

Clinical Trial Protocol

Iranian Registry of Clinical Trials

08 Jun 2026

The effect of vitamin C supplementation on the salivary immunoglobulin A, cortisol and total protein concentrations following an exhaustive training program

Protocol summary

Summary

study aims: Regarding to avoid of compromising the immune system after exhaustive exercise and the role of micronutrients in this background, the aim of this study was to investigate the effect of vitamin C supplementation on the salivary immunoglobulin A, cortisol and total protein concentration on active girls college following exhaustive physical activity program. Inclusion Key criteria was that must participants be athlete and not suffering the common cold, exclusion Key criteria have been that subjects be involving common cold, The study population girl students of Lorestan University of Physical Education and the sample size were in the first of the twenty-four that participated voluntarily Then, was reduced to seventeen sample size because of loss of participants during performances and randomly assigned into three groups: exercise - vitamin C supplementation (n=6), exercise (n=5) and control group (n = 6). exercise - vitamin C supplementation group perform study physical activity program for 7 days in AM and PM, with receive 500 mg vitamin C tablets in a fasting term daily, exercise groups performed same protocol without supplementation receive, and the control group performed neither the physical activity nor received the supplement. Saliva samples were collected one day before starting the physical activity program and also 24 and 72 hours after the last session, in 9/30 morning then The factors immunoglobulin A, cortisol and salivary total protein were measured that are as the primary outcome variable of the study.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016063028429N2**
Registration date: **2016-07-07, 1395/04/17**

Registration timing: **na**

Last update:

Update count: **0**

Registration date

2016-07-07, 1395/04/17

Registrant information

Name

Mohammd Fathi

Name of organization / entity

Lorestan University

Country

Iran (Islamic Republic of)

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Recruitment status

Not enough for processing

Funding source

Investigator

Expected recruitment start date

2016-02-27, 1394/12/08

Expected recruitment end date

2015-08-09, 1394/05/18

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of vitamin C supplementation on the salivary immunoglobulin A, cortisol and total protein concentrations following an exhaustive training program

Public title

The effect of vitamin C on the mucosal immune system

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: athletes (at least have 8 hours per week of physical activity ; female; non suffering a common cold and specific diseases Exclusion criteria: suffering a common cold during the execution of the training program

Age

From **20 years** old to **29 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **17**

Randomization (investigator's opinion)

Not randomized

Randomization description**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**

Lorestan University

Street address

Lorestan University

City

Khoramabad

Postal code**Approval date**

2010-09-23, 1389/07/01

Ethics committee reference number

5974

Health conditions studied**1****Description of health condition studied**

Certain diseases have not been studied

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

IgA

Timepoint

Three times before the program, 24 and 72 hours after application

Method of measurement

Saliva samples

2**Description**

Cortisol

Timepoint

Three times before the program, 24 and 72 hours after application

Method of measurement

Saliva samples

3**Description**

Total protein

Timepoint

Three times before the program, 24 and 72 hours after application

Method of measurement

Saliva samples

Secondary outcomes

empty

Intervention groups**1****Description**

control group performed neither the physical activity nor received the supplement

Category

Prevention

2**Description**

exercise - vitamin C supplementation group perform study physical activity program for 7 days with receive 500 mg vitamin C tablets in a fasting term daily

Category

Prevention

3**Description**

exercise groups performed protocol without supplementation receive

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Lorestan University

Full name of responsible person

Mohammad Fathi

Street address

Lorestan University

City

Khormabad

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Lorestan University

Full name of responsible person

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Lorestan University

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

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Full name of responsible person

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Assistant Professor, Physical Education Department,
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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