# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

08 Nov 2026

## Comparative study of the effects of cinnamon and whortleberry for decreasing fasting blood sugar and HbA1c in patients with type 2 diabetes in Karaj city

## Protocol summary

**Summary**

The aim of this study is to compare the effects of cinnamon and whortleberry on reduction of Hb A1C and fasting blood sugar in patients with type II of diabetes. This is a randomized, double-blind, placebo controlled, multi-center trial with three groups. A total of 90 diabetic patients with fasting blood sugar more than or equal to 126 mg/dl and Hb A1C more than 6 percent who have no underlying disease, will be randomly allocated into the following three groups. The patients in the intervention groups will be treated with cinnamon or whortleberry, two 500 mg capsules per day after breakfast and lunch for three months. The patients in the control group will receive two 500 mg starch capsules per day after breakfast and lunch for three months. Body mass index (BMI), serum concentrations of fasting blood sugar, Hb A1C, and serum level of insulin will be checked before and three months after the intervention.

## General information

**Acronym**

**IRCT registration information**

IRCT registration number: **IRCT138905132892N2**
Registration date: **2011-04-07, 1390/01/18**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

**Registration date**

2011-04-07, 1390/01/18

**Registrant information**

**Name**

Mani Mirfeizi

**Name of organization / entity**

Islamic Azad University Karaj branch

**Country**

Iran (Islamic Republic of)

**Phone**

00982614403254/ 00982614182580/ 00982614455635

**Email address**

mani@kiau.ac.ir

**Recruitment status**

**Recruitment complete**

**Funding source**

Vice chancellor for research, Islamic Azad University of Karaj branch

**Expected recruitment start date**

2010-08-23, 1389/06/01

**Expected recruitment end date**

2011-08-23, 1390/06/01

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

Comparative study of the effects of cinnamon and whortleberry for decreasing fasting blood sugar and HbA1c in patients with type 2 diabetes in Karaj city

**Public title**

The effects of cinnamon and whortleberry for treatment of diabetes

**Purpose**

Treatment

**Inclusion/Exclusion criteria**

Inclusion criteria: Diabetic patients with fasting blood sugar more than or equal to 126 mg/dl, Hb A1C above 6 percent, not having any underlying disease, treating with oral hypoglycemic drugs Exclusion criteria: Presence of

underlying disease like as renal, connective tissue, cardiac, thyroid, or adrenal diseases, Following an especial type of diet or doing exercise; receiving insulin or taking cinnamon or whortleberry supplemental products; Smoking, drinking alcohol; pregnancy, lactation

**Age**
No age limit

**Gender**
Both

**Phase**
2

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

**Sample size**
Target sample size: **90**

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

**Randomization description**

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

**Blinding description**

**Placebo**
Used

**Assignment**
Parallel

**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

**Ethics committee**

**Name of ethics committee**
Ethic committee of Islamic Azad university of Karaj branch

**Street address**
Crossroad of Moazen Blv and Esteghlal Blv, Rajaeeshahr, Karaj, Mailbox: 31485-313

**City**
Karaj

**Postal code**

**Approval date**
2010-08-15, 1389/05/24

**Ethics committee reference number**
001

## Health conditions studied

### 1

**Description of health condition studied**
Diabetes mellitus type II

**ICD-10 code**
E10-E14

**ICD-10 code description**

## Primary outcomes

### 1

**Description**
Serum fassting blood sugar

**Timepoint**
Before intervention, one and half and three months after intervention

**Method of measurement**
Serological test with Electro Komolomynsans method with using of the company's ROCHE kits

### 2

**Description**
Serum Hb A1C

**Timepoint**
Before intervention and three months after intervention

**Method of measurement**
Serological test with Electro Komolomynsans method with using of the company's ROCHE kits

## Secondary outcomes

### 1

**Description**
Serum insulin

**Timepoint**
Before intervention and three months after intervention

**Method of measurement**
Serological test with Electro Komolomynsans method with using of the company's ROCHE kits

### 2

**Description**
Body mass index

**Timepoint**
Before intervention, one and half and three months after intervention

**Method of measurement**
According to kg/m2 with using standard meter and scale

## Intervention groups

### 1

**Description**
For control group: Two 500 mg starch capsules per day after breakfast and lunch for three months

**Category**
Placebo

### 2

**Description**
For second intervention group: Two 500 mg whortleberry capsules per day after breakfast and lunch for three months

**Category**

Treatment - Drugs

**3**

**Description**
For first intervention group: Two 500 mg cinnamon capsules per day after breakfast and lunch for three months
**Category**
Treatment - Drugs

## Recruitment centers

**1**

**Recruitment center**
**Name of recruitment center**
Endocrinology Clinic of Dr. Mani Mirfeizi
**Full name of responsible person**
Dr. Mani Mirfeizi
**Street address**
Omid physician building, Beheshti Avenue, Karaj
**City**
Karaj

## Sponsors / Funding sources

**1**

**Sponsor**
**Name of organization / entity**
Vice chancellor for research, Islamic Azad University of Karaj branch
**Full name of responsible person**
Dr. Abas Ahmadi
**Street address**
Vice chancellor for research, Islamic Azad University of Karaj branch, Crossroad of Moazen Blv and Esteghlal Blv, Rajaeeshahr, Karaj
**City**
Karaj
**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, Islamic Azad University of Karaj 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 Karaj branch
**Full name of responsible person**
Dr. Mani Mirfeizi
**Position**
Professor of Internal medicine / Dean of Nursing and Midwifery Karaj branch
**Other areas of specialty/work**
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Crossroad of Moazen Blv and Esteghlal Blv, Rajaeeshahr, Karaj, Nursing & midwifery faculty
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## Person responsible for scientific inquiries

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## Person responsible for updating data

**Contact**
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Zahra Mehdizadeh Toorzani
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Master of midwifery
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+98 21 3372 5785

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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*