Physical Therapy Department for Musculoskeletal Disorder and Its Surgery

Doctoral Degree 2019

Author	**:**	**Ahmed Ahmed Basheer.**
Title	**:**	**Relationship between X-ray findings of knee osteoarthritis and foot posture.**
Dept.	**:**	**Physical Therapy Department for musculoskeletal disorder and its Surgery.**
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Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Medial knee osteoarthritis (MKOA) is a highly prevalent knee disorder and has been attributed to the increased load transmitted across the medial compartment of the knee joint. Although, studies focused on the local mechanical malalignment of the knee, particularly, increased knee varus, there is a group of subjects with knee OA exhibit more foot pronation than normal ones. Consequently, the link between the radiographic findings of the knee and foot posture needs investigation. Purpose of the study: To investigate the relationship between foot posture measures and either the femur-tibia angle (FTA) and the Kellgren-Lawrence (K/L) grading system; and to compare foot posture measures between subjects with and without MKOA. Methodology: Thirty patients with MKOA underwent radiographic examination for their knees to measure FTA and to categorize the radiographic severity using (KL) grades then, they underwent foot examination using the foot posture index (FPI) and arch index (AI). Another 30 asymptomatic subjects matched in age and sex to MKOA group underwent FPI and AI examination to be compared with the MKOA group. Results: It was showed that FTA was significantly correlated with FPI, but not with AI. No correlation as well was reported for KL grades neither with FPI nor AI within the MKOA group. Subjects in the MKOA group demonstrated significant more foot pronation than asymptomatic subjects group. Conclusion: The radiographic knee varus angle was correlated with FPI but not with AI in subjects with MKOA who exhibited more pronated foot than asymptomatic ones. Consequently, quick examination of foot posture in patients with MKOA may be of for the clinicians.

Key words	**1.**	**Knee osteoarthritis.**
	2.	**femur-tibia angle.**
	3.	**osteoarthritis grading system.**
	4.	**foot posture index.**
	5.	**arch index.**
	6.	**X-ray- Knee osteoarthritis.**
Classification number	**:**	**000.000.**
Pagination	**:**	**205 p.**
Arabic Title Page	**:**	**العلاقة بين نتائج الأشعة السينية للالتهاب العظمى المفصلى للركبة وقوام القدم.**
Library register number	**:**	**6593-6594.**

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

Author	**:**	**Ahmed Fawzy Baiomy Elhalawaty.**
Title	**:**	**Predictors of Frontal Plane Knee Excursion During Functional Weight Bearing Tasks in Young Athletes.**
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Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

BACKGROUND: The knee joint complex is one of the most commonly injured areas of the body in athletes. Excessive frontal plane knee excursion is considered a risk factor for multiple knee pathologies such as anterior cruciate ligament and patellofemoral joint injuries, however, little is known about the biomechanical factors that contribute to this loading pattern. OBJECTIVE: The purpose of this study was to investigate clinical predictors of frontal plane knee excursion during single leg landing tasks. METHODS: One hundred and twenty eight (male) football players participated in this study. Their mean age was (14.6±1.7) years and mean BMI was (21.3±2.1)kg/m^2. The knee frontal plane projection angle was measured by digital video camera using single leg landing tasks after that clinical predictors affecting knee joint frontal plane projection angle assessed (tibiofemoral angle measured using digital video camera, peak isometric strength of hip and knee muscles strength assessed using portable HHD, static postural balance assessed using biodex balance system, foot posture assessed using foot posture index and knee proprioception assessed through measuring weightbearing joint position sense). RESULTS: Of the included variables, only static tibiofemoral alignment, hip external/internal rotators ratio and knee joint position sense absolute error showed significant correlation with the knee frontal plane projection angle during landing tasks(R= 0.387, P= 0.00;R= -0.374, P=0.00 and R= 0.348, P=0.00 respectively). Together these variables only explained 30% of the variance in peak knee valgus. CONCLUSION: Greater tibiofemoral angle, knee joint position sense absolute error and lesser hip external/internal rotators ratio were associated with greater peak knee valgus angles during a single leg landing task

Key words	**1.**	**Knee injuries.**
	2.	**Dimensional motion analysis.**
	3.	**Risk factors.**
	4.	**Weight Bearing in Young Athletes.**
	5.	**Young Athletes - Knee injuries.**
	6.	**Kinematics.**
Classification number	**:**	**000.000.**
Pagination	**:**	**90 p.**
Arabic Title Page	**:**	**تحديد تنبؤات ازاحة الركبة في المسطح الامامي اثناء انشطة التحميل الوظيفية للشباب الرياضيين.**
Library register number	**:**	**6785-6786.**

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

Author	**:**	**Ahmed Mohamed Elsayed Elmelhat.**
Title	**:**	**Efficacy of Cervicothoracic Mobilization on Shoulder Impingement Syndrome.**
Dept.	**:**	**Physical Therapy Department for musculoskeletal disorder and its Surgery.**
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Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

BACKGROUND: Shoulder impingement syndrome (SIS) is the most common cause of shoulder pain. Recently, attention has been given to the use of spinal manual therapy to treat shoulder pain. Clinical evidence has shown that spinal manual therapy is a common therapeutic approach used to address extremity dysfunction like SIS. OBJECTIVE: To investigate whether mobilization directed at cervicothoracic spine is more beneficial than treatment directed solely at the shoulder for patients with SIS on pain, function, scapular kinematics, and scapular and shoulder muscle strength ratio. METHODS: Thirty-five male and female patients aged between 20 and 45 years old were participated in this study as SIS (stage I and II Neer's classification). The selected subjects were randomly assigned in to control and experimental groups Group (A) Control group received only treatment based on the most evidence-based treatment for SIS (Stretching of the posterior capsule, rotator cuff strengthening, and scapular muscle training), Group (B) Experimental group received Maitland's rhythmic oscillatory central poster anterior (PA) and transverse mobilization of cervicothoracic spine (C7-T4 vertebra) as tolerated by patient with addition same PT program received by group A for a periods of 4 weeks. Before and after the treatment, pain level and shoulder disability were measured by Shoulder Pain and Disability Index (SPADI), shoulder and scapular isometric muscle strength measured by Hand Held Dynamometer (HHD) Device, Scapular upward rotation was measured in 3 positions: 0°, 90°, and 180° of elevation in the scapular plane by baseline bubble inclinometer, scapular protraction was measured by acromion to table distance (A-T distance).RESULTS: Statistical analysis using pre and post treatment design indicated that there's no significant difference between groups in the scapular upward rotation angle, scapular protraction, isometric scapular muscle ratio and ER/IR ratio. However, a significant difference was found in pain level and shoulder disability index between groups. But within group, the results showed a significant difference in all measured variables posttreatment assessment when compared with pretreatment assessment. CONCLUSIONS: The findings of this study indicate that cervicothoracic mobilization is an effective intervention to treat pain and disability associated with shoulder impingement; however, the improvements associated with mobilization are not likely explained by changes in scapular kinematics or scapular and shoulder muscle strength

Key words	**1.**	**Manual Therapy.**
	2.	**Cervicothoracic mobilization**
	3.	**Shoulder Pain.**
	4.	**Shoulder Impingement Syndrome.**
Classification number	**:**	**000.000.**
Pagination	**:**	**150 p.**
Arabic Title Page	**:**	**فاعلية التحريك العنقي الصدري على متلازمة انحشار الكتف.**
Library register number	**:**	**6643-6644.**

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

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Title	**:**	**Prediction of Neck Pain in Patients with Temporomandibular Disorders.**
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Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

Cervical dysfunctions are highly prevalent in patients with temporomandibular disorders (TMD). The purpose of this study was to investigate whether sagittal head and neck posture, craniofacial morphology, neck anthropometry, class of occlusion, bite force, and deep neck flexor muscles strength could predict the occurrence of neck pain among patients with TMD. Methods: Sixty female patients with TMD were divided into two groups of equal number. Group I: patients with TMD and neck pain. Group II: patients with TMD and no neck pain. The sagittal head and neck posture, craniofacial morphology, and class of occlusion were measured on lateral cephalometric image. Neck anthropometry was measured by caliper. Bite force was measured by load sensor. Deep neck flexor strength was measured by cranio-cervical flexion test using pressure biofeedback unit. These parameters were compared between both groups. Results: there was a significant difference between both groups in angles of craniocervical posture, cervico-horizontal angles, anterior facial height, mandibular depth, and deep neck flexor strength. From the binary logistic regression all these variables are significant predictors when act individually. Anterior facial height and deep neck flexor strength are the most accurate predictors. Conclusion: angle of craniocervical posture and cervico- horizontal angles, anterior facial height, mandibular depth, and deep neck flexor strength can predict neck pain in patients with temporomandibular disorders. Anterior facial height and deep neck flexor strength are the most accurate predictors

Key words	**1.**	**Temporomandibular Disorders.**
	2.	**Craniofacial morphology.**
	3.	**Deep neck muscles strength.**
	4.	**Neck Pain.**
	5.	**Posture.**
Classification number	**:**	**000.000.**
Pagination	**:**	**110 p.**
Arabic Title Page	**:**	**التنبؤ بألم الرقبة فى مرضى خلل المفصل الصدغى الفكى.**
Library register number	**:**	**6611-6612.**

Author	**:**	**Dina Sayed Abd Allah.**
Title	**:**	**Assessement Of Dynamic Postural Control In Plantar Fasciitis.**
Dept.	**:**	**Physical Therapy Department for musculoskeletal disorder and its Surgery.**
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	3.	**Aly Mohamed El Zawahry**
Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Painful feet could disturb balance as in case of plantar fasciitis, it leads to abnormal foot pressure distribution. Also, it affects the sensory input from foot. Purpose: To identify whether plantar fasciitis has any significant effect on dynamic postural control, in addition to, if there is any effect correlate this effect to predict lateral ankle sprain. Design: The study included two groups: group (A) included plantar fasciitis patients (42 male and female their age ranged from 25 to 45 years) and group (B) included control volunteers (other 42 male and female their age ranged from 25 to 45 years). Both groups were assigned into three subgroups according to their foot posture type. Main measures: foot print angle and dynamic postural control assessment via Biodex stability system stability (level 8). Results: The mean values of Overall stability index, Anterior/Posterior stability index and Medial/Lateral stability index in group (A) (including three subgroups), were significantly higher when compared with the mean values of the group (B) (including the three subgroups). Conclusion: plantar fasciitis has a significant effect on dynamic postural control regardless foot posture type.

Key words	**1.**	**Plantar fasciitis.**
	2.	**dynamic postural control assessment**
	3.	**Lateral ankle sprain.**
Classification number	**:**	**000.000.**
Pagination	**:**	**126 p.**
Arabic Title Page	**:**	**تقييم التحكم في الوضعيه الديناميكيه في حالات التهاب اللفافه الاخمصيه للقدم.**
Library register number	**:**	**6225-6226.**

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

Author	**:**	**Hend Salah Ali.**
Title	**:**	**The efficacy of trigger point laser puncture on tension headache.**
Dept.	**:**	**Physical Therapy Department for musculoskeletal disorder and its Surgery.**
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Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

Background: although greater success of myofascial release technique, there are several contraindications, before therapist decides to utilize a myofascial release technique he or she must be sure that no contraindications are present and the technique need more experience to learn. Thus we found a need to investigate if there is an effect of trigger point low level laser point puncture as an easy, non-harmful technique other than myofascial release technique on headache severity, MTrP in patients with tension headache .purpose: to assess the effectiveness trigger point laser puncture by comparing it with a standard technique such as myofascial release in treating the patients with tension type headache. Subjects: the study were conducted on 40 patients who matched the inclusion and exclusion criteria signed consent form and we have the approval from ethical committee, patients randomly assigned into two groups ; Group (A) which composed of 20 patients (females) treated with myofascial release technique, Group (B) which composed of 20 patients (females) treated with low level laser point puncture. Methods: myofascial release technique group treated with techniques as prescribed in methodology section 3 session per week for 6 weeks. Trigger point laser group treated with 904 nm Ga-As I.R laser with 3J / point for 90 sec and myofascial release as group (A) as prescribed in methodology section 3 session per week for 6 weeks. The two groups were assessed before treatment, after treatment and after 4 weeks follow-up for (MTrP) by Pressure pain algometer and Tension type Headache severity progression by Headache Disability Index. Results: the results of this study demonstrated that regarding to the results of the study; it revealed that after treatment all patients had improvement in headache pain intensity reduction, MTrP improvement. After 4 weeks follow myofascial release group and low level laser group had improvement in headache reduction, MTrP improvement .while there was no significant difference between (group A versus B) in PPT for all right and left (upper trapezius, sternocleidomastoid. splenius capitis, splenius cervicis, suboccipitail muscles) , although there was significant reduction in favor to group (B) in compared to group (A) Headache Disability Index in (post 1) . Additionally revealed that there was no significant difference of values of the "post 2" test between both groups Conclusion: its concluded that using low level laser as trigger point puncture in treating patients with tension headache is an effective approach as well as myofascial release techniques

Key words	**1.**	**Tension headache.**
	2.	**Low level laser.**
	3.	**Myofascial release.**
	4.	**trigger point laser puncture.**
	5.	**MTrP**
Classification number	**:**	**000.000.**
Pagination	**:**	**103 p.**
Arabic Title Page	**:**	**تأثير الوخز بالليزر للنقاط المستهدفة على الصداع التوترى.**
Library register number	**:**	**6595-6596.**

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

Author	**:**	**karim Mohamed Fawzy Ghuiba.**
Title	**:**	**Positional Release Technique versus Kinesio Tape in lumbar Myofascial Pain Syndrome.**
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	2.	**Lilian Albert Zaki.**
	3.	**Mostafa Mahmoud.**
Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Myofascial pain syndrome(MPS) is a disease of muscle that produces local and referred pain. It is characterized by a motor abnormality (a taut or hard band within the muscle) and by sensory abnormalities (tenderness and referred pain)Purpose: to compare between the effects of positional release technique (PRT) and kinesio taping technique (KT) on pain level, pressure pain threshold level and functional disability in patients with lumbar(MPS). Methods: sixty patients from outpatient clinic of faculty of physical therapy Cairo University had participated in this study; they were randomly assigned in four groups (group A, B, C, D). Group I consisted of 15 patient (7 males and 8 females) with mean age 30.13 ± 2.55 years, received PRT technique. Group II consisted of 15 patients (8 males, 7 females) with mean age(31 ± 2.53) years, received KT. Group III consisted of 15 patient (6 males and 9 females) with mean age 30.66 ± 2.22 years, received PRT and KT. Group Iv consisted of 15 patient (6 males and 9 females) with mean age 31.2 ± 2.11 years control group received shame taping. Techniques were applied over trigger points of the iliocostalis lumborum and bilaterally .Pain intensity, pressure pain threshold and functional disability were measured before, at 2 sessions (Post I) and at 6 sessions (Post II). Results: Post treatment there was no significant difference in PPT, ODI and VAS between group I and group II (p = 1). Group III showed Significant increase in PPT and significant decrease in ODI and VAS compared with that of group I, II and IV (p = 0.001). Group I showed significant increase in PPT and significant decrease in ODI and VAS compared with that of group IV (p = 0.001). Group II showed significant increase in PPT and significant decrease in ODI and VAS compared with that of group IV (p = 0.001). Conclusion: Combination between PRT and KT was more effective in reducing pain level, improving pressure pain threshold and improving functional disability than PRT or KT alone in treating patients with lumbar MPS..

Key words	**1.**	**Positional release technique .**
	2.	**myofascial pain syndrome.**
	3.	**kinesio tape.**
	4.	**lumbar Myofascial Pain Syndrome.**
Classification number	**:**	**000.000.**
Pagination	**:**	**98 p.**
Arabic Title Page	**:**	تقنيه الأنفراج الوضعى مقابل شريط كاينزيو فى متلازمه الألم الليفى العضلى للظهر.
Library register number	**:**	**6227-6228.**

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

Author	**:**	**Khaled Mohamed Nabil Ali Afifi.**
Title	**:**	**Core Stability Measures as Predictors of Hamstring Strain In Soccer Players.**
Dept.	**:**	**Physical Therapy Department for musculoskeletal disorder and its Surgery.**
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	2.	**Emad Samuel Boles Saweeres.**
Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

BACKGROUND: hamstrings strain is common injury in soccer players. Although there has been great understanding of this injury over the last three decades the injury and recurrence rate are still high. Core stability had been recently proposed to be a risk factor for hamstring strain injury nevertheless, without a clear scientific evidence to support this assumption. OBJECTIVE: the objective of this study was to investigate the correlation between core stability and hamstring muscle strain. METHODS: professional football clubs had been contacted to take part in the study. forty-two healthy, professional soccer players who were train and participate in games regularly had been recruited to take part in the study. Core stability was prospectively assessed before the beginning of football season. concentric strength of the trunk muscles flexors and extensors had been measured with isokinetic machine at 60˚ and 120˚ degree/seconds respectively in standing position. Back muscles endurance was measured using the four endurance tests; flexors, extensors, right and left side bridge. Trunk repositioning error was chosen to examine the trunk motor control. After taking all measures the players were followed up for one year for the development of hamstring strain. After one year the players were divided into injured (players who had hamstring strain) and non- injured RESULTS: Unpaired t-test showed no significant difference between the groups regarding age, weight, height and BMI (p>0.05). A binomial logistic regression model was used to predict the probability of player to be injured or non-injured. In this model, core muscles strength, endurance and motor control were analyzed simultaneously to examine the independent effect of each variable while controlling for the others. None of the variables was able to significantly predict the occurrence of hamstring muscle strain injury. CONCLUSION: concentric trunk flexors muscle strength at 60˚/sec., concentric trunk flexors muscle strength at 120˚/sec., concentric trunk extensors muscle strength at 60˚/sec., concentric trunk extensors muscle strength at 120˚/sec., trunk flexors endurance, trunk extensors muscle endurance, right and left side bridge muscle endurance and lumbar spine proprioception are not correlated with the incidence of hamstring strain injury in soccer players.

Key words	**1.**	**Core stability.**
	2.	**Hamstring strain.**
	3.	**Isokinetic strength.**
	4.	**Soccer Players.**
Classification number	**:**	**000.000.**
Pagination	**:**	**205 p.**
Arabic Title Page	**:**	**قياسات الثبات الجذعى كمنبئات لتمزق العضلة الخلفية في لاعبي كرة القدم.**
Library register number	**:**	**6609-6610.**

Author	**:**	**Mahmoud Ahmed Elbayomy Abd Elnabi.**
Title	**:**	**Core Strengthening For Chronic Nonspecific Low Back Pain: Systematic Review.**
Dept.	**:**	**Physical Therapy Department for musculoskeletal disorder and its Surgery.**
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Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

BACKGROUND: The term of core strengthening has been used to include interventions focused on activation of the deep trunk muscles PURPOSE: The present study aims to determine the efficacy of various core strengthening programs for adult patients with chronic nonspecific low back pain. OUTCOME MEASURES: The present study measures self-reported pain and disability. METHODS: Studies were identified by searching multiple electronic databases from inception to June 2018 and examining reference lists. Randomized controlled trials comparing core strengthening exercises with sham, no treatment, other active therapies, and multimodal therapeutic approaches were selected. Risk of bias was assessed using "PEDro" scale. Data were pooled using random-effects meta-analysis. The overall quality of the evidence was assessed by using the GRADE approach. RESULTS: Thirty four trials were included in the systematic review. There is low to moderate evidence suggests that there is significant effect of core strengthening exercise compared with general exercise and minimal intervention on pain and disability. There is very low to low evidence that there is significant effect favoring core strengthening compared with multimodal physical therapy and McKenzie only on disability. Moderate evidence supports no significant effect of core strengthening compared with manual therapy. Conclusion: In patients with chronic low back pain there was no clinically important difference between core strengthening and manual therapy but core strengthening exercises seem to be slightly superior to several other treatments.

Key words	**1.**	**low back pain.**
	2.	**Systematic review.**
	3.	**Core strengthening.**
	4.	**meta-analysis.**
Classification number	**:**	**000.000.**
Pagination	**:**	**132 p.**
Arabic Title Page	**:**	**تقوية الجذع الأساسى فى ألام أسفل الظهر المزمنة غير محددة السبب: دراسة منهجية.**
Library register number	**:**	**6489-6490.**

Author	**:**	**Mohamed Ezzat Mohamed Shalaby.**
Title	**:**	**Relationship Between Core Stability And Shoulder Function In Shoulder Impingement Syndrome In Athletes.**
Dept.	**:**	**Physical Therapy Department for musculoskeletal disorder and its Surgery.**
Supervisors	**1.**	**Salwa Fadl Abdelmageed**
	2.	**Hatem Mohammed Elazizi**
		Reda Sayed Ewada
Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

BACKGROUND: Shoulder impingement syndrome (SIS) is the most common disorder of the shoulder, resulting in functional loss and disability The etiology of SIS is multifactorial. Postural, kinematic, and muscle changes have all been demonstrated to directly or indirectly alter the subacromial space dimension. OBJECTIVE: The purpose of this study was to investigate if there is any relationship between core stability measures and the closed chain shoulder function in athletes with shoulder impingement syndrome. METHODS: Forty three patients had participated in this study. With age ranged for twenty to thirty five years. Each patient was assessed for trunk extension, trunk flexion hold times, transversus abdominis activation ratio by ultra sound and Transversus abdominis activation capacity by the pressure biofeedback unit in addition to the upper quarter Y balance test RESULTS: The results showed non-significant association between (the maximum holding times for trunk flexor endurance, transversus abdominis activation ratio measured by ultrasound and transversus abdominis activation capacity measured by the pressure biofeedback unit) and upper quarter Y balance test scores but there was fair positive association between the maximum holding time for trunk extensors endurance and the upper quarter Y balance test scores in athletes with shoulder impingement syndrome. CONCLUSION: Trunk extensors muscle endurance is related to shoulder performance more than trunk flexor muscles endurance, transversus abdominis activation ratio measured by ultrasound and Transversus abdominis activation capacity measured by the pressure biofeedback unit. Trunk extensors muscle endurance are more important issues in improving closed chain shoulder function among athletes with shoulder impingement syndrome.

Key words	**1.**	**Shoulder impingement syndrome.**
	2.	**upper quarter Y balance test**
	3.	**Core stability.**
	4.	**Shoulder Impingement Syndrome In Athletes.**
	5.	**Athletes- Shoulder Impingement.**
Classification number	**:**	**000.000.**
Pagination	**:**	**103 p.**
Arabic Title Page	**:**	
Library register number	**:**	**6725-6726.**

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

Author	**:**	**Mohamed Moustafa Aldosouki Hegazy.**
Title	**:**	**Efficacy of Simultaneous Application of Traction and Median Nerve Mobilization in Cervical Radiculopathy.**
Dept.	**:**	**Physical Therapy Department for musculoskeletal disorder and its Surgery.**
Supervisors	**1.**	**Salwa Fadl Abd ElMageed,**
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Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Cervical radiculopathy is a disorder of the cervical nerve root and most commonly is caused by a cervical disc herniation leading to chronic pain and disability. Objective: The purpose of this study was to determine the effect of simultaneous application of intermittent cervical traction and median nerve mobilization on pain severity, neck disability and flexor carpi radialis H-reflex latency in patients with unilateral cervical radiculopathy. Methods: Forty five patients (31females and 14 males) suffering from unilateral cervical radiculopathy due disc herniation were assigned randomly into three equal studies groups. Group (A) consisted of 15 patients (10 females and 5 males) with mean age (38.07±5.85) years received simultaneous application of intermittent cervical traction and median nerve mobilization. Group (B) consisted of 15 patients (9 females and 6 males) with mean age (42.41±7.15) years received intermittent cervical traction firstly followed by median nerve mobilization. Group (C) consisted of 15 patients (12 females and 3 males) with mean age (41.07±6.62) years received median nerve mobilization firstly followed by intermittent cervical traction. All groups received strengthening exercises for deep neck flexors and scapulothoracic muscles. Six sessions were given each other day for 2 weeks. Patients were evaluated pretreatment and post treatment for neck pain severity, neck disability and flexor carpi radialis H-reflex latency. Results: Statistical analysis using 3x2 mixed design MANOVA indicated that there were no significant differences between groups but there were statistical significant differences within group on pain severity, neck disability index and flexor carpi radialis H-reflex latency. Although, there were no statistically significant differences between groups, there were more improvement for group A and C in compare to group B. Conclusion: It can be concluded that, there were no statistically significant effect of applying median nerve mobilization before, during or after cervical traction ,but all techniques were effective in reducing symptoms of radiculopathy with a high percentage of improvement for the group received combined intermittent traction and median nerve mobilization.

Key words	**1.**	**Cervical radiculopathy.**
	2.	**Median nerve mobilization.**
	3.	**Intermittent traction.**
	4.	**Simultaneous Application of Traction.**
	5.	**H-reflex.**
Classification number	**:**	**000.000.**
Pagination	**:**	**134 p.**
Arabic Title Page	**:**	**فعالية التطبيق المتزامن للشد وتحريك العصب الأوسط فى اعتلال الجذور العنقى.**
Library register number	**:**	**6681-6682.**

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

Author	**:**	**Nagy Mohamed Awad Alazaly.**
Title	**:**	**Comparison between early and late weight bearing rehabilitation program after internal fixation of ankle fracture.**
Dept.	**:**	**Physical Therapy Department for musculoskeletal disorder and its Surgery.**
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Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Ankle fractures are the most common type of lower extremity fracture and among the most common types of fractures worldwide. Rehabilitation strategies after surgical intervention for ankle fractures are 2 concepts: 1) Early functional treatment with partial weight-bearing, or 2) Immobilization with a cast or orthosis for 6 weeks without weight-bearing (late weight-bearing). Objective: To compare between effect of early weight bearing rehabilitation protocol and late weight bearing rehabilitation protocol after internal fixation of ankle fracture. Methods: 30 patients participated in this study and assigned randomly into two groups; Group (A) received early weight-bearing protocol of rehabilitation (15 patients; male and female), and Group (B) received late weight-bearing protocol of rehabilitation (15 patients; male and female). Results: The statistical analysis by Wilcoxon test revealed that there were significant differences between before and after treatment regarding pain, range of motion of ankle and subtalar joint and activities of daily living within early weight bearing group (P=0.0001; P<0.05) and late weight bearing group (P=0.001; P<0.05). Conclusion: This study proved that early weight-bearing rehabilitation program is more effective for patients after internal fixation of ankle fracture than late weight bearing rehabilitation program regarding pain, range of motion and function. Also its time consuming significantly less than late weight bearing program, so its advised for those patients.

Key words	**1.**	**Early Weight.**
	2.	**Ankle Fracture.**
	3.	**Late Weight-bearing.**
	4.	**Rehabilitation program - ankle fracture.**
	5.	**Internal Fixation.**
Classification number	**:**	**000.000.**
Pagination	**:**	**84 p.**
Arabic Title Page	**:**	المقارنة بين برنامج تأهيل التحميل المبكر للوزن والتحميل المتأخر للوزن بعد عملية تثبيت داخلي لكسر مفصل الكاحل.
Library register number	**:**	**6771-6772.**

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

Author	**:**	**Noha Abd El Salam Shukri El Hadidi.**
Title	**:**	**Effect of shock wave therapy versus phonophoresis on diabetic frozen shoulder.**
Dept.	**:**	**Physical Therapy Department for musculoskeletal disorder and its Surgery.**
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Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

The purpose of this study: Was to determine the effectiveness of shock wave therapy versus phonophoresis on diabetic frozen shoulder. Subjects and methods: 30 patients with diabetic frozen shoulder with stage 2 and 3 who didn't receive medications; were selected from Agouza police hospital. The ages of all participants ranged from 40 to 60 years, patients were classified into two groups. Group (A) is the shock wave group and consisted of 15 patients with diabetic frozen shoulder .They received extracorporeal shock waves therapy for one session per week for 4 weeks. Group (B) Is the phonophoresis group and was consisted of 15 patients. They received phonophoresis for 12 sessions as 3sessions/week. Both groups performed pendulum exercises, stretching for include doorway pectoral stretch, cross-body posterior shoulder stretching, shoulder external rotation cane stretch and shoulder internal rotation towel stretch and if the patient was able to tolerate it then followed by wall walking and wall bar. Data measured include, pain and disability by Shoulder Pain And Disability Index (SPADI) and shoulder range of motions by a digital inclinometer. Results:The results of this study demonstrated that application of shock wave versus application of phonophoresis on patients with diabetic frozen shoulder showed a statistically significant difference between the two groups in favor of shock wave group as pain improved by (44.97%), disability improved by (24.86%) and patient's range of motion increased by (53.51%) for flexion ,by (34.26%) for extension, by (31.21%) for abduction, by (23.11%) for external rotation and by (23.05%) for internal rotation. Conclusion:It was concluded that the application of shock wave therapy on patients with diabetic frozen shoulder showed better results than application of phonophoresis.

Key words	**1.**	**Frozen shoulder.**
	2.	**phonophoresis.**
	3.	**Shockwave.**
	4.	**Diabetic frozen shoulder.**
Classification number	**:**	**000.000.**
Pagination	**:**	**93 p.**
Arabic Title Page	**:**	**تأثير الموجات التصادمية مقابل تأثير انتقال العقاقير بالموجات الصوتية على تيبس الكتف السكرى.**
Library register number	**:**	**6557-6558.**

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

Author	**:**	**Wafaa Atef Abd Allah.**
Title	**:**	**Hip versus ankle muscles strengthening in treatment of primary knee osteoarthritis.**
Dept.	**:**	**Physical Therapy Department for musculoskeletal disorder and its Surgery.**
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	2.	**Mohamed Abd Elhalem Kaddah.**
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	4.	**Hassan Fouad Elhelaly.**
Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	

Purpose: The purpose of this study was to compare the effect of adding strengthening exercises of hip extensors and abductors to the effect of adding strengthening exercises of ankle dorsiflexors and plantarflexors in treatment of primary knee osteoarthritis. Subjects: forty patients diagnosed as primary unilateral knee osteoarthritis were referred from orthopedic surgeons. Methods: Patients were randomly distributed into two equal groups. The first experimental group (Group A) consisted of 20 patients mean age was 46.00 (± 3.87) years, mean weight was 93.30 (± 16.87) kg, mean height was159.20 (± 6.70) cm, and mean duration of illness was11.60 (± 4.69) months. They received moist hot pack followed by a program of therapeutic exercises including hip adductors, hamstring and calf stretching exercises, quadriceps and hamstring strengthening exercises, in addition to hip abductors and extensors strengthening exercises. The second experimental group (Group B) consisted of 20 patients mean age was 46.35 (± 4.55) years, mean weight was 93.95 (±20.39) kg, mean height was 159.00 (± 6.03) cm, and mean duration of illness was 12.55 (± 5.57) months. They received moist hot pack followed by a program of therapeutic exercises including hip adductors, hamstring and calf stretching exercises, quadriceps and hamstring strengthening exercises, in addition to strengthening exercises of ankle dorsiflexors and plantarflexors. Treatment was given 3 times per week, each other day, for 4 consecutive weeks. Patients were evaluated pretreatment and posttreatment for knee pain severity, isometric muscle strength of quadriceps and hamstring in addition to static balance and dynamic balance as well as functional ability. Results : Patients of both groups showed significant improvements in pain severity ($P < 0.0001$), isometric quadriceps ($P < 0.0001$), isometric hamstring ($P < 0.0001$), static balance ($P < 0.0001$), dynamic balance ($P < 0.0001$), ascending stair time ($P < 0.0001$), descending stairs time ($P < 0.0001$), walking speed ($P < 0.0001$). In between groups difference, the second group showed a significant improvement than the first group in only dynamic balance ($P < 0.0001$). But there were no significant differences in pain severity, quadriceps and hamstring isometric strength, static balance and functional ability. Conclusion: Both strengthening exercises had a significant effect on all measured variables. However adding strengthening exercises of ankle dorsiflexors and plantarflexors were more effective in improving dynamic balance. Therefore, we recommended adding both hip muscles strengthening and ankle muscle strengthening to traditional knee muscle strengthening in the treatment of patients with knee osteoarthritis.

Key words	**1.**	**Knee osteoarthritis.**
	2.	**Knee muscles.**
	3.	**Stretching exercises.**
	4.	**Strengthening exercises.**
	5.	**Hip muscles.**
	6.	**Ankle muscles strengthening.**
	7.	**Ankle muscles.**
	8.	**Pain severity.**
	9.	**Muscle strength,**
	10.	**Static balance, Dynamic balance, Functional ability.**
Classification number	**:**	**000.000.**
Pagination	**:**	**145 p.**
Arabic Title Page	**:**	**تقوية عضلات الفخذ مقابل الكاحل فى علاج الإلتهاب العظمي المفصلي الأولي للركبة.**
Library register number	**:**	**6523-6524.**

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

Author	**:**	**Wageeh Fawzy Hassan Hassanien.**
Title	**:**	**Individual And Combined Efficacy Of Multi Angle Isometric Exercises And Electrical Stimulation In Treatment Of Haemophilic Arthritis.**
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Degree	**:**	**Doctoral.**
Year	**:**	**2019.**
Abstract	**:**	
BACKGROUND: Hemophilia is a congenital sex-linked disorder resulting from a deficiency of clotting factor. Recurrent joint bleeding in persons with hemophilia is known to lead to joint damage associated with pain, loss of range of motion and function. OBJECTIVE: The purpose of this study is to compare between individual and combined efficacy of electrical stimulation and multi angel isometric exercises in treatment of patients with hemophilic arthritis. METHODS: Twenty patients had participated in this study; with age ranged from 15-40 years, they were randomly assigned into two experimental groups. Group A consisted of 10 male patients with mean age 27.3 (± 7.2) years, received multi angel isometric exercises program. Group B consisted of 10 male patients with mean age of 28 (± 8.2) years, received a program of combined multi angel isometric with electrical stimulation exercises. Treatment was given 3 times/ week, every other day, for 6 consecutive weeks. Patients were evaluated pre and post treatment for their functional walking, pain level, and knee joint extension range of motion. RESULTS: The results revealed that there were no significant differences between both groups regarding the improvement in functional walking, significant difference in knee joint extension range of motion measured, and pain level. CONCLUSION: it was found that found that combination between multi angle isometric exercises together with electrical stimulation is most benefical for joint health in haemophilic patient more than isometric exercises only, that combination decrease stress on the joint and decrease propability for bleeding		
Key words	**1.**	**Hemophilic arthritis.**
	2.	**Electrical stimulation.**
	3.	**Multi angel isometric exercises.**
	4.	**Multi Angle Isometric Exercises.**
Classification number	**:**	**000.000.**
Pagination	**:**	**103 p.**
Arabic Title Page	**:**	**التأثير الفردى والمزدوج تمرينات المقاومة الثابتة متعددة الزوايا والتنبيه الكهربائى فى لعلاج الالتهاب المفصلى لمرضى سيولة الدم.**
Library register number	**:**	**6515-6516.**