

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Effect of Abdominal strength training on subcutaneous abdominal fat thickness in overweight women

#### Protocol summary

##### Summary

The purpose of this study was to determine the effect of 12 weeks abdominal strength training program on the abdominal wall subcutaneous fat thickness. Twenty eight women referred to obesity clinic of Tehran University of Medical Sciences with BMI greater than 25 were randomly assigned to receive 12 weeks abdominal wall strength training program as well as weight loss diet or weight loss diet only. At the baseline and 12 weeks after the intervention, abdominal wall subcutaneous fat thickness was measured with sonography and caliper and compared between groups.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT138812182973N2**

Registration date: **2010-03-09, 1388/12/18**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2010-03-09, 1388/12/18

##### Registrant information

###### Name

Saeed Dehghani

###### Name of organization / entity

Tehran University Medical Science

###### Country

Iran (Islamic Republic of)

###### Phone

+98 21 4490 1346

###### Email address

s\_dehghani@razi.tums.ac.ir

#### Recruitment status

##### Recruitment complete

##### Funding source

Tehran university of medical sciences

##### Expected recruitment start date

2010-02-23, 1388/12/04

##### Expected recruitment end date

2010-03-03, 1388/12/12

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Effect of Abdominal strength training on subcutaneous abdominal fat thickness in overweight women

##### Public title

Effect of Abdominal strength training on subcutaneous abdominal fat thickness in overweight women

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria: sedentary overweight women who do not exercise regularly during 6 months prior to the study, not having been on any weight loss diet, no contraindication to strength training Exclusion criteria: using any substance or device for local subcutaneous abdominal fat thickness reduction such as: laser, acupuncture, cream, gel, ultrasound, vacuum, massage, there is no attendance for continue of study, pregnancy during study.

##### Age

From **19 years** old to **75 years** old

##### Gender

Female

##### Phase

N/A

#### Groups that have been masked

No information

### Sample size

Target sample size: 28

### Randomization (investigator's opinion)

Randomized

### Randomization description

### Blinding (investigator's opinion)

Single blinded

### Blinding description

### Placebo

Not used

### Assignment

Parallel

### Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Sport Medicine Research Center

##### Street address

Opposite to Shariati hospital, Jalal al ahmad street,

##### City

Tehran

##### Postal code

#### Approval date

empty

#### Ethics committee reference number

2386/7

## Health conditions studied

### 1

#### Description of health condition studied

Abdominal subcutaneous fat

#### ICD-10 code

#### ICD-10 code description

### 2

#### Description of health condition studied

Obesity

#### ICD-10 code

E66

#### ICD-10 code description

Obesity

## Primary outcomes

### 1

#### Description

Abdominal sub cutaneous fat thickness

#### Timepoint

week 0,week 6,week 12

### Method of measurement

ultrasound, caliper

## Secondary outcomes

### 1

#### Description

weight

#### Timepoint

week 0 ,week 12

#### Method of measurement

bioimpedance analyzer

### 2

#### Description

waist

#### Timepoint

week 0 ,week 12

#### Method of measurement

meter

### 3

#### Description

hip circumference

#### Timepoint

week 0 ,week 12

#### Method of measurement

meter

### 4

#### Description

lean body mass

#### Timepoint

week 0 ,week 12

#### Method of measurement

bioimpedance analyzer

## Intervention groups

### 1

#### Description

12 weeks weight loss diet by 10kcal/kg restriction in daily energy requierment +12 weeks abdominal strength training program include external oblique, Internal oblique, rectus abdominis and transverse abdominis strengthening. person perform abdominal curl , abdominal hallowing and Abdominal Bracing in 3 direct: straight, right diagonal and left diagonal. every exercise are performed 12 repetition and 5 second duration ,daily.

#### Category

Lifestyle

### 2

#### Description

12 weeks weight loss diet by 10kcal/kg restriction in daily energy requierment

**Category**

Lifestyle

**Recruitment centers****1****Recruitment center****Name of recruitment center**

Sport Medicine Research Center

**Full name of responsible person**

Saeed Dehghani

**Street address**

Jalal Al Ahmad Street, Sport Medicine Center

**City**

Tehran

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Tehran University of Medical Sciences and Health Services

**Full name of responsible person**

Ramin Kordi

**Street address**

Jalal Al Ahmad Street, in front of Shariaty Hospital

**City**

Tehran

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

Tehran University of Medical Sciences and Health Services

**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**

Tehran University of Medical Sciences and Health Services

**Full name of responsible person**

Saeed Dehghani

**Position**

Assistant

**Other areas of specialty/work****Street address**

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Tehran University of Medical Sciences and Health Services

**Full name of responsible person**

Ramin Kordi

**Position**

Assistant Professor Master

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**Web page address****Person responsible for updating data****Contact****Name of organization / entity**

Tehran University of Medical Sciences and Health Services

**Full name of responsible person**

Saeed Dehghani

**Position**

Resident

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**Postal code****Phone**

+98 21 4490 1346

**Fax****Email****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*