Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

Comparison of the Efficacy of 12 Weeks of Combined Training with and Without Taurine Supplementation on the Control of adipokines Indices in obese men

Protocol summary

Study aim
Comparison of the Efficacy of 12 Weeks of Combined Training with and Without Taurine Supplementation on the Control of adipokines Indices in obese men

Design
Clinical trial involving four groups: (1) a combined exercise intervention group with taurine supplementation (n=11), (2) an exercise intervention group with a placebo (n=11), (3) a taurine-only supplementation group (n=11), and (4) a placebo-only group (n=11). This is a single-blind, randomized trial.

Settings and conduct
This study is a single-blind clinical trial designed to investigate obese men in Sanandaj. Forty-four participants recruited from local sports clubs will be randomly allocated to four groups, each comprising 11 individuals: a combined exercise with taurine, an exercise with a placebo, a taurine-only supplementation group, and a placebo-only group. Participants will remain blinded to the contents of the capsules (supplement or placebo).

Participants/Inclusion and exclusion criteria
Inactivity among women aged 23-32 years, with general physical and mental health and a body mass index greater than 30 kg/m², is the focus of this study. Exclusion criteria include the presence of any physical or orthopedic lesions that interfere with exercise performance or hinder the ability to perform quality exercises

Intervention groups
In this group, participants will consume one 1 g taurine capsule daily (After breakfast, lunch, and dinner meals) for 12 weeks, supplied by Cayman Chemical, USA. The combined exercises consist of intermittent training with an intensity equivalent to 50–55% of maximum heart rate starting in the first week and progressively increasing to 70–75% of maximum heart rate in week 12, and resistance training with an intensity equivalent to 60% of one-repetition maximum for 12 weeks, 3 sessions per week, and 15 to 25 minutes per session.

Main outcome variables
Spexin, Asprosin

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20120129008863N13**
Registration date: **2025-11-17, 1404/08/26**
Registration timing: **prospective**

Last update: **2025-11-17, 1404/08/26**
Update count: **0**

Registration date
2025-11-17, 1404/08/26

Registrant information

Name
Keyvan Hejazi

Name of organization / entity
Ferdowsi University of Mashhad

Country
Iran (Islamic Republic of)

Phone
+98 51 1768 6790

Email address
ke_he981@stu-mail.um.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2025-11-21, 1404/08/30

Expected recruitment end date

2026-02-19, 1404/11/30

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Comparison of the Efficacy of 12 Weeks of Combined Training with and Without Taurine Supplementation on the Control of adipokines Indices in obese men

Public title
Comparison of the Efficacy of 12 Weeks of Combined Training with and Without Taurine Supplementation on the Control of adipokines Indices in obese men

Purpose
Health service research

Inclusion/Exclusion criteria

Inclusion criteria:
Inactive Female, aged 23 to 32 In good general physical and mental health Body mass index greater than 30 kg/m²

Exclusion criteria:
Any physical injury or orthopedic issue that interferes with training can hinder its quality

Age
From **23 years** old to **32 years** old

Gender
Male

Phase
N/A

Groups that have been masked

- Participant

Sample size
Target sample size: **44**

Randomization (investigator's opinion)
Randomized

Randomization description
This study will utilize a simple randomization method. Participants will be randomly divided into four groups: an intervention group receiving combined exercise with taurine supplementation (n=11), an exercise group with a placebo (n=11), a taurine supplementation-only group (n=11), and a placebo-only group (n=11). The randomization will be conducted at the individual level, whereby each of the 44 participating individuals will be assigned to one of the four groups. A computerized sequence will be used to randomly allocate participants to each group. This method ensures high accuracy and reproducibility and minimizes selection bias.The participant allocation sequence was generated using the Block Randomization method. Variable block sizes (e.g., 4 and 8) and a 1:1:1:1 allocation ratio were implemented to ensure a balanced distribution of participants across the four groups. This random sequence was produced by a reliable statistical software or a dedicated computer program. Specifically, the specialized statistical software SPSS version 26 was utilized to generate the allocation sequence.

Blinding (investigator's opinion)
Single blinded

Blinding description
The present study is a single-blind clinical trial. The single-blinding applies to the taurine and placebo consumption. Participants will read the research protocol during the first session. The supplement and placebo are contained in identical capsules. The capsules will be distributed among the participants. Only the researcher is aware of the contents of the capsules

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Hakim Sabzevari University

Street address
Hakim Sabzevari University, Tohid Shahr, Sabzevar; Department of Sport Sciences

City
Sabzevar

Province
Razavi Khorasan

Postal code
9617976487

Approval date
2025-10-25, 1404/08/03

Ethics committee reference number
IR.HSU.REC.1404.042

Health conditions studied

1

Description of health condition studied
Overweight and obesity

ICD-10 code
E66

ICD-10 code description
Overweight and obesity

Primary outcomes

1

Description
Spexin

Timepoint
Before the intervention and three months following it

Method of measurement
zellBio kit (mmol/l)

2

Description
Asprosin
Timepoint
Before the intervention and three months following it
Method of measurement
zellBio kit (mmol/l)

Secondary outcomes

1

Description
Body Mass Index (BMI) Kg/m2
Timepoint
Before the intervention and three months following it
Method of measurement
The body mass (kg) divided by the square of the body height (cm)

Intervention groups

1

Description
Intervention group:Exercise and Taurine GroupThis group consumes an oral capsule in three 1g doses (after breakfast, lunch, and dinner) daily for 12 weeks. The Taurine supplement is provided by the pharmaceutical company Cayman Chemical, USA. The combined exercise regimen includes: Interval Training: Intensity progressively increases from 50-55% to 70-75% of the HRmax. Resistance Training: Performed at an intensity equivalent to 60% of one-repetition maximum (1RM) for 12 weeks, consisting of 3 sessions per week, with each session lasting 15 to 25 minutes.
Category
Rehabilitation

2

Description
Intervention group: Exercise and Placebo Group: This group consumes a starch oral capsule in three 1 g doses (after breakfast, lunch, and dinner) daily for 12 weeks. The combined exercise regimen includes: Interval Training: Intensity progressively increases from 50-55% to 70-75% of the HRmax. Resistance Training: Performed at an intensity equivalent to 60% of 1RM for 12 weeks, consisting of 3 sessions per week, with each session lasting 15 to 25 minutes.
Category
Rehabilitation

3

Description
Intervention group: Taurine Group: This group consumes an oral capsule in three 1 g doses (after breakfast, lunch, and dinner) daily for 12 weeks.
Category
Rehabilitation

4

Description
Control group: Placebo Group: This group consumes a starch oral capsule in three 1 g doses (after breakfast, lunch, and dinner) daily for 12 weeks.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
University of Kurdistan
Full name of responsible person
Dr. Ayoub Saeidi
Street address
Iran, Sanandaj, Pasdaran Boulevard, University of Kurdistan
City
Sanandaj
Province
Kurdistan
Postal code
6617715175
Phone
+98 87 3366 4600
Email
a.saeidi@uok.ac.ir

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Research assistant of University of Kurdistan
Full name of responsible person
Dr. Bahman Bahramnejad
Street address
Iran, Sanandaj, Pasdaran Boulevard, University of Kurdistan
City
Sanandaj
Province
Kurdistan
Postal code
6617715175
Phone
+98 87 3366 4600
Email
b.bahramnejad@uok.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
Research assistant of University of Kurdistan
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
University of Kurdistan

Full name of responsible person
Ayoub Saeidi

Position
Assistant professor

Latest degree
Ph.D.

Other areas of specialty/work
Physiology

Street address
Iran, Sanandaj, Pasdaran Boulevard, University of Kurdistan

City
Sanandaj

Province
Kurdistan

Postal code
6617715175

Phone
+98 87 3366 4600

Email
a.saeidi@uok.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity
University of Kurdistan

Full name of responsible person
Ayoub Saeidi

Position
Assistant professor

Latest degree
Ph.D.

Other areas of specialty/work
Physiology

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Iran, Sanandaj, Pasdaran Boulevard, University of Kurdistan

City
Sanandaj

Province
Kurdistan

Postal code
6617715175

Phone
+98 87 3366 4600

Email
a.saeidi@uok.ac.ir

Person responsible for updating data

Contact

Name of organization / entity
University of Kurdistan

Full name of responsible person
Ayoub Saeidi

Position
Assistant professor

Latest degree
Ph.D.

Other areas of specialty/work
Physiology

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Province
Kurdistan

Postal code
6617715175

Phone
+98 87 3366 4600

Email
a.saeidi@uok.ac.ir

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available

Study Protocol
Yes - There is a plan to make this available

Statistical Analysis Plan
Yes - There is a plan to make this available

Informed Consent Form
Yes - There is a plan to make this available

Clinical Study Report
Yes - There is a plan to make this available

Analytic Code
Yes - There is a plan to make this available

Data Dictionary
Yes - There is a plan to make this available

Title and more details about the data/document
All data, including the IPD, study protocol, statistical analysis map, informed consent form, clinical study report, and data dictionary, will be published upon completion of the study. This data will be made available in a valid journal article format.

When the data will become available and for how long
Data will be accessible immediately upon project completion, likely in 1405

To whom data/document is available
This is intended for researchers at academic and scientific

Under which criteria data/document could be used
Institutions to support the development of related

sciences.

From where data/document is obtainable

Refer to University of Kurdistan

What processes are involved for a request to access data/document

Please submit a valid letter from the scientific centers.

Comments