

Clinical Trial Protocol

Iranian Registry of Clinical Trials

01 Jun 2026

The effect of of aerobic training plus Flax seed supplementation on serum lipids and lipoprotein profile and C-reactive protein in sedentary obese women.

Protocol summary

Summary

The objective of this study is to assess the effect of aerobic training with Flax seed supplementation on blood lipids profile and C-Reactive protein in sedentary obese women. Forty five obese/overweight women will participate in the study. The subjects will be randomly assigned to 3 groups (1- Aerobic training plus Flax seed supplementation. 2- Flax seed supplementation. 3- Control). The group 1 will participate in a 10-week aerobic training [three times a week, 15-50 min/session and intensity of the exercise program is 50-75% heart rate max (HRmax)]. Blood lipids and C-Reactive protein (ELISA method) will be measured prior to and after the intervention.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201309303387N4**

Registration date: **2013-10-28, 1392/08/06**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2013-10-28, 1392/08/06

Registrant information

Name

Abbas Saremi

Name of organization / entity

Arak University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 86 1277 7400

Email address

a-saremi@araku.ac.ir

Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2013-05-31, 1392/03/10

Expected recruitment end date

2013-07-01, 1392/04/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of of aerobic training plus Flax seed supplementation on serum lipids and lipoprotein profile and C-reactive protein in sedentary obese women.

Public title

The effect of of aerobic training plus Flax seed supplementation on serum lipids and lipoprotein profile and C-reactive protein in sedentary obese women.

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: having a stable weight for at least 3 months prior to the study, age more than 30 years, body mass index more than 25, signing informed consent and presence of cardio-pulmonary. Exclusion criteria: Smoking.

Age

From **30 years** old to **55 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 45

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

Arak University of Medical Sciences

Street address

Sardasht, University of Medical Sciences

City

Arak

Postal code

Approval date

2013-02-08, 1391/11/20

Ethics committee reference number

142-2-91

Health conditions studied

1

Description of health condition studied

Obesity

ICD-10 code

E66.9

ICD-10 code description

Obesity, unspecified

Primary outcomes

1

Description

Serum triglyceride

Timepoint

Baseline and after 10 weeks

Method of measurement

Glycerol phosphate oxidase, Enzymatic colorimetric

2

Description

Total cholesterol

Timepoint

Baseline and after 10 weeks

Method of measurement

Enzymatic photometric

3

Description

HDL-cholesterol

Timepoint

Baseline and after 10 weeks

Method of measurement

Enzymatic photometric

4

Description

LDL-cholesterol

Timepoint

Baseline and after 10 weeks

Method of measurement

Friedewald formula

5

Description

C-Reactive protein

Timepoint

Baseline and after 10 weeks

Method of measurement

ELISA assay

Secondary outcomes

empty

Intervention groups

1

Description

Flax seed supplementation group: 9 grams/day powder of Flax seed.

Category

Treatment - Drugs

2

Description

Flax seed plus aerobic training group: 9 grams/day powder of Flax seed with aerobic training supervised by an exercise physiologist, 15-50 minute/day, 3day/week, for 10 weeks. The training program started at 50% of observed maximal heart rate (HRmax) and gradually increased to 75% of maximal heart rate by week 10. Aerobic training included treadmill walking/running.

Category

Treatment - Drugs

3

Description

The control group will maintain their lifestyle as usual.

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Ghiasi Hospital

Full name of responsible person

Doctor Saremi Abbas

Street address

City

Arak

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Arak university

Full name of responsible person

Dr Shavandi

Street address

Pajohesh, Arak university, Shariati street, Arak

City

Arak

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Arak university

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

Arak University

Full name of responsible person

Dr Abbas Saremi

Position

Exercise physiologist

Other areas of specialty/work

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Person responsible for scientific inquiries

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Arak University

Full name of responsible person

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Position

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Web page address

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