

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

20 Jun 2026

### Investigation of Dynamic Biomechanical Indices in Athletes with And without Hamstring Shortness and Comparing the Effectiveness of Kinesio-Tape and Static Stretching on Hamstring Shortness According to this Data

#### Protocol summary

##### Study aim

1.Determination of biomechanical Data during slow/ fast walking and running in athletes with and without hamstring tightness 2.Determination of biomechanical Data during slow/ fast walking and running before and after static stretching in athletes with hamstring tightness 3. Determination of biomechanical Data during slow/ fast walking and running before and after kinesio-tapping and static stretching in athletes with hamstring tightness 4. Comparison of biomechanical Data during slow/ fast walking and running between kinesio-tapping and static stretching group and static stretching group in athletes with hamstring tightness

##### Design

A factorial group randomized control clinical trial, non blinded

##### Settings and conduct

According to the high incidence of hamstring tightness, this research is performed to compare biomechanical Data during functional tasks between two group of athletes with hamstring tightness that static stretching and static stretching + kinsiotapping is applied them.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: healthy men (18-32 years old) with hamstring tightness Exclusion criteria: Previous hamstring disorders

##### Intervention groups

1- Control group: athletes without hamstring tightness 2- Intervention group: athletes with hamstring tightness and static stretching intervention 3- Intervention group: athletes with hamstring tightness and static stretching + kinesio-tapping intervention

##### Main outcome variables

Biomechanical Data

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20130121012210N7**

Registration date: **2019-05-30, 1398/03/09**

Registration timing: **prospective**

Last update: **2019-05-30, 1398/03/09**

Update count: **0**

##### Registration date

2019-05-30, 1398/03/09

##### Registrant information

##### Name

Azadeh Shadmehr

##### Name of organization / entity

Teharn University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 21 7752 8468

##### Email address

shadmehr@tums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2019-05-31, 1398/03/10

##### Expected recruitment end date

2019-07-23, 1398/05/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

## Trial completion date

empty

## Scientific title

Investigation of Dynamic Biomechanical Indices in Athletes with And without Hamstring Shortness and Comparing the Effectiveness of Kinesio- Tape and Static Stretching on Hamstring Shortness According to this Data

## Public title

Investigation of Dynamic Biomechanical Indices of Effectiveness of Kinesio- Tape and Static Stretching on Hamstring Shortness

## Purpose

Treatment

## Inclusion/Exclusion criteria

### Inclusion criteria:

males that 3 times a week has minimum o 2 hours sport activity without any symptoms of previous hamstring injury bilateral hamstring shortness 30 degrees of popliteal angle in active SLR test

### Exclusion criteria:

lower limb surgeries physiotherapy intervention in last two months

## Age

From **18 years** old to **32 years** old

## Gender

Male

## Phase

N/A

## Groups that have been masked

*No information*

## Sample size

Target sample size: **15**

## Randomization (investigator's opinion)

Randomized

## Randomization description

According to the patient file, each patient has been named by one special code and then for each of therapeutic sessions , patient codes are determined by use of statistical software.

## 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 Committee of Tehran University of Medical

Sciences

#### Street address

Keshavarz Blvd, Central Building of Trhran University of Medical Sciences

#### City

Tehran

#### Province

Tehran

#### Postal code

1417653761

#### Approval date

2019-03-17, 1397/12/26

#### Ethics committee reference number

IR.TUMS.VCR.REC.1398.016

## Health conditions studied

### 1

#### Description of health condition studied

hamstring thightness

#### ICD-10 code

M25.6

#### ICD-10 code description

Stiffness of joint, not elsewhere classified

## Primary outcomes

### 1

#### Description

Dynamic Biomechanical Indices

#### Timepoint

before-after

#### Method of measurement

biomechanical smart insole

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

First Intervention group: In this group, Kinesio- Tape + Static Stretching are applied on the hamstring muscle. After use of kinesio-tape, static hamstring stretch 3 times (30s stretch with 10s resting time) is down and kinesio-tape is remained for 30 minutes.

#### Category

Rehabilitation

### 2

#### Description

Second Intervention group: In this group, Static hamstring stretch 3 times (30s stretch with 10s resting time) is performed.

#### Category

Rehabilitation

### 3

#### Description

Control group: This group is consist of athletes without hamstring shortness and they don't receive any intervention.

#### Category

Rehabilitation

### Recruitment centers

#### 1

##### Recruitment center

###### Name of recruitment center

School of Rehabilitation, Tehran University of Medical Sciences

###### Full name of responsible person

Azadeh Shadmehr

###### Street address

Enghelab Street, Piche Shemiran, School of Rehabilitation

###### City

Tehran

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###### Postal code

1148965111

###### Phone

+98 21 7752 8468

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###### Email

shadmehr@tums.ac.ir

### Sponsors / Funding sources

#### 1

##### Sponsor

###### Name of organization / entity

Tehran University of Medical Sciences

###### Full name of responsible person

Mohammad Ali Sahraian

###### Street address

Keshavarz Blvd, Central Building of Tehran University of medical Sciences

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+98 21 8163 3627

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research@tums.ac.ir

###### Grant name

###### Grant code / Reference number

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

Yes

#### Title of funding source

Tehran University of Medical Sciences

#### Proportion provided by this source

100

#### Public or private sector

Public

#### 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

Tehran University of Medical Sciences

##### Full name of responsible person

Azadeh Shadmehr

##### Position

Professor

##### Latest degree

Ph.D.

##### Other areas of specialty/work

Physiotherapy

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Enghelab Street, Piche Shemiran, School of Rehabilitation

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### Person responsible for scientific inquiries

#### Contact

##### Name of organization / entity

Tehran University of Medical Sciences

##### Full name of responsible person

Sara Fereidoonnia

##### Position

PhD student

##### Latest degree

Master

##### Other areas of specialty/work

Physiotherapy

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Enghelab Street, Piche Shemiran, School of Rehabilitation

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## Person responsible for updating data

### Contact

**Name of organization / entity**  
Tehran University of Medical Sciences  
**Full name of responsible person**  
Sara Freidoonnia  
**Position**  
PhD student  
**Latest degree**  
Master  
**Other areas of specialty/work**  
Physiotherapy  
**Street address**  
Enghelab Sreet, Piche Shemiran, School of  
Rehabilitation  
**City**  
Tehran  
**Province**

## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**  
No - There is not a plan to make this available  
**Justification/reason for indecision/not sharing IPD**  
There is no more Data  
**Study Protocol**  
No - There is not a plan to make this available  
**Statistical Analysis Plan**  
No - There is not a plan to make this available  
**Informed Consent Form**  
No - There is not a plan to make this available  
**Clinical Study Report**  
No - There is not a plan to make this available  
**Analytic Code**  
No - There is not a plan to make this available  
**Data Dictionary**  
Not applicable