

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 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

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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		Ethics Committee of Tehran University of Medical Sciences	
Public title	The effect of kinesio tape on hamstring muscle soreness	Street address	Research and Technology Vice-Chancellor,6th Floor, University Central Organization, Corner of Qods St, Keshavarz Blvd.
Purpose	Prevention	City	Tehran
Inclusion/Exclusion criteria		Province	Tehran
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	Postal code	1417653761
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	Approval date	2023-02-18, 1401/11/29
Age	From 18 years old to 32 years old	Ethics committee reference number	IR.TUMS.FNM.REC.1401.174
Gender	Male	Health conditions studied	
Phase	N/A	1	
Groups that have been masked	No information	Description of health condition studied	
Sample size	Target sample size: 40	Delayed onset muscle soreness	
Randomization (investigator's opinion)	Randomized	ICD-10 code	
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.	ICD-10 code description	
Blinding (investigator's opinion)	Not blinded	Primary outcomes	
Blinding description		1	
Placebo	Not used	Description	
Assignment	Other	Pain	
Other design features		Timepoint	
Secondary Ids		Before the intervention, 24, 48 and 72 hours after the intervention	
empty		Method of measurement	
Ethics committees		Visual Analogue Scale	
1		2	
Ethics committee		Description	
Name of ethics committee		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 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

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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Sponsors / Funding sources

1

Sponsor

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Full name of responsible person

akbar fotouhi

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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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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