

Clinical Trial Protocol

Iranian Registry of Clinical Trials

07 Jul 2026

Effect of 6 weeks neuromuscular training on muscle strength, balance, range of motion & proprioceptive in males with lateral ankle sprain

Protocol summary

Summary

This study aimed to investigate the effect of six weeks of neuromuscular training on muscle strength, balance, range of motion and preconception in men with lateral ankle ligament sprains. This intervention study was a non-blinded clinical trial. The main inclusion criteria were: male patients with lateral ankle ligament sprains (grade I and II) in the dominant leg; injured within the last 6 months and ranging in age from 18 to 35 years who received routine physiotherapy when entering the study and had no pain and swelling. The exclusion criteria were: presence of other injuries in the lower extremities; damages affecting the balance (scoliosis and amputation), history of inner ear problems and vertigo; any kind of problem in the nervous system; problems with vision which were not corrected; age over 35 years and under 18 years; not completing the therapy sessions until the end of the 6th week for any reason and also the injured ankle not being in the dominant leg. A total of 17 male patients with lateral ankle ligament sprains performed neuromuscular training for six weeks and the effect of these exercises on muscle strength, balance, range of motion and preconception will be measured.

General information

Acronym

lateral ankle sprain

IRCT registration information

IRCT registration number: **IRCT2014091619190N1**

Registration date: **2014-12-17, 1393/09/26**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-12-17, 1393/09/26

Registrant information

Name

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Name of organization / entity

University of Tehran international campus

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for research of University of Tehran Kish International Campus

Expected recruitment start date

2014-02-20, 1392/12/01

Expected recruitment end date

2014-11-22, 1393/09/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of 6 weeks neuromuscular training on muscle strength, balance, range of motion & proprioceptive in males with lateral ankle sprain

Public title

Effect of 6 weeks neuromuscular training

Purpose

Treatment

Inclusion/Exclusion criteria

The main inclusion criteria were: male patients with lateral ankle ligament sprains (grade I and II) in the dominant leg; injured within the last 6 months and

ranging in age from 18 to 35 years who received routine physiotherapy when entering the study and had no pain and swelling. The exclusion criteria were: presence of other injuries in the lower extremities: damages affecting the balance (scoliosis and amputation), history of inner ear problems and vertigo: any kind of problem in the nervous system: problems with vision which were not corrected: age over 35 years and under 18 years: not completing the therapy sessions until the end of the 6th week for any reason and also the injured ankle not being in the dominant leg.

Age

From **18 years** old to **35 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **18**

Randomization (investigator's opinion)

Not randomized

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 Kish
International Cumpus

Street address

Kish

City

Kish

Postal code

Approval date

2014-09-16, 1393/06/25

Ethics committee reference number

2302

Health conditions studied

1

Description of health condition studied

lateral ankle sprain

ICD-10 code

S93.4

ICD-10 code description

sprain and strain of ankle

Primary outcomes

1

Description

muscle strength

Timepoint

pretest , post test

Method of measurement

isokinetic machine

2

Description

proprioceptive

Timepoint

pretest , post test

Method of measurement

isokinetic machine

Secondary outcomes

1

Description

range of motion

Timepoint

pretest,posttest

Method of measurement

goniometer

2

Description

balance

Timepoint

pretest,posttest

Method of measurement

biodex balance system

Intervention groups

1

Description

exercise therapy, 6 weeks , 3 times a week , 45,60 min
per time

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Farda physiotherapy clinic
Full name of responsible person
Dr. Yahya Sokhangoei
Street address
Tehran
City
Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Vice Chancellor for research of University of Tehran
Kish International Campus
Full name of responsible person
Dr.Rajabi
Street address
Kish
City
Kish

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 of University of Tehran Kish
International Campus

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

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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