

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

29 Jul 2026

### Effects of 8-week different combined training (strength and endurance) on serum levels of IL-6, TNF- $\alpha$ in aged women

#### Protocol summary

##### Summary

The main purpose of this study is to investigate effects of 8-week different combined training on serum levels of IL-6 and TNF- $\alpha$  in aged 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.

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##### Email address

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##### 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

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2014121019995N2**

Registration date: **2014-12-25, 1393/10/04**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2014-12-25, 1393/10/04

##### Registrant information

##### Name

Zahra Mardanpour Shahrekordi

##### Name of organization / entity

Shahrekord University

##### Country

Iran (Islamic Republic of)

##### Phone

##### Scientific title

Effects of 8-week different combined training (strength and endurance) on serum levels of IL-6, TNF- $\alpha$  in aged women

##### Public title

Effects of 8-week different combined training in aged women

##### Purpose

Diagnostic

##### Inclusion/Exclusion criteria

Inclusion criteria: female; 58 to 70 years; 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**

The effect of sequence order of combined training (resistance and endurance) on the body performance of older women

**Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

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**

Relationship of sequence order of combined training (resistance and endurance) on Inflamm-aging

**ICD-10 code**

R54

**ICD-10 code description**

Senility

**Primary outcomes****1****Description**

IL-6

**Timepoint**

Before and after 8 weeks of intervention

**Method of measurement**

ELISA kit for Interleukin-6

**2****Description**TNF- $\alpha$ **Timepoint**

Before and after 8 weeks of intervention

**Method of measurement**ELISA kit for TNF- $\alpha$ **Secondary outcomes****1****Description**

Fasting glucose

**Timepoint**

Before and after 8 weeks of intervention

**Method of measurement**

ELISA kit for Fasting glucose

**2****Description**

Insulin

**Timepoint**

Before and after 8 weeks of intervention

**Method of measurement**

ELISA kit for Insulin

**3****Description**

Insulin resistance

**Timepoint**

Before and after 8 weeks of intervention

**Method of measurement**

The insulin resistance index by the (HOMA-IR) formula.

**Intervention groups****1****Description**

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**

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**

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**

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 of Shahrekord city

**Full name of responsible person**

**Street address**

**City**

Shahrekord

**Sponsors / Funding sources**

**1**

**Sponsor**

**Name of organization / entity**

Shahrekord University

**Full name of responsible person**

Dr Ebrahim Banitalebi

**Street address**

Rahbar Blvd, Shahrekord

**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**

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**

Ph.D of Sport Physiology/Assistant Professor

**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*