

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 Jun 2026

The immediate effect of whole body vibration with vibration transfer from the dominant hand on neuromuscular performance of the same hand and the other in non-athlete healthy individuals

Protocol summary

Summary

The aim of this study is to evaluate immediate effect of whole body vibration with vibration transfer from the dominant hand on neuromuscular performance of the same hand and the other in non-athlete healthy individuals. This study is a single-blind. Inclusion criteria: Male and female students of Semnan University of Medical Sciences. Exclusion criteria: Existence of musculoskeletal problems, existence of; prosthesis, cardiovascular disease, diabetes, epilepsy, kidney stones and gallstones, participate in any program of strengthening and sports in the past two months, there is a labyrinth and balance disease, having new thrombosis. The sample size $n = 30$ is considered. Our intervention is that the subject is standing on the power plate and vibration to be transferred through the strap that is connected to the vibrating plate to the dominant hand. The vibration is transferring to the subject through the three sets of one minute. The consequence of the study is the change in strength of hand grip and electrical activity of the flexor and extensor muscles of fingers. The participants are one group. Subjects will participate once as a control group and once as an intervention group. Grip strength is measured by dynamometer and muscle electrical activity is measured by electromyography.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015042618108N3**

Registration date: **2016-05-07, 1395/02/18**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2016-05-07, 1395/02/18

Registrant information

Name

Hamideh Mashhadi Hashemi

Name of organization / entity

Semnan University of Medical Science

Country

Iran (Islamic Republic of)

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+98 23 3332 8502

Email address

info@semums.ac.ir

Recruitment status

Recruitment complete

Funding source

Semnan University of Medical Sciences

Expected recruitment start date

2016-02-20, 1394/12/01

Expected recruitment end date

2016-04-06, 1395/01/18

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The immediate effect of whole body vibration with vibration transfer from the dominant hand on neuromuscular performance of the same hand and the other in non-athlete healthy individuals

Public title

The immediate effect of whole body vibration with vibration transfer from the dominant hand on grip

strength and electrical activity of felexor and extensor of the same hand and the other in non-athlete healthy individuals

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Male and female students of Semnan University of Medical Sciences. Exclusion criteria: Existence of musculoskeletal problems, existence of; prosthesis, cardiovascular disease, diabetes, epilepsy, kidney stones and gallstones, participate in any program of strengthening and sports in the past two months, there is a labyrinth and balance disease , having new thrombosis.

Age

From **18 years** old to **30 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Used

Assignment

Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Semnan University of Medical Sciences

Street address

Rehabilitation Faculty, Semnan Univercity of Medical Science, 5th K.m of Damghan Rd, Semnan

City

Semnan

Postal code

Approval date

2016-02-20, 1394/12/01

Ethics committee reference number

IR.SEMUMS.REC1394.186

Health conditions studied

1

Description of health condition studied

Neuromuscular performance of the hand

ICD-10 code

M60-M63

ICD-10 code description

Disorders of muscles

Primary outcomes

1

Description

Grip strength and electrical activity of felexor and extenso

Timepoint

before and 3 minute after training

Method of measurement

Dynamometer and electromyography

Secondary outcomes

empty

Intervention groups

1

Description

In the intervention condition, while pulling the strap attached to the vibrating plate, whole-body vibration is applied. In the intervention condition, while pulling the strap attached to the vibrating plate, whole-body vibration is n't applied

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Semnan University of Medical Sciences

Full name of responsible person

Hamideh Mashhadi Hashemi

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for research of Semnan University of Medical Sciences

Full name of responsible person

Doctor Ali Rashidipur

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Rehabilitation Faculty, Semnan University of
Medical Sciences, 5th K.m of Damghan Rd, Semnan

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 of 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

Hamideh Mashhadi Hashemi

Position

Master of Physical Therapy student

Other areas of specialty/work

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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