

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

28 Jun 2026

### The effect of isometric exercises on control of pain and return of muscle strength in lower extremity in patients admitted to the orthopedic ward

#### Protocol summary

##### Summary

Objective: The effects of isometric exercise on pain control and return muscle strength in patients with lower extremity trauma Study design : Randomized The study population: all trauma patients with fractures of femur and tibia Inclusion criteria : All patients with fracture of femur and tibia trauma Exclusion criteria : previous surgery - associated with addiction Sample : 160 Intervention : A physiotherapy session is done for 20 minutes on the first day and a session on the second day after the surgery in the intervention group. In the control group not taking action. Time : 2015 The primary outcome :Decrease of pain

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2015070216221N3**

Registration date: **2015-09-06, 1394/06/15**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2015-09-06, 1394/06/15

##### Registrant information

###### Name

Ali Tajabadi

###### Name of organization / entity

Sabzevar University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 57 1264 7375

###### Email address

tajabadia@medsab.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Deputy for research and Technology of Sabzevar  
University of Medical Sciences

##### Expected recruitment start date

2015-08-06, 1394/05/15

##### Expected recruitment end date

2016-02-04, 1394/11/15

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

The effect of isometric exercises on control of pain and return of muscle strength in lower extremity in patients admitted to the orthopedic ward

##### Public title

the effect of isometric exercises on return of muscle strength

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria :All trauma patients with fractures of femur and tibia exclusion criteria:Previous surgery; There Addiction; Diabetes; Cardiovascular disease and other chronic diseases; Lack of consent

##### Age

From **15 years** old to **45 years** old

##### Gender

Both

##### Phase

N/A

##### Groups that have been masked

*No information*

##### Sample size

Target sample size: **160**  
**Randomization (investigator's opinion)**  
Randomized  
**Randomization description**  
**Blinding (investigator's opinion)**  
Double blinded  
**Blinding description**  
**Placebo**  
Not used  
**Assignment**  
Parallel  
**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

**Name of ethics committee**

Sabzevar University of Medical Sciences

**Street address**

Deputy for Education of Sabzevar University of  
Medical Sciences, Tehran road, Sabzevar, Khorasan  
Razavi

**City**

Sabzevar

**Postal code**

9617637555

**Approval date**

2015-06-22, 1394/04/01

**Ethics committee reference number**

lr.medsab.rec.1394.38

## Health conditions studied

### 1

**Description of health condition studied**

Lower extremity injuries

**ICD-10 code**

S70,S71,S7

**ICD-10 code description**

Injuries to the hip and thigh

### 2

**Description of health condition studied**

Lower extremity injuries

**ICD-10 code**

S80,S81,S8

**ICD-10 code description**

Injuries to the knee and lower leg

### 3

**Description of health condition studied**

Lower extremity injuries

**ICD-10 code**

S90,S91,S9  
**ICD-10 code description**  
Injuries to the ankle and foot

## Primary outcomes

### 1

**Description**

pain

**Timepoint**

The first day and the second day after the intervention

**Method of measurement**

numerical analog scale

## Secondary outcomes

### 1

**Description**

Muscle strength

**Timepoint**

First and second day after the intervention

**Method of measurement**

Manual Muscle

## Intervention groups

### 1

**Description**

Intervention group : Physiotherapy for 20 minutes first  
and second days after surgery

**Category**

Treatment - Other

### 2

**Description**

No Action

**Category**

Treatment - Drugs

## Recruitment centers

### 1

**Recruitment center****Name of recruitment center**

Doctor Beheshti Emdad hospital

**Full name of responsible person**

Ali Tajabadi

**Street address**

Deputy for education of Sabzevar University of  
Medical Sciences, Tehran road, Sabzevar, Khorasan  
Razavi

**City**

Sabzevar

## Sponsors / Funding sources

1

### Sponsor

**Name of organization / entity**

Sabzevar University of Medical Sciences

**Full name of responsible person**

Mohammad Zadeh, Mohammad

**Street address**

Deputy for Research and Technology of Sabzevar University of Medical Sciences, Tehran road, Sabzevar, Khorasan Razavi

**City**

Sabzevar

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

Yes

**Title of funding source**

Sabzevar 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**

Sabzevar University of Medical Sciences

**Full name of responsible person**

Ali Tajabadi

**Position**

Master of science/ nursing

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

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**Web page address**

## Person responsible for scientific inquiries

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## Person responsible for updating data

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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*