

Clinical Trial Protocol

Iranian Registry of Clinical Trials

26 Jul 2026

Effect of Six Weeks High Intensity Intermittent Training With and Without Turmeric Supplementation on Irisin, Thermogenin (UCP1) and visceral Fat in Obese Females

Protocol summary

Study aim

Effect of High Intensity Intermittent Training With and Without Turmeric Supplementation on Irisin, Thermogenin (UCP1) and visceral Fat in Obese Females

Design

Clinical trial with pre test- post test pattern, The goal of prevention, parallel groups, double blind, Sample size of 30 people in two groups (15 people in each group)

Settings and conduct

Coordination meetings, Initial measurements, Advice, Distribution of capsules and Exercises will be held at the persian Gulf club in Ayatollah Yektaei street. Blood sampling will be taken in Khalkhal Social Security Laboratory. Researcher and participants blinding for plasebo and turmeric capsuls will be done by third person.

Participants/Inclusion and exclusion criteria

Inclusion criteria: females aged 20 to 25 years old, obesity (Body Mass Index equal and greater than 30), Not having regular exercise training, not using drug and supplement. Exclusion criteria: Having disease ,Allergy to spices, Unwillingness to cooperate with the researcher

Intervention groups

Exercise group: 3 weeks preparation training (50 to 80 percent Heart Rate Reserve(HRR)) and 6 weeks High Intensity Intermittent Training (HIIT) (80 to 100 percent HRR). 4 session per week. Exercise and Supplement group: The above-mentioned protocol In addition Turmeric supplementation (3 milligram Curcumin per kilogram body weight per day)

Main outcome variables

Plasma Irisin, Thermogenin (UCP1) and visceral Fat Diameter

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180317039120N1**

Registration date: **2018-04-25, 1397/02/05**

Registration timing: **registered_while_recruiting**

Last update: **2018-04-25, 1397/02/05**

Update count: **0**

Registration date

2018-04-25, 1397/02/05

Registrant information

Name

Zahra Rostami Hashjin

Name of organization / entity

Tabriz University

Country

Iran (Islamic Republic of)

Phone

+98 41 3334 0081

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-04-09, 1397/01/20

Expected recruitment end date

2018-05-10, 1397/02/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Six Weeks High Intensity Intermittent Training With and Without Turmeric Supplementation on Irisin, Thermogenin (UCP1) and visceral Fat in Obese Females

Public title
Effect of high intensity Training and Turmeric on Obesity

Purpose
Prevention

Inclusion/Exclusion criteria
Inclusion criteria:
Having a BMI equal and greater than 30 Not having Special disease history and drug consumption (be healthy) Age range 20 to 25 years old
Exclusion criteria:
performing regular exercise training during last 6 month Allergy to spices Unwillingness to cooperate with the researcher

Age
From **20 years** old to **25 years** old

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **30**

Randomization (investigator's opinion)
Randomized

Randomization description
Using random numbers table, individuals will grouped into two groups

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Tabriz University of Medical Sciences

Street address

Research Vice-Chancellor, Third floor, Central Building No. 2, Tabriz University of Medical Sciences, Golgasht Ave

City

Tabriz

Province

East Azarbaijan

Postal code

5166616471

Approval date

2018-03-12, 1396/12/21

Ethics committee reference number

IR.TBZMED.REC.1396.1297

Health conditions studied

1

Description of health condition studied

Obesity

ICD-10 code

E66.9

ICD-10 code description

Obesity, unspecified

Primary outcomes

1

Description

Plasma Irisin Levels

Timepoint

Before Intervention and 48 hours after last intervention session

Method of measurement

ELISA Method

2

Description

Plasma UnCoupling protein 1 (UCP1) Levels

Timepoint

Before Intervention and 48 hours after last intervention session

Method of measurement

ELISA Method

3

Description

Visceral Fat Diameter

Timepoint

Before and After Training Intervention

Method of measurement

Ultrasound Method

Secondary outcomes

1

Description

Body composition indicators

Timepoint

Before and After Intervention

Method of measurement

Body mass index, Waist-hip ratio, Body Fat - Jackson/Pollock 3-Site Caliper Method tool

2

Description

Basal Metabolism Rate

Timepoint

Before and after Intervention

Method of measurement

Mifflin and St. Jeor Equation

3

Description

Insulin Resistance

Timepoint

Before and 48 hours after intervention

Method of measurement

HOMA-IR Formula

4

Description

maximal oxygen consumption (maximal aerobic capacity)

Timepoint

Before and after intervention

Method of measurement

Rockport test

5

Description

Plasma levels of Triglyceride, Cholesterol, LDL, HDL

Timepoint

Pre and post test

Method of measurement

Enzymatic method with AutoAnalyzer

6

Description

Liver Enzymes: Alanine Aminotransferase(ALT), Aspartate Aminotransferase (AST), Alkaline phosphatase(ALP)

Timepoint

Pre and post test

Method of measurement

Spectrophotometry

Intervention groups

1

Description

First Intervention group: Three weeks Preparation Period and Six weeks high intensity intermittent training (HIIT)

Category

Lifestyle

2

Description

Second Intervention group: First Intervention Training Protocol and turmeric Supplementation . 3 miligram

curcumin per kilogram body weight per day

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Health Center

Full name of responsible person

Mehdi Bahri Nesaz

Street address

Khalkhal Health Center, Mozzafar Azizi Ave

City

Khalkhal

Province

Ardabil

Postal code

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Email

Thelordofthebirds@yahoo.com

Web page address

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice-chancellor for Research and Technology of Tabriz University

Full name of responsible person

Abolghasem Jouyban

Street address

Tabriz University, 29 Bahman Blvd

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Phone

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ajouyban@hotmail.com

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 and Technology of Tabriz 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
University of Tabriz
Full name of responsible person
Zahra Rostami
Position
Student
Latest degree
Master
Other areas of specialty/work
Biochemistry and exercise metabolism
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Person responsible for scientific inquiries

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is a possibility of abuse

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is 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

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available

Title and more details about the data/document

Data file with encoding will be exposed

When the data will become available and for how long

6 Month after publication of results

To whom data/document is available

Everyone

Under which criteria data/document could be used

Use is not allowed

From where data/document is obtainable

Zahra Rostami

What processes are involved for a request to access data/document

Send request via email and receive

Comments