

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jun 2026

Effect of whole body vibration on trunk proprioception in non-specific chronic low back pain

Protocol summary

Study aim

Effect of whole body vibration on trunk proprioception in non-specific chronic low back pain

Design

Clinical trial with control group; Randomized, without placebo, single center trial.

Settings and conduct

60 patients with non-specific chronic low back pain who referred to Neuro muscular rehabilitation research center of Semnan University of Medical Sciences.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Age of 40 to 70 years; Diagnosis of non-specific chronic low back pain (without showing neurologic defect); Having non-specific chronic low back pain for at least 6 months. Exclusion criteria: Chronic low back pain with known etiology; Any other major illness; Regular physical activity (more than once a week) during 5 years ago; Use of any medication that may have significantly affect the balance; Diabetes; High blood pressure; Persons that perform a regular strength exercises; The presence of metal in the body, Having cardiovascular disease.

Intervention groups

Intervention group: In this group, the patients stand on Scott's position on a vibrations platform without shoes, while the feet are spaced from about 33 cm. The flexion angle of the knee measured by the goniometer. In this situation, the vibration is performed according to the protocol (24 sessions, a total of 12 weeks and 2 times in a week with a minimum of one day interval). All measurements are performed and evaluated before and 12 weeks after the intervention. Control group: In this group, the patients stand on Scott's position on a vibrations platform without shoes, while the feet are spaced from about 33 cm, the difference is that the machine is off. There is no therapeutic treatment and only for comparison with the intervention group.

Main outcome variables

Deep feeling (Trunk Reposition Error (TRE))

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20151228025732N34**

Registration date: **2018-08-12, 1397/05/21**

Registration timing: **registered_while_recruiting**

Last update: **2018-08-12, 1397/05/21**

Update count: **0**

Registration date

2018-08-12, 1397/05/21

Registrant information

Name

Alireza Emadi

Name of organization / entity

Semnan University of Medical Sciences, Semnan, Iran

Country

Iran (Islamic Republic of)

Phone

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Email address

are20935@semums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-02-06, 1396/11/17

Expected recruitment end date

2019-02-06, 1397/11/17

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of whole body vibration on trunk proprioception in non-specific chronic low back pain

Public title

Effect of whole body vibration on trunk proprioception in non-specific chronic low back pain

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

Age of 40 to 70 years
Diagnosis of non-specific chronic low back pain (without showing neurologic defect)
Having non-specific chronic low back pain for at least 6 months

Exclusion criteria:

Chronic low back pain with known etiology
Any other major illness
Regular physical activity (more than once a week) during 5 years ago
Use of any medication that may have significantly affect the balance
Diabetes
High blood pressure
Persons that perform a regular strength exercises
The presence of metal in the body
Having cardiovascular disease

Age

From **40 years** old to **70 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Table of random numbers is used for randomization.
Using Excel software to generate random number tables.

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Semnan University of Medical Sciences

Street address

Semnan University of Medical Sciences, Basij Blvd, Semnan

City

Semnan

Province

Semnan

Postal code

3514799442

Approval date

2018-02-06, 1396/11/17

Ethics committee reference number

IR.SEMUMS.REC.1396.220

Health conditions studied

1

Description of health condition studied

Chronic low back pain

ICD-10 code

M54.5

ICD-10 code description

Low back pain

Primary outcomes

1

Description

Deep feeling (Trunk Reposition Error (TRE))

Timepoint

Before and 12 weeks after intervention

Method of measurement

Dualer IQ™ digital Inclinometer (J-TECH medical, Salt Lake City, UT, USA)

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: In this group, the patients stand on Scott's position on a vibrations platform without shoes, while the feet are spaced from about 33 cm. The flexion angle of the knee measured by the goniometer. In this situation, the vibration is performed according to the protocol (24 sessions, a total of 12 weeks and 2 times in a week with a minimum of one day interval). All measurements are performed and evaluated before and 12 weeks after the intervention.

Category

Treatment - Other

2

Description

Control group: In this group, the patients stand on Scott's position on a vibrations platform without shoes, while the feet are spaced from about 33 cm, the difference is that the machine is off. There is no therapeutic treatment and

only for comparison with the intervention group.

Category

Diagnosis

Recruitment centers**1****Recruitment center****Name of recruitment center**

Neuromuscular Rehabilitation Research Center

Full name of responsible person

Atefeh Aminianfar

Street address

Neuromuscular Rehabilitation Research Center, Qods Blvd, Mashahir Aven.

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3513138111

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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Semnan University of Medical Sciences

Full name of responsible person

Mohammadreza Asgari

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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

Semnan 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**

Semnan University of Medical Sciences

Full name of responsible person

Atefeh Aminianfar

Position

Associate professor

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

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Latest degree

Ph.D.

Other areas of specialty/work

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Person responsible for updating data

Contact

Name of organization / entity

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Full name of responsible person

Maryam Hojati

Position

Student

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available

Title and more details about the data/document

-

When the data will become available and for how long

-

To whom data/document is available

Only available to scholars working in academic institutions.

Under which criteria data/document could be used

In case of relevant studies.

From where data/document is obtainable

Atefe Aminianfar. Neuromuscular Rehabilitation Research Center, Ghods Blvd. 00989122132947

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

-

Comments