

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

09 Jun 2026

### Effect of repeated lumbar traction by a door-mounted pull-up bar at home on the size and symptoms of herniated lumbar disc

#### Protocol summary

##### Summary

**Objectives:** Effect of repeated lumbar traction by a door-mounted pull-up bar at home on herniated lumbar disc and reduction of imposed expenses by physiotherapy  
**Design:** Prospective randomized controlled trial  
**Setting and Conduct:** 50 patients are included in the study according to the following criteria and then are separated into two groups, traction and the control group and the interventions are undertaken. **Participants:** Patients of K & B province referring to Yasuj Shahid Mofateh clinic due to disc herniation with the following criteria. **Inclusion criteria:** low back pain or sciatica due to lumbar disc herniation and L3-S1 radiculopathy; duration of pain less than 6 months; lumbar disc herniation verified by MRI; consistency in the pattern of pain complaint, neurological, and radiological findings; no history of previous physical therapy in the past; willing to take part in the study by signing a written informed consent. **Exclusion criteria:** low back pain due to neoplastic, inflammatory, infectious, or metabolic causes; indication of urgent surgery; spinal stenosis; pregnancy, postpartum period, and postoperative 3 months; previous vertebral surgery; LBP more than 6 months duration; gross structural abnormalities of vertebrae like listhesis; severe degenerative changes of spine; and intolerance of physical activity  
**Interventions:** In the traction group traction by suspension from a pull-up bar is assigned in addition to the routine LBP medication for 2 months (25 times a day each time 40 sec). In the control group only the routine medications are prescribed for 2 months. **Main variables:** Two variables are evaluated. One of them is the size of herniated material measured by a specific index called "Herniation Index" by a "blind" examiner (radiologist), and the other one is VAS for evaluation of pain intensity.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2012120311654N1**

Registration date: **2013-02-27, 1391/12/09**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2013-02-27, 1391/12/09

##### Registrant information

###### Name

Mehdi khani

###### Name of organization / entity

Yasuj university of medical sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 74 1223 1039

###### Email address

drmkhani@yahoo.com

##### Recruitment status

**Recruitment complete**

##### Funding source

Vice chancellor for Research, Yasuj university of medical sciences

##### Expected recruitment start date

2011-01-21, 1389/11/01

##### Expected recruitment end date

2012-10-22, 1391/08/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Effect of repeated lumbar traction by a door-mounted

pull-up bar at home on the size and symptoms of herniated lumbar disc

**Public title**

Effect of pull-up bar exercise on disc herniation

**Purpose**

Treatment

**Inclusion/Exclusion criteria**

Inclusion criteria: low back pain or sciatica due to lumbar disc herniation and L3-S1 radiculopathy; duration of pain less than 6 months; lumbar disc herniation verified by MRI; consistency in the pattern of pain complaint, neurological, and radiological findings; no history of previous physical therapy in the past; willing to take part in the study by signing a written informed consent.

Exclusion criteria: low back pain due to neoplastic, inflammatory, infectious, or metabolic causes; indication of urgent surgery; spinal stenosis; pregnancy, postpartum period, and postoperative 3 months; previous vertebral surgery; gross structural abnormalities (e.g. spondylolisthesis); being unable to tolerate physical exercise due to cardiovascular reasons; presence of significant degenerative changes in lumbosacral vertebrae on X-rays; and duration of low back pain of more than 6 months.

**Age**

No age limit

**Gender**

Both

**Phase**

2-3

**Groups that have been masked**

No information

**Sample size**

Target sample size: 50

**Randomization (investigator's opinion)**

Randomized

**Randomization description****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**

Yasuj medical school Ethics committee for research

**Street address**

Yasuj university of medical sciences, Motahari avenue, Yasuj

**City**

Yasuj

**Postal code****Approval date**

2011-11-21, 1390/08/30

**Ethics committee reference number**

90/8/30/4

**Health conditions studied****1****Description of health condition studied**

Lumbar disc herniation

**ICD-10 code**

M51.2

**ICD-10 code description**

Lumbago due to displacement of intervertebral disc

**Primary outcomes****1****Description**

size of herniated disc material

**Timepoint**

before intervention- 2 months after intervention

**Method of measurement**

Herniation Index

**2****Description**

pain intensity

**Timepoint**

Before intervention- 2 months after intervention

**Method of measurement**

VAS

**Secondary outcomes**

empty

**Intervention groups****1****Description**

50 patients who have the mentioned criteria will be admitted to the study with their signed consent. They are randomly divided in to two groups: the traction group and the control group. The traction group includes 25 patients and they are given a program of repeated lumbar traction by suspension from a pull up bar for 2 months (at least 25 times a day each time for 40 seconds) plus routine medication for disc herniation.

**Category**

Treatment - Other

**2****Description**

The control group includes 25 patients and they are

given the routine medication (NSAID, Corticosteroids, Antispasmodics) without traction for a duration of 2 months.

**Category**

Treatment - Drugs

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

Shahid Mofateh clinic

**Full name of responsible person**

Mehdi Khani

**Street address**

Montazeri avenue, Yasuj

**City**

Yasuj

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

Vice Chancellor for Research, Yasuj university of medical sciences

**Full name of responsible person**

Mr Negintaji

**Street address**

Vice Chancellor for Research, Yasuj university of medical sciences, Motahari avenue, Yasuj

**City**

Yasuj

**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, Yasuj 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**

Yasuj university of medical sciences

**Full name of responsible person**

Mehdi Khani

**Position**

neurosurgeon

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

Mr Niknam's house, Sardar 2 alley, Montazeri st.

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neurosurgeon

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**City**

Yasuj

**Postal code****Phone**

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**Fax****Email****Web page address****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*