

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

28 May 2026

### Effect of 3-month basketball training on Parathyroid, Alkaline phosphatase and Insuline-like growth factor in 45-55 years old men

#### Protocol summary

##### Study aim

The purpose of this study is to investigate the effect of 3 months of basketball training on IGF-1, parathormone and alkaline phosphatase in 45-55 years old men.

##### Design

The study is a randomized clinical trail with control group. 24 men (45-55 years, Body mass index 25-35) will be selected through purposive sampling and will randomly be divided into two intervention and control groups

##### Settings and conduct

The present field study is semi-experimental which will be done in Shahrkord Islamic Azad University gym. A professional coach will train the subjects and a lab technetium will take their blood samples. Blood sample will be analyzed in the university lab.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: male gender; being at the age of 45-55 years old; Body mass index between 25-35. Non inclusion criterion: metabolic disorders

##### Intervention groups

Intervention group will do basketball training 3 sessions per week for 3 months. Control group will not participate in any exercise.

##### Main outcome variables

IGF-1, parathormone and alkaline phosphatase

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20180822040849N15**

Registration date: **2020-09-13, 1399/06/23**

Registration timing: **prospective**

Last update: **2020-09-13, 1399/06/23**

Update count: **0**

##### Registration date

2020-09-13, 1399/06/23

##### Registrant information

###### Name

akram jafari

###### Name of organization / entity

Islamic azad university shahrekord branch

###### Country

Iran (Islamic Republic of)

###### Phone

+98 38 3232 6462

###### Email address

mrmoradi@sku.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2020-10-21, 1399/07/30

##### Expected recruitment end date

2021-01-19, 1399/10/30

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Effect of 3-month basketball training on Parathyroid, Alkaline phosphatase and Insuline-like growth factor in 45-55 years old men

##### Public title

Basketball training and Parathyroid, Alkaline phosphatase and Insuline-like growth factor

##### Purpose

Basic scienece

##### Inclusion/Exclusion criteria

**Inclusion criteria:**

Male gender Being at the age of 45-55 years old Body mass index (BMI) of 25-35 kg/m<sup>2</sup>

**Exclusion criteria:**

Metabolic disorders

**Age**

From **45 years** old to **55 years** old

**Gender**

Male

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **24**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Simple randomization by tossing a coin

**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**

Ethics committee of Shahrekord branch of Islamic Azad University

**Street address**

Islamic Azad University; Rahmatieh

**City**

Shahrekord

**Province**

Chahar-Mahal-va-Bakhtiari

**Postal code**

8813733441

**Approval date**

2020-07-22, 1399/05/01

**Ethics committee reference number**

IR.IAU.SHK.REC.1399.038

**Health conditions studied**

1

**Description of health condition studied**

Basketball training

**ICD-10 code**

Y93.67

**ICD-10 code description**

Activity, basketball

**Primary outcomes**

1

**Description**

Parathormon

**Timepoint**

Before and after 3 months basketball training

**Method of measurement**

By ELISA method

2

**Description**

Alkaline phosphatase

**Timepoint**

Before and after 3 months basketball training

**Method of measurement**

By ELISA method

3

**Description**

IGF1

**Timepoint**

Before and after 3 months basketball training

**Method of measurement**

By ELISA method

**Secondary outcomes**

empty

**Intervention groups**

1

**Description**

Intervention group: 24 men (45-55 years, BMI 25-35) will participate in this research as intervention group. They will do basketball training 3 sessions per week for 3 months. Each exercise session includes 3 basketball workout with moderate intensity. Body mass index measurement and blood sampling will be done in fasting, 24 hours before and 48 hours after the exercise

**Category**

N/A

2

**Description**

Control group: control group will be asked not to participate in any exercise program and keep on their regular diet during research and report any changes in their life like disease, serious stress

**Category**

N/A

## Recruitment centers

1

### Recruitment center

**Name of recruitment center**

Islamic Azad University Shahrekord Branch

**Full name of responsible person**

Bahareh Banitalebi

**Street address**

Islamic Azad University; Rahmatieh

**City**

Shahrekord

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+98 38 3336 1001

**Email**

banitalebi57@yahoo.com

## Sponsors / Funding sources

1

### Sponsor

**Name of organization / entity**

Islamic Azad University

**Full name of responsible person**

Bahareh Banitalebi

**Street address**

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**Email**

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**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**

Akram Jafari

**Position**

Associate professor

**Latest degree**

Ph.D.

**Other areas of specialty/work**

Sport Physiology

**Street address**

Islamic Azad University; Rahmatieh

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jafari.akm@gmail.com

## Person responsible for scientific inquiries

### Contact

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Islamic Azad University

**Full name of responsible person**

Akram Jafari

**Position**

Associate professor

**Latest degree**

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**Other areas of specialty/work**

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**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

**When the data will become available and for how long**

6 months after data publication

**To whom data/document is available**

Student and academic staff

**Under which criteria data/document could be used**

every analyses is fine for future research

**From where data/document is obtainable**

Researcher

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

By sending email to researcher

**Comments**