Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

An investigation of the acute effect of warm-up training on the static and dynamic balance indices in athletic and non-athletic university students

Protocol summary

Summary

Objectives:Warm-up training before sport activities has been used to increase functional performance and reduce the risk of sport injury. In spite of the stated effect of these training protocols before starting any sport activity, its effect on the balance indices has not been proven yet. This study has been designed to investigate the acute effect of warm-up training protocol on the static and dynamic balance indices. Design: Randomized cross sectional clinical trial study. Setting and conduct: Participants will be randomly allocated in one of the control (no warm-up training) and experimental (performing warm-up training) groups. Dynamic and static balance indices will be evaluated before and immediately after intervention . Participants including major eligibility criteria: Athletic (at least two regular sport activities in a weak) and non-athletic (maximum one session sport activity in weak) female and male students of Semnan University of Medical Sciences will be participated in the study. They will be excluded from the study if there is musculoskeletal, neuromuscular, cardiovascular and respiratory diseases, a history of lower limb fracture for the last year, a history of severe trauma during last three months. Intervention: Performing five minutes warm-up training protocol by the experimental group. Main Outcome measure variables: Static and dynamic balance indices during unilateral and bilateral standing with open and closed eyes.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201111141254N8**
Registration date: **2012-01-10, 1390/10/20**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2012-01-10, 1390/10/20

Registrant information

Name
Amir Hoshang Bakhtiary Davijani
Name of organization / entity
Semnan University of Medical Sciences
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Iran (Islamic Republic of)
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amirbakhtiary@sem-ums.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice Chancellor for research of Semnan University of Medical Sciences.

Expected recruitment start date

2011-12-22, 1390/10/01

Expected recruitment end date

2012-02-20, 1390/12/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

An investigation of the acute effect of warm-up training on the static and dynamic balance indices in athletic and non-athletic university students

Public title

An investigation of the acute effect of warm-up training on the static and dynamic balance indices in athletic and non-athletic university students

Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria: Athletic and non-athletic female and male students of Semnan University of Medical Sciences. Exclusion criteria: musculoskeletal, neuromuscular, cardiovascular and respiratory diseases; a history of lower limb fracture for the last year; a history of severe trauma during last three months.
Age
From **18 years** old to **25 years** old
Gender
Both

Phase
2
Groups that have been masked
No information
Sample size
Target sample size: **120**
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
The Ethical committee of Semnan University of Medical Sciences
Street address
Semnan University of Medical Sciences, Basije Blv.
City
Semnan
Postal code
Approval date
2011-12-26, 1390/10/05
Ethics committee reference number
90/16/17961

Health conditions studied

1

Description of health condition studied
The participants are healthy
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Static balance index with open and closed eyes
Timepoint
Before and immediately after intervention
Method of measurement
Using Biodex Balance System

2

Description
Dynamic balance index with open and closed eyes
Timepoint
Before and immediately after intervention
Method of measurement
Using Biodex Balance System

Secondary outcomes

empty

Intervention groups

1

Description
Control group: No warm-up exercise
Category
Prevention

2

Description
Experimental group: Warm-up training protocol including five minutes walk on the treadmill with 65% maximum heart rate.
Category
Prevention

Recruitment centers

1

Recruitment center
Name of recruitment center
Neuromuscular Rehabilitation Research Centre
Full name of responsible person
Dr Amir H Bakhtiary
Street address
Neuromuscular Rehabilitation Research Centre, Ghods Avenue
City
Semnan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Vice chancellor for Research, Semnan University of Medical Sciences
Full name of responsible person
Dr Raheb Ghorbani
Street address
Semnan University of Medical Sciences, Basij Blv.
City
Semnan
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, Semnan 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
Neuromuscular Rehabilitation Research Centre, Semnan University of Medical Sciences
Full name of responsible person
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Person responsible for updating data

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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