

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

The effect of six sessions of sprint interval training with and without omega-3 supplementation on serum levels of irisin and blood lipids in obese and overweight girls.

Protocol summary

Study aim

Studying the effect of six sessions of SIT training with and without omega-3 supplementation on serum levels of irisin and blood lipids in obese and overweight girls

Design

Subjects (n = 15) using simple randomization will be divided into two experimental groups: Group 1: n = 7, sprint interval training, and group 2: n = 8, sprint interval training and consume Omega 3 Supplement). Also blinding will not take place.

Settings and conduct

In the present study, 15 female students of Lorestan University will be selected based on their availability and will be randomly divided into two experimental groups. Experimental group 1 will undergo a 6-week sprint interval training and consume omega-3 supplements simultaneously. Experimental group 2 will perform only sprint interval training. At the beginning of study blood samples will be taken from the subjects and after two weeks of training, the blood samples will be taken from the subjects again.

Participants/Inclusion and exclusion criteria

Having a BMI above 25, No physical problems, Signing written consent

Intervention groups

Group 1: sprint interval training with omega 3 supplementation and Group 2: sprint interval training without omega 3 supplementation

Main outcome variables

Serum levels of irisin and lipids

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20161129031165N4**

Registration date: **2019-08-18, 1398/05/27**

Registration timing: **prospective**

Last update: **2019-08-18, 1398/05/27**

Update count: **0**

Registration date

2019-08-18, 1398/05/27

Registrant information

Name

Vahid Valiipour Dehnou

Name of organization / entity

Lorestan University

Country

Iran (Islamic Republic of)

Phone

+98 66 3312 0086

Email address

valipour.v@lu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-08-22, 1398/05/31

Expected recruitment end date

2019-08-27, 1398/06/05

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of six sessions of sprint interval training with and without omega-3 supplementation on serum levels of irisin and blood lipids in obese and overweight girls.

Public title

The effect of six sessions of sprint interval training with and without omega-3 supplementation on serum levels of irisin and blood lipids in obese and overweight girls.

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Having a BMI above 25 having no orthopedic problem accepting study conditions having no psychological problem

Exclusion criteria:

Absence of more than one session in the exercise program physical injury reluctance to continue to exercise

Age

From **18 years** old to **30 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **15**

Randomization (investigator's opinion)

Randomized

Randomization description

Flip the coin that is one of the simple randomization methods, will be used for randomization. The coin will be thrown once per person and will be assigned to one of the groups by tap or line.

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

Lorestan University of Medical Sciences

Street address

Lorestan University of Medical Sciences ,5 km from Khorram Abad -Tehran Road, Khorram Abad

City

Khorramabad

Province

Lorestan

Postal code

6815144316

Approval date

2019-07-17, 1398/04/26

Ethics committee reference number

IR.LUMS.REC.1398.088

Health conditions studied

1

Description of health condition studied

Obesity and overweight

ICD-10 code

E66

ICD-10 code description

چاقی و اضافه وزن

Primary outcomes

1

Description

Irisin

Timepoint

Before and after intervention

Method of measurement

Blood sampling and using ELISA method

2

Description

Serum lipids

Timepoint

Before and after intervention

Method of measurement

Enzymatic method

3

Description

Anaerobic power

Timepoint

Before and after intervention

Method of measurement

Using RAST test

Secondary outcomes

empty

Intervention groups

1

Description

Experimental group 1 will perform SIT training for two weeks and 3 sessions per week.

Category

Treatment - Other

2

Description

Experimental group 2 will perform SIT training for two

weeks and 3 sessions per week while taking omega 3 supplementation at the same time.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Lorestan university

Full name of responsible person

Vahid Valipour Dehnou

Street address

Km 5 of Tehran road - Khorramabad city - Lorestan province

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44316-68151

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Email

valipour.v@lu.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Deputy of Research of Lorestan University

Full name of responsible person

Vahid Valipour Dehnou

Street address

5 km from Khorramabad Road-Tehran, Kamalvand

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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

Deputy of Research of Lorestan 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

Lorestan University

Full name of responsible person

Vahid Valipour Dehnou

Position

Assistant Professor

Latest degree

Ph.D.

Other areas of specialty/work

Exercise physiology

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Person responsible for updating data

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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

No - There is not a plan to make this available

Clinical Study Report

Yes - There is 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

Title and more details about the data/document

Personal information of patients is confidential. But access to the research method and the information obtained from the research is not a problem.

When the data will become available and for how long

After printing in a journal

To whom data/document is available

All students and enthusiasts

Under which criteria data/document could be used

-In order to use data to carry out research work in this area

From where data/document is obtainable

Corresponding author, 00989166691874, valipour.v@lu.ac.ir

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

By sending an email or contacting the author will work with the applicant as soon as possible.

Comments