

Clinical Trial Protocol

Iranian Registry of Clinical Trials

19 Jun 2026

The effect of two intensity of resistance training on hepcidin levels, iron status and some inflammatory markers in obese/overweight girls with and without iron stores deficient

Protocol summary

Study aim

improved iron status with resistance training

Design

clinical training without control group intense training- ferritin under 30 moderate training- ferritin under 30 intense training- ferritin more than 30 moderate training- ferritin more than 30

Settings and conduct

use of elastic band for resistance training start training with blue elastic band continue training with 25% increase in tension after 4 week doing exercise for 10 week in salon

Participants/Inclusion and exclusion criteria

entry BMI more than 25

Intervention groups

intervention in this study was resistance training with moderate and high intense

Main outcome variables

reduce inflammation in obese girl , reduce fat mass in obese girl with elastic band, improved iron status, doing resistance training in home

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200406046974N1**

Registration date: **2020-04-13, 1399/01/25**

Registration timing: **retrospective**

Last update: **2020-04-13, 1399/01/25**

Update count: **0**

Registration date

2020-04-13, 1399/01/25

Registrant information

Name

nasim behzadnezhad

Name of organization / entity

Isfahan university

Country

Iran (Islamic Republic of)

Phone

+98 31 3559 7904

Email address

nbehzadnezhad@spr.ui.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-10-26, 1398/08/04

Expected recruitment end date

2019-11-10, 1398/08/19

Actual recruitment start date

2019-11-05, 1398/08/14

Actual recruitment end date

2019-11-13, 1398/08/22

Trial completion date

2020-01-21, 1398/11/01

Scientific title

The effect of two intensity of resistance training on hepcidin levels, iron status and some inflammatory markers in obese/overweight girls with and without iron stores deficient

Public title

resistance training, iron status in obese/overweight girls

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

BMI>۲۵

Exclusion criteria:

use iron pill in recent 6 month doing exercise in recent 6 month

Age

From **18 years** old to **22 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **40**

Actual sample size reached: **40**

Randomization (investigator's opinion)

Randomized

Randomization description

simple randomization

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

•Ethics committee of isfahan University

Street address

factulity of physical education in isfahan university,
azadi squer

City

Isfahan

Province

Isfahan

Postal code

8174643441

Approval date

2018-01-09, 1396/10/19

Ethics committee reference number

ir.ui.rec.1396.038

Health conditions studied

1

Description of health condition studied

iron status

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

hepcidin, iron status

Timepoint

before intervention, after 8 week intervention

Method of measurement

sample blood

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group:

Category

Lifestyle

Recruitment centers

1

Recruitment center

Name of recruitment center

labratory of physical education

Full name of responsible person

volga hosepian

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n.behzadnezhad8884@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Isfahan university

Full name of responsible person

Dr Fahimeh Esfarjani

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Email

f.esfarjani@yahoo.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Isfahan university

Proportion provided by this source

20

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

Isfahan university

Full name of responsible person

nasim behzanezhad

Position

phd student

Latest degree

Master

Other areas of specialty/work

Physiology

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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)

Yes - There is 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

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

shared with others

When the data will become available and for how long

4 month after published

To whom data/document is available

researchers in this field

Under which criteria data/document could be used

doing training protocol in this study

From where data/document is obtainable

email address of corresponding author

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

after one month survey by corresponding author

Comments