

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

The Effect of Trunk Muscles Fatigue on Some Risk Factors Predictors of Acute Hamstring Strain Injury in Male Soccer Players.

Protocol summary

Study aim

The Effect of Trunk Muscles Fatigue on Some Risk Factors Predictors of Acute Hamstring Strain Injury in Male Soccer Players.

Design

After reviewing the records according to the inclusion criteria, 30 male football players will be selected. Subjects are evaluated for 3 sessions with an interval of at least 48 hours and at most one week. In the first to third sessions, Hamstring Concentric strength, Hamstring Eccentric strength and Hamstring Flexibility are evaluated, respectively. Then the Trunk muscle fatigue protocol will be performed and the assessments taken before performing the protocol will be repeated.

Settings and conduct

The concentric and eccentric strength of the Hamstring will be evaluated using an isokinetic device and flexibility using a goniometer. These evaluations will be performed in the specialized sports pathology laboratory of the Faculty of Sports and Health Sciences of Shahid Beheshti University.

Participants/Inclusion and exclusion criteria

Having at least 2 years of sports experience. Not having balance problems and Chronic Low Back Pain. Not having any injuries in limbs and spine Not having any Neuromuscular Disorders Absence of any significant Musculoskeletal abnormalities.

Intervention groups

The current research design is single-group. Evaluation is pre-test and post-test. At first, Hamstring Eccentric strength, Hamstring Concentric Strength and Hamstring Flexibility are evaluated. Then they perform the Trunk Muscles fatigue protocol and immediately the measurements taken before the fatigue protocol are repeated.

Main outcome variables

Concentric Strength of Hamstring, Eccentric Strength of Hamstring and Flexibility of Hamstring

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20240621062200N1**

Registration date: **2024-11-28, 1403/09/08**

Registration timing: **retrospective**

Last update: **2024-11-28, 1403/09/08**

Update count: **0**

Registration date

2024-11-28, 1403/09/08

Registrant information

Name

Kosar Pourahmadaghdam

Name of organization / entity

Faculty of Physical Education and Sport Science, Shahid Beheshti University.

Country

Iran (Islamic Republic of)

Phone

+98 914 494 8505

Email address

k.purahmadagdam@alumni.sbu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-04-11, 1403/01/23

Expected recruitment end date

2024-08-10, 1403/05/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effect of Trunk Muscles Fatigue on Some Risk Factors Predictors of Acute Hamstring Strain Injury in Male Soccer Players.

Public title

The Effect of Trunk Muscles Fatigue on Some Risk Factors Predictors of Acute Hamstring Strain Injury in Male Soccer Players.

Purpose

Prevention

Inclusion/Exclusion criteria**Inclusion criteria:**

Having at least 2 years of sports experience. Not having balance problems and Chronic Low Back Pain. Not having any injuries in limbs and spine Not having any Neuromuscular Disorders Absence of any significant Musculoskeletal abnormalities.

Exclusion criteria:

Having back pain during exams. Any expression of pain and discomfort during the tests.

Age

From **23 years** old to **33 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

N/A

Randomization description**Blinding (investigator's opinion)**

Not blinded

Blinding description**Placebo**

Not used

Assignment

Single

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics Committee of Shahid Beheshti University

Street address

Ethics committee, Shahid Beheshti University, Shahid Dr. Shahrjari Square(University Square). Rashiduddin Fazlullah St, Yaman St., Velenjak, Chamran Highway, Tehran

City

Tehran

Province

Tehran

Postal code

198969411

Approval date

2021-11-13, 1400/08/22

Ethics committee reference number

IR. SBU.REC.1400.201

Health conditions studied**1****Description of health condition studied**

Acute Strain of Hamstring

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Concentric Strength of Hamstring

Timepoint

In one session, Pre test and Post test

Method of measurement

Biodex, Isokinetic Devise

2**Description**

Eccentric strength of Hamstring

Timepoint

In one session, Pre test and Post test

Method of measurement

Biodex, Isokinetic Devise

3**Description**

Flexibility of Hamstring

Timepoint

In one session, Pre test and Post test

Method of measurement

Goniometer

Secondary outcomes

empty

Intervention groups**1****Description**

Intervention group: 30 male soccer players are evaluated in 3 sessions as pre-test and post-test. In every 3 sessions after the pre-test, the trunk muscle fatigue protocol is performed and the post-test is repeated. The first session will evaluate concentric strength, the second session will evaluate eccentric strength, and the third session will evaluate hamstring flexibility.

Category
Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Laboratory of sports pathology and corrective movements of Shahid Beheshti University

Full name of responsible person

Dr. Fariborz Hovanlo

Street address

Laboratory of Faculty of Physical Education and Sports Sciences, Shahid Beheshti University, Shahid Dr. Shahriari Square(Daneshgah Square), Rashhduddin Fazlollah St., Yaman St., Velenjak, Chamran Highway,Tehran

City

Tehran

Province

Tehran

Postal code

1983969411

Phone

+98 21 2990 5821

Email

f_hovanloo@sbu.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahid Beheshti University

Full name of responsible person

Dr. Afshar Jafari

Street address

Faculty of Physical Education and Sports Sciences, Shahid Beheshti University, Shahid Dr. Shahriari Square(Daneshgah Square), Rashhduddin Fazlollah St., Yaman St., Velenjak, Chamran highway,Tehran

City

Tehran

Province

Tehran

Postal code

1983969411

Phone

+98 21 2990 5824

Email

Af_jafari@sbu.ac.ir

Grant name

Grant code / Reference number

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

No

Title of funding source

Faculty of Physical Education and Sports Sciences, Shahid Beheshti University

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

Shahid Beheshti University

Full name of responsible person

Fariborz Hovanlo

Position

Associate professor

Latest degree

Ph.D.

Other areas of specialty/work

Physical education

Street address

Faculty of Physical Education and Sports Sciences, Shahid Beheshti University, Shahid Dr. Shahriari Square(Daneshgah Square), Rashhduddin Fazlollah St., Yaman St., Velenjak, Chamran highway,Tehran

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Person responsible for scientific inquiries

Contact

Name of organization / entity

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Associate Professor

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Email
f_hovanloo@sbu.ac.ir

f_hovanloo@sbu.ac.ir

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

The information about the subjects is personal and will not be shared with others

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

No - There is not 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 information except the subjects' personal information

When the data will become available and for how long

Six months after the results are published

To whom data/document is available

All researchers

Under which criteria data/document could be used

The use of research results is unimpeded by acquiring the source

From where data/document is obtainable

k.purahmadagdam@alumni.sbu.ac.ir

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

At least two working days

Comments

Person responsible for updating data

Contact

Name of organization / entity

Shahid Beheshti University

Full name of responsible person

Fariborz Hovanlo

Position

Associate Professor

Latest degree

Ph.D.

Other areas of specialty/work

Physical Education

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Shahid Beheshti University, Shahid Dr. Shahriari
Square(Daneshgah Square), Rashhduddin Fazlollah
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