

Clinical Trial Protocol

Iranian Registry of Clinical Trials

20 Jun 2026

Effects of prophylactic ankle supports on balance, perceived stability and ground reaction force during lateral landing before and after fatigue in healthy female college sport student

Protocol summary

Study aim

Aim to evaluate the effect of prophylactic ankle support on time to stabilization, perceived stability and peak vertical ground reaction force in subjects without a history of ankle injuries before and after fatigue.

Design

Clinical trial in one group, not randomized, not blinded

Settings and conduct

All tests were performed at the sport rehabilitation lab at Bu-Ali Sina University. Twenty-seven healthy female collegiate athletes participated in the present study in one group. The lateral landing was carried out from a step with a height of 30 cm before and after the fatigue protocol. The test conditions (normal and with tape and brace) were selected randomly and by drawing.

Participants/Inclusion and exclusion criteria

The participants were healthy with no history of ankle or knee injury in the past 12 months; no history of surgery or fractures of the lower extremities and no apparent deformities such as flat foot or high arch.

Intervention groups

The present study was performed on a group before and after induced fatigue. Fatigue protocol, kinesiotape and ankle brace were used as intervention in this study.

Main outcome variables

Time to stabilization; perceived stability and ground reaction were measured pre and post fatigue.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200204046368N2**

Registration date: **2020-03-31, 1399/01/12**

Registration timing: **retrospective**

Last update: **2020-03-31, 1399/01/12**

Update count: **0**

Registration date

2020-03-31, 1399/01/12

Registrant information

Name

Zahra Raeisi

Name of organization / entity

Arak University

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Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-04-03, 1398/01/14

Expected recruitment end date

2019-04-09, 1398/01/20

Actual recruitment start date

2019-04-03, 1398/01/14

Actual recruitment end date

2019-04-09, 1398/01/20

Trial completion date

2019-04-10, 1398/01/21

Scientific title

Effects of prophylactic ankle supports on balance, perceived stability and ground reaction force during lateral landing before and after fatigue in healthy female college sport student

Public title

Prophylactic ankle support and performance in female

college sport student

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

No history of ankle or knee injury in the past 12 months
No history of surgery in the lower extremities
No history of fractures in the lower extremities
No apparent deformities in the leg such as flat foot or high arch

Exclusion criteria:

Chronic diseases such as patellofemoral pain syndrome in lower extremity
Any problems affecting postural control and balance

Age

From **18 years** old to **26 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **27**

Actual sample size reached: **27**

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

Ethics committee of Hamedan University of Medical Sciences

Street address

Hamedan University of Medical Science, in front of People's Garden, Shahid Fahmideh Street

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Hamedan

Province

Hamadan

Postal code

6517838678

Approval date

2019-02-10, 1397/11/21

Ethics committee reference number

IR.UMSHA.REC.1397.762

Health conditions studied

1

Description of health condition studied

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Time to stabilization

Timepoint

Pre and Post Fatigue

Method of measurement

Plantar pressure platform

2

Description

Perceived stability

Timepoint

Pre and postfatigue

Method of measurement

Questionnaire

3

Description

Ground reaction force

Timepoint

Before and after fatigue

Method of measurement

Plantar pressure platform

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Bruce fatigue protocol was used for exerting fatigue. The subjects ran on a treadmill until exhaustion while increasing speed and incline.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Bu-ali Sina university

Full name of responsible person

Ali Yalfani

Street address

Bu-Ali Sina University, Shahid Mostafa Ahmadi Roshan Street

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Bu Ali-Sina University

Full name of responsible person

Gholamhossein Majzoubi

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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

Bu Ali-Sina University

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Bu Ali-Sina University

Full name of responsible person

Ali Yalfani

Position

Associate professor

Latest degree

Ph.D.

Other areas of specialty/work

Rehabilitation management

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Not applicable

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available

Title and more details about the data/document

Part of the data on the time to stabilization and vertical ground reaction force can be shared.

When the data will become available and for how long

Starting access after publishing study results

To whom data/document is available

Researchers working in academic institutions

Under which criteria data/document could be used

Some of the information obtained after the analysis will be possible only for specialists in this field.

From where data/document is obtainable

Ali Yalfani آدرس ایمیل: Ali_yalfani@yahoo.com

What processes are involved for a request to access data/document

Information will be available one year after publication.

Comments