Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

The effect of Glutamine supplementation on muscle damage markers after Eccentric resistance exercise in untrained men

Protocol summary

Summary

The overall objective of the project: determining the amino acid glutamine supplementation on indices of muscle damage after eccentric resistance exercise in untrained men. Methods: this study is experimental subjects young male student volunteers normal weight (BMI between 19 and 25) University of Applied Sciences are Persepolis sport activities, dietary supplements, not drugs and painkillers and diet plans follow a specific pattern. In the case of the 7 days before the test, each of the above criteria are not respected subjects excluded from the study. A week before the test and after completing health questionnaires and consent form, the subject during a meeting with the means and methods of measure are introduced. At the same session, making Weight and height which, as the record of the meeting and recorded in knee extension subject to. Prior to the training program to measure fasting subjects index case (the enzyme creatine kinase) cc 5 of venous blood from the forearm to get , motion range as measured by a goniometer and also muscle pain perception index by 6 - point scale (PAS) Shylaja (2003) will be evaluated, subjects drank his drink for 30 minutes after eating , then start doing the exercise protocol to damage to the muscle . Supplement for 1 / 0 g glutamine per kg of body weight (Karen pharmaceutical company) was combined with 300 ml of water and placebo groups Maltv dextrin (Karen pharmaceutical company) the amount of water used to be ¬ . Delayed Onset Muscle Soreness (DOMS) and muscle damage in the muscles of the lower body with the knee extended, with about 70% 1RM weights similar research project LarocheDain (2005) be cause [6] . 24 and 48 hours after eccentric activity, an index of blood (CK), plus perceptions of muscle pain and range of motion should be evaluated again making .

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014040810826N7**
Registration date: **2014-07-26, 1393/05/04**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2014-07-26, 1393/05/04

Registrant information

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Recruitment status

Recruitment complete

Funding source

Individual & National Olympic Academy

Expected recruitment start date

2014-02-20, 1392/12/01

Expected recruitment end date

2014-04-21, 1393/02/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of Glutamine supplementation on muscle damage markers after Eccentric resistance exercise in

untrained men

Public title
The effect of Glutamine supplementation on muscle damage markers
Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria: men; non athletes; non-smokers with normal BMI and age between 20 to 30 years old.
Exclusion criteria: being athlete; smoking; an abnormal BMI (under weight - overweight and obesity) and non-compliance with conditions such as changes in diet during the study; taking drug or certain supplements and age less than 20 years over 30 years old.
Age
From **20 years** old to **30 years** old
Gender
Male

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **80**
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
Shahid Sadooghi University of Medical Sciences
Street address
Shahid Sadooghi University of Medical Sciences, Imam Hossein Square
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8944157963
Approval date
2014-02-08, 1392/11/19
Ethics committee reference number
223114/17/پ

Health conditions studied

1

Description of health condition studied
Muscle damage
ICD-10 code
M-63
ICD-10 code description
Disorders of muscle in diseases classified elsewhere

Primary outcomes

1

Description
Serum creatine kinase enzyme
Timepoint
Zero, 24 and 48 hours after intervention
Method of measurement
Level of enzyme activity by photometric method.

2

Description
Muscle pain perception
Timepoint
Zero, 24 and 48 hours after intervention
Method of measurement
Pain is measured using a scale numbered graphics PAS

3

Description
Range of motion
Timepoint
Zero, 24 and 48 hours after intervention
Method of measurement
Goniometer Lafayette

Secondary outcomes

empty

Intervention groups

1

Description
0.1 grams of glutamine per kg of body weight (Karen pharmaceutical company) was combined with 300 ml of water
Category
Prevention

2

Description
Maltodextrin Placebo group of 0.1 grams per kilogram of body weight, which is combined with 300 ml of water.
Category
Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center
Academic University - Applied Club
Full name of responsible person
Dr. Vajihollah Cheshmesari
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Tehran Highway, 25th st., Azadegan Boulevard, Kurdistan
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Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
National Olympic Academy
Full name of responsible person
Dr. Mohammad Reza Sharif
Street address
Enghelab Sports Complex, Seul st.
City
Tehran
Grant name
ندارد
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
National Olympic Academy
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

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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