Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

The effect of eight weeks of progressive aerobic activity with consumption of green tea and green coffee on fat oxidation and blood pressure in overweight girls

Protocol summary

Study aim

This study aims to investigate the effect of eight weeks of progressive aerobic activity along with the consumption of green tea and green coffee on fat oxidation and blood pressure in overweight girls.

Design

In order to select a statistical sample, the disease history questionnaire will be distributed in the sports clubs of Kermanshah and they will be asked to participate in this research voluntarily if they wish. Also, in this invitation, explanations about the research method and training program were presented. Based on this, using Morgan's table, 48 people will be invited to participate in the briefing session and randomly divided into four experimental groups 1 (exercise + green coffee, 12 people), experimental group 2 (exercise + green tea, 12 people), experimental group 3 (exercise + green coffee + green tea, 12 people) and control group 4 (exercise, 12 people) will be placed.

Settings and conduct

Anil sports club is located in Kermanshah, Farhangian area, phase one, corner of Amir Kabir intersection

Participants/Inclusion and exclusion criteria

The statistical population will include 200 inactive overweight girls with an age range of 20 to 27 years with a body mass index of 27 ± 2.5 referring to sports clubs in Kermanshah city in 1401.

Intervention groups

Based on this, using Morgan's table, 48 people were invited to participate in the briefing session and randomly divided into four experimental groups 1 (exercise + green coffee, 12 people), experimental group 2 (exercise + green tea, 12 people), Experimental group 3 (exercise + green coffee + green tea, 12 people) and control group 4 (exercise, 12 people) will be placed.

Main outcome variables

Variables of systolic blood pressure, diastolic blood pressure, HDL, LDL and total cholesterol, body mass index, body fat percentage, waist to hip ratio and triglycerides

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20221213056809N1**
Registration date: **2023-01-24, 1401/11/04**
Registration timing: **retrospective**

Last update: **2023-01-24, 1401/11/04**
Update count: **0**

Registration date

2023-01-24, 1401/11/04

Registrant information

Name

Vahid Kazemizadeh

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

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Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-09-26, 1401/07/04

Expected recruitment end date

2022-11-07, 1401/08/16

Actual recruitment start date

empty

Actual recruitment end date
empty
Trial completion date
empty

Scientific title
The effect of eight weeks of progressive aerobic activity with consumption of green tea and green coffee on fat oxidation and blood pressure in overweight girls

Public title
The effect of eight weeks of progressive aerobic activity with consumption of green tea and green coffee on fat oxidation and blood pressure in overweight girls
Purpose
Health service research
Inclusion/Exclusion criteria
Inclusion criteria:
. None of the subjects had a history of chronic diseases such as cardiovascular diseases, diabetes, various cancers, kidney and digestive disorders, or any type of injury or problem that prevents them from participating in physical activities.
Exclusion criteria:
Age
From **20 years** old to **27 years** old
Gender
Female

Phase
3
Groups that have been masked

- Participant
- Care provider
- Investigator
- Outcome assessor
- Data analyser
- Data and Safety Monitoring Board

Sample size
Target sample size: **48**
Randomization (investigator's opinion)
Randomized
Randomization description
The subjects were examined in four groups by a simple random selection method. In relation to randomization, the names of 48 subjects are written on special cards and placed in a bag, and the cards are selected one after the other. After choosing each card from the bag, the card was placed in the bag again.
Blinding (investigator's opinion)
Triple blinded
Blinding description
The herbal supplement was distributed to the intervention group and the placebo to the control group by the laboratory officials based on the randomization results announced by the laboratory supervisor, and the researchers did not know the results of the randomization and the type of package they delivered to the subjects. The researcher only had to provide the supplement necessary for the intervention and deliver it to the laboratory supervisor.
Placebo
Used
Assignment
Other
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Kermanshah University of Medical Sciences
Street address
Shahid Beheshti Blvd., Building No. 2 of Medical Sciences, Research and Technology Vice-Chancellor
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Province
Kermanshah
Postal code
6714673159
Approval date
2022-09-26, 1401/07/04
Ethics committee reference number
IR.KUMS.REC.1401.268

Health conditions studied

1

Description of health condition studied
overweight girls
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Fat oxidation and blood pressure
Timepoint
After grouping the subjects, the first blood draw will be done (one day before training, consumption of green coffee/green tea). At the beginning of the session, the height of the subjects will be measured using a Seka stadiometer, made in Germany, without shoes. Weight measurement will be done without shoes and with a Seka digital scale made in Germany. Then, the body composition of the people was calculated using the body analysis device of Javon model made in South Korea. One day after taking blood in the first stage and measuring the physical and physiological indicators in all four groups, the subjects will participate in progressive aerobic exercises for three days a week for eight weeks. The experimental groups will receive green tea or green coffee or both depending on the experimental group for

eight weeks.

Method of measurement

At the beginning of the session, the height of the subjects will be measured using a Seka stadiometer, made in Germany, without shoes. Weight measurement will be done without shoes and with a Seka digital scale made in Germany. Then, the body composition of the people will be calculated using the body analysis device Javon model made in South Korea. Green coffee and green tea approved by the Food and Drug Organization will be purchased from a reputable store with a special powder grinder, every day 20 minutes before breakfast and 20 Minutes before lunch at the same time, they will receive tea. After finishing the last session in all groups, the second blood sampling will be done before breakfast. Also, the physical and physiological indicators of the subjects will be measured.

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: green coffee and green tea approved by the Food and Drug Organization will be purchased from a reputable store with a special grinder, the experimental groups will receive the amount of green coffee equal to 3 mg per kilogram of body weight and the amount of green tea equal to 3 mg per kilogram of body weight. The body will receive 250 ml of boiling water in separate containers every day 20 minutes before breakfast and 20 minutes before lunch at the same time. After finishing the last session in all groups, the second blood sampling was done before breakfast. Also, the physical and physiological indicators of the subjects will be measured. To implement the progressive aerobic exercise program, the subjects of the experimental and control groups in an eight-week aerobic exercise program, three sessions a week, each session 60 minutes with an intensity of 65 to 85% of the maximum heart rate according to table (1) after measurement Anthropometric characteristics will be included. The program of one session included 10 minutes of warm-up, 30 minutes of aerobic exercise (aerobic) running and local movements, and 5 minutes of cooling down, which started with an intensity of 65% of the maximum heart rate and 5% every two weeks. In the last week, reach 85% of the maximum heart rate

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Islamic Azad university

Full name of responsible person

Nasrin Babaei

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Sponsors / Funding sources

1

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Name of organization / entity

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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

Islamic Azad University

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity
Islamic Azad University
Full name of responsible person
Tooraj Mohammad Zamani
Position
Associate professor
Latest degree
Ph.D.
Other areas of specialty/work
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
It is possible to share data such as information about the main outcome or the like.
When the data will become available and for how long
The access period starts 6 months after the results are published
To whom data/document is available
It will be available only to researchers working in academic and scientific institutions
Under which criteria data/document could be used
There are no other conditions
From where data/document is obtainable
Nasrin Babaei 1, Tooraj Mohammad Zamani2, Vahid Kazemizadeh3 1- Department of Physical Education and Sports Sciences, Islamabad Gharb Branch, Islamic Azad University, Islamabad Gharb, Iran. 2- Department of Physical Education and Sports Sciences, Islamabad Gharb Branch, Islamic Azad University, Islamabad Gharb, Iran. 3- Department of Exercise Physiology, Faculty of Sports Sciences, Razi University, Kermanshah, Iran.
What processes are involved for a request to access data/document
The access period starts 6 months after the results are published
Comments