

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

13 Jun 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  $29.90 \pm 3.98$  kg/m<sup>2</sup> 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 sugare

**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/m<sup>2</sup> and dividing body weight by the square of the height(m<sup>2</sup>)

## 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 cholstrol

### **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, Shahr-dari 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**

Lakan gate, Azad University, Rasht Branch, Rasht,  
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**Full name of responsible person**

Dr.Ramin Shabani

**Position**

PhD

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m\_nazari1390@yahoo.com

**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*