

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

09 Jun 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  $\rightarrow$  . 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

###### Name

Azadeh Nadjarzadeh

###### Name of organization / entity

Shahid Sadoughi University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 912 202 2817

###### Email address

azadnajarzadeh@ssu.ac.ir

##### 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

##### City

Yazd

##### Postal code

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

**Street address**

Tehran Highway, 25th st., Azadegan Boulevard,  
Kurdistan

**City**

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

**Name of organization / entity**

Shahid Sadooghi University of Medical Sciences

**Full name of responsible person**

Hadi Atarod

**Position**

Student of Medicine

**Other areas of specialty/work**

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## Person responsible for scientific inquiries

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Assistant professor

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## Person responsible for updating data

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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*