Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 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 Valiopour Dehnou

Name of organization / entity
Lorestan University

Country
Iran (Islamic Republic of)

Phone
+98 66 3312 0086

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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
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Km 5 of Tehran road - Khorramabad city - Lorestan province
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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

Contact

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Ph.D.

Other areas of specialty/work
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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