

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

**Department of Biomechanics**

Master Degree  
2018

<b>Author</b>	:	Neama Hamed Mohamed Neamat Allah
<b>Title</b>	:	Effect of Ilium Realignment on Sacroiliac Joint Dysfunction and Hip Joint Proprioception
<b>Dept.</b>	:	Department of Biomechanics.
<b>Supervisors</b>	1.	Salam Mohamed Elhafez
	2.	Susan Sigward
	3.	Ihab Mohamed Emran
	4.	Ghada Abdel moneim Mohammed
<b>Degree</b>	:	Master.
<b>Year</b>	:	2018.
<b>Abstract</b>	:	
<p><b>Background:</b> Pain associated with sacroiliac joint dysfunction often interferes with daily activities and leads to reduced functionality. Rigid taping techniques are often used for conservative treatment of sacroiliac joint dysfunction related symptoms; however, its effectiveness has not been systematically evaluated. <b>Purpose:</b> This study investigated the effect of repeated application of rigid tape for anterior innominate correction on pain, malalignment and mobility deficits associated with anterior innominate sacroiliac joint dysfunction. <b>Methods:</b> Thirty females with sacroiliac joint dysfunction participated. They were randomly assigned to two groups (experimental and control). Rigid tape for anterior innominate correction was applied to the participants in the experimental group every three days for 2 weeks. Participants in the control group did not receive any intervention. <b>Findings:</b> Pain intensity and anterior innominate rotation decreased from pre versus post in the experimental group with no significant differences in the control group. There were no significant within or between-group differences in active hip joint rotation ranges of motion and joint position sense. The number of positive mobility and pain provocation tests decreased from pre versus post in the experimental group. <b>Conclusion:</b> Repeated application of rigid tape for anterior innominate correction successfully reduced symptoms related to sacroiliac joint dysfunction.</p>		
<b>Key words</b>	1.	Sacroiliac joint
	2.	Malalignment
	3.	Mobility deficits
	4.	Pain
	5.	Sacroiliac joint dysfunction
	6.	Rigid tape
	7.	Ilium Realignment on Sacroiliac Joint.
	8.	Hip Joint Proprioception
<b>Classification number</b>	:	
<b>Pagination</b>	:	p.
<b>Arabic Title Page</b>	:	تأثير تصحيح وضع الإلية علي الإختلال الوظيفي لمفصل العجزي الإيلي ومستقبلات الحس العميق لمفصل الفخذ.
<b>Library register number</b>	:	6139-6140.

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

<b>Author</b>	:	<b>Noha Mahmoud Youssef Aboelegg</b>
<b>Title</b>	:	<b>Effect of different balance programs on postural control in patients with chronic ankle instability</b>
<b>Dept.</b>	:	<b>Department of Biomechanics.</b>
<b>Supervisors</b>	1.	<b>Salam Mohamed Elhafez</b>
	2.	<b>Magdy Abd- Elaziz Hussein</b>
	3.	<b>Azza Mohammed Abdelmohsen</b>
<b>Degree</b>	:	<b>Master.</b>
<b>Year</b>	:	<b>2018.</b>
<b>Abstract</b>	:	
<p><b>Background:</b> Chronic ankle instability (CAI) is a common sequence of ankle sprain. Conservative treatment of CAI is currently accepted as the primary means of managing the condition and preventing recurrence. <b>Purpose:</b> The purpose of the current study was to evaluate the effect of two types of balance training programs on static and dynamic balance in females with CAI. <b>Methods:</b> Thirty-five females with CAI participated in this study. The participants' mean values of age, body mass, height, and body mass index were <math>21.76 \pm 1.96</math> y, <math>64.82 \pm 9.37</math> kg, <math>161.85 \pm 7.24</math> cm, and <math>24.76 \pm 3.76</math> kg/m<sup>2</sup>, respectively. They were randomly assigned into three groups; (A) performed Weight-bearing Exercise for Better Balance (WEBB) program (n=13), (B) performed unilateral balance training exercises (n=12), (C) control group did not perform any treatment (n=10). Simple random allocation was done using statistical random table. All participants were tested for balance before and after four weeks of balance training. The overall stability index (OSI), medio-lateral stability index (MLSI), and antero-posterior stability index (APSI) were measured via Biodex Balance System (BBS). Also, single leg stance (SLS) test and star excursion balance test (SEBT) were used to assess functional static balance and dynamic balance, respectively. <b>Results:</b> Statistical analysis using 3x2 mixed design MANOVA revealed that there was a significant improvement in the post testing mean values of all measured variables except MLSI compared with the pre testing ones in the experimental group (A) (<math>p &lt; 0.05</math>). While, there was a significant improvement in the post testing mean values of all measured variables compared with the pre testing ones in the experimental group (B) (<math>p &lt; 0.05</math>). Additionally, there was no significant difference in the post testing mean values of all measured variables between the two experimental groups (A) and (B) (<math>p &gt; 0.05</math>). <b>Conclusion:</b> The WEBB program and unilateral balance training exercises have effective roles in improving postural control in CAI.</p>		
<b>Key words</b>	1.	<b>Balance training</b>
	2.	<b>Postural control</b>
	3.	<b>Chronic ankle instability</b>
<b>Classification number</b>	:	
<b>Pagination</b>	:	<b>VII,127,2 p.</b>
<b>Arabic Title Page</b>	:	<b>تأثير برامج الاتزان المختلفة علي التحكم الوضعي لدى مرضى عدم ثبات الكاحل المزمن.</b>
<b>Library register number</b>	:	<b>5885-5886.</b>