

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

20 Jun 2026

### Study of the effect of resistance exercise on serum testosterone levels, severity signs of aging and quality of life in middle-aged men with late-onset hypogonadism

#### Protocol summary

##### Study aim

Study of the effect of resistance exercise on testosterone levels and the health of men with hypogonadism

##### Design

Clinical trial with control and intervention group -Based on disease diagnosis and pragmatic - randomized random block method

##### Settings and conduct

In this study, after completing the sample size, the available individuals referring to the specialized clinic of Imam Khomeini Hospital of Ahvaz were randomly divided into two groups of control and intervention group and then the control group for one month and three weeks each week One hour of resistance exercise with weight and after the end of intervention, the two groups are examined for the variables considered.

##### Participants/Inclusion and exclusion criteria

inclusion criteria: 1. man 2. Married 3. Age 40-65 year 4. Diagnosis of hypogonadism Exclusion criteria: 1. Mental illness 2. Physical limitations in exercising 3. Have a regular physical exercise in the last three months 4. Use of ergogenic supplements before the study

##### Intervention groups

Intervention group: Group receiving a combination of resistance exercise with weights control group : A group that continues its lifestyle

##### Main outcome variables

1. Serum testosterone level 2. Severe aging symptoms 3. Quality of Life

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20190105042244N1**  
Registration date: **2019-03-02, 1397/12/11**

Registration timing: **retrospective**

Last update: **2019-03-02, 1397/12/11**

Update count: **0**

##### Registration date

2019-03-02, 1397/12/11

##### Registrant information

###### Name

Hamid Taghipoor

###### Name of organization / entity

###### Country

Iran (Islamic Republic of)

###### Phone

+98 61 4352 1784

###### Email address

taghipoor.h@ajums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2018-12-31, 1397/10/10

##### Expected recruitment end date

2019-02-19, 1397/11/30

##### Actual recruitment start date

2018-12-31, 1397/10/10

##### Actual recruitment end date

2019-02-19, 1397/11/30

##### Trial completion date

2019-05-20, 1398/02/30

##### Scientific title

Study of the effect of resistance exercise on serum testosterone levels, severity signs of aging and quality of life in middle-aged men with late-onset hypogonadism

##### Public title

The effect of resistance exercise on serum testosterone

levels in middle aged men

**Purpose**  
Supportive

**Inclusion/Exclusion criteria**  
**Inclusion criteria:**  
Married Age 65-40 years old The score obtained from the aging mals symptom questionnaire is greater than 27  
Diagnosis of late men's hypogonadism based on serum testosterone level  
**Exclusion criteria:**  
Acute mental illness and not having acceptable general health Physical Limit for Exercise Tobacco and alcohol consumption Perform regular resistance training in the last three months Use of ergogenic supplements before the study

**Age**  
From **40 years** old to **65 years** old

**Gender**  
Male

**Phase**  
N/A

**Groups that have been masked**  
*No information*

**Sample size**  
Target sample size: **60**  
Actual sample size reached: **60**

**Randomization (investigator's opinion)**  
Randomized

**Randomization description**  
The method of assigning samples to the experimental and control groups was randomized and random blocked blocks with block size 6(Using the table for random permissions).A randomized list is provided by a statistician.According to a randomized list, it is allocated by a person outside the study according to the codes for each disease that is included in the study.

**Blinding (investigator's opinion)**  
Not blinded

**Blinding description**

**Placebo**  
Not used

**Assignment**  
Other

**Other design features**  
The study sample consisted of 60 available patients who entered the study according to the criteria of inclusion and then divided into two groups of test and control by random allocation method.

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics Committee of Ahwaz University of Medical Sciences

##### Street address

Golestan Highway. Ahvaz Jundishapur University of Medical Sciences

#### City

Ahvaz

#### Province

Khuzestan

#### Postal code

61357-15794

#### Approval date

2018-12-29, 1397/10/08

#### Ethics committee reference number

IR.AJUMS.REC.1397.724

## Health conditions studied

### 1

#### Description of health condition studied

late-onset hypogonadism

#### ICD-10 code

E29.1

#### ICD-10 code description

Testicular hypofunction

### 2

#### Description of health condition studied

late-onset hypogonadism

#### ICD-10 code

E29.1

#### ICD-10 code description

Testicular hypofunction

## Primary outcomes

### 1

#### Description

Serum total testosterone

#### Timepoint

Before and after intervention

#### Method of measurement

Elisa biochemical assay

### 2

#### Description

Severe aging symptoms

#### Timepoint

Before and after intervention

#### Method of measurement

Using aging male Symptoms Questionnaire

### 3

#### Description

Quality of Life

#### Timepoint

Before and after intervention

#### Method of measurement

Measured using SF-36 questionnaire.

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: For men in the intervention group, serum testosterone levels, severity of aging symptoms and quality of life were measured first, and then the intervention group performed resistance exercise for one month. At the end of the intervention, the group again tested for testosterone levels, severity of aging symptoms and quality Life .At the end, the data before and after the intervention are compared with each other and compared to the control group.

#### Category

Lifestyle

### 2

#### Description

Control group:For men in the control group, serum testosterone level, severity of aging symptoms and quality of life were measured first. The group then continued their lifestyle for one month. After the study was completed, the group again tested the level of testosterone, severity of aging symptoms and quality of life, At the end, the data before and after the study are compared with each other and compared to the intervention group

#### Category

Lifestyle

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Specialty Clinic of Ahvaz Imam Hospital

##### Full name of responsible person

Mahin Gheibizadeh

##### Street address

Golestan Highway - Ahvaz Jundishapur University of Medical Sciences

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+98 61 3222 2818

##### Email

Gheibizadeh-m@ajums.ac.ir

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Ahvaz University of Medical Sciences

##### Full name of responsible person

Mahin Gheibizadeh

##### Street address

Golestan Highway - Ahvaz Jundishapur University of Medical Sciences

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##### Postal code

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##### Email

Gheibizadeh-m@ajums.ac.ir

#### Grant name

#### Grant code / Reference number

#### Is the source of funding the same sponsor organization/entity?

Yes

#### Title of funding source

Ahvaz University of Medical Sciences

#### 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

Ahvaz University of Medical Sciences

##### Full name of responsible person

Mahin Gheibizadeh

##### Position

Faculty

##### Latest degree

Ph.D.

##### Other areas of specialty/work

Nursery

##### Street address

Golestan Highway - Jundishapur University of Medical Sciences

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##### Province

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## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**  
Ahvaz University of Medical Sciences  
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## Person responsible for updating data

### Contact

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**Email**  
Taghipoor.h@ajums.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

Undecided - It is not yet known if there will be 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

The data of the participating participants will be encrypted and will be published with the privacy of the patient and the confidentiality of the information.

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

The date of access to the data is six months after the publication of the results

### To whom data/document is available

Only available to scholars working in academic and academic institutions

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

The requirements for access to data include the sending of documents relating to the applicant's membership in academic and academic institutions, and the applicant is authorized to use this data in order to document for subsequent studies.

### From where data/document is obtainable

You can use the email address to access the information  
1.Gheibizadeh-m@ajums.ac.ir  
2.Hamid\_taghipoor@yahoo.com

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

The applicant will send the data to him at least one month later by sending valid credentials to members of the academic and research institutes at the email address of the author.

### Comments