# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

08 Nov 2026

## Effect of combined suspension and core stability exercises on structural characteristic of intervertebral disc and functional disability in office workers with disc herniation.

## Protocol summary

**Study aim**
Comparison of the effect of 8 weeks of suspension and central stabilizer training on functional limitation (pain severity, personal hygiene, lifting of objects, walking, sitting, standing, sleeping, sexual activity, social life and travel) and structural features of lumbar disc (Intervertebral disk height and disk hernia index) in the administrative staff with herniated discs.

**Design**
Clinical trial with two experimental groups in parallel and without a control group and one blinded

**Settings and conduct**
This project was conducted in the form of a Ph.D. thesis of sport pathology and corrective movements in the University of Isfahan and in Mashhad, under the supervision of Mashhad University of medical sciences, with one-way blindness (supervisors and evaluators are not familiar with the research routine).

**Participants/Inclusion and exclusion criteria**
Employees with chronic lumbar disc herniation

**Intervention groups**
Experimental group 1 conventional exercises and experimental group 2 suspension exercises

**Main outcome variables**
Conventional and suspended central stabilizer exercises, structural features of intervertebral disc, functional limitation

## General information

**Reason for update**

**Acronym**

**IRCT registration information**
IRCT registration number: **IRCT20190115042365N1**
Registration date: **2019-04-28, 1398/02/08**
Registration timing: **retrospective**
Last update: **2019-04-28, 1398/02/08**
Update count: **0**

**Registration date**
2019-04-28, 1398/02/08

**Registrant information**

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Reza Khanzadeh

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**Recruitment status**
**Recruitment complete**

**Funding source**

**Expected recruitment start date**
2018-09-23, 1397/07/01

**Expected recruitment end date**
2019-01-21, 1397/11/01

**Actual recruitment start date**
2018-09-23, 1397/07/01

**Actual recruitment end date**
2019-02-20, 1397/12/01

**Trial completion date**
2019-02-20, 1397/12/01

**Scientific title**
Effect of combined suspension and core stability exercises on structural characteristic of intervertebral disc and functional disability in office workers with disc herniation.

**Public title**
The effect of suspension and traditional exercises on

intervertebral disc herniation

**Purpose**

Treatment

**Inclusion/Exclusion criteria**

**Inclusion criteria:**

the People who sitting on the chair about 6 to 7 hours a day during the day. the People without history of trauma of the lumbar region. People without a history of surgery in the lumbar region. People with lateral posterior hernia in the L4-L5 and L5-S1 regions with orthopedic surgeon diagnosis. People who are authorized to perform exercises with orthopedic diagnosis

**Exclusion criteria:**

Individual desire to leave the research Failure to observe disciplinary during the training period The occurrence of medical problems or any kind of problem that prevents the continuation of the workout.

**Age**

From **30 years** old to **50 years** old

**Gender**

Male

**Phase**

N/A

**Groups that have been masked**

- Care provider
- Outcome assessor
- Data analyser

**Sample size**

Target sample size: **30**

Actual sample size reached: **25**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

After determining the patients list and their numbering, randomly, the odd numbers in the first intervention group and the couples in the second intervention group were placed. This method is described in statistical books as one of the methods of random selection.

**Blinding (investigator's opinion)**

Single blinded

**Blinding description**

In this research, both groups (experimental 1 and 2) received intervention and the control group (without intervention therapy) was absent due to ethical considerations. meanwhile, those who supervised the exercises and the Doctor responsible for reviewing the results were not aware of the results of the job title. And solely on the correct way of exercising and evaluating.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features**

In this study, in collaboration with the Physical Education and Orthopedic Department, a chair was designed to perform suspended exercises.

## Secondary Ids

empty

## Ethics committees

### 1

**Ethics committee**

**Name of ethics committee**

Ethics Committee of the University of Isfahan

**Street address**

Isfahan, Azadi Square, Isfahan University

**City**

isfahan

**Province**

Isfehan

**Postal code**

۸۱۷۴۶۷۳۴۴۱

**Approval date**

2017-08-25, 1396/06/03

**Ethics committee reference number**

IR.UI.REC.1396.063 نامه ارسالی از طرف کمیته اخلاق دانشگاه اصفهان نیز به ایمیل ذیل که توسط داور محترم ذکر شده است ارسال شد. با سلام مجدد من به ایمیل ارسالی توسط ادمین محترم پاسخ دادم و شماره عضویت و کارآزمایی به ایشان اعلام شد.

## Health conditions studied

### 1

**Description of health condition studied**

Intervertebral disc herniation

**ICD-10 code**

M51.1†

**ICD-10 code description**

M51.1†Lumbar and other intervertebral disc disorders with radiculopathy (G55.1*)

## Primary outcomes

### 1

**Description**

Change the level of functional limitation of individuals and change the structural characteristics of the intervertebral disc

**Timepoint**

8 weeks after exercises

**Method of measurement**

MRI imaging apparatus and Oswestry questionnaire and functional tests

## Secondary outcomes

empty

## Intervention groups

### 1

**Description**

The conventional stabilizer exercises included abdominal and pelvic floor exercises in 24 sessions of 30 minutes, based on previous studies.

**Category**

Treatment - Devices

**2**

**Description**
Intervention group: The group performed the conventional stabilizer exercises in the first intervention group in a suspended state with the help of a device designed in which case the individual seat was suspended and exercised.
**Category**
Treatment - Devices

## Recruitment centers

**1**

**Recruitment center**
**Name of recruitment center**
Therapeutic Clinic of Khorasan Razavi Oil and Gas Co.
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## Sponsors / Funding sources

**1**

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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**
Isfahan University
**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

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## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**
Yes - There is a plan to make this available
**Study Protocol**
Yes - There is a plan to make this available
**Statistical Analysis Plan**
Yes - There is 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**
Yes - There is a plan to make this available
**Analytic Code**
Not applicable
**Data Dictionary**
Not applicable
**Title and more details about the data/document**
The effects of these exercises will be presented in the form of scientific papers and PhD theses
**When the data will become available and for how long**
Starting the access period from 1398
**To whom data/document is available**
Usability will be free to the public
**Under which criteria data/document could be used**
All data will be accessible to patients except personal information.
**From where data/document is obtainable**
They can be contacted by email
**What processes are involved for a request to access data/document**
After receiving the email from the applicants and checking their requests, they will be answered promptly
**Comments**