

Clinical Trial Protocol

Iranian Registry of Clinical Trials

26 Jul 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

Immunohistochemistry

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**

Behzad Bazgir

Position

Ph.D Student

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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*