

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

26 May 2026

### Effect of different oil consumption on serum lipids in adults of Isfahan City

#### Protocol summary

##### Summary

This study was done to compare the effects of liquid, semi-hydrogenated (free trans fatty acid) and ghee oils with hydrogenated, oil on serum lipids profile of healthy adults. This study was a randomized clinical trial conducted on 200 healthy participants aged 20-60 years old who were beneficiaries of Imam-e-Zaman charity Association. The participants were randomly assigned into 5 groups and each group was treated with a diet containing cooking and frying liquid, ghee, semi-hydrogenated oil (free trans fatty acid), soft margarine or hydrogenated for 40 days. Fasting serum lipids, including total cholesterol (TC), triglyceride (TG), LDL-C, HDL-C, apoprotein A (Apo A), and apoprotein B (Apo B) were measured before and after the study.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT138905124497N1**

Registration date: **2010-11-26, 1389/09/05**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2010-11-26, 1389/09/05

##### Registrant information

###### Name

Noushin Mohammadifard

###### Name of organization / entity

Isfahan Cardiovascular Research Center, Isfahan University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 31 1337 7883

###### Email address

mohammadifard@crc.mui.ac.ir

###### Recruitment status

**Recruitment complete**

###### Funding source

Isfahan Cardiovascular Research Center, Isfahan University of Medical Sciences

###### Expected recruitment start date

2006-09-23, 1385/07/01

###### Expected recruitment end date

2009-06-20, 1388/03/30

###### Actual recruitment start date

empty

###### Actual recruitment end date

empty

###### Trial completion date

empty

###### Scientific title

Effect of different oil consumption on serum lipids in adults of Isfahan City

###### Public title

Effect of different oil on serum lipids

###### Purpose

Prevention

###### Inclusion/Exclusion criteria

Inclusion criteria: Normal HTN, no diabetes, no cardiovascular diseases Exclusion criteria: TC $\geq$ 240mg/dl, TG $\geq$ 400mg/dl, LDL-C $\geq$ 160mg/dl, HDL-C $\geq$ 40mg/dl, body mass index (BMI)  $\geq$ 35

###### Age

From **20 years** old to **60 years** old

###### Gender

Both

###### Phase

1

###### Groups that have been masked

No information

### Sample size

Target sample size: 200

### 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

Research Council of Cardiovascular Research Center,  
ISfahan University of Medical Sciences

##### Street address

Cardiovascular Research Center, Sedigheh Tahereh  
Research Center, Khoram St.

##### City

Isfahan

##### Postal code

1148-81465

#### Approval date

empty

#### Ethics committee reference number

84112

## Health conditions studied

### 1

#### Description of health condition studied

Hyperlipidemia

#### ICD-10 code

E78.5

#### ICD-10 code description

Hyperlipidemia

## Primary outcomes

### 1

#### Description

Total Cholesterol

#### Timepoint

Before and 40 days after the interventiondays

#### Method of measurement

Measurement (Autoanalyzer)

### 2

#### Description

Triglyceride

#### Timepoint

Before and 40 days after the interventiondays

#### Method of measurement

Measurement (Autoanalyzer)

### 3

#### Description

LDL

#### Timepoint

Before and 40 days after the interventiondays

#### Method of measurement

Calculating by Friedewald Formula

### 4

#### Description

HDL

#### Timepoint

Before and 40 days after the interventiondays

#### Method of measurement

Measurement (Autoanalyzer)

### 5

#### Description

Apoprotein A

#### Timepoint

Before and 40 days after the interventiondays

#### Method of measurement

Measurement (Autoanalyzer)

### 6

#### Description

Apoprotein B

#### Timepoint

Before and 40 days after the intervention

#### Method of measurement

Measurement (Autoanalyzer)

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Unhydrogenated oil and Frying oil, Dosage: Calculating based on individual dietary pattern Period: 40 days  
Usage method: In diet

#### Category

Prevention

### 2

#### Description

Semihydrogenated oil (Free trans fatty acid), Dosage:

Calculating based on individual dietary pattern Period: 40 days Usage method: In diet

**Category**

Prevention

**3**

**Description**

Ghee oil, Dosage: Calculating based on individual dietary pattern Period: 40 days Usage method: In diet

**Category**

Prevention

**4**

**Description**

Soft Margarine, Dosage: Calculating based on individual dietary pattern Period: 40 days Usage method: In diet

**Category**

Prevention

**Recruitment centers**

**1**

**Recruitment center**

**Name of recruitment center**

Emam-e-Zaman Charity Association

**Full name of responsible person**

**Street address**

**City**

Isfahan

**Sponsors / Funding sources**

**1**

**Sponsor**

**Name of organization / entity**

Isfahan Cardiovascular Research Center, Isfahan University of Medical Sciences

**Full name of responsible person**

Ahmad Bahonar

**Street address**

Isfahan Cardiovascular Research Center, Sedigheh Tahereh Research Center, Khoram St.

**City**

Isfahan

**Grant name**

**Grant code / Reference number**

**Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

Isfahan Cardiovascular Research Center, Isfahan University of Medical Sciences

**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**

Isfahan Cardiovascular Research Center, Isfahan University of Medical Sciences

**Full name of responsible person**

Noushin Mohammadifard

**Position**

MSc Nutrition, Head of Nutrition Department

**Other areas of specialty/work**

**Street address**

Sedigheh Tahereh Research Center, Khoram St.

**City**

Isfahan

**Postal code**

81465-1148

**Phone**

+98 31 1337 7883

**Fax**

+98 31 1337 3435

**Email**

mohammadifard@crc.mui.ac.irnmohammadifard@gmail.com

**Web page address**

**Person responsible for scientific inquiries**

**Contact**

**Name of organization / entity**

Cardiovascular Research Center, Isfahan University of Medical Sciences

**Full name of responsible person**

Nizal Sarrafzadegan

**Position**

Professor of Cardiac Department, Medicine Faculty, Isfahan Univeersity of Medical Sciences, Cardiolo

**Other areas of specialty/work**

**Street address**

Sedigheh Tahereh Research Center, Khoram St.

**City**

Isfahan

**Postal code**

81465-1148

**Phone**

+98 31 1337 7889

**Fax**

+98 31 1337 3435

**Email**

nsarrafzadegan@gmail.com

**Web page address**

**Person responsible for updating data**

**Contact**

**Name of organization / entity**

Cardiovascular Reseach Center, ISfahan Universityof  
Medical Sciences

**Full name of responsible person**

Noushin Mohammadifard

**Position**

MSc of Nutrition, Head of Nutrition Department

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

Sedigheh Tahereh Research Center, Khoram St.

**City**

Isfahan

**Postal code**

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**Phone**

+98 31 1337 7883

**Fax**

+98 31 1337 3435

**Email**

mohammadifard@crc.mui.ac.irnmohammadifard@gm

ail.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*