Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

The effect of selected aerobic (Astrand) and non-aerobic (Wingate) exercise tests on liver enzyme and HSP70 in athletic and non athletics male

Protocol summary

Summary

The aim of this study is to investigate the alternation of blood liver enzyme and heat shock proteins (HSP70) levels after two selected aerobic (Strand) and non-aerobic (Wingate) exercise tests in male students. This study is an experimental research. Therefore, 40 young male (20 athletics and 20 non-athletics) with age range of 20-26 are selected randomly, they do not have any cardiovascular and metabolic problems. They will undergo training protocols with 3 days intervals (to prevent the effect of first secession intervention on the second). The non-aerobic Wingate's training protocol includes 30 seconds high-intensity non-aerobic activities on a Monark bicycle and The aerobic Strand's training protocol includes 6 minutes moderate-intensity aerobic activities on a Monark bicycle .5 cc Brachial vein blood samples are taken immediately before and after performing tests in order to measure liver enzyme and heat shock proteins 70 (HSP70) levels. Comparing the results obtained before and immediately after the training period the different between indices within these two groups and the effect of the two exercise tests on these indices will be revealed.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201105216537N1**
Registration date: **2011-05-28, 1390/03/07**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2011-05-28, 1390/03/07

Registrant information

Name

Ali Khajehlandi

Name of organization / entity

Islamic Azad University Gachsaran Branch

Country

Iran (Islamic Republic of)

Phone

+98 74 2223 0239

Email address

alikhajehlandi@iaug.ac.ir

Recruitment status

Recruitment complete

Funding source

Islamic Azad University Gachsaran Branch

Expected recruitment start date

2010-11-11, 1389/08/20

Expected recruitment end date

2010-11-15, 1389/08/24

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of selected aerobic (Astrand) and non-aerobic (Wingate) exercise tests on liver enzyme and HSP70 in athletic and non athletics male

Public title

The effect of selected (aerobic and non-aerobic) exercise tests on liver enzyme and HSP70 in athletic and non-athletics male

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: Being 20 to 26 years old and having no cardiac or metabolic diseases. Exclusion criteria: Non-cooperative participants and exacerbation of respiratory problems.

Age
From **20 years** old to **26 years** old

Gender
Male

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **40**

Randomization (investigator's opinion)
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
Islamic Azad University Gachsaran Branch

Street address
Islamic Azad University Gachsaran Branch

City
Gachsaran

Postal code
7581756755

Approval date
2010-04-22, 1389/02/02

Ethics committee reference number
2433

Health conditions studied

empty

Primary outcomes

1

Description
Alanin Aminotransferase enzymes

Timepoint
Befor and after intervention

Method of measurement
Liver enzymes Kits

2

Description
Asparat aminotranferase enzymes

Timepoint
Befor and after intervention

Method of measurement
Liver enzymes Kits

3

Description
Alkaline phosphatase enzymes

Timepoint
Befor and after intervention

Method of measurement
Liver enzymes Kits

4

Description
Heat shock proteins 70 (hsp70)

Timepoint
Befor and after intervention

Method of measurement
ELISA test kits

Secondary outcomes

1

Description
Body fat percent

Timepoint
Befor and after the intervention

Method of measurement
Caliper

Intervention groups

1

Description
Anaerobic exercise: exercise in which oxygen is not used, and metabolic energy is done without the presence of oxygen

Category
Lifestyle

2

Description
Aerobic exercise: exercise in which oxygen is absorbed into the body and the presence of oxygen metabolism and energy occurs.

Category
Lifestyle

Recruitment centers

1

Recruitment center
Name of recruitment center
Islamic Azad University Gachsaran Branch
Full name of responsible person
Ali Khajehlandi
Street address
City
Gachsaran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Islamic Azad University Gachsaran branch
Full name of responsible person
Seyed Saman Mousavian
Street address
Islamic Azad University Gachsaran branch
City
Gachsaran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Islamic Azad University Gachsaran branch
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
Isamic Azad University Gachsaran Branch
Full name of responsible person
Ali Khajehlandi
Position
Faculty of Ialamic Azad University Gachsaran Branch (MS)
Other areas of specialty/work
Street address
Isamic Azad University Gachsaran Branch-Iran
City
Gachsaran
Postal code
Phone
+98 74 2333 0317
Fax
Email
alikhajehlandi@iaug.ac.ir
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
Islmic Azad University Gachsaran Branch(MS)
Full name of responsible person
Amin Mohamadi Demieh
Position
Faculty of Islmic Azad University Gachsaran
Other areas of specialty/work
Street address
Islmic Azad University Gachsaran
City
Gachsaran
Postal code
Phone
+98 74 2333 0317
Fax
Email
aminmohammadi@iaug.ac.ir
Web page address

Person responsible for updating data

Contact
Name of organization / entity
Full name of responsible person
Ali Khajehlandi
Position
Other areas of specialty/work
Street address
City
Postal code
Phone
Fax
Email
Web page address

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