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)

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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 disoders 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, Rehablilitation Sciences Faculty
Full name of responsible person
Maryam Ebrahimian
Street address
Rehablilitation 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
Street address
Vice chancellor for Reseach, Shiraz Universiy of Medical Sciences
City
Shiraz
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

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