

Clinical Trial Protocol

Iranian Registry of Clinical Trials

26 Jul 2026

Effects of aerobic and resistance training on serum leptin levels in overweight males 10 to 12 years

Protocol summary

Summary

Goal: This study aimed to determine the effects of aerobic exercise and resistance training on serum leptin levels in overweight males 10 to 12 years Borujerd city is done. Design: the study population included overweight 10 to 12 years of Borujerd city, accessible population consisted of 50 overweight children 10 to 12 years in elementary Noor and Danesh and Avayeh Elm school. Of these students, 30 overweight (body mass index greater than 25 and less than 30) with the mean age of 11.5 ± 0.443 years, 64.10 ± 9.8 kg weight and 152.4 ± 6.70 cm size are selected on a voluntary basis. How to do: First blood sampling is done to determine baseline levels of leptin. Then subjects were randomly divided into 3 groups of 10 people. Inclusion criteria: participants aged 10 to 12 years who have a B.M.I of subjects should be above 25. Exclusion criteria of the study participants included: people with cardiovascular diseases and B.M.I are less than 25. Interventions: Group 1 and 2 respectively selected aerobic and resistance exercises into 12 sessions, observing the principle of doing and the third group exercise overload controls are introduced. Main outcome variables: Our primary outcome variable is leptin.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013110415267N1**

Registration date: **2014-04-12, 1393/01/23**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-04-12, 1393/01/23

Registrant information

Name

Sajad Pirhadi

Name of organization / entity

Teacher Training University of Shahid Rajaii

Country

Iran (Islamic Republic of)

Phone

+98 66 2530 2608

Email address

sajad.pirhadi@yahoo.com

Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2013-05-04, 1392/02/14

Expected recruitment end date

2013-06-20, 1392/03/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of aerobic and resistance training on serum leptin levels in overweight males 10 to 12 years

Public title

Effect of aerobic and resistance exercise on obesity hormone in the overweight children

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: participants aged 10 to 12 years who have a B.M.I of subjects should be above 25. Exclusion criteria: cardiovascular disease and those with B.M.I less than 25

Age
From **10 years** old to **12 years** old
Gender
Male

Phase
N/A
Groups that have been masked
No information

Sample size
Target sample size: **30**
Randomization (investigator's opinion)
Randomized

Randomization description
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 Teacher Training University of
Tehran Shahid Rajai

Street address

Shahid St. Shbanlv- Lavizan

City

Tehran

Postal code

no

Approval date

2012-12-10, 1391/09/20

Ethics committee reference number

1251/18

Health conditions studied

1

Description of health condition studied

Overweight

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

leptin

Timepoint

24 hours before and 24 hours after exercise training

Method of measurement

ELISA ng /mL

Secondary outcomes

empty

Intervention groups

1

Description

First Intervention: Aerobic exercise is performed in the first 3 minutes of each meeting and it is overloaded.

Category

N/A

2

Description

Second Intervention: Resistance training is that was applied to the the second group and its overload per session is the equivalent of 3 repetitions for each move.

Category

N/A

3

Description

The third intervention is the no exercise training for the control was applied to

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

School of Noor Danesh

Full name of responsible person

Sajad Pirhadi

Street address

City

Boroojerd

2

Recruitment center

Name of recruitment center

School of Avaye Elm

Full name of responsible person

Sajad Pirhadi

Street address

City

Boroojerd

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Department of Education

Full name of responsible person

Sajjad Pirhadi

Street address

Modares street, Borujerd

City

Borujerd

Grant name

ندارد

Grant code / Reference number

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

Yes

Title of funding source

Department of Education

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

empty

Person responsible for general inquiries

Contact

Name of organization / entity

Ministry of Education

Full name of responsible person

Sajad Pirhadi

Position

MS in Exercise Physiology

Other areas of specialty/work

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty