

**ELECTRONIC GUIDE TO THESES APPROVED BY
PHYSICAL THERAPY DEPARTMENT FOR MUSCULOSKELETAL
DISORDER AND ITS SURGERY
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Physical Therapy Department for Musculoskeletal Disorder and Its Surgery

**Master Degree
2009**

Author	:	Abd El Halim Zaghoul Elsayed Nada.
Title	:	The incidence of osteoporosis and osteopenia among knee osteoarthritic patients.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Salwa Fadl Abd El-magid.
	2.	Hatem Abd El-Rahman Ahmed.
	3.	Mohamed Mohamed Ibrahim Ali.
Degree	:	Master.
Year	:	2009.
Abstract	:	
Introduction: It has been suggested that bone mineral density is adapted to habitual skeletal loading condition, osteoporosis is a silent disease. It was critical to recognize who was at risk of osteoporosis. Purpose: The purpose of this study is to determine the incidence of osteoporosis and osteopenia among knee osteoarthritic patients. Methods: Sixteen patients (males and females) participated in this study all patients had primary knee osteoarthritis and evaluated by using Kellgren/Lawrence (K/L) scale. Bone mineral density (BMD) was measured by Dual Energy X-ray Absorptiometry (DXA). Results: The incidence of osteoporosis and osteopenia among patients with knee osteoarthritis were 17.8% and 43.3% respectively. Conclusion: Patients with knee osteoarthritis were not at risk of osteoporotic fractures.		
Key words	1.	Knee osteoarthritis (OA).
	2.	Bone mineral density (BMD).
	3.	Osteoporosis (OP).
	4.	Osteopenia.
	5.	Dual Energy X-ray Absorptiometry (DXA).
Arabic Title Page	:	معدل حدوث وهن العظام بين مرضى خشونة مفصل الركبة.
Library register number	:	1907-1908.

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Author	:	Abd El Hamed Mohamed Abd El Hady.
Title	:	Strengthening Versus Endurance Exercises in Treatment Of Chronic Mechanical Neck Pain.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Ahmed Hassan Hussin.
	2.	Manal Mohamed Ismail.
	3.	Ali Mohamed El Zawahry.
Degree	:	Master.
Year	:	2009.
Abstract	:	
<p>The purpose of this study is to determine the effect of strength and endurance exercises on pain, disability and range of motion in chronic mechanical neck pain and to detect which is more effective, strength, endurance or both in the treatment of chronic mechanical neck pain. Twenty male and female subjects participated in this study. The strength training group or group (A): this group consisted of ten patients, who received strength exercises accompanied with traditional treatment in the form of ultrasonic, infrared and cervical traction. The endurance training group or group (B): this group consisted of ten patients, who received endurance exercises accompanied with traditional treatment in the form of ultrasonic, infrared and cervical traction, for 12 sessions over four weeks period each other day. Each patient was evaluated pretreatment and post treatment. The results of this study showed that no significant difference was found between strength and endurance programs in neck pain and disability scale and neck flexion and extension, neck right and left side bending and neck right and left rotation.</p>		
Key words	1.	chronic mechanical neck pain.
	2.	neck exercises.
	3.	strength.
	4.	endurance.
Arabic Title Page	:	تمرينات التقوية مقابل قوة التحمل فى علاج آلام الرقبة الميكانيكية المزمنة.
Library register number	:	1999-2000.

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Author	:	Alshaimaa Kadry Abd Elaal.
Title	:	Assessment of Hip Abductors Deficiency in the Recurrent Lateral Ankle Sprain.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Ahmed Hassan Hussein.
	2.	Hala Rashad Alhabashy.
	3.	Mohamed Mohammed Ibrahim Ali.
Degree	:	Master.
Year	:	2009.
Abstract	:	
<p>Background: Lateral ankle sprains are one of the most common injuries among athletes and other young, active adults, and the history of at least one pervious ankle sprain is the most common predisposing factor for recurrent lateral ankle sprain. The Purpose of this study was to examine the hip abductors (mainly gluteus medius) deficiency in the recurrent lateral ankle sprain. Methods: thirty patients with recurrent lateral ankle sprain (group I) and thirty normal subjects (group II), with an age ranging from eighteen to thirty years old participated in this study. Each subject stood on a designed ankle inversion platform which led to sudden ankle inversion of tested foot, and at the same time the amplitude and the latency of right and left gluteus medius muscles responses were measured and recorded by electromyography unit. Results: the results revealed that there were no statistically significant differences between patients group (I) and control group (II) regarding amplitude and latency of right and left hip abductor muscle responses. In addition, no statistically significant difference was found in comparison between right and left gluteus medius regarding amplitude and latency within patients group (I) after assessment of patients with recurrent ankle sprain. Conclusion: on the basis of the present data, it was possible to conclude that there is no significant deficiency of right and left hip abductor muscle in patients with recurrent ankle sprain.</p>		
Key words	1.	Hip abductors.
	2.	Gluteus medius muscle.
	3.	Recurrent lateral ankle sprain.
Arabic Title Page	:	تقييم القصور في العضلات المُبعدة لمفصل الفخذ في الإلتواء الخارجي المتكرر لمفصل الكاحل.
Library register number	:	1971-1972.

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Author	:	Khaled Mohamed Al Shorbagy.
Title	:	Plyometric Exercises versus Progressive Resisted Exercises in the Treatment of Lateral Ankle Sprain in Athletes.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Ahmed Hassan Hussein.
	2.	Hisham Misbah Soliman.
	3.	Manal Mohamed Ismail.
Degree	:	Master.
Year	:	2009.
Abstract	:	
<p>Ankle sprain are the most common injuries sustained by athlete. After an initial ankle sprain, the athlete is susceptible to long term disability, especially without adequate care. The purpose of this study was to compare the effectiveness of using plyometric exercises program versus the progressive resistive program in the treatment of lateral ankle sprain in athletes. Thirty volunteers athletes with age ranged from 20 to 35 years, practicing different types of sports as football, basketball, handball and running, from both sexes with grades I or II unilateral lateral ankle sprain participated in the study, at least 3 weeks after the acute injury. They were randomly assigned to either the plyometric group or the progressive resistive group. Both groups received 6 weeks of training, the first group received plyometric training while the second group received progressive resistive training. Isokinetic strength and a scoring scale of functional performance were tested for both groups before and after the training period. Results showed improvement of isokinetic evertors and invertors' peak torques and functional performance of athletes in both groups. However, the improvement in peak torque values for the plyometric group was greater than that of the progressive resistive group, but this difference was not significant. The functional scores of plyometric group were significantly higher than that of progressive resistive group. It was concluded that plyometrics are more effective than progressive resistive exercises in regaining and improving functional performance of athletes after lateral ankle sprain injury, but both types of training are equally effective in improving isokinetic strength. We recommend the use of plyometric training for athletes as it combines both strength and performance enhancement that are essential for participation in any type of sport.</p>		
Key words	1.	Plyometric Exercises.
	2.	Ankle Sprain.
	3.	Athletes.
Arabic Title Page	:	التمرينات البليومترية مقابل المقاومة المتقدمة في علاج الالتواء الخارجي لمفصل الكاحل في الرياضيين.
Library register number	:	1931-1932.

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Author	:	Mohamed Ahmed Abdel Fatah Abd El Mageed.
Title	:	Combined Effect of Closed-kinetic Chain Exercises and Conventional Physical Therapy after Fractures of Lower End of Radius.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Salwa Fadl Abdel Majeed.
	2.	Ashraf Nihad Moharram.
	3.	Khaled Alsayed Ayad.
Degree	:	Master.
Year	:	2009.
Abstract	:	<p>BACKGROUND: The distal radius is the most common fracture site in the upper extremity; it causes functional problems and disabling complications. Treatment of these common fracture and their dysfunctional sequelae continues to challenge surgeons and therapists. OBJECTIVE: The purpose of this study was to investigate the effect of closed-kinetic chain exercises combined with traditional physical therapy versus traditional physical therapy program after stable distal radius fractures. METHODS: Thirty patients had participated in this study; they were assigned into two experimental groups. With age ranged for twenty to forty years. Group A consisted of 15 patients (10 males and 5 females) with mean age 28.27 (\pm 7.71) years, received closed kinetic chain exercises program and conventional physical therapy. Group B consisted of 15 patients (11 males and 4 females) with mean age of 26.67 (\pm 5.56) years, received a conventional physical therapy program only. Treatment was given 3 times/ week, every other day, for 4 consecutive weeks. Patients were evaluated pre and post treatment for their pain severity, function of the wrist joint, grip strength, wrist joint's ROM, and proprioception at 30° wrist flexion and at 30° wrist extension. RESULTS: the results revealed that there were significant differences between both groups regarding the improvement in function, grip strength, and range of motion of flexion and extension. While there were no significant differences between groups regarding improvement in pain, range of motion of radial and ulnar deviation, and in joint position sense. CONCLUSION: adding closed-kinetic chain exercises to the conventional physical therapy program after distal radius fractures significantly improved function, grip strength, and wrist joint's range of motion, and did not significantly improve pain severity and joint position sense at the selected angles.</p>
Key words	1.	distal radius fractures.
	2.	closed-kinetic chain exercises.
Arabic Title Page	:	التأثير المشترك لتمارين السلسلة الحركية المغلقة والعلاج الطبيعي التقليدي بعد كسور النهاية السفلى لعظمة الكعبرة.
Library register number	:	2037-2038.

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Author	:	Mohamed Ahmed Mossad Behiry.
Title	:	Aerobic Exercises Versus Flexion Exercise Program in Treatment of Chronic Mechanical Low Back Pain.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Ahmed Hassan Hussein.
	2.	Ashraf Moharam.
Degree	:	Master.
Year	:	2009.
Abstract	:	
<p>The purpose of this study was to determine the effect of aerobic exercises on the chronic mechanical low back pain conditions. A comparison was held between 15 chronic low back pain patients treated with Williams flexion program and 15 chronic low back pain patients treated with aerobic exercises. Treatment outcomes were determined from 1) Visual analogue scale (VAS), 2) The Oswestry functional disability questionnaire, 3) VO₂ max. Results showed a statistically significant difference in both groups following treatment, also results showed no statistically significant difference between both groups following treatment except for the vo2max in favor of the aerobic exercise group. Thus it was concluded that aerobic exercises are used in improving aerobic fitness for conditions of chronic mechanical low back pain, as well as reducing pain and improving function as the Williams flexion program.</p>		
Key words	1.	Chronic mechanical low back pain (CMLBP).
	2.	VO ₂ max.
	3.	Aerobic exercises.
Arabic Title Page	:	التمرينات الهوائية مقابل برنامج الثنى فى علاج آلام أسفل الظهر الميكانيكية المزمنة.
Library register number	:	1899-1900.

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Author	:	Mohamed Ali Mohamed.
Title	:	The combined effect of mobilization and therapeutic exercises versus therapeutic exercises in treatment of shoulder impingement syndrome.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Ibrahim Magdy Elnaggar.
	2.	Samir Elsayed Seleem.
	3.	Hatem Mohammed Elazizi.
Degree	:	Master.
Year	:	2009.
Abstract	:	
<p>Purpose: We investigated the combined effect of mobilization and therapeutic exercises in treatment of shoulder impingement syndrome. Subjects: Thirty patients diagnosed as shoulder impingement syndrome stage II Neer classification due to mechanical causes. Methods: Patients were randomly distributed into two equal groups. The first experimental group consisted of 15 patients with a mean age of 36.47(+6.68) years; received infrared radiation followed by a program of therapeutic exercises. The second experimental group consisted of 15 patients with a mean age of 36.26(+6.54) years; received infrared radiation followed by a combined program of mobilization techniques and therapeutic exercises identical to those applied to the first group. Treatment was given 3 times per week, each other day, for 4 consecutive weeks. Patients were evaluated pretreatment and post treatment for shoulder pain severity, shoulder functional disability, shoulder flexion, abduction and internal rotation motions and shoulder acromiohumeral distance in adduction and abduction using ultrasonography. Results: Patients of both groups showed significant improvement in all the measured variables. In between groups difference the second group showed a significant improvement than the first group in all the measured variables. Conclusion: Both of the therapeutic exercises and the combination of therapeutic exercises and mobilization had a significant effect on decreasing shoulder pain severity and shoulder functional disability. Also there were an increasing in shoulder flexion, abduction, internal rotation motions. As well as the (AHD) both in adduction and abduction. However, the combination of mobilization and therapeutic exercises were more effective than the therapeutic exercises alone in the treatment of shoulder impingement syndrome patients.</p>		
Key words	1.	acromiohumeral distance (AHD).
	2.	therapeutic exercises.
	3.	impingement syndrome.
	4.	joint mobilization.
Arabic Title Page	:	التأثير المشترك للمعالجة اليدوية والتمرينات العلاجية في مقابل التمرينات العلاجية في علاج متلازمة انحشار الكتف.
Library register number	:	1979-1980.

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Author	:	Reda Sayed Ahmed Aweda.
Title	:	The Effect of balance training on stability and foot function in cases of unilateral plantar fasciitis.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Ahmed Hassan Hussein.
	2.	Sherif Mamdouh Amr.
	3.	Manal Mohamed Ismail.
Degree	:	Master.
Year	:	2009.
Abstract	:	
<p>The purpose of this study was to investigate the effect of balance training on stability and foot functions in cases of chronic unilateral plantar fasciitis. Twenty-eight patients were assigned randomly to 2 equal groups (control and experimental). The control group received the traditional physical therapy program in form of ultrasound, stretching exercises, and strengthening exercises. The experimental group received the same program in addition to balance training. Each group received 12 sessions every other day. Balance and foot functions were assessed before and after treatment by using Biodex balance system and foot disability questionnaire respectively. Results: the results of the study showed significant improvements of balance in the experimental group in both eyes open and closed conditions except the mediolateral stability index in eyes open condition. At the same time, there was no significant improvement of all measured parameters of balance in the control group in both eyes open and closed conditions. The foot function disability improved in both groups. The experimental group significantly improved than the other group. Conclusion: Combining balance training exercises on balance board with the traditional physical therapy program of chronic plantar fasciitis are effective in improving balance and foot functional disability for those patients.</p>		
Key words	1.	Plantar fasciitis.
	2.	Balance exercise.
	3.	foot function.
	4.	stability.
Arabic Title Page	:	تأثير تمارين التوازن على الثبات ووظيفة القدم في حالات إلتهاب صفاق الأخمص لإحدى القدمين.
Library register number	:	2039-2040.