

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Sep 2026

Influence of 8 weeks pilates training on physical fitness and cardiorespiratory indices in breast cancer patients

Protocol summary

Summary

The purpose of this research is evaluating the influence of pilates exercises on physical fitness and cardiovascular indices in breast cancer patients. Participants of the study will include 30 female breast cancer patients who will participate in the study voluntarily and will be divided to two groups of exercise (n=15) and control (n=15) randomly. Exercise group will perform pilates exercise for 8 weeks, 3 days a week for duration of 60 min in every session and control group will not participate in any regular physical activity. Exercise and control groups participate in study tests before and after experiment period which included Wells, alternate hand wall toss, one leg -stance, back and hand-grip dynamo-meter, sit up test (for measuring flexibility, coordination, back and hand strength and muscular strength respectively). Resting heart rate and blood pressure will be measured using blood pressure monitor device and rate pressure product will be calculated using resting heart rate multiply by systolic blood pressure.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016110113107N3**

Registration date: **2017-01-08, 1395/10/19**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2017-01-08, 1395/10/19

Registrant information

Name

Maryam Koushkie Jahrimi

Name of organization / entity

Shiraz University

Country

Iran (Islamic Republic of)

Phone

+98 71 1613 4666

Email address

mkoushki@rose.shirazu.ac.ir

Recruitment status

Recruitment complete

Funding source

self - Funded

Expected recruitment start date

2015-12-31, 1394/10/10

Expected recruitment end date

2016-12-31, 1395/10/11

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Influence of 8 weeks pilates training on physical fitness and cardiorespiratory indices in breast cancer patients

Public title

Influence of exercise on breast cancer outcomes

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: Having a period of chemotherapy and surgery, but at least one year before the study; being able to do exercise activity; Not having cardiovascular disease; not having any problem which limit exercise participation. Exclusion criteria: not regular participation in exercise activity; every physical problem which may interfere exercise activity

Age

From **30 years** old to **44 years** old

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **30**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
The study is performed on two groups of control and exercise

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethic committee of Shiraz University of Medical Sciences

Street address

Namazi Sq., Shiraz University of Medical Sciences

City

Shiraz

Postal code

Approval date

2016-09-22, 1395/07/01

Ethics committee reference number

IR.SUMS.REC.1395.114

Health conditions studied

1

Description of health condition studied

breast cancer

ICD-10 code

C50.9

ICD-10 code description

Breast, unspecified

Primary outcomes

1

Description

Flexibility

Timepoint

Before and after exercise training

Method of measurement

Wells test

2

Description

Blood pressure and heart rate

Timepoint

Before and after exercise training

Method of measurement

Manometer

3

Description

Coordination

Timepoint

Before and after exercise training

Method of measurement

Tennis ball repeated throwing

4

Description

Balance

Timepoint

Before and after exercise training

Method of measurement

One leg stance

5

Description

Back extensor strength

Timepoint

Before and after exercise training

Method of measurement

Dynamometer

Secondary outcomes

1

Description

Muscle endurance

Timepoint

Before and after exercise

Method of measurement

Sit and reach test

2

Description

Hand strength

Timepoint

Before and after exercise

Method of measurement

Handgrip dynamometer

Intervention groups

1

Description

Control group will not take part in any kind of exercise activity and have their usual daily activity

Category

Placebo

2

Description

Intervention group: will perform Pilates exercise for 8 weeks, 3 days a week for duration of 60 min in every session. Pilates is performed with average intensity so that heart rate increase is very small and include flexibility and resistance exercises.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Motahhary clinical center

Full name of responsible person

Street address

namazi sq., zandst.

City

Shiraz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

research deputy of Shiraz University

Full name of responsible person

Dr Ahmad Oryan

Street address

Shiraz University

City

Shiraz

Grant name

Grant code / Reference number

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

Yes

Title of funding source

research deputy of Shiraz University

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

Shiraz University

Full name of responsible person

Maryam Koushkie Jahromi

Position

PhD/Faculty

Other areas of specialty/work

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Postal code**Phone**

00

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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