

Clinical Trial Protocol

Iranian Registry of Clinical Trials

04 Jul 2026

The comparison of the effects of two techniques of massage and passive stretching on reduction of muscle fatigue after static contraction in girl university students

Protocol summary

Summary

The present study was to compare the two techniques of massage and passive stretching in reducing quadriceps muscle fatigue after an isometric muscle contraction. This study was performed on 30 girl university students within the age range of 19-30 years. The study subjects were recruited by convenience sampling method. In order to induce fatigue in quadriceps muscle, 75% of maximal voluntary contraction measured by a digital dynamometer was used. Immediately after the muscle contraction, passive stretching of quadriceps for 30 seconds was performed and then maximal voluntary contraction was measured again. After four days, the whole process was repeated except that instead of passive stretching, kneading massage for five minutes was used.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138710261552N1**

Registration date: **2009-06-30, 1388/04/09**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2009-06-30, 1388/04/09

Registrant information

Name

Maryam Ebrahimian

Name of organization / entity

Shiraz University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

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ebrahimian@sums.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Shiraz University of Medical Sciences

Expected recruitment start date

2008-08-23, 1387/06/02

Expected recruitment end date

2009-01-21, 1387/11/02

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The comparison of the effects of two techniques of massage and passive stretching on reduction of muscle fatigue after static contraction in girl university students

Public title

The comparison of the effects of two techniques of massage and passive stretching on reduction of muscle fatigue after static contraction in girl university students

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: age 19-30 years, Exclusion criteria: History of orthopaedic conditions, presence of and neuromusculoskeletal problem

Age

From **19 years** old to **30 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 30

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

Shiraz University of Medical Sciences

Street address

Vice chancellor for Reseach, Shiraz Universiy of Medical Sciences

City

Shiraz

Postal code

Approval date

2008-07-17, 1387/04/27

Ethics committee reference number

4147-87

Health conditions studied

1

Description of health condition studied

Muscle fatigue

ICD-10 code

M 70.8

ICD-10 code description

other soft tissue disorders related to overuse or repeated use

Primary outcomes

1

Description

Isometric muscle strenght

Timepoint

Immediately after intervention

Method of measurement

75% of maximal volountary contraction measured using a digital dynamometer

Secondary outcomes

empty

Intervention groups

1

Description

passive stretching to quadriceps muscle for 30 seconds

Category

Rehabilitation

2

Description

kneading massagae to quadriceps muscle for 5 minutes

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Shiraz University of Medical Sciences, Rehabililtation Sciences Faculty

Full name of responsible person

Maryam Ebrahimian

Street address

Rehabililtation Sciences Faculty

City

Shiraz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shiraz University of Medical Sciences

Full name of responsible person

Mohammad Hosein Dabaghmanesh

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Vice chancellor for Reseach, Shiraz Universiy of Medical Sciences

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

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

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Person responsible for general inquiries

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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