

Clinical Trial Protocol

Iranian Registry of Clinical Trials

20 Sep 2026

The effects of a TRX training course and central stability on physical-motor fitness, keratin kinase and lactate dehydrogenase in obese girls

Protocol summary

Study aim

The effects of a TRX training course and central stability on kreatine kinase and lactate dehydrogenase in obese girls

Design

Clinical trial with controlled / randomized control group
The sample size will be 40 people.

Settings and conduct

The place for conducting research will be the Pishva stadium. The first blood sampling is done. Then people fall into 4 groups. A group will perform TRX training for 8 weeks. A group will perform central stability training for 8 weeks. A group will perform both types of exercises. The control group will be untrained. At the end of 8 weeks blood sampling is done again.

Participants/Inclusion and exclusion criteria

Entry Requirements: Enough physical fitness/
Appropriate age / Disusing of supplements in the last 6 months
Conditions of non-arrival: Cardiovascular, articular, respiratory diseases ... / Using of any drug (insulin, aspirin, frusmide ... / Cigarette smoking

Intervention groups

We have four intervention groups: 1. A group that performs TRX exercise. 2. A group that performs central stability exercises. 3. A group that performs central stability training and TRX together 4. Control group that do not have any training

Main outcome variables

Changes in kreatine kinase, lactate dehydrogenase

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20171210037809N4**

Registration date: **2019-07-27, 1398/05/05**

Registration timing: **retrospective**

Last update: **2019-07-27, 1398/05/05**

Update count: **0**

Registration date

2019-07-27, 1398/05/05

Registrant information

Name

farah nameni

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 8843 6932

Email address

f.nameni@yahoo.co.uk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-05-22, 1398/03/01

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

The effects of a TRX training course and central stability on physical-motor fitness, keratin kinase and lactate dehydrogenase in obese girls

Public title

Effects of TRX and central stability on physical-motor fitness, keratin kinase and lactate dehydrogenase

Purpose

Other

Inclusion/Exclusion criteria

Inclusion criteria:
Lack of complementary supplementation use during the past six months Having physical fitness preparation required No history of any cardiovascular disease

Exclusion criteria:
Using particular medication (insulin, aminophylline, fursomide) Out of age range (20-25 years) Cigarette smoking

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

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **40**

Randomization (investigator's opinion)
Randomized

Randomization description
Names of female volunteer athletes of stadiums of Pishva city who interested to cooperation was recorded(200)/then they will complete the questionnaire of entry standard/ 40 persons will be selected using random numbers table / then their names will be written on sheets and will be spilled in a bowl.one sheet will be selected in turn and the names will be in one of the groups.

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 the Faculty of Medical Sciences of Islamic Azad University, Varamin Pishva

Street address
Islamic Azad University square ,Naghshe Jahan Bulvar ,Pishva, Varamin

City
Varamin- Pishva

Province
Tehran

Postal code
33817-74895

Approval date
2019-01-02, 1397/10/12

Ethics committee reference number

IR.IAU.VARAMIN.REC.1397.026

Health conditions studied

1

Description of health condition studied

Compare TRX effects with Central Stability exercises on Creatine Kinase and Lactate Dehydrogenase

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Creatine Kinase

Timepoint

Before the intervention / 8 weeks later

Method of measurement

Measurement of creatine kinase /Specific kit / Based on the Nelson and Zass method, the baseline values for CK women are 100-10U / L.

2

Description

Lactate Dehydrogenase

Timepoint

Before the intervention / 8 weeks later

Method of measurement

Measurement of lactate dehydrogenase / Specific kit / Spectrophotometric method The rate of change in NADH concentration is determined. The baseline values for women LDH are 500-150U / L.

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group1: TRX exercise: A kind of exercise that is done using strap and tape.The body will be suspended.Training protocol includes :8 weeks, 4 sessions per week and 75 minutes each session.

Category

N/A

2

Description

Intervention group: Central stability training:These exercises take place in the central part of the body.Training protocol includes :8 weeks, 4 sessions per week and 75 minutes each session.

Category

N/A

3

Description

Intervention group 3: Central stability training and TRX Exercise. Both TRX training and Central Stability are included. Training protocol includes :8 weeks, 4 sessions per week and 75 minutes each session (intermittent).

Category

N/A

4

Description

Intervention group 4: Control group(Without training)

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Pishva city

Full name of responsible person

Yeganeh Hadavand Mirzaii

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Central Hall, Shardari square, Pishva

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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Full name of responsible person

Yeganeh Hadavand Mirzaii

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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

Islamic Azad 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

Other

Person responsible for general inquiries

Contact

Name of organization / entity

Islamic Azad University

Full name of responsible person

Yeganeh Hadavand Mirzaii

Position

Coach

Latest degree

Master

Other areas of specialty/work

Physiology

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Person responsible for scientific inquiries

Contact

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Full name of responsible person

Farah Nameni

Position

Assistant Professor

Latest degree

Ph.D.

Other areas of specialty/work

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Full name of responsible person

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Latest degree

Ph.D.

Other areas of specialty/work

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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 further information

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

No - There is not a plan to make this available