Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

The effects of conjugated linoleic acid supplementation on, maximum oxigen consumption, resistance exercise, body composition and blood pressure in men.

Protocol summary

Summary

In this randomize, double-blind, placebo-controlled trial, 80 healthy men (20-27years old students living in our University dorm who eat same food as the University serves) will randomly be assigned into two groups. One group will receive 3.2 g active conjugated linoleic acids daily as 4 capsules (each 1 g containing 80% or 0.8 g active conjugated linoleic acids) for two months. The conjugated linoleic acids capsules consists of two main isomers: cis-9, trans-11 CLAs and trans-10, cis-12 triglyceride type. Second group will similarly receive 4 capsules daily (soyflower oil) as placebo, during this two months. The objective is, to investigate the effect of conjugated linoleic acids on endurance exercise, resistance exercise, body composition and blood pressure in healthy men. At baseline and endpoint of the intervention, maximal oxygen consumption, ventilatory thresholds will measure in bruce test (Cosmed, Fitmate, Italy). Muscular strength will measure by Hand grip. Body weight, body fat mass, and lean body mass will measure by BIA method (Body state, Quadscan 4000, Multi scan 5000). Abdominal fat will measure with viscan (abdominal fat analyzer). The systolic (SBP) and diastolic blood pressure (DBP) will measure after five minutes rest. Then the measurements will be entered in SPSS (17.0) and analyzed using this software to compare two groups in order to investigate the effect of CLA on the above parameters.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201204159472N2**
Registration date: **2012-10-27, 1391/08/06**
Registration timing: **registered_while_recruiting**
Last update:
Update count: **0**

Registration date

2012-10-27, 1391/08/06

Registrant information

Name
Naheed Aryaeian
Name of organization / entity
Iran University of Medical Sciences
Country
Iran (Islamic Republic of)
Phone
+98 21 8670 4750
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aryaeian.n@iums.ac.ir

Recruitment status

Recruitment complete

Funding source

Tehran University of Medical Sciences, School of public health- research affaires and educational affaires

Expected recruitment start date

2012-10-22, 1391/08/01

Expected recruitment end date

2013-02-19, 1391/12/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effects of conjugated linoleic acid supplementation on, maximum oxigen consumption, resistance exercise, body composition and blood pressure in men.

Public title

The effect of conjugated linoleic acid supplementation on exercise performance

Purpose

Other

Inclusion/Exclusion criteria

Inclusion criteria: Participants must be male and the student of Tehran University of Medical Science; Age range must be 20-27 years; at least from 2 months ago Living in dormitories and stay more than 3 months; willingness to cooperate; Typically use distributed food in the dormitory and the university; BMI range must be 20-27; fat mass must be less than 25%; Moderate caffeine consumer. Not affected by Cardiovascular disease, musculoskeletal disorders or metabolic disease;No allergic to metals; No cigarette smoking hookah pipe and ... More than once a month; Resting systolic blood pressure less than140 or diastolic less than 90; No consumption doping drugs, supplements and drugs; No sports injuries that can affect a person's physical performance; physical activity based on individual physical activity questionnaire ipaq be low or moderate. exclusion criteria: Inability to reach the respiratory gas exchange ratio equal to 1 in the final exercise test; Any use of supplements during the study; Unwillingness to cooperate in research; Failure to correct use of supplements (use supplement less than 80 percent); Any change in diet or physical activity daily rate during the study.

Age

From **20 years** old to **27 years** old

Gender

Male

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **80**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Triple blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics commitee in research of Tehran university of Medical Sciences

Street address

Tehran University of Medical Sciences, Ghods St., Keshavarz Blvd, Tehran, Iran

City

Tehran

Postal code

14174

Approval date

2012-07-30, 1391/05/09

Ethics committee reference number

91-01-27-16706-59730

Health conditions studied

1

Description of health condition studied

healthy volunteers

ICD-10 code

Z01.9, Z00

ICD-10 code description

Special examination, unspecified, General examination and investigation of persons without complaint and reported diagnosis

Primary outcomes

1

Description

Maximum oxygen consumption

Timepoint

before intervention, two month after intervention

Method of measurement

fitmate

2

Description

time to exhausion

Timepoint

before intervention and two month after intervention

Method of measurement

fitmate

3

Description

Running Distance

Timepoint

before intervention and two month after intervention

Method of measurement

treadmil

4

Description

Muscle strength

Timepoint

before intervention and two month after intervention

Method of measurement

hand grip

5

Description
weight
Timepoint
before intervention and two month after intervention
Method of measurement
scale

6

Description
Waist
Timepoint
before intervention and two month after intervention
Method of measurement
tape measure

7

Description
abdominal fat
Timepoint
before intervention and two month after intervention
Method of measurement
viscan

8

Description
% fat mass
Timepoint
before intervention and two month after intervention
Method of measurement
bioelectrical impedance analysis

9

Description
% free fat mass
Timepoint
before intervention and two month after intervention
Method of measurement
bioelectrical impedance analysis

10

Description
systolic blood pressure
Timepoint
before intervention and two month after intervention
Method of measurement
manometer

11

Description
diastolic blood pressure
Timepoint
before intervention and two month after intervention
Method of measurement
manometer

Secondary outcomes

empty

Intervention groups

1

Description
The control group take 3 capsules daily
Category
Placebo

2

Description
intervention group take 3 capsules daily
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Enghlab dormitory
Full name of responsible person
Dr. Nhid Aryaeian
Street address
Enghlab dormitory, Enghlab square, Tehran
City
Tehran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice-chancellor for research, Tehran University of Medical Sciences
Full name of responsible person
Dr. Akbar Fotouhi
Street address
Tehran University of Medical Sciences, Ghods St., Keshavarz Blvd, Tehran, Iran.
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice-chancellor for research, Tehran University of Medical Sciences
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

Tehran University of Medical Sciences

Full name of responsible person

Milad Tajmanesh

Position

Master student

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