

Clinical Trial Protocol

Iranian Registry of Clinical Trials

09 Jun 2026

Comparison of the effect of Piperine and Capsaicin on Nitric Oxide and Creatine Kinase after 8 weeks Tabata bodybuilding exercise

Protocol summary

Study aim

Comparison of Kreatine Kinase enzyme changes in response to taking Piperine and Capsaicin after 8 weeks Tabata

Design

Clinical trial with control group /Using a random number table and randomized, samples will set in groups. The sample size will be 10 people in each group.

Settings and conduct

The venue will be the club of Tan Ara in Gharchak. Blood sampling is done from both intervention and control groups. Then they will set in their groups: Peprin and Tabata groups, Capsaicin and Tabata groups and Ccontrol group. Then they will receive supplement and perform Tabata. At the end of 8 weeks of training and supplements, blood sampling will be done again. Blood samples are transmitted to the reference laboratory for the study of changes in Creatine Kinase and Nitric Oxide.

Participants/Inclusion and exclusion criteria

Entry requirements: Enough physical fitness/ Appropriate age/male Taekwondo athletes Conditions of non-arrival: Cigarette smoking/Supplement using/ Any kind of acute or chronic illness

Intervention groups

3 intervention groups: 1. Peprin and Tabata training , 2. Cepsiecin and Tabata, 3. Control Group

Main outcome variables

Changes of Nitric oxide ,Changes of Creatine Kinase

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20171210037809N3**

Registration date: **2019-07-27, 1398/05/05**

Registration timing: **registered_while_recruiting**

Last update: **2019-07-27, 1398/05/05**

Update count: **0**

Registration date

2019-07-27, 1398/05/05

Registrant information

Name

farah nameni

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 8843 6932

Email address

f.nameni@yahoo.co.uk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-06-26, 1398/04/05

Expected recruitment end date

2019-08-27, 1398/06/05

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of Piperine and Capsaicin on Nitric Oxide and Creatine Kinase after 8 weeks Tabata bodybuilding exercise

Public title

Effect of TABATA and Piperine and Capsaicin on Nitric Oxide and Creatine Kinase

Purpose

Other

Inclusion/Exclusion criteria

Inclusion criteria:

Lack of complementary supplementation use during the past six months Having physical fitness preparation required No history of any cardiovascular disease Having the necessary age requirement(20-25 years)

Exclusion criteria:

Cigarette smoking Using particular medication (insulin, aminophylline, fursomide)

Age

From **20 years** old to **25 years** old

Gender

Male

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

Names of male volunteer athletes of stadiums of Gharchak city who interested to cooperation was recorded(200-250)/then they will complete the questionnaire of entry standard/ 30 persons will be selected/ then they will be numbered and their names will be written on sheets and will be spilled in a bowl.One sheet will be selected in tern and the names will be in one of the groups(3 groups of 10 people)

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**

Ethics Committee of the Faculty of Medical Sciences, Islamic Azad University of Varamin Branch

Street address

Naghshe-Jahan Bulvar/University of Square/ IAU Varamin- Pishva -Branch/ Pishva/ Varamin/ IRAN IAU

City

Tehran

Province

Tehran

Postal code

1637876791

Approval date

2018-11-06, 1397/08/15

Ethics committee reference number**Health conditions studied****1****Description of health condition studied**

In this study, the effect of Tabata's training and consumption Capsaicin with Tabata's training and consumption of Peperin Will be compared.

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

Changes in Kreatine Kinase / Nitric Oxide enzymes

Timepoint

At the beginning of the study, after the start of the supplement and 8-week training period

Method of measurement

Use of special kits

Secondary outcomes**1****Description**

Changes in Creatine Kinase

Timepoint

The beginning of the study (before the intervention) and 8 weeks after completion of the supplementation and practice

Method of measurement

Kit :unit/ on international unit

2**Description**

Nitric Oxide

Timepoint

The beginning of the study (before the intervention) and 8 weeks after

Method of measurement

Nitric Oxide assay kit

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

Intervention group 1: Capsaicin is a food supplement that contains 500 mg capsules,that is used by America's Food NOW , Cayenne brand.That ,with a glass of water is taken, three times a day after eating, for 8 weeks.

Category

N/A

2

Description

Intervention group2 : Peprin Herbal and Edible Peppergin Capsules in Numeric Packages will be ,made in pharmaceutical company Kimia Farawar Booali Iran.Each capsule contains will be 2.55 mg Piperine and 1.38 mg Gingerols.The formulation of this product are from the extracts of Black Pepper, Long Pepper and Ginger.After a meal, a capsule ,twice and every time is taken .

Category

N/A

3

Description

Control group : No supplement /only Tabata exercise

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

All of sports halls in Gharchak

Full name of responsible person

Shahrzad sadat Abas-Abadi

Street address

Naghshe- Jahan Bulvar, University of Square / IAU Varamin/ Pishva.Pishva-Varamin-IRAN

City

Varamin

Province

Tehran

Postal code

33817-74895

Phone

+98 21 3672 5011

Fax

+98 21 3672 4767

Email

dastavard96@gmail.com

Web page address

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University

Full name of responsible person

Sharzad sadat Abas Abadi

Street address

IAU square. Naghshe- Jahan shahrak .Pishva . Varamin

City

Varamin

Province

Tehran

Postal code

33817-74895

Phone

+98 21 3672 5011

Fax

+98 21 3672 4767

Email

dastavard96@gmail.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Islamic Azad University

Proportion provided by this source

100

Public or private sector

Private

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Other

Person responsible for general inquiries

Contact

Name of organization / entity

Islamic Azad University

Full name of responsible person

Shahrzad sadat Abas-Abadi

Position

Teacher / Coach

Latest degree

Master

Other areas of specialty/work

Physiology

Street address

IAU square. Naghshe- Jahan shahrak .Pishva . Varamin

City

Varamin

Province

Tehran

Postal code

33817-74895

Phone

+98 21 3672 5013

Email

dastavard96@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

Islamic Azad University

Full name of responsible person

Sharzad Abas-Abadi

Position

Teacher/ Coach

Latest degree

Master

Other areas of specialty/work

Physiology

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IAU square. Naghshe- Jahan shahrak .Pishva .
Varamin

City

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Province

Tehran

Postal code

1637876791

Phone

+98 21 3672 5014

Email

dastavard96@gmail.com

Person responsible for updating data**Contact****Name of organization / entity**

Islamic Azad University

Full name of responsible person

Farah Nameni

Position

Assistant Professor

Latest degree

Ph.D.

Other areas of specialty/work

Physiology

Street address

IAU square. Naghshe- Jahan shahrak .Pishva .
Varamin

City

Varamin

Province

Tehran

Postal code

1637876791

Phone

+98 21 3672 5014

Email

f.nameni@yahoo.co.uk

Sharing plan**Deidentified Individual Participant Data Set (IPD)**

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

No more information

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available