

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 2026

Effect of circuit resistance training and jogging exercise training on of metabolic syndrome of females with diabetes type II

Protocol summary

Summary

Purpose: Comparison the effect of circuit resistance training and jogging exercise training on the metabolic syndrome of females with diabetes type II. Thirty women with type II diabetes and body mass index 29.90 ± 3.98 kg/m² were randomly divide to circuit resistance training; jogging training and control group. Circuit resistance training is consist of 8 station with 40- 65% 1RM and also leg extensions, lying leg curl; bench press; Cable triceps push down; front arm, leg press; Cable Row and Sit-ups. Jogging training is include; 25-50 min with 45-75% of maximum heart rate. Inclusion criteria are: Lack of training exercises in the past year ; Maximum age 60 years; Fast blood glucose more than of 126 mg/d. exclusion criteria: Patients with Acute cardiovascular disease and Joint and bone diseases. Before and after 12 weak exercise; body composition; blood samples and Blood pressure will be estimated .Body composition is consist of: weight; waist circumference; height; blood glucose . blood samples is consist of: fasting blood glucose; HbA1c and blood lipid indexes.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015111122498N3**

Registration date: **2016-02-06, 1394/11/17**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2016-02-06, 1394/11/17

Registrant information

Name

Ramin Shabani

Name of organization / entity

Islamic Azad University

Country

Iran (Islamic Republic of)

Phone

+98 13 3375 2715

Email address

shabani@iaurasht.ac.ir

Recruitment status

Recruitment complete

Funding source

Rasht Branch, Islamic Azad University

Expected recruitment start date

2013-04-21, 1392/02/01

Expected recruitment end date

2013-08-22, 1392/05/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of circuit resistance training and jogging exercise training on of metabolic syndrome of females with diabetes type II

Public title

Effect of circuit resistance training and jogging training in diabetes type II

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria are: Lack of exercise training in one year ago; Maximum age of 60 years; Fast blood glucose more than 126 mg/d. exclusion criteria are: Patients with Acute cardiovascular disease and Joint and bone diseases.

Age

From **40 years** old to **60 years** old

Gender

Female

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **30**

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

Ethics Committee, Islamic Azad University

Street address

Lakan gate, Azad University, Rasht Branch, Rasht

City

Rasht

Postal code

Approval date

2013-02-07, 1391/11/19

Ethics committee reference number

11721404912003

Health conditions studied

1

Description of health condition studied

diabetes type II

ICD-10 code

E10-E14

ICD-10 code description

Diabetes mellitus

Primary outcomes

1

Description

Fast blood sugar

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to milligrams per deciliter and by Baseline blood

2

Description

Waist circumference

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to cm and by Tape measure

3

Description

Triglyceride

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to milligrams per deciliter and by Baseline blood

4

Description

High-density lipoprotein

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to milligrams per deciliter and by Baseline blood

5

Description

Systolic Blood pressure

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to mm Hg and by Mercury Barometer

6

Description

Diastolic blood pressure

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to mmHg and by Mercury Barometer

Secondary outcomes

1

Description

Body mass index

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to Kg/m² and dividing body weight by the square of the height(m²)

2

Description

Glycated Haemoglobin

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to percent and by Baseline blood

3

Description

Total cholestrol

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to percent and by Milligrams per deciliter

4

Description

Low-density lipoprotein

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to Milligrams per deciliter and by Baseline blood

5

Description

Weight

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to kilograms and by balance

Intervention groups

1

Description

This training was with intensity of 60-75% maximum heart rate and duration 25-50 min. This training composed of walking and jogging for 3 days/week.

Category

Lifestyle

2

Description

Circuit resistance training: The Circuit resistance training consisted of leg extensions, lying leg curl, bench press, Cable triceps push down front arm, leg press, Cable Row and Sit-ups with 40-65 % 1RM. This training was to form of circuit with eight station and initiated 3 days/week for 3 month.

Category

Lifestyle

3

Description

No action

Category

Lifestyle

Recruitment centers

1

Recruitment center

Name of recruitment center

Ansari Hospital of Roudsar

Full name of responsible person

Maryam Sazgari

Street address

Enghelab Street, Shahrdari square, Diabetes Unit in Ansari Hospital of Roudsar, Roudsar, Guilan

City

Rodsar

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, University of Islamic Azad, Rasht Branch

Full name of responsible person

Dr. Ramin Shabani

Street address

Lakan gate, Azad University, Rasht Branch, Rasht

City

Rasht

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, University of Islamic Azad, Rasht Branch

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

Islamic Azad University, Rasht Branch

Full name of responsible person

Marzieh Nazari

Position

MA

Other areas of specialty/work**Street address**

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Full name of responsible person

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Position

PhD

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Islamic Azad Universit, Rasht Branch

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Position

MA

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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