Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison of the Effects and Maintenance Duration of Passive Stretch and Muscle Energy Techniques in the Treatment of Hamstring Muscles Shortening

Protocol summary

Summary

The study will conducted on 45 female students 18 to 25 years old with short hamstring. Randomly allocated to a control, passive stretch or muscle energy technique(MET) groups. In passive stretch and MET groups, intervention 3 times per week for 3 weeks will be done. At the end of 3 weeks and 4 weeks later (week 7 after intervention) knee extension range of motion is measured

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201407121552N2**
Registration date: **2014-08-09, 1393/05/18**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2014-08-09, 1393/05/18

Registrant information

Name
Maryam Ebrahimian
Name of organization / entity
Shiraz University of Medical Sciences
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Iran (Islamic Republic of)
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ebrahimian@sums.ac.ir

Recruitment status

Recruitment complete

Funding source

Shiraz University of Medical Sciences

Expected recruitment start date

2014-07-23, 1393/05/01

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

Comparison of the Effects and Maintenance Duration of Passive Stretch and Muscle Energy Techniques in the Treatment of Hamstring Muscles Shortening

Public title

Comparison of the effect of two types of exercise therapy in the treatment of shortening of posterior muscles of thigh

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: active and passive knee extension angle decreased to less than 160 degrees Exclusion criteria: musculoskeletal disorders in lumbar and pelvic region; nervous system diseases (M. S., peripheral neuropathy, cerebral palsy); joint diseases such as rheumatoid arthritis; history of surgeries such as joint replacement

Age

From **18 years** old to **25 years** old

Gender

Female

Phase

N/A

Groups that have been masked
No information
Sample size
Target sample size: **45**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Shiraz University of Medical Sciences
Street address
Oppsite to Felestin Street, Zand Avenue
City
Shiraz
Postal code
1433671348
Approval date
2013-10-06, 1392/07/14
Ethics committee reference number
92-01-06-5863

Health conditions studied

1

Description of health condition studied
Hamstring muscle shortening
ICD-10 code
M67.8
ICD-10 code description
Other specified disorders of synovium and tendon

Primary outcomes

1

Description
Knee extension angle
Timepoint
3 and 7 weeks after intervention
Method of measurement
Photography with a digital camera from the latera view of knee joint and meassurment the joint angle with image j software

Secondary outcomes

empty

Intervention groups

1

Description
In passive stretch group, subjects do hamstring stretch for three weeks, three times a week and every time do 5 times 30-second stretch.
Category
Rehabilitation

2

Description
In muscle energy group, muscle therapy will do by a therapist for three weeks, three times in a week.
Category
Rehabilitation

3

Description
The control group, dont receive any treatment
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Rehabilitation Sciences School of Shiraz University of Medical Sciences
Full name of responsible person
Maryam Ebrahimian
Street address
Abiverdi No.1 St.,Shahid Chamran Blvd.
City
Shiraz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice Chancellor for Research Affirs Of Shiraz University of Medical Sciences
Full name of responsible person
Dr. Syed Basir Hashemi
Street address
7th fioor of Central Building of Shiraz University of Medical Sciences,Oppsite to Felestin Street, Zand Avenue.
City
Shiraz
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 Affirs Of Shiraz 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

Shiraz University of Medical Sciences

Full name of responsible person

Maryam Ebrahimian

Position

Master of Science/ Faculty member

Other areas of specialty/work

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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