descriptive statistics, missed item index, time taken to answer the scale, Cronbach's coefficient alpha and spearman's rank correlation coefficient were conducted for statistical analysis. Results: The study showed the scale items were filled by patients and it needed three minutes or less to be answered in about 75% of all sheets, also it needed less than 15 minutes to be answered in about 99% of all sheets, Cronbach 's alpha equals 0.875 (good) and the spearman's rank correlation coefficient between test and retest results were statistically significant as P-value was less than 0.001. Conclusion: Arabic - language version of low back pain rating scale has face and content validity, feasibility and internal consistency and test retest reliability enough to measure back and leg pain, disability, physical impairment in LBP patients.</p>		
Key words	1.	Validity.
	2.	Low back pain
	3.	Reliability.
	4.	Low Back Pain Rating scale.
Classification number	:	000.000.
Pagination	:	93 p.
Arabic Title Page	:	مصداقية وثبات النسخة العربية من مقياس الالام اسفل الظهر علي مرضي الالام اسفل الظهر.
Library register number	:	7259-7260.

Author	:	Rasha Sayed El Khouly.
Title	:	Correlation Between Forward Head Posture And Spinal Saggital Balance.
Dept.	:	Department of Basic Science.
Supervisors	1.	Aliaa Atia Diab.
	2.	Marwa Shafiek Mustafa Saleh.
	3.	Mohamed Hafez Shaaban.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background: Forward head posture (FHP) and other forms of spinal sagittal imbalance at nowadays are a major cause of pain and disability among patients presenting to the spine clinic in daily practice. However, it is unclear if there are correlation between FHP and whole spinal balance or no. Aim of study: To measure the correlation between FHP and spinal sagittal balance. Material and Methods: This study was carried at El Sheikh Zayed Specialized Hospital Out Patient Clinic Of Physical Therapy. Thirty subjects aged between 25-35 years old from both sexes with radiological craniovertebral angle (CVA) $<70^{\circ}$ were included in this study. Standard full-length lateral radiographs performed to all participant. FHP was assessed by CVA, assess C7-S1 sagittal vertical axis (SVA) for total spinal balance,. Co_C2 angle for upper cervical lordosis ,. C2_C7 SVA and C2-C7 angle for lower cervical lordosis,.T1 sagittal tilt,T4_T12 angle for thorathic kyphosis (TK),. L1_S1 angle for lumber lordosis(LL) and sacral slope (SS). Correlation Analysis was used to identify the direction and strength of the relationship between FHP and spinal sagittal balance variables. Results: Forward head posture angle is negatively strong correlated to C2 –C7 SVA and has a negative intermediate correlation with T1 tilting, but it has a weak positive correlation with C7-S1 SVA, on the other hand it has no correlation with C0-C2 angle ,C2-C7 angle, Sacral slope, Lumber lordosis and Thoracic kyphosis. Conclusion: Increasing in FHP angle leads to increase in C7-S1 SVA, decrease in C2-C7 SVA,T1 tilting . While it has no effect on C0-C2 angle, C2-C7 angle, Sacral slope, Lumber lordosis and Thoracic kyphosis.</p>		
Key words	1.	Forward head posture.
	2.	Sagittal balance.
	3.	Full-length lateral radiographs.
Classification number	:	000.000.
Pagination	:	76 p.
Arabic Title Page	:	العلاقة بين الوضع الامامي للرأس والاتزان السهمي للعمود الفقري.
Library register number	:	7257-7258.

Author	:	Somaya Nady Mohamed Elsayed.
Title	:	Effect Of Body Mass Index On Craniovertebral Angle And Shoulder Angle In Egyptian Adolescents.
Dept.	:	Department of Basic Science.
Supervisors	1.	Haytham M. Elhafez.
	2.	Mayada Ashraf Mahmoud.
Degree	:	Master.
Year	:	2020.
Abstract	:	
<p>Background. Craniovertebral angle and shoulder angle used to evaluate forward head and rounded shoulder due to forward head and rounded shoulder considered most common postural abnormality in cervical and shoulder region. Body mass index is expressed by weight (in kilogram) for height (in meter square) relationship. Although most previous researches were conducted to determine the relation between forward head posture and cervical pain or thoracic kyphosis or temporomandibular joint and since the relation between body mass index and forward head posture and rounded shoulder posture is not clearly understood. Aim of the study: The study to understand the effect body mass index on craniovertebral angle "CVA" and shoulder angle "SA" in asymptomatic subjects. Subjects and Methods: Eighty-six Egyptian female physical therapy students aged 18-22 years old and body mass index ranged from 21.98-34.7 kg/m² were recruited for this cross section study. Subjects were divided into 3 Groups. Group A "Normal BMI", Group B "Overweight" and Group C "Obesity class-I". The craniovertebral angle "CVA" and shoulder angle "SA" were used to measure the degree of forward head posture and rounded shoulder posture respectively from standing position by photogrammetry of the cervical spine and dominant shoulder. Results: For Group A "Normal weight", mean age was 19.41 ± 1.03 years, mean weight was 57.3 ± 6.65 Kg, mean height was 1.61 ± 0.61 m, and mean BMI was 21.98 ± 1.71 Kg/ m². For Group B "Overweight", mean age was 19.21 ± 0.42 years, mean weight was 70.25 ± 7.23 Kg, mean height was 1.61 ± 0.7 m, and mean BMI was 26.78 ± 1.44 Kg/ m²) For Group C "Obesity Class-I" mean age was 19.4 ± 0.55 years, mean weight was 86.8 ± 8.17 Kg, mean height was 1.58 ± 0.8 m, and mean BMI was 34.7 ± 4.41 Kg/ m²). For CVA; there was Significant correlation detected between Normal weight and overweight (p<0.02) and significant correlation a between Normal weight and obese (p<0.03). For SA; there was significant correlation between normal weight and overweight (p<0.02). However, For CVA the relation between overweight and obese non-significant (p>0.2), and for SA non-significant between normal weight and obese (p>0.41) and non-significant between overweight and obese (p>0.2) Conclusion: overweight and obesity change CVA (forward head posture) and overweight change SA (rounded shoulder) However, obesity did not change SA (rounded shoulder).</p>		
Key words	1.	Body Mass Index (BMI).
	2.	Shoulder Angle (SA)
	3.	Craniovertebral Angle (CVA).
	4.	Egyptian Adolescents.
Classification number	:	000.000.
Pagination	:	85 p.
Arabic Title Page	:	تأثير كتلة الجسم على الزاوية بين الرأس وال فقرات وزاوية الكتف في المصريين البالغين.
Library register number	:	7051-7052.