

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

20 Jun 2026

### Comparison of the effect of strength, aerobic and compound training on respiratory function and motor proficiency of per pubertal asthmatic children

#### Protocol summary

##### Summary

The aim of this study is evaluating the effect of aerobic exercise and strength training on respiratory capacity and motor competence in children with asthma. The participants in the study should have mild to moderate asthma and do not have a history of atopy or exercise. Acute asthmatic children and children with chronic illness or other acute illness whom consuming vitamin C and E supplements and Omega 3 in the last three months are not included in the study. Total of 60 children aged 6 to 11 years old enrolled in the Phase 3 clinical trial. They matched randomly in three athletic training groups including strength, aerobic and combination of them also with a control group. In this study Blinding won't be done. These training groups will do exercise once in a week under the supervision of coach up to eight-weeks and twice a week training session will be done at home. Signs and symptoms of asthma and spirometry test will be done and questionnaire before and after exercise testing will be completed by the participants then the results were compared with each other after the end of training period at the end of 8 weeks

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2016062028546N1**

Registration date: **2017-04-06, 1396/01/17**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2017-04-06, 1396/01/17

##### Registrant information

##### Name

seyedeh manijheh Arabi

##### Name of organization / entity

Ferdowsi unverscity of mashhad

##### Country

Iran (Islamic Republic of)

##### Phone

+98 51 3621 1627

##### Email address

ma.arabi@um.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Mashhad University of Medical Sciences

##### Expected recruitment start date

2016-06-09, 1395/03/20

##### Expected recruitment end date

2016-07-10, 1395/04/20

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparison of the effect of strength, aerobic and compound training on respiratory function and motor proficiency of per pubertal asthmatic children

##### Public title

Effect of exercise training on respiratory and motor function of asthmatic children

##### Purpose

Supportive

##### Inclusion/Exclusion criteria

Inclusion criteria: diagnosing mild to moderate asthma ; taking medicine ; no aggravation regarding their

diseases; suffering from atopic ; no sport experience ; mentioning tendency and ability to exercise; All samples were under the supervision of a physician specialist and treated with the same medicine. Exclusion criteria: participating in a research intervention in the past 6 months; existency of a smoker in the family; other chronic diseases and taking medicine for curing the disease; acute disease in the past month; suffering from amputation or joint - muscle disorder that is uncondutive to having physical activity; using supplements such as vitamins C and E as well as omega-3 in three months later.

**Age**

From **6 years** old to **11 years** old

**Gender**

Both

**Phase**

3

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **60**

**Randomization (investigator's opinion)**

Not 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**

Ethics committee of Mashhad University of Medical science

**Street address**

Daneshgah Street Qureshi building

**City**

Mashhad

**Postal code****Approval date**

2015-12-28, 1394/10/07

**Ethics committee reference number**

IR.MUMS.fm.REC.1394.375

**Health conditions studied****1****Description of health condition studied**

Asthma illness

**ICD-10 code**

J45.8

**ICD-10 code description**

Combination of conditions listed in J45.0 and J45.1

**Primary outcomes****1****Description**

Forced Expiratory Volume in One Second

**Timepoint**

Before experiment

**Method of measurement**

Spirometry

**2****Description**

Tidal volume

**Timepoint**

Before experiment

**Method of measurement**

Spirometry

**Secondary outcomes****1****Description**

Oxygen consumption

**Timepoint**

Two month after intervention

**Method of measurement**

Spirometry

**2****Description**

Carbon dioxide production

**Timepoint**

Two month after interention

**Method of measurement**

Spirometry

**3****Description**

Tidal volume

**Timepoint**

Two month after interention

**Method of measurement**

Spirometry

**4****Description**

The number of Breathe

**Timepoint**

Two month after interention

**Method of measurement**

Spirometry

## 5

### **Description**

Minute ventilation

### **Timepoint**

Two month after interention

### **Method of measurement**

Spirometry

## 6

### **Description**

Respiratory rate

### **Timepoint**

Two month after intervention

### **Method of measurement**

Spirometry

## **Intervention groups**

### 1

#### **Description**

Intervention group 1: Power sports for 8 weeks

#### **Category**

Rehabilitation

### 2

#### **Description**

Intervention group 2: Endurance sports for 8 weeks

#### **Category**

Rehabilitation

### 3

#### **Description**

Intervention group 3: Compound sport (power and endurance for 8 weeks

#### **Category**

Rehabilitation

### 4

#### **Description**

Control group: Without any sports

#### **Category**

Rehabilitation

## **Recruitment centers**

### 1

#### **Recruitment center**

##### **Name of recruitment center**

Ghaem Hospital

##### **Full name of responsible person**

Hamid Ahanchian

##### **Street address**

Allergy Clinic Ghaem Hospital, Ahmad Abad Street, Mashhad

### **City**

Mashhad

## **Sponsors / Funding sources**

### 1

#### **Sponsor**

##### **Name of organization / entity**

Vice chancellor for research, Mashhad University of Medical Sciences

##### **Full name of responsible person**

Dr.Mohsen Tafaghodi

##### **Street address**

Qureshi building, Daneshgah Street, Mashhad

##### **City**

Mashhad

##### **Grant name**

##### **Grant code / Reference number**

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

Yes

##### **Title of funding source**

Vice chancellor for research, Mashhad University of Medical Sciences

##### **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**

Ferdowsi university of Mashahad

##### **Full name of responsible person**

Manijheh Arabi

##### **Position**

Phd student of motor development

##### **Other areas of specialty/work**

##### **Street address**

Paradise of Ferdowsi university. Azadi square

##### **City**

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##### **Phone**

+98 51 3768 6638

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##### **Email**

ma.arabi@um.ac.ir

##### **Web page address**

## **Person responsible for scientific**

## **inquiries**

### **Contact**

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Mashhad University of Medical Sciences

**Full name of responsible person**

Dr. Ezzat Khodashenas

**Position**

Specialist of Pediatrician

**Other areas of specialty/work**

**Street address**

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### **Person responsible for updating data**

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Ferdowsi University of Mashhad

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Vahideh Velayati

**Position**

Ph.D. student of motor development

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Velayati.v@gmail.com

**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*