

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### The effects of a single leg balance training program on static and dynamic balance of the trained and untrained lower extremity, in healthy female students

#### Protocol summary

##### Summary

The objective of this randomized trial is to investigate the effect a single leg balance training program on static and dynamic balance of the trained and untrained lower extremity, in healthy female students. In this study 30 subjects who meet the inclusion/exclusion criteria will be recruited and randomly assigned into intervention or control group. The healthy female subjects would be recruited and subjects with balance or vestibular disorder and regular participation in balance training program would be excluded. The subjects in the intervention group will receive balance exercises as standing on one leg on a half ball .Intervention lasts 3 times/week, for 4 weeks. The subjects in control group will receive no intervention. Static and dynamic balance indices of all participants with eyes opened and closed, will be measured before and after the intervention, and will be compared between 2 groups. Researchers will be blinded to the experimental groups and outcome measures of each group.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201408114203N8**

Registration date: **2014-08-28, 1393/06/06**

Registration timing: **prospective**

Last update:

Update count: **0**

##### Registration date

2014-08-28, 1393/06/06

##### Registrant information

##### Name

Atefeh Aminian Far

##### Name of organization / entity

Semnan University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 23 1335 4180

##### Email address

aminianfar@razi.tums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Deputy of Research, Semnan University of Medical Sciences

##### Expected recruitment start date

2014-09-01, 1393/06/10

##### Expected recruitment end date

2014-11-01, 1393/08/10

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

The effects of a single leg balance training program on static and dynamic balance of the trained and untrained lower extremity, in healthy female students

##### Public title

Balance exercises and Cross education

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria: female subjects ; being healthy; aged between 18-25years. Exclusion criteria: performing balace exercise in last year; presence of any previous spinal, pelvic, leg or foot truma in last year; presence of

any previous orthopedic or neurologic dysfunction that limit daily activity; vestibular disorder ; postural dysfunction; lower limb and spinal deformities; visual disorders; taking medicine with effects on balance.

#### 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: **30**

#### Randomization (investigator's opinion)

Randomized

#### Randomization description

#### Blinding (investigator's opinion)

Single blinded

#### Blinding description

#### Placebo

Not used

#### Assignment

Parallel

#### Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Deputy of Research, Semnan University of Medical Sciences

##### Street address

Bassij Blvd, Semnan University of Medical Sciences, Deputy of Research, Semnan, Iran.

##### City

Semnan

##### Postal code

3519899951

#### Approval date

2014-07-08, 1393/04/17

#### Ethics committee reference number

93/470221

## Health conditions studied

### 1

#### Description of health condition studied

Sequelae of injuries of lower limb

#### ICD-10 code

T93.9

#### ICD-10 code description

Sequelae of unspecified injury of lower limb

## Primary outcomes

### 1

#### Description

Overall displacement of center of pressure

#### Timepoint

Before Intervention, 4 weeks following the intervention.

#### Method of measurement

Balance biodex system

### 2

#### Description

Anterior-posterior displacement of center of pressure

#### Timepoint

Before Intervention, 4 weeks following the intervention.

#### Method of measurement

Balance biodex system

### 3

#### Description

Lateral displacement of center of pressure

#### Timepoint

Before Intervention, 4 weeks following the intervention.

#### Method of measurement

Balance biodex system

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention : Balance exercise as standing on one leg on a half ball, 3 times per week, for 4 weeks. each session consists of 6 sets of 20 seconds with 20 seconds rest between sets.

#### Category

Rehabilitation

### 2

#### Description

Control: no intervention

#### Category

Rehabilitation

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Clinics under supervision of Semnan University of Medical Sciences

##### Full name of responsible person

Dr. Atefeh Aminian Far

**Street address**

Kilometer 5 Damghan road, Semnan University of  
Medical Sciences

**City**

Semnan

aminfar@sem-ums.ac.iraminfar83@yahoo.com

**Web page address****Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Deputy of Research, Semnan University of Medical  
Sciences

**Full name of responsible person**

Dr, Ali Rashidipour

**Street address**

Bassij Blvd, Semnan University of Medical Sciences,  
Deputy of Research, Semnan, Iran.

**City**

Semnan

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor  
organization/entity?**

Yes

**Title of funding source**

Deputy of 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**

Semnan University of Medical Sciences

**Full name of responsible person**

Dr. Atefeh Aminian Far

**Position**

Ph.D of Physiotherapy/ Assistant Professor

**Other areas of specialty/work****Street address**

Kilometer 5 Damghan road, Semnan University of  
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**Web page address****Person responsible for updating data****Contact****Name of organization / entity**

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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*