

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison the Effect of 8 Weeks Aerobic and Combined Training on levels of Leptin and Fasting Blood Glucose in People with Type 2 Diabetes

Protocol summary

Summary

The purpose of this study is to investigate and comparison the effects of 8 weeks aerobic training and combined training on levels of leptin and fasting blood glucose in men with type 2 diabetes. Twenty four men with type 2 diabetes who visit the diabetes center of Taleghani hospital in Kermanshah city, from June to August 2012, and be volunteer to participate in the study, will be subjects of this this clinical trial. Subjects should have a body mass index of more than 25, fasting blood glucose of lower than 300 milligram per deciliter, and ability to perform exercise training program. To perform the study procedure, subjects will randomly assign into 3 groups (n=8): aerobic training, combined training, and control group. Subjects in the training groups will perform exercise training for 8 weeks (3 sessions; each session for 1 hour) and subjects in the control group will not participate in any exercise program. Aerobic training will include running with 60 to 80 percent of maximal heart rate and combined training will include performing aerobic and resistance training in a session. Before and after the intervention period, levels of leptin hormone and fasting blood glucose will be measured to investigate the effects of exercise training interventions.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201406106611N2**

Registration date: **2014-06-30, 1393/04/09**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-06-30, 1393/04/09

Registrant information

Name

Zahra Bayat

Name of organization / entity

The University of Tehran

Country

Iran (Islamic Republic of)

Phone

+98 83 3822 9422

Email address

zahra_bayat2008@yahoo.com

Recruitment status

Recruitment complete

Funding source

Razi University of Kermanshah, Kermanshah university of Medical Science

Expected recruitment start date

2012-05-21, 1391/03/01

Expected recruitment end date

2012-07-22, 1391/05/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison the Effect of 8 Weeks Aerobic and Combined Training on levels of Leptin and Fasting Blood Glucose in People with Type 2 Diabetes

Public title

Comparison the Effect of 8 Weeks Aerobic and Combined Training on levels of Leptin and Fasting Blood Glucose in People with Type 2 Diabetes

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion Criteria: Suffering from type 2 diabetes; a body

mass index of more than 25; ability to perform exercise training program; a fasting blood glucose level lower than 300 mg.dL-1 Exclusion criteria: not meeting the prescribed diet and drug regimen by diabetes center; any acute disease during the study period; Absence from a training protocol session

Age

No age limit

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **24**

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

Kermanshah University of Medical Sciences

Street address

Shahid Beheshti Blv-Kermanshah

City

Kermanshah

Postal code

Approval date

2014-06-08, 1393/03/18

Ethics committee reference number

9839

Health conditions studied

1

Description of health condition studied

Type 2 Diabete

ICD-10 code

E11

ICD-10 code description

Non-insulin-dependent diabetes mellitus

Primary outcomes

1

Description

Level of Leptin Hormone

Timepoint

Two days before and after the intervention

Method of measurement

ng/ml- With Blood Test

2

Description

Fasting Blood Glucose

Timepoint

Two days before and after the intervention

Method of measurement

mg/dl-With Blood Test

Secondary outcomes

empty

Intervention groups

1

Description

Aerobic Training Group: 8 weeks of aerobic exercise, 3 times a week, 1 hour per session

Category

Other

2

Description

Combined training group: 8 weeks of combined exercise training, 3 sessions a week, 1 hour per session performing resistance and aerobic training

Category

Other

3

Description

Control group: not participate in any exercise program during the intervention period

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Center of Diabete

Full name of responsible person

Dr Mehr Ali Rahimi

Street address

Center of Diabete-Shahid Beheshti Blv-Kermanshah

City
Kermanshah

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Razi University of Kermanshah

Full name of responsible person

Dr Vahid Tadibi

Street address

Bagh Abrisham-Kermanshah

City

Kermanshah

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Razi University of Kermanshah

Proportion provided by this source

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

2

Sponsor

Name of organization / entity

Kermanshah university of Medical Science

Full name of responsible person

Dr Farid Najafi

Street address

Shahid Beheshti Blv, Kermanshah

City

Kermanshah

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Kermanshah university of Medical Science

Proportion provided by this source

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

Razi University

Full name of responsible person

Dr Vahid Tadibi

Position

Associate Professor in Exercise Physiology/Faculty member

Other areas of specialty/work

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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