

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparative Effects of Graston Tool and Post Isometric Relaxation on Hamstring Tightness in Young Healthy Women

Protocol summary

Registration timing: **registered_while_recruiting**

Study aim

To compare the effects of graston tool and post isometric relaxation technique to improve the range of motion on hamstring tightness in young healthy individuals.

Last update: **2022-05-21, 1401/02/31**

Update count: **0**

Registration date

2022-05-21, 1401/02/31

Design

randomization will be through lottery method, single blinded study will be conducted in which only patient would be blinded.

Registrant information

Name

USWAH MUBEEN

Name of organization / entity

THE UNIVERSITY OF FAISALABAD

Country

Pakistan

Phone

+92 56 3712963

Email address

mspp-fa20-024@tuf.edu.pk

Settings and conduct

subjects with hamstring tightness will be taken from The University Of Faisalabad. subjects will be divided into two groups one group will receive graston technique and other group will receive post isometric relaxation technique.

Recruitment status

Recruitment complete

Funding source

Participants/Inclusion and exclusion criteria

people who have asymptomatic hamstring tightness .female and active knee extension test positive and people who will want to part of this study will be included this study. People who have acute and chronic hamstring injury. acute and chronic low back pain, having skin infections ,previous orthopedic surgeries and sciatica patients will be excluded.

Expected recruitment start date

2022-04-29, 1401/02/09

Expected recruitment end date

2022-05-30, 1401/03/09

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Intervention groups

Group A and Group B will be given hot pack for 10 minutes as a baseline treatment. Group A will given graston tool and Group B will given post isometric relaxation technique. Both techniques will effective on hamstring tightness but which one will more effective technique.

Scientific title

Comparative Effects of Graston Tool and Post Isometric Relaxation on Hamstring Tightness in Young Healthy Women

Main outcome variables

Active knee extension test and straight leg raise test

Public title

Comparative Effects of Graston Tool and Post Isometric

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220513054844N1**

Registration date: **2022-05-21, 1401/02/31**

Relaxation on Hamstring Tightness in Young Healthy Women

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

people having age of 20 to 25 year people having asymptomatic hamstring tightness people having active knee extension test positive people wants to be part of study

Exclusion criteria:

people having acute and chronic low back pain people having acute and chronic hamstring injury students having skin infection people having previous orthopedic surgeries(surgeries of lower extremity within 6 month) sciatica patients

Age

From **20 years** old to **25 years** old

Gender

Female

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **36**

Randomization (investigator's opinion)

Randomized

Randomization description

randomization is done by lottery method. sealed envelop will made upon which allocation of participants in both groups can be possible without biasness.

Blinding (investigator's opinion)

Single blinded

Blinding description

participants of both groups will be unaware whether they are placed in which treatment group after the informed consent has been taken from them. participants of both groups will receive the same baseline treatment that will be the hot pack. After that different physiotherapy treatment of both groups of which participants will be unaware of.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of The University Of Faisalabad

Street address

Ward no 6 jaranwala road shahkot

City

Shahkot

Postal code

39630

Approval date

2022-04-07, 1401/01/18

Ethics committee reference number

TUF/DR/MSPP/329

Health conditions studied

1

Description of health condition studied

hamstring tightness

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

range of motion will be primary out come measure

Timepoint

range of motion will be measured before treatment and after 4 weeks after the completion of intervention.

Method of measurement

active knee extension test and SLR will be used to measure the range of motion.

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: 1 graston technique will given to patient for 60 seconds. 3 sessions per week for 4 weeks will be given. Active knee extension test and straight leg raise test taken pre and post treatment

Category

Rehabilitation

2

Description

Intervention group: 2 Post Isometric Relaxation technique will given to patients and 3 repetitions will done 3 sessions per week for 4 weeks will be given. Active knee extension test and straight leg raise test taken pre and post treatment.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

The University Of Faisalabad

Full name of responsible person

DR.Nisar Fatima

Street address

Sargodha road, The University Of Faisalabad, Punjab,
Pakistan

City

Faisalabad

Postal code

38000

Phone

+92 41 8869861

Email

Nisar.fatima@tuf.edu.pk

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The University Of Faisalabad

Full name of responsible person

Dr. Nisar Fatima, PT

Street address

4-km Sargodha road, University Town, Faisalabad,
Pakistan

City

Faisalabad

Postal code

38000

Phone

+92 331 8711448

Email

Nisar.fatima@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

Sponsor: country of origin

Country of origin

PK

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

Dr. Nisar Fatima, PT

Position

assistant professor

Latest degree

Master

Other areas of specialty/work

physiotherapy

Street address

4-km Sargodha road, University Town, Faisalabad,
Pakistan

City

Faisalabad

Province

Punjab

Postal code

38000

Phone

+92 331 8711448

Email

Nisar.fatima@tuf.edu.pk

Person responsible for scientific inquiries

Contact

Name of organization / entity

The University Of Faisalabad

Full name of responsible person

Uswah Mubeen

Position

student

Latest degree

Master

Other areas of specialty/work

physiotherapy

Street address

ward no 6 jaranwala road shahkot

City

shahkot

Province

Punjab

Postal code

39630

Phone

+92 305 5379058

Email

mspp-fa20-024@tuf.edu.pk

Person responsible for updating data

Contact

Name of organization / entity

The University Of Faisalabad

Full name of responsible person

Uswah Mubeen

Position

student

Latest degree

Master

Other areas of specialty/work

physiotherapy

Street address

ward no 6 jaranwala road shahkot

City

shahkot

Province

Punjab

Postal code

39630

Phone

+92 305 5379058

Email

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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 participants 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 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 the contact person mentioned below

From where data/document is obtainable

Contact person Uswah Mubeen contact no 0305 5379058

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

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

Comments