

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Does Corrective exercises Influence the Performance, Posture, range of motion and shoulder pain of Elite Front crawl Swimmers with Upper Crossed Syndrome?

Protocol summary

Study aim

The effect of eight weeks of corrective movement program on performance, body alignment, range of motion and shoulder pain in professional swimmers with upper cruciate syndrome.

Design

Clinical trial with an intervention group and a control group; With factorial groups, without blinding, simple randomization, zero phase on 30 swimmers with upper cruciate syndrome, which rand function of Excel software was used for randomization

Settings and conduct

The purpose of performing these exercises is to improve the posture and shoulder pain of swimmers with upper impingement syndrome. These exercises will be performed in the Nikian swimming pool in Abhar city. In this research, to measure the forward shoulder posture and forward head posture from photogrammetry, the degree of kyphosis from a flexible ruler, Pain using a visual measurement scale, speed measurement using a manual timer, glenohumeral joint range of motion measurement using a goniometer will be measured.

Participants/Inclusion and exclusion criteria

forward head posture more than 46 degrees; forward shoulder posture more than 52 degrees; kyphosis more than 40 degrees; professional male swimmers aged 20 to 40; Having mild to moderate pain in the shoulder joint based on the person's self-report; having at least 3 regular training sessions per week; Having a history of participating in swimming for 3 years

Intervention groups

The intervention of the current research is corrective exercises designed based on previous related articles, these exercises will be performed for eight weeks, three training sessions per week and each training session will last 30-40 minutes. and continue their daily exercises

Main outcome variables

Improvement of forward head posture, kyphosis and forward shoulder posture, reduction of shoulder pain, 50m swimming record

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20240306061185N1**

Registration date: **2024-03-08, 1402/12/18**

Registration timing: **prospective**

Last update: **2024-03-08, 1402/12/18**

Update count: **0**

Registration date

2024-03-08, 1402/12/18

Registrant information

Name

Hossein Rezaei

Name of organization / entity

The University of Shahid Beheshti

Country

Iran (Islamic Republic of)

Phone

+98 24 3562 3177

Email address

hosse.rezaei@mail.sbu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-04-13, 1403/01/25

Expected recruitment end date

2024-04-18, 1403/01/30

Actual recruitment start date

empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Does Corrective exercises Influence the Performance, Posture, range of motion and shoulder pain of Elite Front crawl Swimmers with Upper Crossed Syndrome?

Public title
The effect of corrective exercises on upper crossed syndrome in swimmers

Purpose
Supportive

Inclusion/Exclusion criteria
Inclusion criteria:
Head forward posture more than 46 degrees Shoulder forward posture more than 52 degrees Kyphosis more than 40 degrees Professional male swimmers in the age range of 20 to 40 years Having mild to moderate pain in the shoulder joint based on the person's self-report Having at least 3 regular training sessions per week No history of spine or upper extremity surgery Having 3 years of swimming experience
Exclusion criteria:
Older and younger ages Unwillingness to participate in research Having damage to the organs

Age
From **20 years** old to **40 years** old

Gender
Male

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **30**

Randomization (investigator's opinion)
Randomized

Randomization description
Individual simple randomization: Coincidence tools: rand function of Excel

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 Sport Sciences Research Institute

Street address

Mir Emad Ave., Tehran

City

Tehran

Province

Tehran

Postal code

1411713116

Approval date

2024-03-05, 1402/12/15

Ethics committee reference number

IR.SSRC.REC.1402.294

Health conditions studied

1

Description of health condition studied

Upper Crossed Syndrome, shoulder pain

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Upper Crossed Syndrome

Timepoint

Before the intervention and eight weeks later

Method of measurement

Photogrammetry, Flexible ruler

2

Description

shoulder pain

Timepoint

Before the intervention and eight weeks later

Method of measurement

Visual Analogue Scale

Secondary outcomes

1

Description

Performance

Timepoint

Before the intervention and eight weeks later

Method of measurement

chronometer

Intervention groups

1

Description

Intervention group: Corrective exercises
Category
Rehabilitation

2

Description
Control group: Control
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Sports Science Laboratory of Shahid Beheshti University
Full name of responsible person
Sirus Sheikhi
Street address
Shahid Beheshti University, Shahriari square, Volanjek Town, Tehran
City
Tehran
Province
Tehran
Postal code
1983969411
Phone
+98 21 2243 1953
Email
hosse.rezaei@mail.sbu.ac.ir

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
The University of Shahid Beheshti
Full name of responsible person
Mahdi Gheitasi
Street address
Shahid Beheshti University., Shahriari square., Volanjek,. Tehran
City
Tehran
Province
Tehran
Postal code
1983969411
Phone
+98 21 2243 1953
Email
hosse.rezaei@mail.sbu.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 Shahid Beheshti
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 Shahid Beheshti
Full name of responsible person
Hossein Rezaei
Position
Masters student
Latest degree
Bachelor
Other areas of specialty/work
Sport injury and corrective exercises
Street address
No 403., Nawab Safavi Ave., Imam Hossein Square., Sain Qala
City
Sain Qala
Province
Zanjan
Postal code
4574148543
Phone
+98 24 3562 3177
Email
hosse.rezaei@mail.sbu.ac.ir

Person responsible for scientific inquiries

Contact
Name of organization / entity
The University of Shahid Beheshti
Full name of responsible person
Hossein Rezaei
Position
Masters student
Latest degree
Bachelor
Other areas of specialty/work
sport injury and corrective exercises
Street address
No 403., Nawab Safavi Ave., Imam Hossein Square., Sain Qala
City
Sain Qala
Province
Zanjan

Postal code
4574148543
Phone
+98 24 3562 3177
Email
hosse.rezaei@mail.sbu.ac.ir

4574148543
Phone
+98 24 3562 3177
Email
hosse.rezaei@mail.sbu.ac.ir

Person responsible for updating data

Contact

Name of organization / entity
The University of Shahid Beheshti
Full name of responsible person
Hossein Rezaei
Position
Masters student
Latest degree
Bachelor
Other areas of specialty/work
sport injury and corrective exercises
Street address
No 403., Nawab Safavi Ave., Imam Hossein Square.,
Sain Qala
City
Sain Qala
Province
Zanjan
Postal code

Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be 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

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available