

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

19 Jun 2026

### The effect of neuromuscular training on severity of pain, functional disability and balance of military personnel with chronic low back pain.

#### Protocol summary

##### Study aim

The effect of neuromuscular training on severity of pain, functional disability and balance of military personnel with chronic low back pain.

##### Design

A randomized, -controlled clinical trialParallels on 30 military with chronic low back pain.

##### Settings and conduct

The statistical population of this study consisted of 20- to 40-year-old military men referring to Baqiyatallah University of Medical Sciences Hospital with chronic low back pain. Among these, 30 patients with chronic low back pain who were informed in writing to participate in the study were selected as the study subjects and divided into experimental and control groups. The control group does not perform any exercise. And the experimental group, under the supervision of a correction specialist, performs the researcher's chosen neuromuscular exercises.

##### Participants/Inclusion and exclusion criteria

Entry requirements 1- Having back pain for more than three months 2- No surgery Exclusion criteria: Having surgery Having fractures

##### Intervention groups

Experimental protocol was performed in experimental group for 8 weeks and three times a week on pain intensity. Balance and motor function of patients.

##### Main outcome variables

1. Balance 2. Severity of pain 3. Level of functional disability

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20190427043384N1**

Registration date: **2020-04-09, 1399/01/21**

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

Last update: **2020-04-09, 1399/01/21**

Update count: **0**

##### Registration date

2020-04-09, 1399/01/21

##### Registrant information

###### Name

Ehsan Alvani

###### Name of organization / entity

###### Country

Iran (Islamic Republic of)

###### Phone

+98 21 8248 2402

###### Email address

ehsanalvani90@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2019-05-12, 1398/02/22

##### Expected recruitment end date

2020-07-15, 1399/04/25

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

The effect of neuromuscular training on severity of pain, functional disability and balance of military personnel with chronic low back pain.

##### Public title

The effect of neuromuscular exercises on low back pain.

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

**Inclusion criteria:**

Inclusion criteria: At least three months low back pain.  
Not having any surgery. No disc herniation. No fracture.  
Not having discopathy.

**Exclusion criteria:**

Having any surgery. Having a disc herniation. Having fractures. Having discopathy.

**Age**

From **20 years** old to **50 years** old

**Gender**

Male

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **30**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Randomization method: simple randomization  
Randomization unit: individual Random tool: sealed envelope  
How to make randomization: Randomization is done using sealed envelopes. Inside the envelopes, the names of the groups are written, and the subjects are randomly grouped by removing each envelope.

**Blinding (investigator's opinion)**

Not blinded

**Blinding description**

**Placebo**

Not used

**Assignment**

Other

**Other design features**

**Secondary Ids**

empty

**Ethics committees**

1

**Ethics committee**

**Name of ethics committee**

Baqiyatallah University Of Medical Sciences

**Street address**

Vanak Square - Mulla Sadra Street - Sheikh Bahai Street South - Shahid Nosrati Alley.

**City**

Tehran

**Province**

Tehran

**Postal code**

1435916471

**Approval date**

2019-06-08, 1398/03/18

**Ethics committee reference number**

IR.BMSU.REC.1398.142

**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 M54.5

**Primary outcomes**

1

**Description**

Balance

**Timepoint**

Before Exercise Protocol - After Exercise Protocol

**Method of measurement**

Balance with equilibrium tests (static equilibrium: stork test) (dynamic equilibrium: star test).

2

**Description**

Severity of pain

**Timepoint**

Before Exercise Protocol - After Exercise Protocol.

**Method of measurement**

Severity of pain: Using the VAS Analog Scale

3

**Description**

Functional disability

**Timepoint**

Before Exercise Protocol - After Exercise Protocol.

**Method of measurement**

Functional disability: Using Oster questionnaire.

**Secondary outcomes**

empty

**Intervention groups**

1

**Description**

Intervention group: They perform a neuromuscular exercise protocol for 8 weeks, doing three sessions of about 30 to 60 minutes of exercise three times a week.

**Category**

Rehabilitation

2

**Description**

Control group: Control group They will not participate in any private treatment plan and only receive routine care

**Category**

Rehabilitation

## Recruitment centers

### 1

#### Recruitment center

**Name of recruitment center**

Baqiyatallah University Of Medical Sciences Hospital.

**Full name of responsible person**

Dr. Alireza Shams Aldini.

**Street address**

Vanak Square, Mulla Sadra Street, South Sheikh Bahai Street.

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**Email**

alirezaot@bmsu.ac.ir

## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**

Bagheiat-allah University of Medical Sciences

**Full name of responsible person**

Ehsan Alvani

**Street address**

Vanak Square, Mulla Sadra Street, Sheikh Bahai Street

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

No

**Title of funding source**

Univercity

**Proportion provided by this source**

50

**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**

Bagheiat-allah University of Medical Sciences

**Full name of responsible person**

Ehsan Alvani

**Position**

Masters

**Latest degree**

Master

**Other areas of specialty/work**

Sport Medicine

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## Person responsible for scientific inquiries

#### Contact

**Name of organization / entity**

Bagheiat-allah University of Medical Sciences

**Full name of responsible person**

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**Position**

Masters

**Latest degree**

Master

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## Person responsible for updating data

#### Contact

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Bagheiat-allah University of Medical Sciences

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**Sharing plan****Deidentified Individual Participant Data Set (IPD)**

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

**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