

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

The Effect of Six Weeks of Exercise Snacking and Turmeric Supplement on Hepatic Enzymes of People with Non-Alcoholic Fatty Liver Disease

Protocol summary

Study aim

To identify the effect of six weeks of exercise snacking and turmeric supplement on hepatic enzymes and fatty liver grade of people with non alcoholic fatty liver disease

Design

Clinical trial with control group, factorial design, single blinded, phase 3 on 40 patients. Randomization was done by an 8-sided dice.

Settings and conduct

After attending Dr. Samimi's office, participants will enter to the study, if they meet the requirements, and will be assigned to the either Exercise Snacking, Turmeric Supplement, Exercise Snacking and Turmeric Supplement, or Control group, randomly. They will be observed for six weeks and pretest and post test will be taken from them. This study is single blinded and the statistician and data analyst is not aware of the interventions.

Participants/Inclusion and exclusion criteria

The criteria for the study is being diagnosed with non alcoholic fatty liver disease and not having regular exercise and not taking turmeric supplement during a month prior to the starting date of the study.

Intervention groups

Intervention Group 1: Exercise Snacking: High intensity short intervals of bodyweight exercise lasting about 5 minutes, three times a day, three days a week for 6 weeks. The exercises are as follows: First day: Jumping Jacks, High Knee Taps, Burpee. Second day: Air Squats, Push Ups, Skater Hops. Third day: Seal Jacks, Squat Kicks, Calf Raises. Intervention Group 2: Turmeric Supplement: One curcumin tablet (450 milligrams) daily to be taken with food, Produced by Dineh Inc, for 6 weeks. Intervention Group 3: Exercise Snacking and Turmeric Supplement for 6 weeks. Control Group: Without any interventions

Main outcome variables

Alkaline phosphatase; Aspartate transaminase; Alanine

transaminase; Fatt liver grade

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20230225057528N1**

Registration date: **2023-04-23, 1402/02/03**

Registration timing: **registered_while_recruiting**

Last update: **2023-04-23, 1402/02/03**

Update count: **0**

Registration date

2023-04-23, 1402/02/03

Registrant information

Name

Behzad Gudarzi

Name of organization / entity

Imam Khomieni International University

Country

Iran (Islamic Republic of)

Phone

+98 21 6552 4357

Email address

s993172008@edu.ikiu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-04-04, 1402/01/15

Expected recruitment end date

2023-05-20, 1402/02/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effect of Six Weeks of Exercise Snacking and Turmeric Supplement on Hepatic Enzymes of People with Non-Alcoholic Fatty Liver Disease

Public title

The Effect of Exercise and Turmeric on non alcoholic Fatty Liver Disease

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

People with non alcoholic fatty liver disease who have not taken turmeric supplement or regular exercise in the last month.

Exclusion criteria:**Age**

No age limit

Gender

Both

Phase

3

Groups that have been masked

- Data analyser

Sample size

Target sample size: 40

Randomization (investigator's opinion)

Randomized

Randomization description

An 8-sided dice will be used for randomization. two numbers will be assigned to each groups and the dice will be rolled for each patient, and given the number on the dice, the participants will be in one of the four groups of Exercise Snacking, Turmeric Supplement, Exercise Snacking and Turmeric Supplement, and Control.

Blinding (investigator's opinion)

Single blinded

Blinding description

Blood test analysis and sonogram will be sent to the the statistician via office clerk. The results will be entered to SPSS and they will be labeled as 1, 2, 3, 4 for three intervention groups and one control group (that only the clerk will know of) and they will be analyzed by the statistician. Therefore, the statistician is not aware of the allocation of the interventions to the participants.

Placebo

Not used

Assignment

Factorial

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Research ethics committees of Qazvin University of Medical Sciences

Street address

Research and Technology Department, Maveddat Street, First Alley, Shahid Beheshti boulevard

City

Qazvin

Province

Qazvin

Postal code

3415613911

Approval date

2023-02-22, 1401/12/03

Ethics committee reference number

IR.QUMS.REC.1401.322

Health conditions studied**1****Description of health condition studied**

Non Alcoholic Fatty Liver Disease

ICD-10 code

K76.0

ICD-10 code description

Fatty (change of) liver, not elsewhere classified

Primary outcomes**1****Description**

Alanine transaminase

Timepoint

Prior to the intervention and one week after the intervention

Method of measurement

Blood test, Hitachi 912 Chemistry Analyzer

2**Description**

Aspartate transaminase

Timepoint

Prior to the intervention and one week after the intervention

Method of measurement

Blood test, Hitachi 912 Chemistry Analyzer

3**Description**

alkaline phosphatase

Timepoint

Prior to the intervention and one week after the intervention

Method of measurement

Blood test, Hitachi 912 Chemistry Analyzer

4

Description

Fatty liver grade

Timepoint

Prior to the intervention and one week after the intervention

Method of measurement

Ultrasound

Secondary outcomes

empty

Intervention groups

1

Description

Intervention Group 1: Exercise Snacking: High intensity short intervals of bodyweight exercise lasting about 5 minutes, three times a day, three days a week for 6 weeks. The exercises are as follows: First day: Jumping Jacks, High Knee Taps, Burpee. Second day: Air Squats, Push Ups, Skater Hops. Third day: Seal Jacks, Squat Kicks, Calf Raises.

Category

Treatment - Drugs

2

Description

Intervention Group 2: Turmeric Supplement, (450 milligram) produced by Dineh Inc, One tablet daily with food for six weeks

Category

Lifestyle

3

Description

Intervention group 3: Turmeric Supplement and Exercise Snacking. Exercise Snacking: High intensity short intervals of bodyweight exercise lasting about 5 minutes, three times a day, three days a week for 6 weeks. The exercises are as follows: First day: Jumping Jacks, High Knee Taps, Burpee. Second day: Air Squats, Push Ups, Skater Hops. Third day: Seal Jacks, Squat Kicks, Calf Raises. Turmeric Supplement, (450 milligram) produced by Dineh Inc, One tablet daily with food for six weeks

Category

Lifestyle

4

Description

Control group: No intervention

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Dr. Samimi's Office

Full name of responsible person

Rasoul Samimi

Street address

Dr Farzam's Lab, Second Floor, South Naderi Street

City

Qazvin

Province

Qazvin

Postal code

3521456987

Phone

+98 28 3322 0100

Email

dr.samimi@qums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Imam Khomeini International University

Full name of responsible person

Majid Ghadiri

Street address

Imam Khomeini International University

City

Qazvin

Province

Qazvin

Postal code

۳۵۱۴۸۹۶۸۱۸

Phone

+98 28 3390 1144

Email

ghadiri@eng.ikiu.ac.ir

Web page address

<http://ikiu.ac.ir/members/?id=211&lang=0>

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Imam Khomeini International 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

Imam Khomieni International University

Full name of responsible person

Behzad Gudarzi

Position

Student

Latest degree

Master

Other areas of specialty/work

Sport Medicine

Street address

No. 80, 13th Shaqayeq Street

City

Andhisheh Phase 1

Province

Tehran

Postal code

3354395917

Phone

+98 21 6552 4357

Fax**Email**

s993172008@edu.ikiu.ac.ir

Person responsible for scientific inquiries

Contact

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Imam Khomieni International University

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

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

Study Protocol

Undecided - It is not yet known if there will be 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

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

Clinical Study Report

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

Analytic Code

Not applicable

Data Dictionary

Not applicable