

Clinical Trial Protocol

Iranian Registry of Clinical Trials

23 Jul 2026

The effect of Aerobic and Resistance exercise training on liver enzymes, hepatic fat and inflammatory markers in individuals with Non-alcoholic fatty liver disease

Protocol summary

Summary

33 patients with non-alcoholic fatty liver from Clinic Digestive Baqiyatallah hospital will be selected. Inclusion criteria include having more than 5% of fat in the liver, according to the diagnosis through ultrasonography. Patients will be randomly divided into three groups. In the aerobic group, the intervention including 8 weeks of aerobic exercise – in resistance training groups, intervention consists of 8 weeks of resistance training. There will be no intervention in the control group. Before and after the study, lipid profile, hepatic fat, levels of liver enzymes and inflammatory factors are measured.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201701033871N1**
Registration date: **2017-01-24, 1395/11/05**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2017-01-24, 1395/11/05

Registrant information

Name

Alireza Shamsoddini

Name of organization / entity

Baqiyatallah University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 21 8248 3353

Email address

alirezaot@bmsu.ac.ir

Recruitment status

Recruitment complete

Funding source

Baqiyatallah University of Medical Sciences

Expected recruitment start date

2017-01-20, 1395/11/01

Expected recruitment end date

2017-04-21, 1396/02/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of Aerobic and Resistance exercise training on liver enzymes, hepatic fat and inflammatory markers in individuals with Non-alcoholic fatty liver disease

Public title

Effect of exercise on non-alcoholic fatty liver disease

Purpose

Treatment

Inclusion/Exclusion criteria

Criteria for the study, include: Having liver fat than 5% of diagnosed via ultrasound. Exclusion criteria were: (1) have heart disease and kidney (2) patients in order to increase insulin sensitivity (3) patients with type II diabetes.

Age

From **18 years** old to **50 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 33

Randomization (investigator's opinion)

Randomized

Randomization description**Blinding (investigator's opinion)**

Not blinded

Blinding description**Placebo**

Not used

Assignment

Other

Other design features**Secondary Ids**

empty

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

Baqiyatallah University of Medical Sciences

Street address

sheikh bahaei Str.

City

Tehran

Postal code**Approval date**

2014-01-05, 1392/10/15

Ethics committee reference number

6770

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

Non Alcoholic Fatty Liver Disease (NAFLD)

ICD-10 code

K76.0

ICD-10 code description

Fatty (change of) liver, not elsewhere classified

Nonalcoholic fatty liver disease (NAFLD)

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

fat profile

Timepoint

pre

Method of measurement

hemical Kit

2**Description**

ALT

Timepoint

pre and 2 month past

Method of measurement

laboratory kit

3**Description**

AST

Timepoint

pre and 2 month past

Method of measurement

laboratory kit

4**Description**

Hepatic Fat

Timepoint

pre and 2 month past

Method of measurement

laboratory kit

5**Description**

Insulin resistance

Timepoint

pre and 2 month past

Method of measurement

laboratory kit

Secondary outcomes

empty

Intervention groups**1****Description**

Intervention in the trial groups including aerobic and resistance exercise prescription for people with fatty liver.

Category

Other

2**Description**

control group receive no treatment

Category

N/A

Recruitment centers**1****Recruitment center****Name of recruitment center**

Baqiyatallah Hospital

Full name of responsible person**Street address**

City
Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Baqiyatallah University of Medical Sciences

Full name of responsible person

Alireza Shamsoddini

Street address

Baqiyatallah University of Medical Sciences

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Baqiyatallah 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

Baqiyatallah University of Medical Sciences

Full name of responsible person

Alireza Shamsoddini

Position

PhD

Other areas of specialty/work

Street address

Baqiyatallah University of Medical Sciences

City

Tehran

Postal code

Phone

+98 21 8248 2402

Fax

Email

alirezaot@bmsu.ac.iralirezaot23@yahoo.com

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity

Baqiyatallah University of Medical Sciences

Full name of responsible person

Alireza Shamsoddini

Position

Assistant Professor

Other areas of specialty/work

Street address

Baqiyatallah University of Medical Sciences

City

tehran

Postal code

Phone

+98 21 8248 2402

Fax

Email

alirezaot@bmsu.ac.ir

Web page address

Person responsible for updating data

Contact

Name of organization / entity

Full name of responsible person

Position

Other areas of specialty/work

Street address

City

Postal code

Phone

+98 21 8248 2402

Fax

+98 88600030

Email

alirezaot2bmsu.ac.ir

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