

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

03 Jul 2026

### The prophylactic effects of local vibration on quadriceps muscle fatigue in 18-25 years old men

#### Protocol summary

##### Study aim

Assessment of prophylactic effect of local vibration on fatigue

##### Design

A concealed, randomized, blinded, sham controlled clinical trial with 30 patients, enrolled between October 2016 and September 2017.

##### Settings and conduct

The experiment was conducted at the Faculty of Rehabilitation, Shahid Beheshti University of Medical Sciences. The subjects were not aware of the on or off vibration, and the results were analyzed by someone else.

##### Participants/Inclusion and exclusion criteria

Non athletic and healthy men 18- 25 years old

##### Intervention groups

Using of Local vibration with 50 frequency in 2 minutes

##### Main outcome variables

Electromyography findings: Median Frequency, Root Mean square

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20090228001719N7**

Registration date: **2018-07-20, 1397/04/29**

Registration timing: **retrospective**

Last update: **2018-07-20, 1397/04/29**

Update count: **0**

##### Registration date

2018-07-20, 1397/04/29

##### Registrant information

##### Name

khadije Otadi

##### Name of organization / entity

Tehran University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 21 7753 6134

##### Email address

k\_otadi@razi.tums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2017-06-20, 1396/03/30

##### Expected recruitment end date

2018-06-20, 1397/03/30

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

The prophylactic effects of local vibration on quadriceps muscle fatigue in 18-25 years old men

##### Public title

Effect of vibration on prevention of fatigue

##### Purpose

Prevention

##### Inclusion/Exclusion criteria

##### Inclusion criteria:

Healthy- non athletic subjects age: 18-25

##### Exclusion criteria:

Disorders or surgery in lower limb Athletic subjects

##### Age

From **18 years** old to **25 years** old

##### Gender

Male

## Phase

N/A

## Groups that have been masked

- Participant

## Sample size

Target sample size: 30

## Randomization (investigator's opinion)

Randomized

## Randomization description

A simple randomization by removing sealed envelopes that inside the envelopes written "vibration" or "no vibration" word, and people were asked to remove one of the envelopes. If the envelope was removed had the word "without vibration", the person in the placebo group And vice versa.

## Blinding (investigator's opinion)

Single blinded

## Blinding description

Participant were blinded and they did not know what to do if they were effected by vibration or not.

## Placebo

Used

## Assignment

Other

## Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics committee of Tehran University of Medical Sciences

##### Street address

Keshavarz Blv, Qudes Sreet

##### City

Tehran

##### Province

Tehran

##### Postal code

1419934146

#### Approval date

2017-12-31, 1396/10/10

#### Ethics committee reference number

IR.TUMS.FNM.REC.1396.4093

## Health conditions studied

### 1

#### Description of health condition studied

Healthy- non athletic persons

#### ICD-10 code

#### ICD-10 code description

## Primary outcomes

### 1

#### Description

MVC: Maximum Voluntary contraction and Electromyography Findings

#### Timepoint

Immediately after intervention

#### Method of measurement

With dynamometer and electromyography measurement

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: The local vibration was used at a 50 Hz for 2 minutes on the quadriceps muscle, while the EMG activity of the muscle was recorded.

#### Category

Prevention

### 2

#### Description

"Control group:" In this group, local vibration used in placebo manner over the quadriceps and simultaneously electromyography activity recorded.

#### Category

Placebo

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Faculty of Rehabilitation of Shahid Beheshti Medical sceince

##### Full name of responsible person

Khadijeh Otadi

##### Street address

Enghlab Ave, Pich e Shemiran, Faculty of Rehabilitation

##### City

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##### Postal code

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##### Phone

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##### Email

k\_otadi@sina.tums.ac.ir

## Sponsors / Funding sources

1

### Sponsor

**Name of organization / entity**

Tehran University of Medical Sciences

**Full name of responsible person**

Dr. Amirali Sohrabpour

**Street address**

Keshavarz Blvd.-Ghodss Street-Nbash- Central University

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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**

Tehran University of Medical Sciences

**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**

Tehran University of Medical Sciences

**Full name of responsible person**

Khadijeh Otadi

**Position**

Professor

**Latest degree**

Ph.D.

**Other areas of specialty/work**

Physiotherapy

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## Person responsible for scientific inquiries

### Contact

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Iran University of Medical Sciences

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## Person responsible for updating data

### Contact

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Tabriz University of Medical Sciences

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**Latest degree**

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## **Sharing plan**

### **Deidentified Individual Participant Data Set (IPD)**

No - There is not a plan to make this available

### **Justification/reason for indecision/not sharing IPD**

There is no further information

### **Study Protocol**

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

### **Statistical Analysis Plan**

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

## **Informed Consent Form**

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

### **Clinical Study Report**

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

### **Analytic Code**

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

### **Data Dictionary**

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