

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Acute effect of sports energy drink consumption on liver enzyme, muscle damage and cardiovascular parameters during football match

Protocol summary

Study aim

The main purpose of this study is to investigate the effect of consuming sports energy drinks on liver enzyme, muscle damage and cardiovascular parameters during a football match

Design

The design of the present study is a cross-sectional, quasi-experimental, one-blinded in which 22 male soccer players will be selected by available methods. All participants will consume 2 250 ml Hype energy Drink daily (morning with breakfast and evening with evening) for 5 days before the game, before and immediately after the race, and 24 hours after the game. Then, after two weeks, all of the above conditions will be repeated, but this time the same 22 people will take a placebo containing sucrose water instead of a sports drink.

Settings and conduct

After a briefing session, the consent form, physical activity preparation questionnaires, health screening, and personal information will be completed in order to be aware of the absence of the mentioned diseases. The present research will be conducted on a football field in the city of Masal. Participants are not aware of the contents of the beverage bottle in two stages.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Gender (male), Age (18 to 30 years), Sports history (at least 5 years) Exclusion criteria: Smoking ingestion of energetic supplements in the past 1 months history of cardiovascular disease history of musculoskeletal disorders history of neurological and hormonal diseases

Intervention groups

Intervention group: energy drink. All participants will drink Hype energy drink 5 days before the match, before and immediately after, and 24 hours after the match. Intervention group: placebo. After a two-week break, all participants will drink a placebo 5 days before the race, before and immediately after, and 24 hours after the game.

Main outcome variables

Liver enzymes muscle damage indices cardiovascular parameters

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180503039517N7**

Registration date: **2021-01-17, 1399/10/28**

Registration timing: **registered_while_recruiting**

Last update: **2021-01-17, 1399/10/28**

Update count: **0**

Registration date

2021-01-17, 1399/10/28

Registrant information

Name

Soleyman Ansari Kolachahi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 13 3375 2906

Email address

solomonansari@phd.iaurasht.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-01-14, 1399/10/25

Expected recruitment end date

2021-02-09, 1399/11/21

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
Acute effect of sports energy drink consumption on liver enzyme, muscle damage and cardiovascular parameters during football match

Public title
The effect of energy drinks on liver, muscles, and cardiovascular factors in soccer

Purpose
Other

Inclusion/Exclusion criteria
Inclusion criteria:
Age (18-30 years) Gender (male) Have at least 5 years of football training experience
Exclusion criteria:
Smoking No ingestion of energetic supplements in the past 1 months No history of cardiovascular disease No history of musculoskeletal disorders No history of neurological and hormonal diseases No history of surgery

Age
From **18 years** old to **30 years** old

Gender
Male

Phase
N/A

Groups that have been masked

- Participant

Sample size
Target sample size: **22**

Randomization (investigator's opinion)
N/A

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description
In this study, participants are unaware of the drink assigned to themselves and other participants. Both drinks will be served in opaque containers.

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Islamic Azad University of Medical Sciences, Rasht Branch

Street address

Lakan Boulevard - Islamic Azad University, Rasht Branch

City

Rasht

Province

Guilan

Postal code

۴۱۴۷۶۵۴۹۱۹

Approval date

2020-10-28, 1399/08/07

Ethics committee reference number

IR.IAU.RASHT.REC.1399.081

Health conditions studied

1

Description of health condition studied

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Liver enzymes (aspartate aminotransferase, alanine aminotransferase, alkaline phosphatase)

Timepoint

fasting 5 days before the match, before the start of the match, at the end of 90 minutes of the match, and one day after the match

Method of measurement

Using Pars Azmon laboratory kit (made in Iran)

2

Description

Indicators of muscle damage (creatinase kinase, lactate dehydrogenase)

Timepoint

Fasting 5 days before the match, before the start of the match, at the end of 90 minutes of the match, and one day after the match

Method of measurement

Using Pars Azmon laboratory kit (made in Iran)

Secondary outcomes

1

Description

Systolic and diastolic blood pressure

Timepoint

One day before and one day after the game

Method of measurement

Using the Omron M6 digital SET from the arm vein in a sitting position

Intervention groups

1

Description

Intervention group: Intervention group: Energy drink. All participants will drink 2 hype 250 ml sports drinks daily (morning with breakfast and evening with dinner) for 5 days before the race, before and immediately after the race and 24 hours after the soccer match.

Category

Other

2

Description

Intervention group: placebo. After a two-week break, as in the previous step, all participants drank 2 250 ml placebo drinks containing water and sucrose daily (morning with breakfast and evening with evening) for 5 days before the race, before and immediately after They will consume from the match and 24 hours after the game.

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Masal County Football Board

Full name of responsible person

Alireza Elmieh

Street address

Islamic Azad University of Rasht Branch, Lakan Blv

City

Rasht

Province

Guilan

Postal code

4147654919

Phone

+98 13 3375 2906

Email

solomonansari@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University

Full name of responsible person

Alireza Seidavi

Street address

Islamic Azad University of Rasht Branch, Lakan Blv

City

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Province

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Postal code

4147654919

Phone

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Email

solomonansari@yahoo.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

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Islamic Azad University

Full name of responsible person

soleyman ansari

Position

Non-faculty specialist

Latest degree

Specialist

Other areas of specialty/work

Sport Medicine

Street address

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Person responsible for scientific inquiries

Contact

Name of organization / entity

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Full name of responsible person

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Position

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

Islamic Azad University

Full name of responsible person

Soleyman Ansari

Position

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Latest degree

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Other areas of specialty/work

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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

Due to the confidentiality of participants' information

Study Protocol

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

Statistical Analysis Plan

Not applicable

Informed Consent Form

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

Clinical Study Report

Not applicable

Analytic Code

Not applicable

Data Dictionary

Not applicable