# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

18 Nov 2026

## Comparing Effects of Kinesio tape, Before and After Inducing Delayed Onset Hamstring Muscle Soreness in Healthy Amateur Athletes

## Protocol summary

**Study aim**

Comparing effects of kinesio tape, before and after Inducing delayed onset hamstring muscle soreness in healthy amateur athletes.

**Design**

The clinical trial has two intervention groups, each group has 20 samples and a total of 40 samples. People are randomly assigned to one of the groups of kinesio tape before Nordic exercise and kinesio tape after Nordic exercise. Subjects were not blinded to the intervention.

**Settings and conduct**

Amateur athletes referring to Imam Reza sports complex in Tehran will participate in this study. After meeting the entry criteria, people are randomly assigned to one of the two intervention groups, kinesio tape before nordic exercise and kinesio tape after nordic exercise, using cards inside a non-transparent bag. Kinesio tyae is performed according to the grouping and 24, 48 and 72 hours later the evaluations will be repeated.

**Participants/Inclusion and exclusion criteria**

Inclusion criteria: men aged 18-32 years, doing regular sports 3 times a week, informed consent to participate in the study Non-entry criteria: muscle problems in the lower limbs, joint involvement in the lower limbs, skin wound in the hamstring area, recurrent nerve pain, back pain, vascular diseases, presence of malignancy, central and peripheral neurological disorders, skin sensitivity to kinesio tape, diseases Inflammatory skin.

**Intervention groups**

In one group, kinesio tape is taped before Nordic exercise. In the other group, it is glued after Nordic exercise. The kinesio tape is attached in a convenient way from the origin of the hamstring muscle to the end of the muscle in a Y shape with 30% tension.

**Main outcome variables**

Pain, range of motion, pressure pain threshold, function

## General information

**Reason for update**

**Acronym**

**IRCT registration information**

IRCT registration number: **IRCT20230403057805N1**
Registration date: **2023-05-12, 1402/02/22**
Registration timing: **prospective**

Last update: **2023-05-12, 1402/02/22**
Update count: **0**

**Registration date**

2023-05-12, 1402/02/22

**Registrant information**

**Name**

Yaser Jafari

**Name of organization / entity**

**Country**

Iran (Islamic Republic of)

**Phone**

+98 26 3654 1967

**Email address**

jafari-y@razi.tums.ac.ir

**Recruitment status**

**Recruitment complete**

**Funding source**

**Expected recruitment start date**

2023-06-07, 1402/03/17

**Expected recruitment end date**

2023-12-21, 1402/09/30

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

Comparing Effects of Kinesio tape, Before and After Inducing Delayed Onset Hamstring Muscle Soreness in Healthy Amateur Athletes

**Public title**
The effect of kinesio tape on hamstring muscle soreness
**Purpose**
Prevention
**Inclusion/Exclusion criteria**
**Inclusion criteria:**
Men aged 18-32 years Doing regular sports activity 3 times a week and each time for 2 hours Absence of muscle problems in the lower limbs (tension, muscle cramps, pain, etc.) in the last 6 months
**Exclusion criteria:**
Intolerance of nordic exercise Hamstring muscle shortness Muscle problems in the lower limbs (tension, muscle cramps, pain, etc.) in the last 6 months Joint involvement in the lower limbs (inflammation, pain, surgeries, etc.) in the last 6 months skin wound in the hamstring area Back pain in the last 6 months Vascular diseases The presence of malignancies Central and peripheral nervous disorders Inflammatory skin diseases such as psoriasis, eczema, neurodermatitis
**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: **40**
**Randomization (investigator's opinion)**
Randomized
**Randomization description**
Simple randomization, people are placed in one of the groups by taking a card from the inside of a plastic bag that cannot be seen, and the number of 40 cards, 20 of which are written "before exercise" and the other 20 are written "after exercise".The cards are read by the evaluator.
**Blinding (investigator's opinion)**
Not blinded
**Blinding description**
**Placebo**
Not used
**Assignment**
Other
**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**
Research and Technology Vice-Chancellor,6th Floor, University Central Organization, Corner of Qods St, Keshavarz Blvd.
**City**
Tehran
**Province**
Tehran
**Postal code**
1417653761
**Approval date**
2023-02-18, 1401/11/29
**Ethics committee reference number**
IR.TUMS.FNM.REC.1401.174

## Health conditions studied

### 1

**Description of health condition studied**
Delayed onset muscle soreness
**ICD-10 code**
**ICD-10 code description**

## Primary outcomes

### 1

**Description**
Pain
**Timepoint**
Before the intervention, 24, 48 and 72 hours after the intervention
**Method of measurement**
Visual Analogue Scale

### 2

**Description**
Active knee extension
**Timepoint**
Before the intervention, 24, 48 and 72 hours after the intervention
**Method of measurement**
goniometer

### 3

**Description**
Pressure pain threshold
**Timepoint**
Before the intervention, 24, 48 and 72 hours after the intervention
**Method of measurement**
Algometer

### 4

**Description**
Function

**Timepoint**
Before the intervention, 24, 48 and 72 hours after the intervention
**Method of measurement**
Triple hop distance test

## Secondary outcomes

empty

## Intervention groups

### 1

**Description**
The first intervention group: kinesio tape before doing Nordic exercise. The kinesio tape is attached using a facilitation technique from the origin of the hamstring muscle to its end, i.e. the head of the fibula and the inner condyle of the tibia in a Y shape with approximately 30% tension. Before applying the kinesio tape , first, the kinesio tape attachment site is shaved and cleaned with alcohol. To measure the length of the required type with 30% stretch, first measure the length of the muscle and put in the formula K=L/S (S= amount of stretch, L= length of the muscle and k= length of the kinesio tape ) the length of the required kinesio tape we get Then the person is placed in a standing position and at first, the first third of the tip is connected to the ischial tuberosity without tension, and after the tip is stabilized, it is divided into two branches from the middle and while the person's leg is in knee extension and hip joint position. It is placed in flexion to stretch the hamstring muscle, each of these branches is attached with 30% tension along the length of the muscle, and finally, the ends of the branches, one to the medial epicondyle and the other to the head of the fibula, without tension. It is connected. A 5 cm Mason model kinesio tape made in South Korea is used.
**Category**
Prevention

### 2

**Description**
The second intervention group: kinesio tape after Nordic exercise. The kinesio tapeis attached using a facilitation technique from the origin of the hamstring muscle to its end, i.e. the head of the fibula and the inner condyle of the tibia in a Y shape with approximately 30% tension. Before applying the kinesio tape, first, the kinesio tape attachment site is shaved and cleaned with alcohol. To measure the length of the required type with 30% stretch, first measure the length of the muscle and put in the formula K=L/S (S= amount of stretch, L= length of the muscle and k= length of the kinesio tape) the length of the required kinesio tapewe get Then the person is placed in a standing position and at first, the first third of the tip is connected to the ischial tuberosity without tension, and after the tip is stabilized, it is divided into two branches from the middle and while the person's leg is in knee extension and hip joint position. It is placed in flexion to stretch the hamstring muscle, each of these branches is attached with 30% tension along the length of the muscle, and finally, the ends of the branches, one to the medial epicondyle and the other to the head of the fibula, without tension. It is connected. A 5 cm Mason model kinesio tape made in South Korea is used
**Category**
Prevention

## Recruitment centers

### 1

**Recruitment center**
**Name of recruitment center**
Tehran University of Medical Science
**Full name of responsible person**
Yaser jafari
**Street address**
Corner of Qods St., Keshavarz Boulevard, central building
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**Province**
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**Email**
jafari-y@razi.tums.ac.ir

## Sponsors / Funding sources

### 1

**Sponsor**
**Name of organization / entity**
Tehran University of Medical Sciences
**Full name of responsible person**
akbar fotouhi
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**Email**
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**
Yaser Jafari
**Position**
Student
**Latest degree**
Bachelor
**Other areas of specialty/work**
Physiotherapy
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Qureshi Street, Arghwan Street
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## Person responsible for scientific inquiries

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**Full name of responsible person**
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## Person responsible for updating data

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**Latest degree**
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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**
Yes - There is a plan to make this available
**Analytic Code**
Yes - There is a plan to make this available
**Data Dictionary**
Yes - There is a plan to make this available
**Title and more details about the data/document**
All data is potentially shareable after de-identifying individuals.
**When the data will become available and for how long**
The access period starts 3 months after the articles are published.
**To whom data/document is available**
For researchers working in academic, scientific and hospital institutions.
**Under which criteria data/document could be used**
Researchers who work in the field of sports injuries.
**From where data/document is obtainable**
Applicants for information can contact Mr. Yaser Jafari through the following email address. jafari-y@razi.tums.ac.ir

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

After having the necessary conditions, the information will be provided to them within a month.

**Comments**