Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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 soccers

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 (creatine 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
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Guilan
Postal code
4147654919
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+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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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
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Full name of responsible person
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Position
Non-faculty specialist

Latest degree
Specialist
Other areas of specialty/work
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Person responsible for updating data

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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