# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

16 Sep 2026

## Effects of balance training on patients with diabetic neuropathy

## Protocol summary

**Summary**

Peripheral neuropathy is one of the common complaints of diabetes. Peripheral neural damage in turn will cause balance impairments in diabetic patients. The purpose of this study was to investigate the effects of balance exercises on sway indices in diabetic patients with neuropathy. Ten diabetic patients diagnosed with peripheral neuropathy and ten healthy aged-matched subjects participated in the study as experiment and normal groups. Participants in both groups were examined for balance abilities with the Biodex Balance System (BBS). All tests were done in eyes open and closed condition on bilateral and unilateral standing. After ten sessions of balance training for experimental group, they were re-examined in the same way again.

## General information

**Acronym**

**IRCT registration information**

IRCT registration number: **IRCT138905094441N2**
Registration date: **2010-07-31, 1389/05/09**
Registration timing: **retrospective**

Last update:
Update count: **0**

**Registration date**

2010-07-31, 1389/05/09

**Registrant information**

**Name**

Hassan Jafari

**Name of organization / entity**

Faculty of Rehabilitation Sciences, Iran University of Medical Sciences

**Country**

Iran (Islamic Republic of)

**Phone**

+98 912139131382

**Email address**

hjafari@iums.ac.ir

**Recruitment status**

**Recruitment complete**

**Funding source**

Iran University of Medical Sciences

**Expected recruitment start date**

2009-11-15, 1388/08/24

**Expected recruitment end date**

2010-06-15, 1389/03/25

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

Effects of balance training on patients with diabetic neuropathy

**Public title**

Balance training in diabetic neuropathy

**Purpose**

Treatment

**Inclusion/Exclusion criteria**

Inclusion: Age between 35 to 60 Diagnosed peripheral neuropathy which confirmed with electrodiagnostic tests. The ability to stand on both, and single leg. Exclusion: diabetic ulcers in either foot. lack of blood sugar control. Internal ear infections, other nervous system impairments (except neuropathy) or other diseases affecting balance. Musculo-skeletal problems such as vertebral column or limbs deformity. History of repeated ankle sprains in the year prior to the study Severe pain influencing balance. Visual problems inability to see the stabilometer cursor. The existence of any other factors that interfere with balance except diabetic neuropathy.

**Age**

From **35 years** old to **60 years** old

**Gender**

Both

**Phase**
N/A
**Groups that have been masked**
*No information*
**Sample size**
Target sample size: **10**
**Randomization (investigator's opinion)**
Not 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**
Ethics Commitee Rehabilitation Faculty
**Street address**
Rehabilitation Sciences Faculty (IUMS), Shahnazari Street, Madar Square, Mirdamaad
**City**
Tehran
**Postal code**
1945913187
**Approval date**
2008-07-19, 1387/04/29
**Ethics committee reference number**
148

## Health conditions studied

**1**

**Description of health condition studied**
Diabetic Polyneuropathy
**ICD-10 code**
G63.2*
**ICD-10 code description**
Diabetic polyneuropathy

## Primary outcomes

**1**

**Description**
Improving balance, properioception
**Timepoint**
Before training and after 5 session of training
**Method of measurement**
Balance Index by Biodex Satability system

## Secondary outcomes

**1**

**Description**
Risk of falling
**Timepoint**
six month to one year after training
**Method of measurement**
questionnaire follow up

**2**

**Description**
medical costs
**Timepoint**
six month to one year after training
**Method of measurement**
questionnaire follow up

## Intervention groups

**1**

**Description**
No intervention in control group
**Category**
N/A

**2**

**Description**
Balance Training in intervention group by tilt board and Biodex stabilometer system
**Category**
Treatment - Devices

## Recruitment centers

**1**

**Recruitment center**
**Name of recruitment center**
Firouzgar Hospital
**Full name of responsible person**
Dr Bijan Forough
**Street address**
Firouzgar Hospital, Vali-e-asr Square
**City**
Tehran

## Sponsors / Funding sources

**1**

**Sponsor**
**Name of organization / entity**
Vice Resaech, Iran University of Medical Sciences
**Full name of responsible person**
Mrs Malmir
**Street address**
IUMS, Hemmat highway

**City**
Tehran
**Grant name**
**Grant code / Reference number**
**Is the source of funding the same sponsor organization/entity?**
Yes
**Title of funding source**
Vice Resaech, Iran 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**
Iran University of Medical Sciences
**Full name of responsible person**
Hassan Jafari
**Position**
Assistant Professor, PhD
**Other areas of specialty/work**
**Street address**
Rehabilitation faculty, Iran University of Medical Sciences, Shahnazari Street, Madar Square, Mirdamaad
**City**
Tehran
**Postal code**
**Phone**
+98 21 2222 7124 ext. 202
**Fax**
**Email**
hjafari@iums.ac.ir
**Web page address**

## Person responsible for scientific inquiries

**Contact**
**Name of organization / entity**
Iran University of Medical Sciences
**Full name of responsible person**
Hassan Jafari
**Position**
Assistant Professor, PhD
**Other areas of specialty/work**
**Street address**
Rehabilitation Faculty, Iran University of Medical Sciences, Shahnazari Street, Madar Square, Mirdamaad
**City**
Tehran
**Postal code**
**Phone**
+98 21 2222 7124 ext. 202
**Fax**
**Email**
hjafari@iums.ac.ir
**Web page address**

## Person responsible for updating data

**Contact**
**Name of organization / entity**
Iran University of Medical Sciences
**Full name of responsible person**
Hassan Jafari
**Position**
Assistant Professor, PhD
**Other areas of specialty/work**
**Street address**
Rehabilitaion Facuty, IUMS, Shahnazari Street, Madar Square, Mirdamaad
**City**
Tehran
**Postal code**
**Phone**
+98 21 2222 7124 ext. 202
**Fax**
**Email**
hjafari@iums.ac.ir
**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*