

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 May 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 be 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

Country

Iran (Islamic Republic of)

Phone

+98 71 1627 1551

Email address

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

Opposite 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 Affairs Of Shiraz University of Medical Sciences

Full name of responsible person

Dr. Syed Basir Hashemi

Street address

7th floor 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 Affairs 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**Street address**Rehabilitation Sciences School, Abiverdi No.1 St.,
Shahid Chamran Blvd.**City**

Shiraz

Postal code

7194733669

Phone

+98 71 1627 1552

Fax

+98 71 1627 2495

Email

ebrahimian@sums.ac.ir

Web page address**Person responsible for scientific inquiries****Contact****Name of organization / entity**

Shiraz University of Medical Sciences

Full name of responsible person

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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*