Background and purpose: Obesity, particularly central obesity, is a major risk factor for the development of hypertension and an important independent risk for coronary artery disease. The aim of this study was to compare between the effects of continuous moderate aerobic exercise versus high intensity interval training (HIIT) on Waist Circumference, lipid profile and CRP in men with abdominal obesity. Subjects and Methodology: Forty men participated in this study. Their age ranged from 30 to 40 years old, their body mass index (BMI) ranged from 30 to 40 kg/m² and their Waist circumference (WC) from 102 to 120 cm. They were assigned into two equal groups: Group (A): 20 men received moderate aerobic exercise program for eight weeks as three times per week. Group (B): 20 men received high intensity interval training (HIIT) for eight weeks as three times per week. Results: There was significant improvement for group (A) and (B) in C-reactive protein (12.5% ↓, 17.1% ↓), TC (4.95% ↓, 8.18% ↓), TG (7.55% ↓, 14.04% ↓), HDL (10.4% ↑, 22.47% ↑), LDL (5.58% ↓, 13.61% ↓), BMI (2.93% ↓, 7.11% ↓), WC (3.37% ↓, 4.67%↓) respectively, but there was statistical significance in favor of group B (HIIT). Conclusion: HIIT produce more significant benefits on (blood lipids, CRP, BMI and WC) than continuous aerobic exercise in men with abdominal obesity.

Key words

1. Obesity.
2. total cholesterol.
3. triglycerides.
4. low-density lipoprotein
5. high density lipoprotein.
6. CRP.
7. HIIT.
8. aerobic exercise.
**Purpose:** To compare between the therapeutic efficacy of Flutter Mucus Clearance Device and Active Cycle Breathing Technique approaches in improving FEV\(_1\) in Bronchiectasis patients. These purposes were achieved by assessing the calculation of FEV\(_1\) by using Microlife Spirometry.

**Methods:** 40 patients (28 Males and 12 Females), who have Bronchiectasis, and age between 50 and 60 years, were divided randomly into two groups. Group (I) received Flutter Device therapy. Group (II) received Active Cycle breathing technique therapy; treatment period was 3 months with 2 sessions per week for both Group (I) and Group (II).

**Results:** Result showed that Flutter Device and ACBT improves FEV\(_1\) in group (I) and (II) with a percentage of 43.17%, 44.17% respectively. Conclusion: Flutter Device and Active Cycle Breathing Technique were valuable in treating Bronchiectasis via increasing in the pulmonary function FEV\(_1\).
Background: Most patients of hepatic, renal or cardiac disorders have ascites which causes respiratory dyspnea that interrupts patients life day and night. Aim of study: The aim of this study was to investigate the chest diameters response to inspiratory muscle training in hepatic ascitic patients with dyspnea. Subject and methods: Forty hepatic ascitic patients with dyspnea from both genders(20 M, 20 F) participated in this study. Their age ranged from (41 – 70) years. They were assigned into two groups of equal number study and control, each of them consisted of 20 patients(10 M, 10 F); study group enrolled into inspiratory muscle training exercise using threshold IMT with drug therapy and control group enrolled into drug therapy only. The study lasted for 6 weeks at a frequency of 3 sessions per week. Evaluation included measurement of chest circumference, costo-phrenic angle, vertical and transverse diameters. The measurements were performed at the beginning and end of the study for both groups. Results: The results of this study emphasized that chest circumference, costo-phrenic angle, vertical and transverse chest diameters in hepatic ascitic patients with dyspnea improved with inspiratory muscle training using threshold IMT in the study group. Conclusion: Theses findings suggest that inspiratory muscle training using threshold IMT may be an effective and time consuming tool to enhance the lung expansion and to reduce dyspnea on hepatic ascitic patients with dyspnea when compared with the effect of the drugs alone.

Key words
1. Ascites.
2. Dyspnea.
3. Chest diameters.
4. Inspiratory muscle training.
5. muscle training.

Arabic Title Page: استجابة سعة القفص الصدري لتمرين عضلات الشهيق لدى حالات صعوبة التنفس الناتجة عن مرض الاستسقاء الكبدي.

Library register number: 3471-3472.
Dynamic versus static training for intermittent claudication in diabetic patient (Type 2).

Abstract:
The purpose of this study was to compare between the effect of static and dynamic training for intermittent claudication in diabetic patient (Type 2). Methods: the study was carried out on thirty type 2 diabetic patients of both sexes (19 men, 11 women) who suffered from peripheral arterial disease that caused intermittent claudication, their ages ranged from 40 - 60 years. Patients were selected from Kafr El-Dawar General Hospital from vascular outpatient clinic. Patients were assigned into 2 equal groups in number both groups were assessed by treadmill exercise testing (till maximum claudication pain) and ankle brachial pressure index (ABPI) for all patients at base line and after 8 weeks. Group (A) (10 men, 5 women) performed treadmill walking exercise by using electric treadmill 3 sessions/week to maximal claudication pain for 8 weeks. Group (B) (9 men, 6 women) performed standing toe raise exercise and calf stretching exercise using towel for 3 sessions/week for 8 weeks till maximum tolerated pain for each patient.

Results: Treadmill training increase pain free walking distance and maximum walking distance by 73.3% and 67.67% respectively while static calf exercise increased pain free walking distance and maximum walking distance by 25.61% by 45.07% respectively. Also treadmill training increased pain free walking time and maximum walking time by 71.08% and 71.62% respectively while static calf exercise increased pain free walking time and maximum walking time by 50.2% and 42.8% respectively without any significant differences in ABPI in both groups.

Conclusion: dynamic training exercise is more effective than static exercise in dealing with intermittent claudication problem in type 2 diabetics.

Key words:
1. Type 2 Diabetes Mellitus.
2. Static Exercise.
3. Dynamic Exercise.
4. Intermittent Claudication.
5. Ankle Brachial Pressure Index.

Arabic Title Page:
التمارين الساكنة مقابل الحركية على الشد العضلي المتقطع لمرضى السكري (النوع الثاني).

Library register number:
3419-3420.
The purpose of this study was to measure and compare the response of lipid profile to a program of aerobic exercise training by using elliptical trainer combined with low-carbohydrate diet between obese men and women. The study was carried out on forty obese subjects (women and men) with the age of 20-30 years. Participant selected from Damietta general hospital fromout clinic of internal medicine department. All subjects (both men and women) were divided into equal 2 groups. Group (A) included 20 obese women and group (B) included 20 obese men. There was no significant difference between groups in there body mass index and waist circumference, mean (BMI) pretreatment (34.63±0.77) Kg/m2 in group (A) and (34.29±0.89) Kg/m2 in group (B) mean waist circumference pretreatment were (107.35± 10.3) Cm in group (A) and (109.45± 10.76) Cm in group (B) . There was no significant difference between groups in pretreatment measures of lipid profile. Program were consisted of 12 weeks of elliptical training for 3 sessions per week. Training combined with low-carbohydrate diet .The results showed there was a significant difference in the post treatment values between groups A and B. Group (B) showed an improvement in lipid profile. The results showed significant decrease in total cholesterol level by (23.51 %) in group (B) versus (14.4%) in group (A) , decrease serum triglycerides level by(24.79 %) in group (B) versus (10.5%) in group (A) , decrease low density lipoprotein level by(19.87%) in group (B) versus (11.28%) in group (A) significant increase high density lipoproteins level by (24.8 %) versus (12.54%) in group (A) . It was concluded that elliptical training has more beneficial effect on lipid profile of obese men than women.
**Title**: Effect of Core Stability Training on Balance and Gait of Elderly.

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

**Supervisors**: 1. Azza Abdel Aziz Abdel Hady.
2. Gehan Mohamed Shaera.

**Purpose**: This study aims to determine the Effect of Core Stability Training on Balance and Gait of Elderly. Volunteers: Forty subjects from both sexes participated in the study. The participants were randomly assigned to; (Group A) consisted of 20 participants (10 men and 10 women) with mean±SD age 68.55±2.70 years and mean±SD BMI 28.83±2.88 Kg / m². (Group B) consisted of 20 participants (12 male and 8 female) with mean±SD age 68.30±1.65 years, mean±SD BMI 27.49±2.22 Kg / m². Methods: Walking test, Berg Balance Scale and gait analysis were measured before the study, and after 3months in both groups. Group A did core stability training exercises 3 times a week for 3 months, Group B did not perform any program of exercise except for ADL. Results: Analysis showed statistically significant difference between both groups for all the tested variables (p=<0.0001). Moreover, analysis showed statistically significant improvement in step length with percentage of change 9.1% , with significant decrease in step width with percentage of change 26.7% and foot angle with percentage of change 19.2% using gait analysis, significant improvement in walking distance with percentage of change 128% and walking time with percentage of change 118%, using walking test and significant improvement in balance with percentage of change 19.1%, using BBS in outcome measures for group A, with no improvement at all for group B. Conclusion: (Current study advice that core stability program be in training programs concerning elderly due to what was included in the study in improving balance and quality of gait for elderly in the study group).

**Key words**: 1. Core stability.
2. balance.
3. elderly.
4. gait.

**Arabic Title Page**: تأثير تدريبات اللاعب المحوري على الاتزان والمشي لدى المسنين

**Library register number**: 3507-3508.
Author : Amina Mohamed Khalifa.
Title : Effect of inspiratory Muscle training on arterial blood gasses after coronary by pass graft.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors
1. Akram Abdel-Aziz.
2. Mohamed Saad Hagras.
Degree : Master.
Year : 2013.
Abstract:
Background: One major cause of post operative complication is alteration in blood gases and loss of functional alveolar units has been recognized as a major pathophysiological mechanism responsible for post operative hypoxemia after coronary bypass graft (CABG). Aim of the study was to determine the effect of inspiratory muscle training on arterial blood gases after coronary bypass.
Method: Thirty patients of both sexes (15 men and 15 women) their age ranged from (40-60) years underwent CABG selected from cardio-thoracic surgical department at Kaser Elini and National Heart Institute. Assigned into two groups, Group A received traditional physiotherapy (diaphragmatic breathing ex, right way of cough and ambulation ex.) plus inspiratory muscle training. Group B received the traditional physiotherapy. Arterial blood gases (pH, PO₂, PCO₂, HCO₃⁻) were done before and after the training programe that lasted for 3 months with rate 3 sessions /week.
Key words
1. Inspiratory Muscle training.
2. blood gases.
3. coronary artery bypass.
Arabic Title Page: تأثير تدريبات عضلات الشهيب على غازات الدم بعد استبدال الشريان التاجية.
Library register number : 3337-3338.
Purpose: The purpose of this study was to state the effect of buteyko breathing technique (BBT) on acid base balance on asthmatic patients. Subject: Thirty patients of both sexes their ages ranged from 30-45 years who suffered from bronchial asthma for 3 years or more. Patients were selected from El Matriya Teaching hospital from chest in and outpatient clinic. Patients were assigned into 2 equal groups in number group (A) 7 males - 8 females received medical treatment plus Buteyko breathing technique for 8 weeks. Group (B) 5 males - 10 females received medical treatment plus traditional physical therapy program for chest disease patients for the same period.

Methods: Both groups were assessed by arterial blood gases and control breathing test and asthma questionnaire before and after treatment program.

Results: The results showed improvement in ABG results in group (A) (PH 0.67% - Hco3 12.39% - pco2 13.12% - Po2 8.85%) control breathing test improved (65.68%) asthma questionnaire improved (29.45%) while in group (B) the results showed (PH 0.04% - Hco3 3.07% - pco2 0.77% - Po2 0.67%) control breathing test (7.25%) - asthma questionnaire (2.29%) respectively.

Conclusion: Buteyko breathing techniques have an effect on acid base balance of blood, severity of asthmatic daily symptoms and dosage of medication among asthmatic patients.


Arabic Title Page: كفاءة برنامج الباتيكو التنفسى على معدل القاعدي الحمضي للدم لدى مرضى الروم الشعبي.

Library register number: 3562-3563.
**Background:** Chronic obstructive pulmonary disease (COPD) is a major worldwide health burden with increasing morbidity, mortality and health care cost. It characterized by an inappropriate inflammatory response of the lungs. The role of T lymphocytes is important in COPD pathogenesis but few studies have investigated it, **purpose:** the objective of this study was to investigate and compare the effectiveness of six weeks laser acupuncture and inspiratory muscle trainer on COPD patients' immunity. **Subjects and Methods:** According to the inclusion and exclusion criteria, thirty chronic obstructive pulmonary diseased males aged 55-65 years participated in the present study. They had mild to moderate degree of COPD (as assessed by spirometry) with low CD4/CD8 ratio. They were divided randomly into two groups; each group consisted of fifteen patients, group (A) received inspiratory muscle trainer rehabilitation while group (B) received laser acupuncture stimulation. CD4, CD8 and CD4/CD8 ratio were screened at the beginning and immediately after six weeks **Results:** revealed significant differences between the "pre" and "post" tests for CD4 mean values in both groups in favor of group (B). In addition, there was no significant difference for CD8 mean values between both groups either in pre or post tests. Also, there was a significant increase in the mean values of CD4/CD8 ratio post treatment in both groups in favor of group (B). **Conclusion:** laser acupuncture and inspiratory muscle trainer were effective in improving COPD patients' immunity (CD4, CD8 and CD4/CD8 ratio) with better results obtained in laser acupuncture group.

**Key words**
1. Chronic obstructive pulmonary disease.
2. Laser acupuncture.
3. Inspiratory muscle trainer.
4. Immunity.

**Arabic Title Page**
الخز بالليزر مقابل الحافز التنفسي على المناعة في مرضى السدة الرئوية المزمنة.

**Library register number**
3301-3302.
The effect of aerobic training program on lipid profile in chronic renal insufficiency patients. Subjects and methods: Forty patients (25men and 15women) of Chronic Renal Insufficiency patients, with age ranged from 40 to 50 years, were selected from renal out patient clinic of shebien El-Qanater general Hospital. These patients were subdivided into two equal groups in number. group A received aerobic exercise with resistive exercise program, and group B received resistive exercise program only, the study lasted for 8 weeks at a frequency of 3 session per week. lipid profile (total cholesterol, triglycerides, low-density lipoprotein and high density lipoproteins) was measured before and after the program. The results of the present study showed a significant improvement in the lipid profile in group A. Total serum cholesterol percentage of change for group (A) was 8.42% ↓ whereas; in group (B) was of 6.08% ↓. Serum triglyceride TG percentage of change for group (A) was 19.6% ↓ whereas; in group (B) was of 7.43% ↓. High density lipoproteins HDL percentage of change for group (A) was 25.92% ↑ whereas; in group (B) was of 8.87 % ↑. Low density lipoproteins (LDL) percentage of change for group (A) was 13.61 % ↓ whereas; in group (B) was of 4.3% ↓. Conclusion: The outcomes of the present study emphasized that the use of aerobic training program to improve lipid profile in chronic renal insufficiency patients as effective method to decrease cardiovascular risk factor and progression of CKD.

Key words

1. total cholesterol.
2. Triglycerides.
3. low-density lipoprotein.
4. high density lipoprotein.
5. resisted exercise.
6. aerobic exercise.
7. chronic renal insufficiency.

Arabic Title Page: تأثير التمرينات الهوائية على دهون الدم في مرضى القصور الكلوي المزمن.
Library register number: 3499-3500.
Previous studies have revealed an increased prevalence of orthostatic hypotension with age. In frail elderly individuals living in nursing homes, the prevalence of orthostatic hypotension is even higher, up to 50% or more. This study was conducted to determine the efficiency of aerobic exercises on orthostatic hypotension in elderly patients. Forty young elderly patients with orthostatic hypotension of both sexes (19 women and 21 men) were selected randomly from elderly homes (Heidia Barakat). Their age were ranged from 65-75 years and their body mass index (BMI) were ranged between (18-29kg/m²). They were suffering from long bed recumbence. (Patients participated in a physical therapy program for twenty four sessions designed in “4” phases with a rate 3 session/week) , their physical and physiological status were evaluated using complete blood picture and electrolytic analysis. Their functional status was assessed through Berg scale before starting the program and after 2 months of training. Results showed that there were significant improvement in those who had participated in aerobic exercise programs in managing orthostatic hypotension that gave a significantly high physical stable rate in blood pressure. We concluded that aerobic exercises as a form of physical therapy was a very effective therapeutic modality in managing cases suffering from orthostatic hypotension, so, it can be considered as an alternative as well as, adjacent method for treating such cases. There were no significant different between men and women in HB, Na⁺ berg scale there was significant improvement in SBP, and DBP by improvement between men and women in SBP (men 1.62%, women 5.07%) and improvement between men and women in DBP (Men 2.88%, 7.11%).
The purpose of this study was to determine the effect of Reflexology Versus Laser Therapy For Frozen Shoulder In Elderly With Type 2 Diabetes. Methods: The study was carried out on 40 patients of both sexes (22 men and 18 women) who had diabetic frozen shoulder with limitation range of motion, the age ranged between 55-65 years, they were selected from the out patient clinic of internal medicine in El Abary Medical Center. The patients were assigned into 2 equal groups in number. Group (A) who received Laser Therapy for fifteen minutes with exercise training program for shoulder joint for fifteen minutes 3 times per week for eight weeks. Group (B) who received Reflexology for fifteen minutes with exercise training program for shoulder joint for fifteen minutes 3 times per week for eight weeks. Both groups underwent range of motion for shoulder joint assessment tests pre program, after 4 weeks post program and post programs after 8 weeks. Results: The results of this study showed that there was significance group (A) was increase range of motion for shoulder joint than in group (B). Conclusion: it was concluded that Laser Therapy with exercise is more benefit to frozen shoulder with type 2 diabetes patients.

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<th>Key words</th>
<th>1.</th>
<th>shoulder/reflexology.</th>
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<td>laser therapy.</td>
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<td>range of motion.</td>
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The purpose of this study was to determine the effect of Reflexology Versus Laser Therapy For Frozen Shoulder In Elderly With Type 2 Diabetes. Methods: The study was carried out on 40 patients of both sexes (22 men and 18 women) who had diabetic frozen shoulder with limitation range of motion, the age ranged between 55-65 years, they were selected from the out patient clinic of internal medicine in El Abary Medical Center. The patients were assigned into 2 equal groups in number. Group (A) who received Laser Therapy for fifteen minutes with exercise training program for shoulder joint for fifteen minutes 3 times per week for eight weeks. Group (B) who received Reflexology for fifteen minutes with exercise training program for shoulder joint for fifteen minutes 3 times per week for eight weeks. Both groups underwent range of motion for shoulder joint assessment tests pre program, after 4 weeks post program and post programs after 8 weeks. Results: The results of this study showed that there was significance group (A) was increase range of motion for shoulder joint than in group (B). Conclusion: it was concluded that Laser Therapy with exercise is more benefit to frozen shoulder with type 2 diabetes patients.

| Library register number | 3267-3268. |
**Author** : Fatma Mahmoud Taha Mohamed.

**Title** : Effect of aerobic exercises on plasma proteins in patients on hemodialysis.

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

**Supervisors**

1. Zahra Mohamed Hassan Serry.
2. Bahaa Eldin Mostafa Abd Elmoty Zayed.
3. Mariam Elsayed Mohamed Abd El-Aal.

**Degree** : Master.

**Year** : 2013.

**Abstract**

Background: Renal failure is associated with considerable decline in plasma proteins; Physical exercise might be effective in slowing the rate or even reversing that decline. Objective: to investigate the effect of aerobic exercises using cycle ergometer in patients on hemodialysis. Subjects and methods: Forty patients on hemodialysis were participated in the study, their age ranged from 25 to 35 years. They were divided into two equal groups. The study group (group B) comprised of 20 patients (20 men) who received aerobic exercise three times per week for three months while the control group (group A) comprised of 20 patients (10 men and 10 women) didn't receive any training. Results: there was a significant increase in albumin and globulin in the study group as compared to the control group. Conclusion: It can be concluded that aerobic exercise improves plasma proteins level in patients on hemodialysis.

**Key words**

1. aerobic exercises.
2. plasma proteins.
3. hemodialysis.

**Arabic Title Page**

تأثير التمرينات الهوائية على بروتينات بلازما الدم في مرضى الفشل الكلوي.

**Library register number** : 3341-3342.
**Abstract**

Asthma is a common chronic disorder of the airways that remains a major health-care issue. Purpose: to determine effect of inspiratory muscle trainer on nitric oxide in asthmatic patient. Method: Forty male moderate asthmatic patients with age ranged from 30 to 40 years old participated in this study. The practical work was recruited from Cairo university hospital and El-Demerdash hospital. They were assigned into two groups equal in number: Group A (control group) included 20 patients who received routine chest physiotherapy only (deep breathing and cough) twice daily, 3 days per week for two month. Group B (study group) included 20 patients who received inspiratory muscle training by using inspiratory muscle trainer for 20 minutes and routine chest physiotherapy (deep breathing and cough) twice daily, 3 days per week for two month. Nitric oxide was measured before and after training program. Results: Statistical analysis revealed a significant decrease in nitric oxide level in the study group (20.01%) more than control group (4.57%) after using inspiratory muscle trainer in moderate asthmatic patients. Conclusion: usage of inspiratory muscle trainer as a method of rehabilitation to improve strength of inspiratory muscles and decrease level of nitric oxide as inflammatory marker in asthmatic patient.

**Key words**

1. Inspiratory Muscle Trainer.
2. Nitric Oxide.
3. Bronchial asthma.

**Arabic Title Page**

تأثير مدرب عضلات الشهيق على اكسيد النيتريرك في المرضى المصابين بالربو.

**Library register number**

3564-3565.
Complete Decongestive Therapy Efficacy on Secondary Lower Limb Lymphedema.

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

1. Zahra Mohammad Hassan Serry.
2. Fatma aboel-magd M. Hamid.

Master.

2013.

Background: Secondary lower limb lymphedema is a chronic disease that affects patient's quality of life or even a life threatening case. Propose of the study: to investigate the effect of complete decongestive therapy in patients with lower limb secondary lymphedema. Methods: 40 lymphatic patients of both sexes (20 male & 20 female) were included with age ranged from 45 to 60 years, divided to 2 groups each 20 patients. Procedures: Study group (8 female & 12 male) and Control group (12 female & 8 male) with stage II, III lymphedema according to Foldi classification received treatment of 3 sessions per week for 2 months. Both groups received skin care and free active aerobic exercises, study group received MLD and compression therapy by short stretch bandage, control group received conventional massage and compression therapy by long stretch bandage. Round measurement by tape measurement and skin thickness measurement by Ultrasound were taken before and after finishing the study at three points which were above ankle joint, below knee joint and at the end of thigh. Results: Comparing the mean values of pre & post treatment values of round measurement & skin thickness revealed a significant decrease at above ankle joint, below knee joint and at the end of thigh in favor of study group compared to that before intervention by 15.5%, 12.29% & 19.27% in the round measurement and 18.36%, 39.62% & 23.33% in the skin thickness respectively. Conclusion: CDT is effective in controlling the hallmark signs and symptoms of chronic secondary lower limb Lymphedema, decreasing circumferential round measurement and skin thickness in patients with secondary lower limb Lymphedema.

1. Complete decongestive therapy.
2. Secondary lymphedema.
**Electronic Guide to Theses Approved by Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery**  
*Prepared by Adel Abd El Salam, Hervee Abd El Salam, and El Kader Ahmed*

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<tr>
<th>Author</th>
<th>Hassan Mohamed Hassan Habib.</th>
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<tr>
<td>Title</td>
<td>Expiratory Versus Inspiratory Rehabilitation Outcomes on Pulmonary Functional Capacity in Patients with Chronic Obstructive Pulmonary Disease.</td>
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<tr>
<td>Dept.</td>
<td>Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.</td>
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| Supervisors                 | 1. Zahra Mohamed Hassan Serry.  
                              | 2. Yosri Mohamed Akl.  
                              | 3. Sherin Hassan Mohamed. |
| Degree                      | Master. |
| Year                        | 2013. |
| Abstract                    | Background: The effect of chronic obstructive pulmonary disease on patient's functional capacity can not be denied and its negative effect on his whole life. Objective: the purpose of this study was to compare between expiratory and inspiratory rehabilitation effectiveness on inspiratory and expiratory muscles strength and functional capacity. Patients and Methods: According to the inclusion and exclusion criteria, thirty chronic obstructive pulmonary diseased males aged 55-65 years participated in the present study. They had moderate degree of COPD (according to spirometric assessment) with altered pulmonary functional capacity. They were divided randomly into two groups, each group was consisted of fifteen patients, group(A) received inspiratory muscle trainer (15% of their maximum inspiratory pressure at first then increased by 5-10% each session to reach 60% of their maximum inspiratory pressure, three times, for six sets, three times per week for six weeks.), group(B) received expiratory muscle trainer (15% of their maximum expiratory pressure at first then increased by 5-10% each session to reach 60% of their maximum expiratory pressure, three times, for six sets, three times per week for six weeks.). Pulmonary functional capacity (maximum inspiratory pressure, maximum expiratory pressure, and six minute walk test) was measured for both groups at the beginning of the study and after six weeks. Results: 2x2 Mixed Design MANOVAs revealed that there was a significant improvement on pulmonary functional capacity (6MWT) in COPD patients (moderate degree) who received inspiratory muscle trainer (group A) compared with who received expiratory muscle trainer (group B). (p = 0.002). In addition, there was a significant increase in the mean value of MIP post training in the IMT group compared to EMT group (p = 0.0001). Also, there was a significant increase in the mean value of MEP post training in the IMT group compared to IMT group (p = 0.0001). Conclusion: It was concluded that IMT and EMT showed a significant pulmonary functional capacity (6MWT) in favor of IMT in patients with chronic obstructive pulmonary disease. |
| Key words                   | 1. Expiratory trainer.  
                              | 2. Inspiratory muscle trainer.  
                              | 4. Chronic obstructive pulmonary disease. |
| Arabic Title Page           | نتائج التأهيل الزيفرى مقابل التأهيل الشهيفي على وظائف التنفس في مرضى السدة الرئوية المؤقتة. |
| Library register number     | 3299-3300. |
BACKGROUND: Previous studies suggested that radiofrequency (RF) energy may be effective as a treatment for cellulite. Aim: This comparative study was conducted to assess the efficacy of a unipolar RF versus aerobic exercise training using orbitrack for cellulite reduction and losing weight. SUBJECTS AND METHODS: Forty moderate obese women (grade II) with ages ranged from 35 to 45 and body mass index (from 35 to 39.9) were assigned randomly into two groups. Subjects in group A (n=20) received aerobic exercise conducted on orbitrack device 3 times weekly for 6 weeks, while subjects in group B (n=20) received RF device twice weekly for 6 weeks. Both groups were instructed to follow the prescribed diet (low caloric diet). Weight, circumference and skin fold measurements of treatment sites (abdomen and both thighs) for both groups were taken pretreatment and after six weeks. RESULTS: There was significant reduction in the weight, tape and skin fold measurements of abdomen and thighs in both groups. There was a significant decrease in the skin fold measurement of abdomen for subjects in group (B) who treated with RF when compared with them in group (A) who treated with orbitrack. CONCLUSION: The unipolar RF device is a nonsurgical and noninvasive therapeutic option that reduces the subcutaneous fat deposits and circumferences of abdomen and thigh.
Background and purpose: High level of blood serum homocysteine became a powerful risk factor for cardiovascular disease, stroke and peripheral vascular diseases, controlling high levels of homocysteine in blood through cardiac rehabilitation programs may help in decreasing mortality rates among cardiac patients. The purpose of the study was to investigate the response of homocysteine to cardiac rehabilitation program in patients with stable angina. Subject and Methodology: Thirty male patients aged from 40 to 50 years old diagnosed as stable angina pectoris and the patients were randomly divided into two groups, study group; group (A) consisted of fifteen patients received cardiac rehabilitation program including aerobic training using treadmill and bicycle ergometer and resistance training using sandbags for 8 weeks, 3 days per week while the control group; group (B) consisted of fifteen patients didn't perform any exercise. Both groups were evaluated before and after the cardiac rehabilitation program. Blood samples were taken before and after the rehabilitation program for evaluation of homocysteine level in blood. Results: Homocysteine levels showed significant improvement (decrease) by 29.14% in the study group, while the control group showed significant increase in homocysteine levels. Conclusion: Cardiac rehabilitation program was effective in reducing homocysteine levels in patients suffering from stable angina pectoris.

Key words
1. Homocysteine.
2. Stable angina.
3. Cardiac rehabilitation program.

Arabic Title Page
استجابة الهموسيستين لبرنامج القلب التناهيلي لمرضى الذبحة الصدرية المستقرة.

Library register number
3373-3374.
Author : Heba Fouad Mohamed Barghout.
Title : Effect of Resistive exercise on blood platelets in elderly.
Dept. : Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.
Supervisors 1. Azza Abd Al Aziz Abd El Hady.
3. Gihan Samir Mohamed.
Degree : Master.
Year : 2013.
Abstract : The purpose of this study was to assess the effect of resistive exercise on blood platelets in elderly Subjects: Thirty elderly men with age ranged 50-60 years were enrolled in this study for 4 weeks (6 day/week). Subjects were selected from Bellbies Central Hospital's workers and employees, they were divided into two groups: Group (A): The study group consisted of twenty men who received resistive exercise (within 50% of 1-RM) and aerobic exercise (50% MHR). Group (B): The control group consisted of ten men who received aerobic exercise only (50% MHR). Both groups underwent measurement of platelets at the beginning and after 4 weeks blood platelets were counted. Results: there was statistically significant increase the count of blood platelet with group A when compared with group B. Conclusion: The resistive exercise increase number of platelets in elderly.
Key words 1. Resistive exercise.
2. Aerobic exercise.
4. Elderly.

Arabic Title Page : تأثير تمارين المقاومة على الصفائح الدموية في الأفراد المسنين.
Library register number : 3443-3444.
Impact of Cardiopulmonary Fitness and Left Ventricular Hypertrophy in Preventing Sudden Death in Athletes.

Background: Sudden death in athletes is a problem that often happened due to lack of pre-participation screening and periodical examination. Sudden death during sports is often the first and definitive manifestation of an underlying cardiovascular disease, which usually has a silent clinical course. Purpose: This study conducted at Sports Medicine Specialized Center to investigate the effect of using cardiopulmonary test and left ventricular hypertrophy screening as tools in improving the performance and preventing sudden death in top class athletes participating in strength and endurance sports. Subjects and methods: according to the inclusion and exclusion criteria, forty male competitive national team player athletes (twenty foot ball player and twenty weight lifting players) aged between 16-26 years participated in the present study. Cardiopulmonary exercise testing and Echocardiography were done to both groups as a cross sectional study. Results: revealed that athletes participating in endurance football sports had higher LVEDD, LVESD as regards to Echo parameters and high resting and maximal heart rate, aerobic fitness (d VO2/d Wr), as regarded to cardiopulmonary testing, on the other hand, athletes participating into weight lifting strength training had higher IVS, PWT as regards to Echo parameters. No significant difference was found between both groups in AT and EF%. Conclusion: Good cardiopulmonary fitness represented as higher VO2Max associated with normal Echocardiography parameters, reflecting mainly eccentric hypertrophy in endurance athletes and concentric hypertrophy in strength athletes.

<table>
<thead>
<tr>
<th>Key words</th>
<th>1. Athletic Heart.</th>
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<td>2. Fitness.</td>
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| Arabic Title Page | تأثير كفاءة الجهاز الالياني التنفسي وتضخم البطين الأيسر في منع الوفيات المفاجئة في الرياضيين. |
| Library register number | 3347-3348. |
Author : Hossam Helmy Ibrahim.

Title : Response of blood glucose & Alanine Aminotransferase levels to moderate aerobic exercises in type 2 diabetic fatty liver patients.

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

Supervisors
1. Akram Abd EL Aziz Sayed.
2. Sabry Abd El Fattah El Ghanam.
3. Fatma Aboel - magd M. Hamid.

Degree : Master.

Year : 2013.

Abstract

Background: Type 2 diabetes and fatty liver are common problems in obese persons and have serious complications. Purpose of the study: to investigate the efficacy of moderate aerobic exercises on blood glucose and alanine aminotransferase levels in type 2 diabetic fatty liver patients.

Materials and methods: Forty patients with type 2 diabetes and fatty liver from both genders (8 male and 32 females) participated in this study. Their age range was 50 to 60 years. Patients were divided into two groups, group (A) : (4 men and 16 women) performed treadmill exercise program with moderate intensity (60-70% from HR max) three times per week for two months and followed low carbohydrate diet where group (B) : (4 men and 16 women) followed low carbohydrate diet only. Alanine aminotransferase enzyme and blood glucose levels were measured for each patient before and immediately after the last session post 8 weeks. Results: The results of this study showed that changes in ALT concentration in group (A) or group (B) was within the normal range and blood glucose was significantly decreased in group (A) and group (B).

Conclusion: This study found that moderate aerobic exercises are effective in controlling Alanine aminotransferase enzyme level and blood glucose level in type 2 diabetic fatty liver patients.

Key words
1. Treadmill exercise.
2. alanine aminotransferase.
3. blood glucose.
4. type 2 diabetes.
5. fatty liver.

Arabic Title Page : استجابة السكر والألانين أمينو ترانسفيراز للتمرينات الهوائية المتوسطة في مرضى الكبد الدهني مع البوال السكري الثاني.

Library register number : 3513-3514.
The purpose of this study was to examine the effect of extremely low frequency pulsed magnetic field (LFPMF) therapy on selected parameters of blood picture (Hb, Hematocrite and RBCs) in patients with type 2 diabetes mellitus. Forty patients of both sexes with type 2 diabetes 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=20) 10 men and 10 women received LFPMF for 3 months from 10 October 2012 to 10 January 2013, 3 times per week for 12 weeks in addition to their oral hypoglycemic drugs, and their vitamins whereas the magnet off group (n=20) 10 men and 10 women received their hypoglycemic drugs and their vitamins. CBC was measured before and after 3 months of treatment. Results: The results showed a statistical significant decrease in all parameters in magnet on group compared with magnet off group. Conclusion: It was concluded that LFPMF has a negative effect as a therapeutic method on CBC in patients with type 2 diabetes mellitus.

**Key words**

1. Magnetic Field.
2. Complete Blood count.
3. Diabetic Patients.

**Arabic Title Page**: تأثير المجال المغناطيسي قليل التردد على صورة الدم الكاملة لدى مرضى السكر.

**Library register number**: 3291-3292.
Background and Purpose: Physical training is recommended as an efficient therapy in patients with chronic heart failure (CHF). Low frequency electrical stimulation (LFES) has recently been suggested as a good alternative to aerobic training. The aim of this study was To investigate the effect of low-frequency electrical stimulation and aerobic exercise training on blood flow, knee extensor muscles (quadriceps &calf) strength and cardiopulmonary fitness indices (maximal Oxygen consumption, anaerobic threshold, work load and ΔVO₂/ΔWR), in patients with Chronic heart failure, and to compare the percentage of improvement between both groups.

Methods: Thirty patients with stable CHF, aged from 50 to 65 years, classes II to III according to New York Heart Association (NYHA) classification were recruited from The National Heart Institute, outpatient clinic. They were divided into two groups equal in numbers according to their functional capacity, Group A (Moderate functional capacity) received aerobic exercise training, and group B (Low functional capacity) received low-frequency electrical stimulation (LFES). Patients in both groups received 3 sessions per week for 8 consecutive weeks, at baseline and after the treatment period, patients performed a symptom-limited cardiopulmonary exercise test, an evaluation of maximal knee extensor strength and blood flow assessment. Results: revealed that there was a significant improvement for all variables in both groups. By comparing the percentage of increase between both groups, results showed there was significant increase in favor of aerobic training group in blood flow velocity, right quadriceps strength, left quadriceps strength, right calf strength, left calf strength, maximal oxygen consumption, work load, and decrease in dVO₂/dWL, and there was no significant difference between both groups as regards to anaerobic threshold. Conclusion: Eight weeks of aerobic exercise training and low-frequency electrical stimulation improved blood flow velocity, knee extensor muscles strength and cardiopulmonary fitness indices in favor of aerobic exercise training, low-frequency electrical stimulation could be a primary phase of treatment for the patients with low exercise to be able to do aerobic exercise training as a second phase of treatment.

Key words
1. Chronic heart failure.
2. Low-frequency electrical stimulation.
3. Aerobic exercise training.
4. Functional capacity.
5. Heart failure.

Arabic Title Page : التنبيه العضلي الكهربائي المنخفض التردد مقابل التمرينات الهوائية في مرضى فشل عضلة القلب المزمن.

Library register number : 3489-3490.
**Background:** Coronary artery bypass graft (CABG off-pump) is a surgical procedure which used to promote increased circulation to the myocardium, Coronary Artery Insufficiency is a common problem which affect the population. Purpose of this study: was to assess the recovery phase of cardiopulmonary exercise test after coronary artery bypass graft (off-pump). Subjects and Methods: Thirty subjects (Group I) Intervention group Fifteen patients with CABG (off-pump) (4 Women, 11 Men), control group (Group II): Fifteen healthy subjects (3 Women, 12 Men). All subjects assessed by cardiopulmonary exercise test for evaluation the following parameters (Heart rate(H.R), Breathing reserve(B.R), Breathing frequency(B.F), Minute Ventilation (V_E), Oxygen pulse(O_2/HR), Equation of Oxygen consumption(EqO_2), Equation of Carbon dioxide consumption (EqCO_2). Results: showed significant decrease in recovery phase of cardiopulmonary exercise test of these parameters (H.R, B.F, V_E, EqO2) compared to healthy subjects. Also results showed significant increase in recovery phase of cardiopulmonary exercise test of these parameters (B.R, O_2 / H.R, EqCO_2) compared to healthy subjects. Conclusion: it was concluded that patients after three months from CABG (off-pump) had a significant change in measured parameters of the recovery phase denoted by cardiopulmonary exercise testing to reach nearly the normal healthy parameters.

**Key words**
2. Cardiopulmonary exercise test.

**Arabic Title Page**
التقييم الرنى لمرحلة التفاعلي من اختبار كفاءة الجهاز الدورى التنفسي لمرضى ترقيق الشريان التاجى.

**Library register number**
3537-3538.
The aim of this study was to compare the effect of a program of whole body vibration exercises versus aerobic training on lipid profile on women with type 2 diabetes. Forty type 2 diabetic women were selected from national diabetic institute their age ranged from (40 – 50) years. They were assigned into two equal groups A and B. Each of them consisted of 20 participants; Group A enrolled into vibration exercise program, and Group B enrolled into aerobic training program. The study lasted for 2 months at a frequency of 3 sessions per week. Evaluation included the lipid profile. Lipid profile was measured before and after program. The results showed a statistically significant reduction in serum blood lipids in both groups. But when comparing the two groups with each other there is no statistically significance value. The results of this study showed that both vibration exercise and aerobic training had comparable effect on long term blood lipid controlling on women with type 2 diabetes. These findings suggest that whole body vibration exercises might be an effective and low time consuming tool to control serum blood lipids on women with type 2 diabetes when compared with aerobic exercise especially on women with decreased fitness.

Key words

1. Diabetes.
2. Vibration exercise.
3. Aerobic training.
4. Lipid profile.

Arabic Title Page:
تأثیر الاهتزاز الكامل للجسم مقابل التمارين الهوائية على نسبة الدهون في السيدات مرضى البوال السكرى (النوع الثاني).

Library register number:
3321-3322.
### Author
Maha Mohamed Mahmoud Abouzaid.

### Title
Effect of Hyperbaric Oxygen on Stem Cells on Patients with Pressure Ulcers (A systemic review study).

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

### Supervisors
1. Zahra M. Hassan Serry.

### Degree
Master.

### Year
2013.

### Abstract
Pressure ulcer is a major medical and financial problem, this review was conducted to assess the effectiveness of using a new modality: (hyperbaric oxygen therapy) in managing pressure ulcer patients. Medical libraries were searched using a variety of keywords. Search results were presented in 4 main sections (pressure ulcers, hyperbaric oxygen therapy, stem cells and hyperbaric oxygen therapy and pressure ulcers). The levels of evidence "the Scottish intercollegiate guidelines network" (SIGN) were used to detect the level of evidence behind each section for the purpose of comparison and discussion. From this review a series of clinical and research recommendations were driven to detect the validity of that modality. The last search was on September, 2010. Review methodology was divided into the following steps: 1) Data search, 2) Formation of results database, 3) Articles selection, 4) The appraisal process, 5) Expanding search results, 6) Data extraction and synthesis.

### Key words
1. pressure ulcers.
2. hyperbaric oxygen.
3. stem cells.
4. hyperbaric oxygen therapy and pressure ulcers.

### Arabic Title Page
تأثير الاكسجين تحت الضغط المفرط على الخلايا الجذعية في مرضى فرح الفراش.

### Library register number
3357-3358.
The purpose of this study was to compare the efficacy of pulsed electromagnetic field versus reflexology in management of elderly with knee osteoarthritis. Subjects: Thirty women diagnosed as knee osteoarthritis stage three and four due to mechanical causes they were chosen from outpatient clinic of the general institute of health insurance. Methods: patients were randomly distributed into two equal groups. The first group consisted of 15 women with a mean age of 63.26 (±2.21) received reflexology therapy on the lateral aspect of the foot in form of rubbing (thumb walking) in a triangle like area (between the base of the fifth metatarsal and calcaneus), this is the same zone on both feet for the knees (three times/week, for eight weeks). The second group consisted of 15 women with a mean age of 62.86 (±2.26) received on both knees low frequency, low intensity pulsed electromagnetic field therapy (for 30 minutes, three times/week, for eight weeks). Patients were evaluated pretreatment and post treatment for knee pain severity, functional ability and knee joint ROM. Results: patients of both groups showed improvement in all the measured variables. But there were difference in-between groups that the magnetic group showed significant improvement than the reflexology group. Conclusion: Magnetic group (Group B) showed more improvement in all variables (percentage of improvement: Knee Flexion ROM 32.57%, Knee Extension ROM 60.72 %, Timed up and go test 34.02 %, Pain subscore33.31%, Stiffness subscore49.81%, Total WOMAC score 33.3%). Than Reflexology group (Group A) (percentage of improvement: Knee Flexion ROM 21.64%, Knee Extension ROM 38.77 %, Timed up and go test 19.31%, Pain subscore23.64 %, Stiffness subscore39.76%, Total WOMAC score 19.6%).

Key words
1. Geriatric.
2. Knee osteoarthritis.
3. Magnetic therapy.
4. Reflexology.

Arabic Title Page: تأثير الموجات الكهرومغناطيسية مقارنة بالريفلوكسولوجي على حضوة الركبتين في المسنين.
### Author
Mai Mohammed Abo El Hamd.

### Title

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

### Supervisors
1. Samy Nasef.
2. Adham Rashed Mohamed.

### Degree
Master.

### Year
2013.

### Abstract
**Purpose:** The current study was carried out to evaluate the effect of some selected osteopathic techniques in the treatment of essential hypertension. Methods: Forty patients (18 females and 22 males) and their ages were ranged from 45 to 55 yrs, with a mild to moderate essential hypertension were randomly divided into two equal groups (osteopathically treated "study" group and medication "control" group). The method of assessment was mercury sphygmomanometer. For osteopathic group, they received osteopathic manipulative treatment twice/week for 6 weeks plus medical treatment, their blood pressure were assessed before and after every treatment session. While medication group received only atenolol drug, their blood pressure were assessed twice/week. Results: The results showed that there was significant decrease in blood pressure in osteopathically treated group compared with the control group. Using mercury sphygmomanometer in recording blood pressure, the study revealed that the results obtained in study group were superior to that of control group. Conclusion: It was concluded that some selected osteopathic treatment techniques were effective in decrease blood pressure in patients suffering from essential hypertension.

### Key words
1. Essential hypertension.
2. Blood pressure.
3. Osteopathic manipulative techniques.

### Arabic Title Page
تأثير بعض الأساليب المختارة من الإثنيويات في علاج مرضى ارتفاع ضغط الدم الأولي.

### Library register number
3329-3330.
The aim of this study was to compare between the impact of continuous versus interval training on white blood cell count in hypertensive patients. Forty sedentary hypertensive patients with increased level of white blood cells count as a result participated in the study, their ages ranged from 45 to 55 years and their BMI ranged from 25-29.9 kg/m². The patients were divided randomly into two equal groups. Group (A) performed moderate continuous training on electronic bicycle ergometer (30-40 minutes, 3 sessions per week for 8 weeks). While group (B) performed moderate interval training on bicycle ergometer (30-40 minutes, 3 sessions per week for 8 weeks). White blood cell count, systolic blood pressure, and diastolic blood pressure were measured before and at the end of the study for both groups. The results showed a significant difference in both groups in favor of the interval training group. It can be concluded that both continuous and interval training can be used to modulate the increase in white blood cells count in hypertensive patients with more favorability to the interval training protocols.

**Key words**

1. Hypertension.
2. Continuous Training.
3. Interval Training.

**Arabic Title Page**

أثر التدريب المستمر مقابل التدريب المتقطع على خلايا الدم البيضاء في مرضى ارتفاع ضغط الدم.

**Library register number**

3467-3468.
Abstract

Background: Dizziness in elderly women due to otitis media is very serious problem affects patient’s quality of life. Purpose of the study: to determine whether the addition of Gaze stability exercises to balance rehabilitation would lead to greater improvements of symptoms, postural control, and gait in elderly women with dizziness due to otitis media. Subjects and Methods: This study was conducted in El-Safwa center for physical therapy and collected from El Safwa center and private ENT clinics. Forty women with dizziness due to otitis media with age range from 65 to 75 years old, participated in this study. They were divided into two groups of equal number; control and study group. Procedures: Study group: received Gaze stability exercises beside the balance and gait exercise. Control group: received balance and gait exercise only. The program for both groups was two times per week for four weeks. Both groups were subjected to the same evaluation procedure using the Tinitti Assessment Scale For Balance and Gait before and after treatment. Results: The results of this study show measure parameters in both groups (p < 0.05). However, on comparison in both groups a significant difference was noticed at the end of the study in favor of the study (p < 0.05). Conclusion: the Gaze stability exercises improve dizziness in elderly women with otitis media.

Key words
2. In Balance.
3. otitis media.
4. elderly women.

Arabic Title Page
تأثير تمرينات الجذب للثبات على السيدات كبريات السن اللاتي يعانيين من الدوار نتيجة التهاب الأذن الوسطى.

Library register number
3545-3546.
Objective: The purpose of this study was to evaluate the effect of circuit weight training on lipid profile in patients with type 2 diabetes mellitus. Background: Exercise is often recommended for patients with type 2 diabetes to improve physical conditioning and glycemic control. This study examined the effect of 12 weeks of exercise training on lipid profile in patients with type 2 diabetes.

Subjects and methods: Forty type 2 diabetic men participated in the study, their ages ranged from 50-60 years. They were divided randomly into two groups; 20 patient each: Group(A) received circuit weight training 20min and aerobic training 30min for 12 weeks, 3 sessions per week and with 30-60% of 1RM. Group(B) received aerobic training on treadmill 30min for 12 weeks, 3 sessions per week with moderate intensity using borg scale. Pre and post 12 weeks blood samples were taken in fasting state from all subjects. Data was statistically described in terms of mean ± standard deviation (± SD). Using t-test d). Results: Circuit weight training had highly significant improvement in lipid profile increase in HDL-c percentage of improvement was 64.67% and decrease in TC percentage of improvement was 16.93%, TG percentage of improvement was 21.73%, LDL-c percentage of improvement was 22.0% (p was 0.0001*) and aerobic training had significant improvement in lipid profile increase in HDL-c percentage of improvement was 7.34% and decrease in TC percentage of improvement was 2.12%, TG percentage of improvement was 2.24%, LDL-c percentage of improvement was 2.27% (p was 0.001). Conclusions: conclude that Circuit weight training had highly significant improvement in lipid profile increase in HDL-c and decrease in TC, TG, LDL-c so this study supports the value of circuit weight training in the management of type 2 diabetes.

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<th>Key words</th>
<th>1. type 2 diabetes mellitus</th>
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<td></td>
<td>2. circuit weight training</td>
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<th>Arabic Title Page</th>
<th>تأثير التدريب بحلقة الأوزان على فحص الدهون لدى مرضى البوال السكري النوع الثاني.</th>
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<td>Library register number</td>
<td>3163-3164.</td>
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</table>
Response of diabetic foot ulcers to intermittent pneumatic compression therapy.

Background: diabetic foot ulcer is common in patients with type 2 diabetes mellitus that lead to many complications and amputation as end result. Aim of this study: to find out the response of diabetic foot ulcer to intermittent pneumatic compression at different pressures in type 2 diabetic patients. Subject and methods: Forty; type 2 diabetic patients (20 men & 20 women) participated in the study, their ages ranged from 45-55 years. All patients having diabetic foot ulcer of grade I or II according to wagner classification. They were divided into two groups equal in number. Group (A) received intermittent pneumatic compression therapy at 40mm/Hg pressure and group (B) who received intermittent pneumatic compression therapy at 70mm/Hg pressure. Both programs were applied 3 times per week for 8 weeks. The wound size was measured for patients in both groups before and after the treatment program (8 weeks). Analysis of the results: analysis of the results showed significant improvement in ulcers healing manifested by the decrease in ulcer size when compared to pre study measurements in both groups (p<0.05). Percentage of improvement for group (A) was 41.12 % while for group (B) was 53%; however no statistical difference in the percentage of improvement between the two groups was found also there was no significant difference between male and female within each group and between both groups (p>0.05).Conclusion: Findings represent the effective role of intermittent pneumatic compression therapy in the treatment of diabetic foot ulcers.

Type 2 diabetes mellitus.
Blood glucose level.
Intermittent pneumatic compression.
Foot ulcers.
### Background:
Type II diabetes mellitus and hypercholesterolemia are common problems in elderly with serious complications. Purposes: To compare the effect of upper limbs ergometry versus lower limbs ergometry on controlling blood glucose and cholesterol level in elderly patients. Materials and methods: forty patients from both sexes (20 men and 20 women) ages 60 to 70 years with type II diabetes mellitus and hypercholesterolemia were participated in this study. The mean values ± SD of blood glucose in group A before treatment was 279.9 ± 60.99 mg/dl and in group B was 281.7 ± 38.69 mg/dl, the mean values ± SD of blood cholesterol level in group A before treatment was 238.55 ± 17.02 mg/dl and in group B was 238.2 ± 18.88 mg/dl. Subjects were divided into 2 groups of equal number, group (A) :( 10 men and 10 women) performed upper limbs ergometry exercises and group (B) :( 10 men and 10 women) who performed lower limbs ergometry exercises. Blood glucose level was measured before and after each session 3 times per week for 3 months and blood cholesterol level was measured before and after the whole study program. Results: The results of this study showed that blood glucose level and blood cholesterol level were significant decreased after ergometry exercises. But upper limbs ergometry exercise is better than lower limbs ergometry exercise in decreasing blood glucose level and blood cholesterol level. The percentage of improvement of blood glucose level in group (A) was 21.04% while in group (B) was 12.26% and the percentage of improvement of blood cholesterol level in group (A) was 11.19% while in group (B) was 6.06%. Conclusion: This study found that the upper limb ergometry exercise is more effective than lower limb ergometry exercise in controlling blood glucose and cholesterol levels in elderly.

### Key words
- Blood glucose level.
- Blood cholesterol level.
- Ergometry exercise.
- Elderly.

### Arabic Title Page
مذي تأثير تمارين العجلة الثابتة للطرفين العلوي والسفلي علي نسبة السكر والدهون في الدم لكبار السن.

### Library register number
3181-3182.
The purpose of this study was to assess the effect of electro acupuncture in the management of abdominal obesity in men. The study was done on sixty obese men chosen randomly were body mass index (BMI) > 30 kg/m²; apparently they were free from any disease their ages ranged from 30 to 50 years. The subjects were assigned into 2 equal groups of 30 number each: Group A received triple therapy; (Diet, Treadmill Exercise and Ear Acupuncture) while group B received triple therapy plus electro acupuncture. Initial evaluation included weight, BMI WHR Sagittal abdominal diameter, re-evaluation two months after therapy and then final evaluation after three months of therapy. Low caloric diet 1000 calories was used, the training program lasted for three months. Results showed that triple therapy is effective means to reduce body weight in obese men but triple therapy plus electro acupuncture are more effective.

**Key words**

1. Abdominal Obesity.
2. Diet.
3. Exercise/Ear acupuncture.
4. Electro acupuncture.

**Arabic Title Page**

تأثير التنبيه الكهربائي للإيبر الصينية في علاج السمنة المركزية عند الرجل.

**Library register number**

3259-3260.
The purpose of this study was to investigate the effect of aerobic exercises on blood coagulation in type 2 diabetic male patients. Methods: the study was carried out on thirty type 2 diabetic male patients, their age ranged from (40-50) years. Patients were selected from Zagazig University hospitals. Patients were assigned into 2 equal groups in number each one contained fifteen patients. The first group (group A) received a low caloric diet without aerobic exercise and the second group (Group B) received a low caloric diet with a program of aerobic exercise 3 sessions/week for 12 weeks using electrical treadmill. Results: aerobic exercise with low caloric diet had greater effect to increase prothrombin time (4.2%, P<0.05 versus increase 0.15%; P>0.05) When compared with low caloric diet without exercise. aerobic exercise with low caloric diet had greater effect to decrease fibrinogen level (11.61% P<0.05 versus 0.08% P>0.05) when compared with low caloric diet without exercise. aerobic exercise with low caloric diet had greater effect to decrease plasminogen activator inhibitor-1 (PAI-1) level (10.21%; P< 0.05 versus 0.29% P>0.05) when compared with low caloric diet without exercise. conclusion aerobic exercise has an effect on improving blood coagulation and fibrinolysis in type 2 diabetic male patients.
Abstract
The purpose of this study was to determine the response of aerobic exercise training on patients with ischemic heart disease under oral anticoagulant drugs. Methods: Thirty men patients with ischemic heart disease under oral anticoagulant drug (Marevan) with their International Normalized Ratio (INR) ranged from (2-3) participated in this study. Their age was ranged between 50-60 years; they were selected from out – patient clinic of internal medicine in Belqas central hospital. The patients were assigned into two equal groups in number. Study group received moderate intensity aerobic exercise training on treadmill according to modified Bruce protocol three times per week for eight weeks plus oral anticoagulant (Marevan). Control group received oral anticoagulant (Marevan) only. INR , Prothrombin Time, Prothrombin Concentration and bleeding time all these measurements measured for each patient before the study and at the 4th week and immediately after the last session post eight weeks. Results: The results of this study showed that the study group showed significant changes in coagulation profile (Increased INR by 14.83% , Prothrombin Time increased by 14.39% , bleeding time increased by 9.48% and decreased Prothrombin concentration by 11.07%) than in control group. Conclusion: It was concluded that, using moderate intensity aerobic exercise training lead to significant changes on fibrinolysis coagulation profile (Increased International Normalized Ratio, Prothrombin Time, bleeding time and decreased Prothrombin concentration) in patients with ischemic heart disease under oral anticoagulant than oral anticoagulant treatment only.

Key words
1. Ischemic Heart Disease.
2. Oral Anticoagulant.
3. Aerobic Exercise Training.
5. Prothrombin Time.
6. bleeding time.
7. Prothrombin concentration.

Arabic Title Page: تأثير التمرينات الهوائية على المرضى المصابين بقصور في الشرايين التاجية تحت تأثير مضادات التجلط.

Library register number: 3487-3488.
The aim of this study was to investigate the effect of resisted exercise on adiponectin hormone, impaired fasting glucose (IFG) and body weight in pre-diabetic obese women. Thirty obese women participated in the study were selected from the outpatient clinic for internal medicine at EL Kasr EL Aini hospital, their age ranged from 30-40 years and their BMI ranged from 35-39.9 kg/m². They were received moderate-intensity resisted exercise (50–74% of 1-RM) three times per week for 12 weeks. The weight, height, BMI, Adiponectin hormone and fasting blood glucose were measured before and after the program. The results of this study showed a significant, increase of serum adiponectin level and reduction fasting blood glucose with a significant reduction in BMI. These findings suggest that resisted exercise is an effective tool to decrease insulin resistance, and this effect may be mediated, in part, by increase in adiponectin. All findings represent the effective role of exercise to increase the adiponectin hormone in pre-diabetic obese women. All finding represent the protective role of exercise to prevent diabetes.

### Key words
1. resisted exercise.
2. adiponectin hormone.
3. pre diabetic women.
4. Obesity.

### Arabic Title Page
استجابة الآدبيونيكين للتمارين المقاومة في السيدات العرضة لمرض السكري.

### Library register number
3439-3440.
Objective: To investigate the effect of preoperative inspiratory muscles training (IMT) on maximum inspiratory pressure (MIP), postoperative pulmonary complication (PPCs) according to FLAM score system and postoperative hospitalization period in patients undergone coronary artery bypass graft (CABG) surgery. Method: Thirty male eligible highly risk patients were selected from Surgical Department at National Heart Institute (NHI). All patients underwent CABG and were randomly assigned into two groups. The study group (A) (n=15, mean age: 54.26±3.28 years) received preoperative IMT performed once a day with three sets of 10 repetitions with 40% of MIP in addition to the preoperative standard usual care, while the control group (B) (n=15, mean age: 55.06±3.32 years) received preoperative standard usual care only. All patients received postoperative physiotherapy care and were closely observed and monitored daily until subsidence of the PPCs. Also they were evaluated using respiratory pressure meter (RPM); to determine the MIP through two stages, Preoperative (pre & post-training) and postoperative (First postoperative day (POD1), 3rd postoperative day (POD3), 7th postoperative day (POD7), and 12th postoperative day (POD12)) and documented the outcome measures. Results: The results of the current study revealed that preoperative IMT resulted in significant increase in MIP in the post-training study group pre-operatively, associated with higher reduction in MIP in the control group comparing them to the study group post-operative. In addition, it revealed a significant decrease in the incidence of PPCs and reduction in total hospitalization period in the study group. Conclusion: It was concluded that pre-operative IMT could enhance MIP pre-operatively, early recovery of MIP post-operatively and reduce the incidence of PPCs and total postoperative hospitalization period in highly risk patients who underwent CABG surgery.

Key words

1. Maximum inspiratory pressure.
2. Inspiratory muscles training.
3. Coronary artery bypass graft (CABG) surgery.
4. Postoperative pulmonary complications (PPCs).

Arabic Title Page: استجابة أقصى ضغط شهيدي لتدريب عضلات الشهيق قبل جراحة الوصلة الشريانية الناجحة.

Library register number: 3461-3462.
General Hospital, Desouk, Kafr El-sheikh Government. Method: Forty patients agreed to continue the treatment period of four weeks Objective: This study was conducted to find out the effect of diet and aerobic exercises on blood pressure in prehypertensive individuals (included individuals with a systolic BP of 120 –139 mmHg or a diastolic BP of 80 –89 mmHg). Subjects: Forty prehypertensive individuals (14 men and 26 women) with age ranged from 40-50 years old; diagnosed as prehypertension or high normal blood pressure were selected randomly from the outpatients clinic of the internal medicine department from Desouk, they were randomly divided into two groups; group (A) (20 patients; 8 men and 12women), they were instructed to use the DASH diet eating plan (Dietary approach to Stop Hypertension) and aerobic exercises for 45 minutes / three times/ week for four weeks as a part of lifestyle modification. Group (B) (20 patients; 6 men and 14 women), they were instructed to follow a selected program of eating (Dietary approach to Stop Hypertension). Systolic and diastolic blood pressure were measured pre treatment and after four weeks. Results: Showed that there was statistical significant reductions in systolic and diastolic blood pressure within each group before and after four weeks. There was significant statistical differences between both groups in diastolic blood pressure. Significant difference concerning systolic blood pressure was seen between both groups in favor of group (A). Conclusion: Both DASH & Aerobic exercises together as a lifestyle modification was more effective in reducing systolic and diastolic blood pressure in prehypertensive subjects more than the DASH alone.
Maximal inspiratory pressure response to cardiac rehabilitation program in patients with chronic heart failure.

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

**Supervisors**
1. Zeinab Mohamed Helmy.
2. Eman Hassan Abdel-Salam.
3. Sherin Hassan Mohammed.

**Degree**
Master.

**Year**
2013.

**Abstract**

Background and purpose: Chronic heart failure patients usually have diaphragmatic weakness as a result of decreased blood supply and over activation of muscle ergo receptors. As a result dyspnea or breathlessness is the earliest and most frequent symptom in chronic heart failure. This study was designed to determine the response of maximum inspiratory pressure to cardiac rehabilitation program in chronic heart failure patients. Subjects and method: Forty men were recruited from the outpatient clinic at National Heart Institute. They were randomly divided into two equal groups; group A (study group): 20 men participated in an comprehensive rehabilitation programme which composed of: a) Cardiac rehabilitation program: in form of combined aerobic and resistive exercise training in form of circuit training. b) Inspiratory muscles training in addition to the medical treatment. Group B (control group): 20 men participated in inspiratory muscle training in addition to medical treatment. They performed the rehabilitation programme for 8 weeks, 2 sessions/week. Inspiratory pressure meter was used to evaluate the changes in maximum inspiratory pressure before and after training program in both groups. Results: Statistical analysis revealed a significant improvement in maximum inspiratory pressure in both groups, with more significant difference in study group patients who participated in aerobic, strengthening and breathing exercise comparing to maximum inspiratory pressure in the control group who participated to only inspiratory muscle training. Conclusion: Cardiac rehabilitation programme composed of combined training in form of aerobic and resistive exercise in addition to breathing exercises should be used as a program for rehabilitating cardiac patients to improve the strength of inspiratory muscles thus, improving sensation of breathlessness and quality of life.

**Key words**
1. aerobic training.
2. strength training.
3. chronic heart failure.
4. maximum inspiratory pressure.

**Arabic Title Page**
استجابة أقصى ضغط للشهيق لبرنامج تأهيل قلب لمرضى فشل عضلة القلب المزمن.

**Library register number**
3305-3306.
**Abstract**

This study was designed to point out the relation between obesity (class I) as a low grade of inflammation and white blood cells as a biomarker of inflammation and if weight reduction affect white blood cells count and inflammation. Forty obese women aged 30-40 years were included in this study chosen from Maghagha hospital. Their body mass index (BMI) ranged between (30 to $\geq$34.9) kg/m$^2$. They were assigned into two groups, equal in number. Group (A) was on controlled diet with aerobic exercise on ergometer (40 minutes, for 12 weeks using 65-75% MHR using 20 point borg scale from 12-14 point). Group (B) was on low caloric diet only. White blood cells counts were measured at the beginning of the study and after 12 weeks of training. The results showed that controlled diet with aerobic exercise caused more reduction in white blood cells as (pre training value of WBCs count was (12170.0±689.27) while post training value was (9635.0±1796.27) when compared with low caloric diet group. It was concluded that aerobic exercise with controlled diet showed significant increase in immune system response of obese women.

**Key words**

1. Aerobic exercise.
2. White blood cells.
3. Obese women.
4. BMI.

**Arabic Title Page**

إجابة كرات الدم البيضاء للتمرينات الهوائية عند السيدات البدينات.

**Library register number**

3255-3256.
Abstract

Back Ground and Purpose: Cervical spondylosis affects both men and women. 60% of the population older than 45 years old and 80% older than 65 years old. Neck and pain, radicular symptoms, and vertigo are most common complaint. Purpose: to compare between laser with isometric strengthening exercise and ultrasonic with isometric strengthening exercise on vertebral artery blood Flow and degree of vertigo in patients with cervical disc degeneration. Subject and Methodology: Forty patients men and women participated in the study, selected from medical care of Radio and Television union, their age ranged from 35 to 45 years. Resistive Index of both right and left vertebral arteries and degree of vertigo were recorded at the beginning and after 3 months for both groups. They were assigned randomly into two groups, group (A) received laser and exercises each session three times per week, for 3 months, while group (B) received ultrasound and exercises each session three times per week, for 3 months. Results: The results revealed significant reduction of Resistive Index for right and left vertebral arteries for the patients in group (A) at the end of treatment program on the other hand group (B) showed no significant changes in Resistive Index at the end of treatment program. Both groups showed a reduction in the degree of vertigo. Conclusion: It was concluded that laser as electro therapy modality was effective with exercises program in improving blood flow of both vertebral arteries in cervical discogenic disease but there was no significant changes with using ultrasound with exercise program on vertebral artery blood flow in cervical discogenic disease.

Key words

1. Vertebral artery blood flow.
2. Lasers.
3. Ultrasound.

Arabic Title Page

مقارنة بين تأثير الليزر والسونار العلاجي على تدفق الدم بالشريان القصبي في تأكل عضروف الرقبة.

Library register number

3497-3498.
## Abstract

**Background and purpose:** Heart failure is the inability of the heart to pump sufficient amount of blood to all organs of the body, dyspnea or breathlessness is the earliest and most frequent symptom in chronic heart failure. This study was designed to determine the effect of inspiratory muscles training on the diaphragmatic excursion in chronic heart failure patients. Subjects and method: Forty men were recruited from the outpatient clinic at National Heart Institute. They were randomly divided into two equal groups; group A (study group): 20 men participated in comprehensive rehabilitation programme which composed of: a) Inspiratory muscles training.

b) Cardiac rehabilitation program: in form of combined aerobic and resistive exercise training in form of circuit training in addition to medical treatment. Group B (control group): 20 men participated in cardiac rehabilitation program in addition to medical treatment. Patients performed the rehabilitation programme for 8 weeks, 2 sessions/week. Ultrasonography was used to evaluate the changes in diaphragmatic excursion before and after training program. Results: Both groups showed a statistical significant improvement in diaphragmatic excursion during quiet and deep breathing with more increase in the study group who participated in aerobic, strengthening and breathing exercise as compared with the control group who participated in aerobic and strengthening exercise only. Conclusion: Addition of inspiratory muscle training to cardiac rehabilitation programme is effective in improving diaphragm strength measured by ultrasonography, so, improving sensation of breathlessness and quality of life.

### Key words

1. inspiratory muscle trainer.
2. cardiac rehabilitation.
3. chronic heart failure.
4. diaphragmatic excursion.

## Arabic Title Page

تأثير تدريب عضلات التنفس على إزاحة الحجاب الحاجز في مرضى فشل عضلة القلب المزمن

## Library register number

3289-3270.
Abstract

Background and purpose: Heart failure is the inability of the heart to pump sufficient amount of blood to all organs of the body, dyspnea or breathlessness is the earliest and most frequent symptom in chronic heart failure. This study was designed to determine the effect of inspiratory muscles training on the diaphragmatic excursion in chronic heart failure patients. Subjects and method: Forty men were recruited from the outpatient clinic at National Heart Institute. They were randomly divided into two equal groups; group A (study group): 20 men participated incomprehensive rehabilitation programme which composed of: a) Inspiratory muscles training. b) Cardiac rehabilitation program: in form of combined aerobic and resistive exercise training in form of circuit training in addition to medical treatment. Group B (control group): 20 men participated in cardiac rehabilitation program in addition to medical treatment. Patients performed the rehabilitation programme for 8 weeks, 2 session/week. Ultrasonography was used to evaluate the changes in diaphragmatic excursion before and after training program. Results: Both groups showed a statistical significant improvement in diaphragmatic excursion during quiet and deep breathing with more increase in the study group who participated in aerobic, strengthening and breathing exercise as compared with the control group who participated in aerobic and strengthening exercise only. Conclusion: Addition of inspiratory muscle training to cardiac rehabilitation programme is effective in improving diaphragm strength measured by ultrasonography, so, improving sensation of breathlessness and quality of life.

Key words

1. inspiratory muscle trainer.
2. cardiac rehabilitation.
3. chronic heart failure.
4. diaphragmatic excursion.

Arabic Title Page: تأثير تدريب عضلة الشهيق على حركة الحجاب الحاجز بعد عملية زراعة الكبد

Library register number: 3169-3170.
Abstract
Background: Aging is a physical process of deterioration, because damage accumulates faster than it can be repaired. Maximal aerobic power decline with advancing age. It is likely that the decrease in muscle mass and muscle strength, in combination with reduced endurance, causes reduced physical activity. Aim of the study: This study investigated the effect of 8 weeks of aerobic training on pain and quality of life in elderly females. Subjects and Methods: Thirty elderly females were included in this study suffered from knee pain or back pain. They were evaluated at the beginning of the training program and 8 weeks of training. The training program consisted of walking on treadmill for 20 minutes corresponding to 60 – 70 % of maximum heart rate from initial six minute walk test (6MWT). Pain was measured by Numeric rating scale and quality of life (QOL) was measured by SF-12 questionnaire. Pain, QOL and aerobic capacity were measured at the beginning and end of the training period. Results: The results showed that using aerobic exercise inform of walking with moderate intensity for 8 weeks had a significant effect on improving pain and quality of life in elderly females. Conclusion: The results of the present study concluded that aerobic training improved pain and quality of life in elderly females.
The aim of this study was to determine the efficacy of inspiratory muscle trainer on immune response in patients with non-cirrhotic hepatitis C. Forty patients with non-cirrhotic hepatitis C their age ranged from 40-60 yrs, participated in this study. They were selected from El Abassia chest hospital and assigned into two groups equal in numbers: the study group applied inspiratory muscles training (IMT) and in addition to traditional medical treatment (liver support "NORMAZAN") and exercise connected with respiration using upper extremities and trunk for 15 minutes, 3 sessions/week for two months and the control group received only exercise connected with respiration in addition to their medication. Liver enzymes and white blood cells and lymphocytes were measured for all patients participated in the study before and after the training of two months period. Analysis of the results showed statistical significant reduction in liver enzymes (AST & ALT) after two months from using threshold inspiratory muscle trainer in the study group as compared to the control group. It was concluded that threshold inspiratory muscle trainer can be introduced as a method of management for non-cirrhotic hepatitis C patients to improve the immune system.
The aim of this study was to investigate the different effect between the selected functional capacity tests in modulation of arterial blood gases in elderly. Forty patients of both sexes participated in this study. Their age ranged from 55-65 years and they were complaining from decreased functional capacity (Dyspnea, Fatigue). They were assigned randomly into two equal groups. Each patient was subjected to arterial blood gas sample at the beginning of the study and at the end of 3 months of training. Also, blood pressure, oxygen saturation by pulse oximeter and Borg Scale of Dyspnea were recorded pre and post training period. Group A: performed the six-min walk test for 3 sessions per week, for 3 months, while Group B: performed the twelve-min walk test also for 3 sessions per week for 3 months. The results showed a significant change in all measured parameters (PAO2, PACO2, HCO3, PH) in each group, and also, the results revealed no significant difference in pre and post treatment values in groups A&B. This finding suggested that selected functional capacity tests have an important factor to be considered in modulation of arterial blood gases in elderly.

<table>
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<tr>
<th>Author</th>
<th>Nehal Ahmed Shawky Karim.</th>
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<tr>
<td>Title</td>
<td>Selected Functional capacity Tests in Modulation of Arterial Blood Gases in Elderly.</td>
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<tr>
<td>Dept.</td>
<td>Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.</td>
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| Supervisors                   | 1. Azza Abdel-Aziz Abdel-Hady.  
                                 | 2. Deiaa Ramzy Ismail.  
| Degree                        | Master. |
| Year                          | 2013. |
| Abstract                      | The aim of this study was to investigate the different effect between the selected functional capacity tests in modulation of arterial blood gases in elderly. Forty patients of both sexes participated in this study. Their age ranged from 55-65 years and they were complaining from decreased functional capacity (Dyspnea, Fatigue). They were assigned randomly into two equal groups. Each patient was subjected to arterial blood gas sample at the beginning of the study and at the end of 3 months of training. Also, blood pressure, oxygen saturation by pulse oximeter and Borg Scale of Dyspnea were recorded pre and post training period. Group A: performed the six-min walk test for 3 sessions per week, for 3 months, while Group B: performed the twelve-min walk test also for 3 sessions per week for 3 months. The results showed a significant change in all measured parameters (PAO2, PACO2, HCO3, PH) in each group, and also, the results revealed no significant difference in pre and post treatment values in groups A&B. This finding suggested that selected functional capacity tests have an important factor to be considered in modulation of arterial blood gases in elderly. |
| Key words                     | 1. six-min walk test.  
                                 | 2. twelve-min walk test.  
                                 | 3. arterial blood gases. |
| Arabic Title Page             | تأثير إنقاص الوزن على المتلازمة الإيجذية لدى السيدات البدينات. |
| Library register number       | 3231-3232. |
The aim of the study was to compare the efficacy of active cycle of breathing technique versus positive end expiratory pressure on chronic obstructive pulmonary disease. 30 male patients suffered with moderate chronic obstructive pulmonary disease according to spirometric classification, FEV₁/FVC < 0.70 and FEV₁ < 80% of predicted and FEV₁ ≥ 50% of predicted. Age of patients ranged from 50-60 years and their body mass index (BMI) less than 30kg/m². They were randomly divided into two groups equal in number. Group (A): patients received treatment with positive end expiratory pressure twice a day for two weeks. Group (B): patients received treatment with active cycle breathing technique twice a day for two weeks. The following items were measured pre and post of the study: arterial blood gases (PaO₂, PaCO₂, and SaO₂), 6 minute walk test and Shortness of Breath Questionnaire to assess the degree of dyspnea. The results of group (A) showed (in PaO₂, O₂ saturation and 6MWT) and (in shortness of breath questionnaire). The results of group (B) showed (in PaO₂, O₂ saturation and 6MWT) and (in PaCO₂ and shortness of breath questionnaire). But, when both groups compared to each other: There was no significant difference between positive end expiratory pressure and active cycle of breathing technique.
The aim of this study was to assess the blood glucose response to aerobic exercise when combined with the water extract of the dried green tea leaves as a natural extract. Forty five patients of both sexes with type 2 diabetes 30 women and 15 men from Sheben Elkom teaching hospital participated in this study, their ages ranged between 50 to 60 years. They were assigned into three equal groups 15 patients 10 women and 5 Men for each group. Group (A) who participated in a program of aerobic exercise in the form of treadmill 4 sessions /week and administered 5 cups of the water extract of the green tea leaves (about 150 ml) daily for 8 weeks, Group (B) who participated in the same program of aerobic exercise only for 4 sessions /week for 8 weeks. Group (C) who administered the same green tea extract only. Fasting and 2h pp blood glucose level were measured at the beginning and after the end of the treatment program for all patients of the three groups. The results of this study revealed a decrease in the fasting and postprandial blood glucose in the three groups with percentage of improvement decrease was 34.74% fasting and 34.5% postprandial respectively in group(A), 19.19% fasting and 23.07% postprandial in group(B) and 14.73% fasting and 20.24% postprandial in group(C). The difference was statistically significant, It was concluded that aerobic exercise when combined with the green tea water extract can produce a significant reduction in blood glucose level. There was no significant difference between women and men in the three groups with percentage of decrease in group (A) was 31.12% in men and 36.57% in women in fasting blood glucose and 33.47% in men and 35.02% in women in 2h pp. In group (B) was 23.88% in men and 16.84% in women in fasting blood glucose and 26.87% in men and 21.14% in women in 2h pp. and in group (C) was 17.84% in men and 13.15% in women in fasting blood glucose and 20.2% in men and 20.25% in women in 2h pp.

**Key words**

1. diabetes mellitus.
2. Aerobic exercise.
3. Green tea.

**Arabic Title Page**

استجابة مستوى الجلوكوز في الدم للتمريضات الهوائية ومشتقات الشاي الأخضر.

**Library register number**

3605-3606.
The aim of this study was to assess the effect of Diet regime- and aerobic exercises on metabolic syndrome in obese woman, their age ranged from 35 to 45, they were divided into two equal groups group (A) received diet regime and aerobic exercise, group (B) received diet regime only. The program continued for 3 months (three session per a week). BMI, WHR, Blood pressure, Triglycerides, Total cholesterol, LDL, Fasting blood sugar and fasting Insulin were measured at the beginning and after the study for all groups. It can be concluded that diet regime and aerobic exercise program for 3 months.

<table>
<thead>
<tr>
<th>Key words</th>
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<td></td>
<td>2. Aerobic exercise.</td>
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<th>Arabic Title Page</th>
<th>تأثير إنقاص الوزن على المتلازمة الأيضية لدى السيدات البدينات</th>
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<td>3185-3186.</td>
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Background & Purpose: Anaemia is a common blood disorder that mainly affects of reproductive age with a high impact on the body functions and working capacity. Resistance exercise was recommended as non invasive way to prevent the serious complications that occur with anaemia. This study was conducted to assess the effect of resistance training on red blood cells (RBCs) in anaemic young girls. Subjects and methods: Forty girls with age ranged from 20 to 40 years, on selected parameters including RBCs count and hemoglobin level (Hb range 8-11 g/dl) in anaemic young girls. Subjects were randomly assigned to two equal groups, Group (A): received resistance exercise training and iron supplement, Group (B): received iron supplement only as a control group. They were randomly selected from the out-patient of internal clinic at “Kafr Elzyat general Hospital” Elgharbia governorate. Studied group (A) trained 45 min 3 times per week for 12 weeks. The subjects of both groups underwent measurement of red blood cells count and hemoglobin level. Results: The results showed that there were statistical significant improvements of Hb, RBCs level in group A (Hb ↑22.85 %, RBCs ↑21.91 %) more than group B. Conclusion: Resistive exercise training is effective interventions to improve level of RBCs and Hb level in anaemic young girls.

<table>
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<td>RBCs.</td>
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<td>4.</td>
<td>Anaemic young girls.</td>
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| Arabic Title Page   | تأثير التمرينات المقاومة على كرات الدم الحمراء عند الفتيات المصابات بفقر الدم |
| Library register number | 3403-3404.           |
The aim of this study was to determine the effect of aerobic exercise on immune system in elderly as antibody response (immunoglobulin G and M). Forty elderly of both sexes (25men-15women) with stable conditions selected from Kafr El Zyate General Hospital. Their ages ranged from 60-70 years old. They were divided into two groups equal in numbers; Group (A) who participated in supervised resisted exercise program and aerobic exercise program and Group (B) participated in supervised resisted exercise program only. The program continued for 12 weeks (3 sessions of exercise per week). Laboratory Investigations for (immunoglobulin G and M) were applied at the beginning and after the treatment program for all subjects of the two groups. The results of this study revealed a significant increase in the immunoglobulin G (0.71%) and immunoglobulin M (3.52%) in group (A) after 12 weeks of exercise while group (B) was (0.01%) for immunoglobulin G and (0.12%) for immunoglobulin M. It was concluded that the moderate intensity aerobic exercise can increase the serum level of IgG and IgM in geriatrics.

### Key words
1. Geriatrics.
2. Immunoglobulin.
3. Aerobic exercise.
4. Immune system in elderly.

### Arabic Title Page
تأثير برنامج التدريبات اليوانية على الجهاز المناعي في كبار السن.

### Library register number
3477-3478.
Forty obese women aged 25-35 years were included in the present study selected from outpatient clinic of elyomelwahed hospital at Cairo. Their body mass index (BMI) ranged between (30 to 34.9 kg/m²). They were classified into two groups, each group consisted of twenty women, the first group was those on low-calorie diet with aerobic exercise (40mint walking 3 time/week 60-90% from predicted maximum heart rate), the second was those on low-calorie diet with anaerobic exercise (40mint of resistive exercises by weight graduated from 40-60% of 1-RM 3time/week for 12 week). The biochemical changes in blood coagulation (platelet aggregation and fibrinogen) were measured at the beginning of the study and after twelve weeks. Conclusion: Decrease in (platelet aggregation and fibrinogen) level took place in Both group without significant difference between both of them. time of the study ( 1-2012to6-2012).
Background and Purpose: Diabetes mellitus, describes a group of metabolic diseases in which the patient has high blood glucose level, either because insulin production is inadequate, or because the body cells do not respond properly to insulin, or both. One of the most common complications is neuropathy which is the impact of diabetes on the nervous system, which in turn affects proprioceptors that leads to balance impairment. The aim of this study was to determine the effect of visual feedback on balance training for diabetic neuropathic patients. Subjects and Methodology: This study was conducted on 60 participants, they were all males, their ages ranged from 30-40 years old. Thirty of them were diabetic (Type 1) peripheral neuropathic patients of type 1 with chronicity of the disease for 20 years (n=30). The other thirty subjects were healthy controls (n=30). All participants performed a balance training program by visual feedback using an electrical balance board. Results: The balance performance variables analysis demonstrated for the training group, statistically significant difference of performance values between pre-treatment values and after 2 weeks of treatment, There was also significant difference of performance values between pre-treatment values and after 4 weeks of treatment value, and finally there was significant difference of performance values between after 2 weeks and after 4 weeks In treatment. In the healthy control group there was no significant difference. Conclusion: The data obtained in the present study indicated that the visual feedback has a positive effect on the balance performance for both diabetic neuropathic patients as a complication of type 1 diabetes mellitus.
**Purpose:** The purpose of this study was to investigate the efficacy of a 12 weeks of aerobic training program on weight reduction after liver transplantation.

**Subjects:** Thirty patients of both sexes (13 women and 17 men) post liver transplantsationsince six months selected from out clinic of El Sahel Teaching Hospital, twenty six patients contined in the study, aged 35:50 years and BMI equal between 30-39.9 kg/ m² were assigned to exercise and control group. Procedures: The patients of exercise group received aerobic training for 12 weeks 3 times per week in addition to the traditional medical intervention. While control group received only the traditional medical intervention. Before and after training serum triglycerides and cholesterol level and calculating body mass index were assessed. Results: After training significant decrease in serum triglycerides and cholesterol level and body mass index were shown in the exercise group but no significant change in control group. Conclusion: Aerobic training have a significant decrease in weight, BMI and serum triglycerides and cholesterol level in obese patients with liver transplantation.

**Key words**
1. postliver transplantation.
2. Aerobic training.
3. Obesity.

**Arabic Title Page**
فاعلية برنامج التدريب اليوغا على إنقاص الوزن بعد عملية زراعة الكبد.

**Library register number**
3205-3206.
The aim of this study was to determine the effect of the inspiratory muscle training on arterial blood gases in patients with asthma. Forty patients of both sexes (20 woman and 20 men) with age ranged between (20-30) years diagnosed as asthmatic, They were selected from the outpatient clinic of EL -Abasyia chest Hospital. They were assigned into two groups equal in number: study group received the inspiratory muscle training with breathing exercises and their medications for three sessions per week from ten to twenty minutes per session for four weeks. The control group received breathing exercises with their medications. Arterial blood gases, The partial pressure of oxygen (PaO2), The amount of carbon dioxide dissolved in arterial blood (PaCO2) and measurement of acidity or alkalinity, based on the hydrogen (H+) ions present (PH) were measured for all patients participated in the study before and after the training. Analysis of the results showed statistical significant improvements in arterial blood gases by (increasing PaO2 in terms of 18.49% and decrease in PaCO2 terms of 10.85% and improved PH terms of 0.68%) after four weeks from using inspiratory muscle training in the study group as compared to the control group. It was concluded that, using inspiratory muscle training can be introduced as a method of treatment for asthmatic patients to improve the arterial blood gases.

**Key words**

1. Inspiratory muscle training.
2. Arterial blood gases.
3. Asthma.

**Arabic Title Page**

تأثير تدريب عضلات الشهيق على غازات الدم في مرضى الربو.

**Library register number**

3353-3354.
The purpose of this study was to investigate and compare the effects of flutter program (oscillatory positive expiratory pressure) on pulmonary functions in patients with chronic suppurative lung disease versus traditional P T. Thirty women patients their age ranged from (40-60) years old with chronic suppurative lung disease (CSLD) participated in this study. Patients assigned randomly into two matched groups, group (A) consisted of 15 female patients received traditional chest physical therapy. The second group (B) was the study group who received traditional chest physical therapy in addition to flutter program for 3 sessions/ week for 3 months. Data obtained from both groups prior and following the treatment program regarding, FVC, FEV₁, FEF₂₅₋₇₅, FEV₁/FVC, MEF₂₀, MEF₂₅₋₇₅ and TLC were statistically analyzed and compared. There were significant difference with using flutter as the improvement reached in all parameters in that group. It was concluded that the flutter device in combination with postural drainage technique is of great benefit for CSLD in improving pulmonary functions with CSLD patients who had chronic sputum production.

Key words  
1. Flutter.  
2. Airway clearance.  
3. Pulmonary functions.  
4. CSLD.

Arabic Title Page : استجابة الوظائف الرئوية لبرنامج الفلاتر في أمراض الرئة المتقدمة.

Library register number : 3133-3134.
Background: Increasing physical activity of the elderly by accumulating activities of daily living can not only promote independence and psychological well-being, but also can improve general health condition. Purpose of the study: to investigate the effect of accumulating home physical activities of daily living on improving lifestyle for the elderly.

Methods: 40 elderly subjects participated in this study, 20 men and 20 women, aged from 60 to 70 years. They were divided randomly into two groups of equal number. Study Group: included 10 men and 10 women who were instructed to increase their daily step count to 5000 step per day (measured by a pedometer) and Control Group: included 10 men and 10 women who were instructed to go throughout their same leisurely life style without change. Both groups were monitored through their body weight, blood pressure and blood glucose levels before beginning and after 8 weeks, 3 times weekly). Results: There was a significant improvement (↓) in the body weight (4.85 %), blood pressure (2.94 %, 4.16 %) and blood glucose level (4.39%) with the study group meeting the 5000 step/day criteria, (P ≤ 0.05) at the end of the study period. Conclusion: Increasing daily physical activity can improve general health conditions of the elderly.

Key words
1. Physical activity
2. Pedometers
3. activities of daily living
4. elderly
The aim of this study was to determine the impact of regular moderate intensity aerobic exercise training program on perceived stress, serum interleukin-6 and serum cortisol levels among elderly. This study was performed at the Cairo University Hospital. Forty healthy elderly volunteers of both sexes participated in this study, their ages ranged from 60 to 70 years and their BMI ranged from 18.5 to 24.9 kg/m². They were divided randomly into two equal groups. Group (A) (studied) performed moderate-intensity aerobic exercise training on electronic treadmill (40 minutes / session, 3 sessions per week for 10 weeks), their IL-6 mean value pre and post treatment was (11.35 ± 1.34 - 9.42 ± 1.58) pg/ml, their cortisol mean value pre and post treatment was (14.55 ± 3.81 - 11.97 ± 3.69) ug/dl, their perceived stress mean value pre and post treatment was (13.5 ± 1.1 - 12.2 ± 0.76) on PS scale. Group (B) (control) did not perform any form of exercise training program, their IL-6 mean value pre and post treatment was (11.11 ± 1.63 - 11.3 ± 1.45) pg/ml, their cortisol mean value pre and post treatment was (15.12 ± 3.48 - 15.29 ± 3.83) ug/dl, their perceived stress mean value pre and post treatment was (13.3 ± 1.08 - 13.15 ± 1.18) on PS scale. Both groups were matching regarding age, weight, height and BMI. Perceived stress, serum IL-6 and serum cortisol levels were measured before and after the study for both groups. The results showed a significant reduction in perceived stress, serum IL-6 and serum cortisol levels in the studied group as compared to control group. These findings suggest that moderate-intensity aerobic exercise training program had been an effective tool to decrease perceived stress, serum IL-6 and serum cortisol levels among elderly. Hence, reduce the risk of future disability in older adults.

### Key words

| 1. | Aerobic exercise |
| 2. | Perceived stress |
| 3. | IL-6 (Interleukin- 6 Level) |
| 4. | Cortisol |
| 5. | elderly |

**Arabic Title Page**

تأثیر التمرینات البوانیة علی الإجهاد الحسی ومستوی إنترلوكین ۶ بین کیار السن

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