

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BIOMECHANICS
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Department of Biomechanics

Doctoral Degree
2018

Author	:	Asmaa Foad Abdel Monem
Title	:	Effect of Different Taping Techniques on Patients with Chronic Ankle Sprain
Dept.	:	Department of Biomechanics.
Supervisors	1.	Prof. Dr. Salam M Elhafez
	2.	Prof. Dr. Nadya AbdelAzeem Fayaz
	3.	Prof. Dr. Magdy AbdelAzeem Hussien
	4.	Dr. Ghada AbdelMoneim Mohammed
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	<p>Background: With rehabilitation of muscles, taping has been known to modulate some physiological processes. Outcome: The current study was conducted to investigate the changes that may occur in the electromyography (EMG), concentric peak torque, and concentric strength ratio of ankle evertors and invertors as a result of applying three different taping modes. These taping modes were; no tape (NT), athletic tape (AT), and kinesiotape (KT). Methods: The study was conducted on 30 volunteers of both sexes suffering from chronic ankle sprain. All patients were tested with the different taping modes in a random order at 120°/sec. Ankle evertor and invertor EMG were assessed using Noraxon device. Isokinetic peak torque and strength ratio assessments were done for the same tested muscles using the Biodex isokinetic dynamometer. Electromyographic and isokinetic measures were recorded when patients were instructed to perform five repetitions of ankle inversion and eversion through the selected ROM and angular velocity. Results: Results showed that KT always recorded the highest level of peak torque and strength ratio of ankle evertors and invertors ($p < 0.05$) when compared with AT&NT. On the other hand, KT caused reduction of EMG of the same muscles ($p < 0.05$). Additionally, it was noted that the difference between AT&NT was not statistically significant ($p > 0.05$) for all measured variables. Conclusion: Kinesiotape has an impact on isokinetic and EMG measures of patients with chronic ankle sprain. So, physical therapists and athletic trainers may apply KT to a patient during or after treatment and rehabilitation to support ankle musculature.</p>
Key words	1.	Taping techniques
	2.	Isokinetic parameters
	3.	Electromyography
	4.	Chronic ankle sprain
Classification number	:	000.000.
Pagination	:	123 p.
Arabic Title Page	:	تأثير تقنيات الربط المختلفه في مرضي التواء الكاحل المزمن.
Library register number	:	5869-5870.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BIOMECHANICS
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Reda Sayed Ashour Ali
Title	:	Effect of Footwear Modification on Postural Symmetry and Body Balance in Leg Length Discrepancy
Dept.	:	Department of Biomechanics.
Supervisors	1.	Prof. Dr. Osama Ragaa Abdelraouf
	2.	Prof. Dr. Amira Abdallah Abd El Megeid
	3.	Dr. Radwa Eid Sweif Abdelmonaem
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	
<p>Background: Although leg length discrepancy is a physical problem that affects all populations, its measurement and correction is difficult. Purpose: This study investigated the effect of using shoe insole for leg length discrepancy correction on frontal and transverse plane spino-pelvic alignment and dynamic balance. Methods: Thirty one patients with true discrepancy of 5-20 mm were randomly divided into two groups; experimental group that used shoe insole and control group. Their mean±SD age, mass and height were 31.5±10 y, 77.8±10.4 kg and 1.69±0.08 m respectively. Spino-pelvic alignment (pelvic tilt, pelvic torsion, surface rotation and lateral deviation) was assessed using raster-stereography, while dynamic balance was assessed using Star Excursion Balance Test. Patients were assessed twice (the baseline assessment and follow-up assessment) with an interval of eight weeks in-between. Results: Mixed Design MANOVA showed significant decrease in the mean values of all spino-pelvic alignment measures and significant increase in the mean balance test score with insole use ($p < 0.001$) in the experimental group with opposite results being reported for the control group. In addition, the experimental group showed similar results when compared with the control group during the follow up assessment ($p < 0.001$). Conclusion: Using shoe insole for leg length discrepancy correction helps restore postural symmetry and dynamic balance.</p>		
Key words	1.	Leg length discrepancy
	2.	Raster-stereography
	3.	dynamic balance
	4.	Postural Symmetry.
	5.	Footwear - Body Balance .
Classification number	:	000.000.
Pagination	:	p.
Arabic Title Page	:	تأثير تعديل لباس القدم على تماثل القوام وتوازن الجسم عند اختلاف طول الساقين
Library register number	:	6197-6198.