Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effect of whey protein on liver enzymes after intense eccentric contraction

Protocol summary

Summary
The objective of this study is to determine the effect of whey protein supplementation on Aspartate aminotransferase (AST) and Alkaline phosphates (ALP) as liver enzymes during muscle soreness induced by resistance exercise. Participants are non-athletes and no smoker. Subjects are 28 untrained boy students (78 ± 12 kg) and are divided glutamine (3 times/ 0.4 g per kg of body weight) and placebo groups by randomly. Blood samples will be taken before, immediately after and 24, 48 and 72 h after an intense resistance exercise session consist of leg eccentric contraction and analyzed for AST and ALP activity.

General information

Acronym

IRCT registration information
IRCT registration number: **IRCT2017052911979N4**
Registration date: **2017-06-09, 1396/03/19**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date
2017-06-09, 1396/03/19

Registrant information
Name
Mojtaba Eizadi
Name of organization / entity
Islamic Azad University, Saveh Branch
Country
Iran (Islamic Republic of)
Phone
+98 42 33342
Email address
izadim@iau-saveh.ac.ir

Recruitment status
Recruitment complete

Funding source
Islamic Azad University, Saveh Branch, Saveh, Iran
Islamic Azad University, Islamshahr Branch, Tehran, Iran

Expected recruitment start date
2015-11-22, 1394/09/01

Expected recruitment end date
2015-11-27, 1394/09/06

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Effect of whey protein on liver enzymes after intense eccentric contraction

Public title
The changes pattern of Aspartate Aminotransferase and Alkaline Phosphatase during delayed muscle soreness induced by resistance exercise in response to whey protein supplementation in sedentary boy students

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria: Inactive or non-trained; None smoker; None alcoholic; lack weight fluctuations more than One kilogram of over the last 6 months; No diet; No history of chronic diseases such as asthma, diabetes, cardiovascular disease, epilepsy, seizure, etc. Exclusion criteria: Medications or nutritional supplements during the study; Temporary illness such as fever, chills or diarrhea and inability to continue the study at any time of the implementation study

Age
From **18 years** old to **24 years** old

Gender

Male

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **28**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Double blinded
Blinding description
Placebo
Used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Islamic Azad University, Saveh Branch
Street address
Department of Exercise Physiology, Islamic Azad University, University twon, Saveh
City
saveh
Postal code
3919715179
Approval date
2013-02-26, 1391/12/08
Ethics committee reference number
224

Health conditions studied

1

Description of health condition studied
nutrition
ICD-10 code
R74.0
ICD-10 code description
Elevation of levels of transaminase and lactic acid dehydrogenase [LDH]

Primary outcomes

1

Description
Aspartate Amino transferase (AST)
Timepoint
before exercise, 0, 24, 48 and 72 hours after exercise test
Method of measurement
U/L

2

Description
alkaline phosphatase (ALP)
Timepoint
before exercise, 0, 24, 48 and 72 hours after exercise test
Method of measurement
U/L

Secondary outcomes

empty

Intervention groups

1

Description
Whey protein supplementation for experimental group (0.4 g per 1 kg of body weight, 1 time daily for 3 days, oral, Solubility in water
Category
Treatment - Drugs

2

Description
Maltodextrin for placebo group, (0.4 g per 1 kg of body weight, 1 time daily for 3 days, oral, Solubility in water
Category
Placebo

Recruitment centers

1

Recruitment center
Name of recruitment center
Islamic Azad University, Saveh Branch, Iran
Full name of responsible person
Mojtaba Eizadi
Street address
Islamic Azad University, University town, Iran
City
saveh

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Islamic Azad University, Saveh Branch
Full name of responsible person
Anoosh Eghdami
Street address

Islamic Azad University, University town, Iran

City

saveh

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Islamic Azad University, Saveh Branch

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

Islamic Azad University, Saveh Branch

Full name of responsible person

Anoosh Eghdami

Position

Assistant professor of Biochemistry, Research Assistant

Other areas of specialty/work

Street address

Islamic Azad University, University town, Iran

City

saveh

Postal code

Phone

+98 86 4243 3030

Fax

Email

eghdami_a@yahoo.co.in

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity

Department of Exercise Physiology, Islamic Azad University, Saveh Branch, Iran

Full name of responsible person

Mojtaba Eizadi

Position

Assistant professor of Exercise Physiology

Other areas of specialty/work

Street address

Islamic Azad University, University town, Iran

City

saveh

Postal code

Phone

+98 21 4454 9621

Fax

Email

izadimojtaba2006@yahoo.comizadim@iau-saveh.ac.ir

Web page address

Person responsible for updating data

Contact

Name of organization / entity

Islamic Azad University, Saveh Branch, Iran

Full name of responsible person

Anoosh Eghdamy

Position

Assistant professor of Biochemistry

Other areas of specialty/work

Street address

Islamic Azad University, Saveh Branch, Iran

City

saveh

Postal code

Phone

+98 86 4243 3030

Fax

Email

eghdami_a@yahoo.co.in

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