

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Jun 2026

The effect of 8 weeks of milk protein concentrate supplementation on the level of blood lactate ,creatine kinase ,lactate dehydrogenase ,c-reactive protein in CrossFit men

Protocol summary

Study aim

Determining the effect of 8 weeks of milk protein concentrate supplementation on blood lactate, creatine kinase, lactate dehydrogenase and C-reactive protein levels in CrossFit men.

Design

A controlled, parallel-group, double-blind, randomized, phase 2 clinical trial on 100 patients. The rand function of Excel software was used for randomization.

Settings and conduct

Both groups will do crossfit exercises for 8 weeks and 4 sessions every week. Both groups will take 40 grams of the prescribed supplement and placebo one hour before going to sleep every night for 8 weeks. Exercises will be done in the Crossfit gym in Qasr Shirin city.

Participants/Inclusion and exclusion criteria

Inclusion criteria: being at least 18 years old; Maximum 35 years; Having at least 6 months of training experience in CrossFit Exclusion criteria: no injuries, no smoking and alcohol consumption; Not taking medical drugs or any sports supplements

Intervention groups

Using the table of random numbers, the subjects were divided into two groups: supplement with exercise and placebo with exercise. The supplement group with training consumed milk protein concentrate and the placebo group consumed maltodextrin with training.

Main outcome variables

Blood lactate, lactate dehydrogenase, creatine kinase, reactive protein c

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20231228060556N1**

Registration date: **2024-02-14, 1402/11/25**

Registration timing: **registered_while_recruiting**

Last update: **2024-02-14, 1402/11/25**

Update count: **0**

Registration date

2024-02-14, 1402/11/25

Registrant information

Name

Sajad Yavari

Name of organization / entity

The University of Razi

Country

Iran (Islamic Republic of)

Phone

+98 83 4242 5563

Email address

syavari698@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-01-10, 1402/10/20

Expected recruitment end date

2025-03-10, 1403/12/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of 8 weeks of milk protein concentrate supplementation on the level of blood lactate ,creatine kinase ,lactate dehydrogenase ,c-reactive protein in

CrossFit men

Public title

Investigating the effect of milk protein concentrate supplementation on CrossFit athletes.

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

Age range from 20 to 35 years Having at least 6 months of CrossFit training experience

Exclusion criteria:

Having an injury Taking any medical drugs or nutritional or sports supplements Using tobacco or alcohol or psychotropic drugs

Age

From **20 years** old to **35 years** old

Gender

Male

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **36**

Randomization (investigator's opinion)

Randomized

Randomization description

Tables of Random numbers are prepared by computers that arrange numbers randomly.

Blinding (investigator's opinion)

Double blinded

Blinding description

In this research work, a person outside the research work was requested to help us as a helper in determining the supplement and placebo group. Then he determined the desired groups using a table of random numbers.

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Kermanshah University of Medical Sciences

Street address

No. 4, Farvardin 3 Ave., Perozzi Street

City

Qhaser-shirin

Province

Kermanshah

Postal code

6781733931

Approval date

2023-11-29, 1402/09/08

Ethics committee reference number

IR.RAZI.REC.1402.089

Health conditions studied

1

Description of health condition studied

The effect of milk protein concentrate on inflammatory factors in CrossFit athletes

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Blood lactate

Timepoint

Before starting and after the end of 8 weeks

Method of measurement

By Blood measurements

2

Description

Lactate dehydrogenase

Timepoint

Before starting and after the end of 8 weeks

Method of measurement

By Blood measurements

3

Description

Reactive Protein C

Timepoint

Before starting and after the end of 8 weeks

Method of measurement

By Blood measurements

4

Description

Creatine Kinase

Timepoint

Before starting and after the end of 8 weeks

Method of measurement

By Blood measurements

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: The intervention group consists of 12 CrossFit athletes who receive 40 grams of milk protein concentrate daily one hour before bed for 8 weeks and do CrossFit training 4 times a week.

Category

Other

2

Description

Control group: The control group consists of 12 CrossFit athletes who receive 40 grams of maltodextrin placebo one hour before bed for 8 weeks and do CrossFit training 4 times a week.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Persian experimenters

Full name of responsible person

Sajad Yavari

Street address

Parsian Laboratory, Corner of Sixth Alley, Mustafa Emami Blvd, Kermanshah city

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Province

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Postal code

67146-35585

Phone

+98 83 3822 8075

Email

syavari698@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

razi university

Full name of responsible person

mostafa mostafae

Street address

kermanshah-razi-university

City

Kermanshah

Province

Kermanshah

Postal code

6714414971

Phone

+98 83 3428 3272

Email

mo.azizi@razi.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

razi university

Proportion provided by this source

100

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

The University of Razi

Full name of responsible person

Sajad Yavari

Position

Student

Latest degree

Bachelor

Other areas of specialty/work

Nutrition

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Person responsible for scientific inquiries

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be 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

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available