Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

The Effect Of Eccentric Resistance Exercise With Blood Flow Restriction on Satellite Cell Activation, Proliferation in Active Young Male

Protocol summary

Summary

The purpose of present study is to investigate the effects of low intensity eccentric resistance training (ECC RT) with blood flow restriction on satellite cell activation and proliferation. Research sample size is sixteen active young male. Subject has 1to 2 exercise protocol familiarization seasons after filling demographic questionnaires' then anthropometric and one repetition maximum of leg extensor muscle asses and participants allocated in one of ECC. RT or ECC. RT with blood flow restriction and performed exercise protocol. Biopsy were taken One day before and 3 to 5 days after exercise protocol from Vastus Lateralis muscle of dominant leg of participants for determining MyoD, CD56،PAX-7, and Myogenin.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014050315187N2**
Registration date: **2014-06-12, 1393/03/22**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2014-06-12, 1393/03/22

Registrant information

Name

Behzad Bazgir

Name of organization / entity

Baqiatallah medical univrsity(BMSU)

Country

Iran (Islamic Republic of)

Phone

+98 21 8860 0030

Email address

bazgirbehzad@yahoo.com

Recruitment status

Recruitment complete

Funding source

Baqiatallah University of Medical Sciences

Expected recruitment start date

2014-05-10, 1393/02/20

Expected recruitment end date

2014-08-20, 1393/05/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effect Of Eccentric Resistance Exercise With Blood Flow Restriction on Satellite Cell Activation, Proliferation in Active Young Male

Public title

The Effect Of Eccentric Resistance Exercise With Blood Flow Restriction on Satellite Cell Activation, Proliferation in Active Young Male

Purpose

Other

Inclusion/Exclusion criteria

Inclusion criteria: Age and gender condition(young male); physical fitness levels(active non athlete subjects)
Exclusion criteria: history of infection or immune; inflammatory; and neuromuscular disease(dystrophy, cachexia); history of caffeine; alcohol; anabolic steroid; nutritional supplement; anti-inflammatory drug application; catching cold in test day

Age

From **18 years** old to **37 years** old

Gender

Male

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **16**
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
Baqiatallah University of Medical Sciences
Street address
South shikh bahaei ST- Tehran
City
Tehran
Postal code
Approval date
2014-01-05, 1392/10/15
Ethics committee reference number
34

Health conditions studied

1

Description of health condition studied
Muscle Regeneration
ICD-10 code
M62.6
ICD-10 code description
Muscles loses and stretch

Primary outcomes

1

Description
MyoD, CD56
Timepoint
three days before and one day after resistance exercise
Method of measurement
Immonohistichemistary

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group will done eccentric resistance training with blood flow restriction
Category
Treatment - Other

2

Description
Control training group executed eccentric resistance training (ECC RT)
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Baqiatallah University of Medical Science, Exercise Physiology Research Center
Full name of responsible person
Behzad Bazgir
Street address
South Shikh bahaei street, Tehran
City
Tehran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Baqiatallah University of Medical Sciences
Full name of responsible person
Behzad Bazgir
Street address
South Shikh Bahaei Street , Tehran
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Baqiatallah University of Medical Sciences
Proportion provided by this source
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

2

Sponsor
Name of organization / entity
Royan Institute
Full name of responsible person
Dr. Rohallah Fathei
Street address
Banei Hashemei Squer, Tehran
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Royan Institute
Proportion provided by this source
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
Baqiatallah University of Medical Sciences, Exercise Physiology Research Center
Full name of responsible person
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Person responsible for scientific inquiries

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Person responsible for updating data

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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