

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Effect of Kaltenborn joint mobilization along with Graston technique on pain and gait in patients with plantar fasciitis

#### Protocol summary

##### Study aim

The major goal of study is to evaluate impacts of Graston technique and Kaltenborn joint mobilization on pain, range and gait in patients with plantar fasciitis.

##### Design

A single blinded quantitative study following the research design of randomized control trial. Randomization will be through lottery method. Active treatment group will be used to compare results.

##### Settings and conduct

Subjects with plantar fasciitis will be taken from these 3 clinics settings. Faisal hospital faisalabad, IDC physiofit faisalabad, Pro health rehab and medical center: participants will be blinded they will not aware whether they are in treatment group or in control group. Participants will receive baseline treatment and Kaltenborn joint mobilization will be given to treatment group and participants will not aware of that.

##### Participants/Inclusion and exclusion criteria

Subjects having heel pain for more than 1 month, history of plantar discomfort in first few steps, pain with palpable soreness in medial tubercle of heel and positive windlass test will be included in the study. Subjects having these conditions will be excluded: Previous lower or back surgery, trauma within six months, leg length difference, pregnancy, tarsal tunnel syndrome, acute ankle sprain, achilles tendinopathy.

##### Intervention groups

Group A. Baseline treatment (ultrasound for 15 min and Graston technique) Group B. Baseline treatment (ultrasound for 15 min and Graston technique) + Kaltenborn joint mobilization

##### Main outcome variables

Visual Analogue Scale for Pain Goniometer for range of motions

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20230717058824N1**  
Registration date: **2023-07-23, 1402/05/01**  
Registration timing: **prospective**

Last update: **2023-07-23, 1402/05/01**

Update count: **0**

##### Registration date

2023-07-23, 1402/05/01

##### Registrant information

##### Name

Sarwat Mehmood

##### Name of organization / entity

The university of Faisalabad

##### Country

Pakistan

##### Phone

+92 305 7241745

##### Email address

sarwatmehmood1@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2023-07-24, 1402/05/02

##### Expected recruitment end date

2023-08-24, 1402/06/02

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Effect of Kaltenborn joint mobilization along with Graston technique on pain and gait in patients with plantar

fasciitis

### Public title

Effect of Kaltenborn joint mobilization along with Graston technique on pain and gait in patients with plantar fasciitis

### Purpose

Treatment

### Inclusion/Exclusion criteria

#### Inclusion criteria:

Heel pain for more than month history of plantar discomfort in course of few steps pain extended non weight bearing actions history of pain in first few steps pain with palpable soreness in medial tubercle of heel Positive windlass test

#### Exclusion criteria:

Previous lower or back surgery Trauma or fracture within six months leg length difference more than 1 cm use of corticosteroids within six months pregnancy not able to carry workout programme Trasal tunnel syndrome,acute ankle sprains,calcaneal spurs,heel pad syndrome,achilles tendinopathy, patellofemoral syndrome

### Age

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

### Gender

Both

### Phase

N/A

### Groups that have been masked

- Participant

### Sample size

Target sample size: **50**

### Randomization (investigator's opinion)

Randomized

### Randomization description

Sample will be allocated to Group A(baseline treatment) and Group B(baseline +kaltenborn joint mobilization) randomly using lottery method. Method of randomization is simple randomization. Tool of randomization is lottery method.

### Blinding (investigator's opinion)

Single blinded

### Blinding description

Participants of both groups will be unaware whether they are in baseline group or treatment group after the informed consent.both groups will receive same baseline treatment and after that physiotherapist will apply kaltenborn joint mobilization to the group of which participants will be unaware of.

### Placebo

Not used

### Assignment

Other

### Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics committee of University of Faisalabad

##### Street address

4-Km Sargodha Road, University Town

##### City

Faisalabad

##### Postal code

38000

#### Approval date

2023-05-01, 1402/02/11

#### Ethics committee reference number

TUF/DR/MSPP/045

## Health conditions studied

### 1

#### Description of health condition studied

Plantar fasciitis is a common heel pain condition, constitutes for 40-50% for all foot pain problems. It is due to over standing or due to over weight bearing at feet and condition is aggravated by physical activities like standing and weight bearing. Other associated symptoms are pain and soreness at plantar of foot. According to some researches PF can lead to micro injuries in the foot.

#### ICD-10 code

#### ICD-10 code description

## Primary outcomes

### 1

#### Description

Pain in the foot will be primary outcome variable

#### Timepoint

Pain level will be measured before applying the intervention and then after 4 weeks after the completion of intervention.

#### Method of measurement

Visual Analogue Scale will be used to measure the pain.

### 2

#### Description

Range of motions at foot and ankle

#### Timepoint

Range of motions will be measured before applying the intervention and then after 4 weeks after the completion of intervention.

#### Method of measurement

Goniometer use to measure range of motions at ankle and foot.

## Secondary outcomes

### 1

**Description**

Gait

**Timepoint**

Gait will be measured before applying intervention and after 4 weeks after the completion of intervention.

**Method of measurement**

Rivermead visual gait assessment

## Intervention groups

### 1

**Description**

Intervention group:

**Category**

Rehabilitation

## Recruitment centers

### 1

**Recruitment center****Name of recruitment center**

Faisal Hospital, Faisalabad

**Full name of responsible person**

Medical Superintendent Faisal Hospital

**Street address**

673-A lower canal road East, peoples,s colony

**City**

Faisalabad

**Postal code**

38000

**Phone**

+92 41 8719679

**Email**

info@faisalhospital.com.pk

### 2

**Recruitment center****Name of recruitment center**

Physiofit IDC, Faisalabad

**Full name of responsible person**

Medical Superintendent

**Street address**

563-B, Satiana road, Peoples colony

**City**

Faisalabad

**Postal code**

38000

**Phone**

+92 41 8713737

**Email**

info@idc.net.pk

### 3

**Recruitment center****Name of recruitment center**

Pro health rehab and medical center

**Full name of responsible person**

Medical Superintendent

**Street address**

P-346 kashmir road, C block Amin town

**City**

Faisalabad

**Postal code**

38000

**Phone**

+92 331 1204747

**Email**

prohealthrehab47@gmail.com

## Sponsors / Funding sources

### 1

**Sponsor****Name of organization / entity**

The University of Faisalabad

**Full name of responsible person**

dr. Sidra Majeed, PT

**Street address**

4-Km Sargodha road, University Town

**City**

Faisalabad

**Postal code**

38000

**Email**

sidra.majeed@tuf.edu.pk

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

Yes

**Title of funding source**

The University of Faisalabad

**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**

Academic

## Person responsible for general inquiries

**Contact****Name of organization / entity**

The University of Faisalabad

**Full name of responsible person**

Sarwat Mehmood

**Position**

Student

**Latest degree**

Master

**Other areas of specialty/work**

Physiotherapy

**Street address**

House no 29,block X, street no 3, madina town

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**Province**

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**Postal code**

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**Phone**

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**Email**

sarwatmehmood1@gmail.com

## Person responsible for scientific inquiries

**Contact**

**Name of organization / entity**

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**Full name of responsible person**

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**Position**

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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**

Sarwat Mehmood

**Position**

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**Other areas of specialty/work**

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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**

Yes - There is 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

**Title and more details about the data/document**

All collected deidentified participant data set for the outcome measures.

**When the data will become available and for how long**

4 months after publication

**To whom data/document is available**

People working in the academic institutions.

**Under which criteria data/document could be used**

IPD and any additional supporting documents will be provided for the research on the similar topic and can be obtained by asking through the contact person mentioned below.

**From where data/document is obtainable**

Contact person: Sarwat Mehmood contact no 0092 3057241745 , email sarwatmehmood1@gmail.com

**What processes are involved for a request to access data/document**

Data files will be provided after talking to the contact person as mention in the above slot

**Comments**