Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

The Response of Leptin Plasma, 17-Beta Estradiol Serum and Insulin to 24-weeks Aerobic Exercise in Inactive obese Women

Protocol summary

Summary

Thus the goal of this research is to study the response of Leptin Plasma, 17-beta estradiol serum and insulin to 24-weeks aerobic exercise in inactive obese women. 15 inactive obese women were chosen randomly and were categorized in two different groups; i.e. aerobic exercise and control. The exercise process included aerobic exercises for 6 months (three 60-minute sessions per week).BMI, fat percentage,Leptin, 17-beta estradiol serum and insulin levels measured before and after the 24 weeks of training period.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2012122611528N3**
Registration date: **2013-01-21, 1391/11/02**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2013-01-21, 1391/11/02

Registrant information

Name

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Name of organization / entity

Ferdowsi University of Mashhad

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Ferdowsi University of Mashhad

Expected recruitment start date

2012-04-13, 1391/01/25

Expected recruitment end date

2012-06-14, 1391/03/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Response of Leptin Plasma, 17-Beta Estradiol Serum and Insulin to 24-weeks Aerobic Exercise in Inactive obese Women

Public title

Effect of regular aerobic exercise on hormones

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: Healthy; No drug based on the Health questionnaire; Non-menopausal; No participating in any exercise program. Exclusion criteria: Presence of any illness; menopause; drug consumption; smoking; participating in any exercise program

Age

From **37 years** old to **47 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
Blinding (investigator's opinion)
Double blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Vice chancellor for research, Ferdowsi University
Street address
Ferdowsi University of Mashhad, Azadi Square, Mashhad
City
Mashhad
Postal code
Approval date
2012-04-08, 1391/01/20
Ethics committee reference number
215

Health conditions studied

1

Description of health condition studied
obesity
ICD-10 code
E66
ICD-10 code description
obesity

Primary outcomes

1

Description
Leptin
Timepoint
48 hours before exercise program and 48 hours after the last session after 6 months exercise
Method of measurement
48 hours before exercise program and 48 hours after the last session after 6 months exercise

2

Description
17-beta estradiol
Timepoint
48 hours before exercise program and 48 hours after the last session after 6 months exercise
Method of measurement
48 hours before exercise program and 48 hours after the last session after 6 months exercise

3

Description
Insulin
Timepoint
48 hours before exercise program and 48 hours after the last session after 6 months exercise
Method of measurement
48 hours before exercise program and 48 hours after the last session after 6 months exercise

Secondary outcomes

1

Description
body mass index
Timepoint
48 hours before exercise program and 48 hours after the last session after 6 months exercise
Method of measurement
weight/ (hight)*(hight)

2

Description
fat percent
Timepoint
48 hours before exercise program and 48 hours after the last session after 6 months exercise
Method of measurement
caliper

Intervention groups

1

Description
The exercise protocol included aerobic (endurance) exercise training lasted to 6 months and 3 sessions per week and every session lasted to 60 minutes and with intensity of 55-65 percent of heart rate reserve
Category
Other

2

Description
control:Lack of exercise participation
Category
Diagnosis

Recruitment centers

1

Recruitment center

Name of recruitment center
Ferdowsi University of Mashhad

Full name of responsible person
Mahtab Moazemi

Street address

City
Mashhad

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Vice chancellor for research, Ferdowsi university of Mashhad

Full name of responsible person
Mahtab Moazemi

Street address
Faculty of Physical Education and Sport Sciences, Ferdowsi university, Azadi square, Mashhad

City
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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
Vice chancellor for research, Ferdowsi university of Mashhad

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
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Person responsible for updating data

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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