

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### The effect of Codman exercises with and without kinesiotape on pain, range of motion, and functional tests in women with frozen shoulder

#### Protocol summary

##### Study aim

To compare the effectiveness of eight weeks of Codman pendulum exercises with kinesiotape versus Codman exercises alone on pain reduction, range of motion improvement, and shoulder function in women with frozen shoulder.

##### Design

Design: Randomized clinical trial, two-arm parallel, pretest-posttest, single-center. Randomization: Simple random allocation (random number table or sealed envelopes). Blinding: Assessor- and analyst-blinded (outcome assessor and statistician blinded to group allocation).

##### Settings and conduct

Setting: Poria-ye Vali Sports Hall, Malayer, Hamedan Province, Iran. Procedures: Recruitment via public call and clinic referrals; baseline assessment (demographics, VAS, goniometer ROM, DASH, WORC); supervised interventions; post-intervention assessment at week 9 using the same measures. Safety measures and taping protocol followed in all sessions.

##### Participants/Inclusion and exclusion criteria

Women aged 40-60 years with primary frozen shoulder diagnosed by an orthopedic specialist. Sample size: 30 participants (two groups of 15).

##### Intervention groups

Group 1 (Intervention): Codman pendulum exercises + kinesiotape — 8 weeks, 3 sessions/week, 40 minutes/session. Kinesiotape applied to supraspinatus and deltoid per protocol (skin allergy test before first application). Group 2 (Active control): Codman pendulum exercises only — identical schedule and supervision, without kinesiotape.

##### Main outcome variables

1. Shoulder pain 2. Shoulder range of motion (flexion, abduction, external rotation) 3. Shoulder function

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20250923067339N1**

Registration date: **2025-11-18, 1404/08/27**

Registration timing: **prospective**

Last update: **2025-11-18, 1404/08/27**

Update count: **0**

##### Registration date

2025-11-18, 1404/08/27

##### Registrant information

##### Name

Mohadeseh Roostaei

##### Name of organization / entity

Razi University of Kermanshah

##### Country

Iran (Islamic Republic of)

##### Phone

+98 83 3434 3515

##### Email address

m.roostaei@stu.razi.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2025-12-12, 1404/09/21

##### Expected recruitment end date

2026-01-12, 1404/10/22

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

## Scientific title

The effect of Codman exercises with and without kinesiotape on pain, range of motion, and functional tests in women with frozen shoulder

## Public title

The effect of Codman exercises with and without kinesiotape on pain, range of motion, and functional tests in women with frozen shoulder

## Purpose

Treatment

## Inclusion/Exclusion criteria

### Inclusion criteria:

Gender: Female Age: 40-60 years Diagnosis of primary frozen shoulder by an orthopedic specialist Presence of shoulder pain for at least 3 months Significant loss of active and passive range of motion of the shoulder joint No use of medication or other shoulder-related treatment Written consent to voluntarily participate in the study

### Exclusion criteria:

History of shoulder fracture or dislocation Rotator cuff tear Neuromuscular disorders History of shoulder surgery within the past two years Skin sensitivity to kinesiology tape Missing more than two consecutive sessions of the training program

## Age

From **40 years** old to **60 years** old

## Gender

Female

## Phase

N/A

## Groups that have been masked

- Outcome assessor
- Data analyser

## Sample size

Target sample size: **30**

## Randomization (investigator's opinion)

Randomized

## Randomization description

Participants will be allocated into two groups using simple randomization based on a random number table (or Random.org). Each eligible participant will receive an ID number, and the allocation will be performed by an independent person not involved in intervention delivery or outcome assessment.

## Blinding (investigator's opinion)

Double blinded

## Blinding description

The outcome assessor will be blinded to group allocation. All data will be coded and provided to the statistician without group labels to ensure blinded analysis. Due to the nature of exercise-based interventions, participant and therapist blinding is not feasible.

## Placebo

Not used

## Assignment

Parallel

## Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Razi University Ethics Committee

##### Street address

Room 00, Faculty of Sport Sciences, Razi University, Daneshgah St., Taq Bostan

##### City

Kermanshah

##### Province

Kermanshah

##### Postal code

6714414971

#### Approval date

2025-09-20, 1404/06/29

#### Ethics committee reference number

IR.RAZI.REC.1404.026

## Health conditions studied

### 1

#### Description of health condition studied

Adhesive Capsulitis / Frozen Shoulder

#### ICD-10 code

M75.0

#### ICD-10 code description

Adhesive capsulitis of shoulder

## Primary outcomes

### 1

#### Description

Shoulder pain level

#### Timepoint

Before and after eight weeks of intervention

#### Method of measurement

Visual Analog Scale (VAS)

### 2

#### Description

Shoulder range of motion (flexion, abduction, external rotation)

#### Timepoint

Before and after eight weeks of intervention

#### Method of measurement

Standard goniometer

### 3

#### Description

Shoulder function

#### Timepoint

Before and after eight weeks of intervention

**Method of measurement**

DASH and WORC questionnaires

**Secondary outcomes**

1

**Description**

Raised hands test

**Timepoint**

Before and after 8 weeks

**Method of measurement**

Standard shoulder functional test (Hand to Head Test)

2

**Description**

Apley Scratch Test

**Timepoint**

Before and after 8 weeks

**Method of measurement**

Functional testing of shoulder flexion and rotation

3

**Description**

Shoulder Rotation Test

**Timepoint**

Before and after 8 weeks

**Method of measurement**

Evaluation of the active rotation range of the shoulder joint with a goniometer

4

**Description**

Changes in daily performance scores

**Timepoint**

Before and after 8 weeks

**Method of measurement**

WORC questionnaire performance items

5

**Description**

Perception of overall improvement from treatment

**Timepoint**

Before and after 8 weeks

**Method of measurement**

Participant's mental question (Global Perceived Effect)

**Intervention groups**

1

**Description**

Intervention group: Cadman exercises with kinesiotape

**Category**

Rehabilitation

2

**Description**

Control group: Cadman exercises without kinesiotape

**Category**

Rehabilitation

**Recruitment centers**

1

**Recruitment center**

**Name of recruitment center**

Pouriya Vali Sports Hall

**Full name of responsible person**

Farzaneh Maleki

**Street address**

Hamzeh Loyy Street, opposite the Martyr Sardar Soleimani School, Amir Kabir Square, Shohada Street

**City**

Malayer

**Province**

Hamadan

**Postal code**

6571861132

**Phone**

+98 937 314 1367

**Email**

f.maleki13401340@gmail.com

**Sponsors / Funding sources**

1

**Sponsor**

**Name of organization / entity**

The University of Razi

**Full name of responsible person**

Keyvan Amini

**Street address**

Taq Bostan, University Street

**City**

Kermanshah

**Province**

Kermanshah

**Postal code**

6714414971

**Phone**

+98 83 3427 4515

**Email**

kamini@razi.ac.ir

**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

The University of Razi

**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

The University of Razi

#### Full name of responsible person

Manouchehr Heidari

#### Position

Assistant Professor

#### Latest degree

Ph.D.

#### Other areas of specialty/work

Sport Medicine

#### Street address

Room 50, Faculty of Sport Sciences, Razi University,  
Daneshgah St., Taq Bostan

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#### Postal code

6714414971

#### Phone

+98 83 3427 7609

#### Email

mhaidary2000@yahoo.com

## Person responsible for scientific inquiries

### Contact

#### Name of organization / entity

The University of Razi

#### Full name of responsible person

Manouchehr Heidari

#### Position

Assistant Professor

#### Latest degree

Ph.D.

#### Other areas of specialty/work

Sport Medicine

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## Person responsible for updating data

### Contact

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The University of Razi

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Manouchehr Heidari

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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

Not applicable

### Informed Consent Form

Undecided - It is not yet known if there will be 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

Not applicable

### Title and more details about the data/document

Some of the data can be shared after de-identifying the subjects.

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

3 months after results are published

### To whom data/document is available

All persons upon formal request

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

درخواست دسترسی به داده ها با هر هدفی مجاز است

### From where data/document is obtainable

If you need to receive documents, please send an email to Manouchehr Heidari, Assistant Professor of Pathology and Corrective Exercises Department, Razi University, at the email address: mhaidary2000@yahoo.com.

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

In case of formal request, stating the relevant reasons

and providing full details, the data will be sent via email after 72 hours.

**Comments**