# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

17 Sep 2026

## Effect of sesame seeds consumption on metabolic syndrome components, serum level of Angiotensin II and Adiponectin in women with metabolic syndrome

## Protocol summary

**Summary**

The aim of this randomized clinical trial is to determine the effects of sesame seed consumption on metabolic syndrome components, serum level of Angiotensin II and Adiponectin in women with metabolic syndrome. Fifty patients aged between 30 to 65 years old are assigned randomly into two groups. All participants have healthy diet during 6-weeks duration of study. Subjects in intervention group consume 50 gram sesame seed powder for 6 weeks. Anthropometric and blood pressure measurements, 3 day 24h dietary recalls and fasting blood samples are collected at the beginning and at the end of study. Fasting blood sugar, lipid profile, Angiotensin II and Adiponectin are measured. The participants are asked not to change their medicine and activity during the study and refrain from sesame and their products while on the study

## General information

**Acronym**

**IRCT registration information**

IRCT registration number: **IRCT2014051814680N2**
Registration date: **2014-06-10, 1393/03/20**
Registration timing: **retrospective**

Last update:
Update count: **0**

**Registration date**

2014-06-10, 1393/03/20

**Registrant information**

**Name**

Farideh Shishehbor

**Name of organization / entity**

Ahvaz Jundishapur University of Medical Sciences

**Country**

Iran (Islamic Republic of)

**Phone**

+98 61 3373 8430

**Email address**

shishehbor-f@ajums.ac.ir

**Recruitment status**

**Recruitment complete**

**Funding source**

Ahvaz Joundishapour University of Medical Science

**Expected recruitment start date**

2014-02-15, 1392/11/26

**Expected recruitment end date**

2014-03-11, 1392/12/20

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

Effect of sesame seeds consumption on metabolic syndrome components, serum level of Angiotensin II and Adiponectin in women with metabolic syndrome

**Public title**

Effect of sesame on metabolic syndrome

**Purpose**

Treatment

**Inclusion/Exclusion criteria**

Inclusion criteria: adult woman over 30 years old, subjects having 3 or more of the criteria for diagnosis of metabolic syndrome (waist circumference 80cm and more, triglycerides 150 mg/dl and more, High Density Lipoprotein Cholesterol 50mg/dl and more, fasting blood sugar 100 mg/dl and more , blood pressure 130/85mmHg and more.Exclusion criteria: history of alcohol abuse and drug dependence; hormonal therapy; acute or chronic

inflammatory; history of cancer; use of multivitamin-mineral and antioxidant supplements 6 months prior to the study; a restrictive diet or weight change 5 kg and more during 3 months prior to study; pregnancy and lactating; and sesame allergy.

**Age**
From **30 years** old to **65 years** old

**Gender**
Female

**Phase**
N/A

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

**Sample size**
Target sample size: **50**

**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 of Ahvaz Joundishapour University of Medical Science

**Street address**
Ahvaz Joundishapour University of Medical Science

**City**
ahvaz

**Postal code**

**Approval date**
2014-02-24, 1392/12/05

**Ethics committee reference number**
NRC-9214

## Health conditions studied

### 1

**Description of health condition studied**
Metabolic Syndrome

**ICD-10 code**
E88

**ICD-10 code description**
Other metabolic disorders

## Primary outcomes

### 1

**Description**
Systolic and diastolic blood pressure

**Timepoint**
baseline and after 6 weeks

**Method of measurement**
Aneroid sphygmomanometer

### 2

**Description**
Fasting blood sugar

**Timepoint**
baseline and after 6 weeks

**Method of measurement**
Spectrophotometry

### 3

**Description**
Total Cholesterol

**Timepoint**
baseline and after 6 weeks

**Method of measurement**
Spectrophotometry

### 4

**Description**
Triglyceride

**Timepoint**
baseline and after 6 weeks

**Method of measurement**
Spectrophotometry

### 5

**Description**
Low Density Lipoprotein Cholesterol

**Timepoint**
baseline and after 6 weeks

**Method of measurement**
Friedewald Formula

### 6

**Description**
High Density Lipoprotein Cholesterol

**Timepoint**
baseline and after 6 weeks

**Method of measurement**
Spectrophotometry

### 7

**Description**
Waist circumference

**Timepoint**
baseline and after 6 weeks

**Method of measurement**

Midway between the lower rib margin and the iliac crest

**8**

**Description**
Angiotensin II
**Timepoint**
baseline and after 6 weeks
**Method of measurement**
ELIZA

**9**

**Description**
Adiponectin
**Timepoint**
baseline and after 6 weeks
**Method of measurement**
ELIZA

## Secondary outcomes

**1**

**Description**
Dietary Factors
**Timepoint**
during duration of study
**Method of measurement**
3-day 24h dietary recalls

**2**

**Description**
Body Mass Index
**Timepoint**
Baseline and after 6 weeks
**Method of measurement**
Formula

**3**

**Description**
Insuline
**Timepoint**
Baseline and after 6 weeks
**Method of measurement**
ELIZA

## Intervention groups

**1**

**Description**
Intervention Group: having healthy diet and daily 50 g sesame seed powder consumption for 6 weeks
**Category**
Lifestyle

**2**

**Description**
Control Group: having healthy diet
**Category**
Lifestyle

## Recruitment centers

**1**

**Recruitment center**
**Name of recruitment center**
Golestan Hospital
**Full name of responsible person**
**Street address**
golestan Avn
**City**
ahvaz

## Sponsors / Funding sources

**1**

**Sponsor**
**Name of organization / entity**
Vice Chancellor for research of Ahvaz Joundishapour University of Medical Science
**Full name of responsible person**
Dr Farideh Shishehbor
**Street address**
Ahvaz Joundishapour University of Medical Science
**City**
ahvaz
**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 of Ahvaz Joundishapour University of Medical Science
**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**
Para medicine Faculty, Ahvaz Joundishapour University of Medical Science
**Full name of responsible person**
Negar Hojati
**Position**
MSc Student of Nutrition Science
**Other areas of specialty/work**
**Street address**

Ahvaz Joundishapour University of Medical Science
**City**
Ahvaz
**Postal code**
**Phone**
+98 61 1373 8319
**Fax**
**Email**
negar_hojati@yahoo.com
**Web page address**

## Person responsible for scientific inquiries

**Contact**
**Name of organization / entity**
Ahvaz Joundishapour University of Medical Science
**Full name of responsible person**
Negar Hojati
**Position**
MSc Student of Nutrition Science
**Other areas of specialty/work**
**Street address**
Ahvaz Joundishapour University of Medical Science
**City**
Ahvaz
**Postal code**
**Phone**
+98 61 1373 8319
**Fax**
**Email**
negar_hojati@yahoo.com
**Web page address**

## Person responsible for updating data

**Contact**
**Name of organization / entity**
Ahvaz Joundishapour University of Medical Science
**Full name of responsible person**
Negar Hojati
**Position**
MSc Student of Nutrition Science
**Other areas of specialty/work**
**Street address**
Ahvaz Joundishapour University of Medical Science
**City**
Ahwaz
**Postal code**
**Phone**
+98 61 1373 8319
**Fax**
**Email**
negar_hojati@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*