

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

09 Jun 2026

### Effects of floss banding technique and Instrument-assisted soft tissue mobilization on Pain, Range of motion in athletes with Achilles tendinopathy

#### Protocol summary

##### Study aim

To evaluate the effects of floss banding technique and Instrument-assisted soft tissue mobilization on pain, range of motion in Athletes with Achilles tendinopathy

##### Design

A concealed, randomized, single blinded, sham controlled clinical trials with parallel groups 17 participants in a group total 34 participants. started from July 30, 2024 after ethical committee approval and end in April 2025 following one year

##### Settings and conduct

Pakistan Sports Board Coaching Center Lahore Saeed Ajmal International Cricket Academy, Naeem Zeshan Shaheed Football Club, Sheefa Badminton Club

##### Participants/Inclusion and exclusion criteria

Inclusion criteria : Age (18-35y); Gender ( Male and female); If patient feel pain in the achilles tendon; VISA-A score less than 78; Decreased ankle range of motion; Exclusion criteria : Previous Achilles tendon surgery; Pain in any other region (knee, hip); Local infection; If pregnant; Diabetic neuropathy

##### Intervention groups

Group A recieved 12 sessions of IASTM over a 6-week period in adults with Achilles tendinopathy. Group A received 2 visits treatment per week. IASTM applied for 2 min after 5 min warm up and baseline treatment. Group B received 12 sessions of floss band over a 6 week period in patients with Achilles tendinopathy. Floss band applied for 2 min after warm up and baseline treatment. Patients were assessed before first session, after 6th session and after 12th session.

##### Main outcome variables

Pain, Range of motion

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20250525065880N1**  
Registration date: **2025-05-29, 1404/03/08**  
Registration timing: **retrospective**

Last update: **2025-05-29, 1404/03/08**

Update count: **0**

##### Registration date

2025-05-29, 1404/03/08

##### Registrant information

##### Name

Muhammad Hassan Ikhlas

##### Name of organization / entity

Riphah International University

##### Country

Pakistan

##### Phone

+92 334 4788248

##### Email address

mianhassan896@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2024-08-05, 1403/05/15

##### Expected recruitment end date

2025-12-20, 1404/09/29

##### Actual recruitment start date

2024-10-15, 1403/07/24

##### Actual recruitment end date

2025-01-08, 1403/10/19

##### Trial completion date

2025-04-24, 1404/02/04

##### Scientific title

Effects of floss banding technique and Instrument-assisted soft tissue mobilization on Pain, Range of motion in athletes with Achilles tendinopathy

#### Public title

Effects of floss banding technique and Instrument-assisted soft tissue mobilization on Pain, Range of motion in athletes with Achilles tendinopathy

#### Purpose

Treatment

#### Inclusion/Exclusion criteria

##### Inclusion criteria:

If patient feel pain in the achilles tendon, The Victorian Institute of Sport Assessment-Achilles (VISA-A) score less than 78, Decreased ankle range of motion Age between 18y to 35y

##### Exclusion criteria:

Previous achilles tendon surgery Pain in any other region (knee, hip) Local infection If pregnant Diabetic neuropathy

#### Age

From **18 years** old to **35 years** old

#### Gender

Both

#### Phase

N/A

#### Groups that have been masked

- Participant

#### Sample size

Target sample size: **34**

Actual sample size reached: **34**

#### Randomization (investigator's opinion)

Randomized

#### Randomization description

Participants randomly allocated to two groups using sealed envelope method to ensure allocation concealment and biasness reduction. A set of sealed envelop assigned as group A and the other one was group B. Group A was given the Floss band treatment and group B was given the Instrument assisted soft tissue mobilization.

#### Blinding (investigator's opinion)

Single blinded

#### Blinding description

Participants were unaware of their allocation. it means that we use envelop method for concealment. we also used sham intervention for participants blinding. we gave a fake treatment of instrument assisted soft tissue mobilization to the FLOSS band group. we did not apply pressure on participants for fake sensation. we did the same procedure to group B of instrument assisted soft tissue mobilization.

#### Placebo

Used

#### Assignment

Parallel

#### Other design features

### Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Research & Ethical Review Committee "Riphah College of Rehabilitation and Allied Health Sciences" R

##### Street address

25 Raza Saeed Road, Bhabra Block M Gulberg 3, Lahore Pakistan

##### City

Lahore

##### Postal code

54660

#### Approval date

2024-07-30, 1403/05/09

#### Ethics committee reference number

REC/RCR&AHS/24/0470

## Health conditions studied

### 1

#### Description of health condition studied

Achilles Tendinopathy

#### ICD-10 code

M67.00

#### ICD-10 code description

Short Achilles tendon (acquired), unspecified ankle

## Primary outcomes

### 1

#### Description

Pain

#### Timepoint

Before treatment, after sixth visit and after 12th visit

#### Method of measurement

Numeric Pain Rating Scale , The Victorian Institute of Sport Assessment-Achilles Scale

## Secondary outcomes

### 1

#### Description

Range of motion

#### Timepoint

Before treatment starting, After 6th visit and after 12th visit

#### Method of measurement

Goniometer

## Intervention groups

### 1

#### Description

In Group A received 12 sessions of floss band over a 6 week period in patients with Achilles tendinopathy. Floss band applied for 2 min after warm up and baseline treatment. Patients were assessed before first session, after 6th session and after 12th session. Warm up with hot pack. Baseline treatment include eccentric exercise 15 repetitions and 3 sets of CALF stretches with 30 seconds hold and then 3sts of strengthening exercise of calf muscles with 15 repetitions per set. Floss band was applied on ankle joint and Achilles tendon with figure 8 warping method. The floss band was with 7 feet length, 1.1mm thickness and 5cm width. Floss band overlapped by 50% to extent possible. passive dorsiflexion and planter flexion inversion and eversion performed after wrapping then remove floss bandintervention group:

#### Category

Treatment - Other

## 2

#### Description

Intervention group: Group B recieved 12 sessions of IASTM over a 6-week period in adults with Achilles tendinopathy. Group A received 2 visits treatment per week. IASTM applied for 2 min after 5 min warm up and baseline treatment. Patients were assessed before first session and after 6th session and at the end of follow-up after 12th session. Warm provided with hot pack. Baseline treatment include eccentric exercise 15 repetitions and 3 sets of CALF stretches with 30 seconds hold and then 3sts of strengthening exercise of calf muscles with 15 repetitions per set. IASTM tool was applied at the angle of 60 degree. IASTM tool was applied parallel to the muscle fibers and tendon

#### Category

Treatment - Other

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Pakistan sports board Coaching Center Lahore

##### Full name of responsible person

Mr. Yasir Pirzada

##### Street address

PSB coaching center ferozpur road

##### City

Lahore

##### Postal code

54600

##### Phone

+92 42 99230382

##### Email

info@psb@sports.gov.pk

## Sponsors / Funding sources

### 1

#### Sponsor

#### Name of organization / entity

Riphah International University

#### Full name of responsible person

Shakeel ur rehman

#### Street address

25 Raza Saeed Road, Bhabra Blpck M Gulberg 3,  
LahorePunjab

#### City

Lahore

#### Postal code

54660

#### Phone

+92 300 0720887

#### Email

research.frahsIhr@riphah.edu.pk

#### Grant name

#### Grant code / Reference number

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

Yes

#### Title of funding source

Riphah International University

#### 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

Riphah international University

##### Full name of responsible person

Muhammad Hassan Ikhlas

##### Position

Student

##### Latest degree

Bachelor

##### Other areas of specialty/work

Physiotherapy

##### Street address

PGSHF block D1 house#348 satiana road faisalabad

##### City

Faisalabad

##### Province

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##### Phone

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## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**

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**Full name of responsible person**

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## Person responsible for updating data

### Contact

**Name of organization / entity**

Riphah international university

**Full name of responsible person**

MUhammad Hassan Ikhlas

**Position**

student

**Latest degree**

Bachelor

**Other areas of specialty/work**

Physiotherapy

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**Email**

drphysio896@gmail.com

## 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**

Yes - There is 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**

No - There is not a plan to make this available

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

Inform consent data collection form, It contain personal information, Contact info

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

Data will be available after 4 weeks of study completion.

**To whom data/document is available**

For students' Participants' Rsearchers and teachers

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

For athletes improvement, For next researches and under Google scholar and Pubmed

**From where data/document is obtainable**

Google scholar and Pubmed

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

N/A

**Comments**