

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

30 Jul 2026

### Effects of 8-week combined training (strength and endurance) on AGRP, GH and changes in appetite and body mass in postmenopausal women

#### Protocol summary

##### Summary

The main purpose of this study is to investigate effects of 8-week combined training (strength and endurance) on AGRP, GH and changes in appetite and body mass in postmenopausal women. This study is a quasi-experimental research, 60 retired elderly woman of Education select purposely and randomly place into four groups of 15 subjects: endurance plus strength training, strength plus endurance training, interval concurrent training and control groups then the weight, height, body mass index, body fat percentage and Blood sample will be measure. Training programs will be perform for eight week, 3 times per week. Endurance training program Include a cycle ergo-meter and strength training program Include several upper and lower body workout. Forty-eight hours after the last training session all variables will be measured as per-test.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2016012619995N5**

Registration date: **2016-02-07, 1394/11/18**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2016-02-07, 1394/11/18

##### Registrant information

###### Name

Zahra Mardanpour Shahrekordi

###### Name of organization / entity

Shahrekord University

###### Country

Iran (Islamic Republic of)

##### Phone

+98 38 3232 4401

##### Email address

banitalebi@lit.sku.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Investigator

##### Expected recruitment start date

2014-03-07, 1392/12/16

##### Expected recruitment end date

2014-04-07, 1393/01/18

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Effects of 8-week combined training (strength and endurance) on AGRP, GH and changes in appetite and body mass in postmenopausal women

##### Public title

Effects of 8-week combined training in postmenopausal women

##### Purpose

Diagnostic

##### Inclusion/Exclusion criteria

Inclusion criteria: female; age between 58 to 70 years old; without experience of regular physical activity in one year before beginning of the study; the level of physical and mental health. Exclusion criteria: history of cardiovascular diseases, cancer, high blood pressure, diabetes, thyroid disease; addiction to any smoking, alcohol and narcotic substances; hormonal disorders; kidney or liver disease; surgery any medical intervention affecting the experimental results.

##### Age

From **58 years** old to **70 years** old

**Gender**  
Female

**Phase**  
N/A

**Groups that have been masked**  
*No information*

**Sample size**  
Target sample size: **60**

**Randomization (investigator's opinion)**  
Randomized

**Randomization description**

**Blinding (investigator's opinion)**  
Single blinded

**Blinding description**

**Placebo**  
Not used

**Assignment**  
Parallel

**Other design features**  
Aerobic training perform on a cycle ergomete and  
Resistance exercise with gym apparatus.

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics Committee of Shahrekord University

##### Street address

Rahbar Blvd, Shahrekord

##### City

Shahrekord

##### Postal code

#### Approval date

2014-03-06, 1392/12/15

#### Ethics committee reference number

190/579 م پ

## Health conditions studied

### 1

#### Description of health condition studied

Weight gain caused by menopause

#### ICD-10 code

N95

#### ICD-10 code description

Menopausal and other perimenopausal disorders

## Primary outcomes

### 1

#### Description

AGRP

#### Timepoint

Before and after 8 weeks of intervention

#### Method of measurement

ELISA kit for AGRP

### 2

#### Description

GH

#### Timepoint

Before and after 8 weeks of intervention

#### Method of measurement

ELISA kit for Interleukin-6

## Secondary outcomes

### 1

#### Description

Changes in appetite

#### Timepoint

Before and after 8 weeks of intervention

#### Method of measurement

Appetite questionnaire with Visual Analog Scale (VAS)

## Intervention groups

### 1

#### Description

Intervention group 1: The endurance plus strength training group follow an combined training program for 8 weeks Who in the first do endurance training program and then 2 minutes of rest do strength training program.

#### Category

Other

### 2

#### Description

Intervention group 2: The strength plus endurance training group follow an combined training program for 8 weeks Who in the first do strength training program and then 2 minutes of rest do endurance training program.

#### Category

Other

### 3

#### Description

Intervention group 3: The interval training group do rotating E plus S plus E plus S plus E plus S training programs , so that's the strength and endurance program was divided into three parts.

#### Category

Other

### 4

#### Description

Control group: The control group do not any regular physical activity in Daily life.

**Category**

Other

**Recruitment centers****1****Recruitment center****Name of recruitment center**

Department of Education region 1, Shahrekord city

**Full name of responsible person****Street address**

Danesh Sq., Shahrekord

**City**

Shahrekord

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Vice chancellor for research, Shahrekord University

**Full name of responsible person**

Dr. Ebrahim Banitalebi

**Street address**

Rahbar Blvd., Shahrekord

**City**

Shahrekord

**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, Shahrekord University

**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**

Shahrekord University

**Full name of responsible person**

Dr. Ebrahim Banitalebi

**Position**

PhD of Sport Physiology/Assistant Professor

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Shahrekord University

**Full name of responsible person**

Dr. Mohammad Faramarzi

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PhD of Sport Physiology/Associate Professor

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MSc, Exercise Physiology

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**Fax****Email****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*