

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Comparing the Effects of Integrated Neuromuscular Inhibition Technique versus Percussive Massage along with Stretching in Plantar Fasciitis: A Randomized Clinical Trial

#### Protocol summary

##### Study aim

Assessing the comparative effect of integrated neuromuscular inhibition technique and percussive massage with stretching on pain, function and balance of patients with plantar fasciitis.

##### Design

Randomized clinical trial

##### Settings and conduct

THQ hospital Jaranwala and Khidmat e Insani hospital Jaranwala

##### Participants/Inclusion and exclusion criteria

Inclusion: Age of 25 to 40 Y, Heel pain untreated for less than 6 months, Subjects with plantar fasciitis diagnosed by Windlass test, Pain on medial tubercle of calcaneus. Exclusion: Recent lower limb fractures and arthrosis, congenital deformity of foot, ankle sprain, calcaneal spurs on medial side of calcaneum, fibromyalgia syndrome, Rheumatoid arthritis, pregnant and tarsal tunnel syndrome

##### Intervention groups

Group A will receive Percussive Massage with Stretching  
Group B will receive Integrated Neuromuscular Inhibition Technique

##### Main outcome variables

Pain (Numeric Pain Rate Scale) Lower extremity dynamic balance (Star Excursion Balance Test (SEBT)) Lower limb disability (Foot and Ankle Disability Index)

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20220930056062N8**

Registration date: **2026-06-08, 1405/03/18**

Registration timing: **prospective**

Last update: **2026-06-08, 1405/03/18**

Update count: **0**

##### Registration date

2026-06-08, 1405/03/18

##### Registrant information

###### Name

Kaiynat Shafique

###### Name of organization / entity

The University of Faisalabad

###### Country

Pakistan

###### Phone

+92 334 6925051

###### Email address

kaiynatshafique@yahoo.com

##### Recruitment status

**Not yet recruiting**

##### Funding source

##### Expected recruitment start date

2026-06-15, 1405/03/25

##### Expected recruitment end date

2026-08-15, 1405/05/24

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparing the Effects of Integrated Neuromuscular Inhibition Technique versus Percussive Massage along with Stretching in Plantar Fasciitis: A Randomized Clinical Trial

##### Public title

Comparing the Effects of Integrated

Neuromuscular Inhibition Technique versus Percussive Massage along with Stretching in Plantar Fasciitis: A Randomized Clinical Trial

## Purpose

Treatment

## Inclusion/Exclusion criteria

### Inclusion criteria:

Heel pain untreated for less than 6 months as a result of irritated plantar fasciitis with trigger point in calf muscles. Subjects with plantar fasciitis diagnosed by Windlass test and those with positive test were included. Those who have a history of experiencing heel pain when taking their first few steps in the morning or after prolonged non-weight bearing activities. Pain on medial tubercle of calcaneus. Subjects ranging between the age of 25 to 40 y

### Exclusion criteria:

History of recent foot and ankle and lower limb fractures. Arthrosis of the ankle, knee, and hip. Patients with referred pain like sciatica or any other neurological cause will also be excluded. Patients with any congenital deformity of foot. Patient with any degree of ankle sprain. Patient with calcaneal spurs on medial side of calcaneum. Patients with fibromyalgia syndrome or Rheumatoid arthritis. Patients who were pregnant. Patients with tarsal tunnel syndrome.

## Age

From **25 years** old to **40 years** old

## Gender

Both

## Phase

N/A

## Groups that have been masked

- Outcome assessor
- Data analyser

## Sample size

Target sample size: **34**

## Randomization (investigator's opinion)

Randomized

## Randomization description

Randomization through lottery method

## Blinding (investigator's opinion)

Single blinded

## Blinding description

Outcome assessor will be blind in this clinical trial

## Placebo

Not used

## Assignment

Other

## Other design features

## Secondary IDs

empty

## Ethics committees

### 1

Ethics committee

## Name of ethics committee

The University of Faisalabad

## Street address

west canal, Faisalabad

## City

Faisalabad

## Postal code

38000

## Approval date

2025-12-20, 1404/09/29

## Ethics committee reference number

TUF/EIRB/147/25

## Health conditions studied

### 1

#### Description of health condition studied

Plantar Fasciitis

#### ICD-10 code

M72.2

#### ICD-10 code description

Plantar Fasciitis

## Primary outcomes

### 1

#### Description

Foot Pain

#### Timepoint

pain will be measured three times. Before the start of 1st session, after 2 weeks and third time after 4 weeks

#### Method of measurement

Numeric Pain Rate Scale

### 2

#### Description

Foot and ankle disability

#### Timepoint

Foot and ankle disability will be measured three times. Before the start of 1st session, after 2 weeks and third time after 4 weeks

#### Method of measurement

Foot and Ankle disability index

### 3

#### Description

Dynamic balance

#### Timepoint

Dynamic balance will be measured three times. Before the start of 1st session, after 2 weeks and third time after 4 weeks

#### Method of measurement

Star Excursion Balance Test

## Secondary outcomes

empty

## Intervention groups

1

### Description

Intervention group: percussive massage with massage gun and stretching.

### Category

Treatment - Other

2

### Description

Intervention group: integrated neuromuscular inhibition training.

### Category

Treatment - Other

## Recruitment centers

1

### Recruitment center

#### Name of recruitment center

THQ hospital Jaranwala

#### Full name of responsible person

Kaiynat Shafique

#### Street address

Faisalabad

#### City

Faisalabad

#### Postal code

38000

#### Phone

+92 334 6925051

#### Email

kforkaiynat@gmail.com

## Sponsors / Funding sources

1

### Sponsor

#### Name of organization / entity

The University of Faisalabad

#### Full name of responsible person

Kaiynat Shafique

#### Street address

Faisalabad

#### City

Faisalabad

#### Postal code

38000

#### Phone

+92 334 6925051

#### Email

kforkaiynat@gmail.com

#### Grant name

#### Grant code / Reference number

#### Is the source of funding the same sponsor organization/entity?

No

### Title of funding source

It was a self funded study

### Proportion provided by this source

100

### Public or private sector

Private

### Domestic or foreign origin

Domestic

### Category of foreign source of funding

empty

### Country of origin

### Type of organization providing the funding

Other

## Person responsible for general inquiries

### Contact

#### Name of organization / entity

The University of Faisalabad

#### Full name of responsible person

Dr. Kaiynat Shafique; PT

#### Position

Lecturer

#### Latest degree

Master

#### Other areas of specialty/work

Physiotherapy

#### Street address

West canal; Faisalabad

#### City

Faisalabad

#### Province

Punjab

#### Postal code

38000

#### Phone

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#### Email

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## Person responsible for scientific inquiries

### Contact

#### Name of organization / entity

The university of Faisalabad

#### Full name of responsible person

Dr. Kaiynat Shafique

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#### Latest degree

Master

#### Other areas of specialty/work

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**Person responsible for updating data****Contact****Name of organization / entity**

The university of Faisalabad

**Full name of responsible person**

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**Other areas of specialty/work**

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**Postal code**

38000

**Phone****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**

No - There is not 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