Clinical Trial Protocol
Iranian Registry of Clinical Trials

20 Sep 2026

The effect of lumbar muscle kinesiotaping on postural control of healthy adults after lumbar muscle fatigue

Protocol summary

Summary

The objectives of this study are to investigate the effect of lumbar muscle fatigue on the postural sway and to examine the effect of kinesiotaping on the postural sway after lumbar muscle fatigue. Fifteen healthy young men will be recruited in this study after giving consent. Participants should not have orthopedic problems in the lower extremities, Cardio-vascular diseases and neurological disorders that disturbed the balance. The mean velocity and sway area of the subjects will be assessed in the bilateral standing position with eyes closed in the two following conditions: non-taping (NT); kinesiotaping (KT). First, postural sway will be measured as the baseline. For the KT condition, kinesiotape will be applied on the lumbar extensor muscles before fatigue protocol. Then lumbar extensor fatigue will be produced by maintaining 60% of the maximum voluntary isometric contraction against the Dynamometer. Immediately after Fatigue, sway variables will be measured. For the NT condition, the tape will not be applied and measurement will be performed after fatigue as before. To avoid any bias, the order of the two conditions will be randomly assigned to each subject and the KT and NT conditions will be conducted by at least 7 days interval. Interventions of the study are fatigue and kinesiotaping of lumbar extensor muscles. Effects of interventions on sway speed and total area of participants will be measured by Kistler force plate unit.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201306297057N3**
Registration date: **2013-10-25, 1392/08/03**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2013-10-25, 1392/08/03

Registrant information

Name
Mohammad Akbari
Name of organization / entity
Dept. of Physical Therapy, School of Rehabilitation, Tehran University of Medical Sciences
Country
Iran (Islamic Republic of)
Phone
+98 21 2222 8051
Email address
akbari_mo@tums.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research of Tehran University of Medical Sciences

Expected recruitment start date

2013-09-01, 1392/06/10

Expected recruitment end date

2014-01-14, 1392/10/24

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of lumbar muscle kinesiotaping on postural control of healthy adults after lumbar muscle fatigue

Public title

The effect of lumbar muscle kinesiotaping on balance

Purpose

Treatment

Inclusion/Exclusion criteria
Inclusion criteria: Healthy male aged 20 to 40 years without history of low back pain, orthopedic problems in the lower extremities, Cardio-vascular diseases and neurological disorders that disturbed the balance.
Exclusion criteria: Appearance of any problem after recruiting subjects that affect data collection such as low back pain and unwillingness of participants to keep on the study.
Age
From **20 years** old to **40 years** old
Gender
Male

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **2**
Randomization (investigator's opinion)
N/A
Randomization description
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Single
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Tehran University of Medical Sciences
Street address
Ghods St., Keshavarz Blvd.,
City
Tehran
Postal code
Approval date
2013-07-29, 1392/05/07
Ethics committee reference number
92-01-32-21385-87560

Health conditions studied

1

Description of health condition studied
Healthy male subjects with lumbar extensor muscle fatigue.
ICD-10 code
T73.3
ICD-10 code description
Exhaustion due to excessive exertion

Primary outcomes

1

Description
Total sway area
Timepoint
First it was measured after including subjects, next one week later
Method of measurement
By using the Kistler force plate unit.

2

Description
Sway speed
Timepoint
First it was measured after including subjects, next one week later.
Method of measurement
By using the Kistler force plate unit.

Secondary outcomes

empty

Intervention groups

1

Description
Lumbar extensor muscle fatigue will produce by maintaining 60% of the maximum voluntary isometric contraction against the Dynamometer
Category
Rehabilitation

2

Description
Kinesiotape will apply over the lumbar extensor muscles from twelfths thoracic vertebrae to second sacral vertebral level.
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
School of Rehabilitation, Physiotherapy Lab. Number1
Full name of responsible person
Mehdi Ahmadi
Street address
Nezam Al., Shahnazari St., Madar Sq., Mirdamad Blvd.,

City
Tehran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice chancellor for research, Tehran University of Medical Sciences.
Full name of responsible person
Azadeh Shadmehr
Street address
Nezam Al., Shahnazari St., Madar Sq., Mirdamad Blvd., Tehran.
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice chancellor for research, Tehran University of Medical Sciences.
Proportion provided by this source
100
Public or private sector
empty
Domestic or foreign origin
empty
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
empty

Person responsible for general inquiries

Contact
Name of organization / entity
Vice research, School of Rehabilitation, Tehran University of Medical Sciences
Full name of responsible person
Azadeh Shadmehr
Position
Vice research
Other areas of specialty/work
Street address
Nezam Al., Shahnazari St., Madar Sq., Mirdamad Blvd., Tehran.
City
Tehran
Postal code
1545913187
Phone
+98 21 2225 8769
Fax
+98 21 2222 0946
Email
Shadmehr@tums.ac.ir
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
Dept. of Physical therapy, School of Rehabilitation, Tehran University of Medical Sciences.
Full name of responsible person
Mohammad Akbari
Position
Ph.D
Other areas of specialty/work
Street address
Nezam Al., Shahnazari St., Madar Sq., Mirdamad Blvd., Tehran.
City
Tehran
Postal code
1545913187
Phone
+98 21 2222 8051
Fax
+98 21 2222 0946
Email
Akbari_mo@tums.ac.ir
Web page address

Person responsible for updating data

Contact
Name of organization / entity
Dept. Of Physical Therapy, School of Rehabilitation, Tehran University of Medical Sciences
Full name of responsible person
Mehdi Ahmadi
Position
Master of Sciences student
Other areas of specialty/work
Street address
Nezam Al., Shahnazari St., Madar Sq., Mirdamad Blvd., Tehran.
City
Tehran
Postal code
1545913187
Phone
+98 21 2222 8051
Fax
+98 21 2222 0946
Email
mahdi_pt@yahoo.com
Web page address

Sharing plan

Deidentified Individual Participant Data Set (IPD)
empty
Study Protocol
empty
Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty