

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Effects of Post Isometric Relaxation and Bruegger's Exercises on Pain, Range of Motion and Disability in patients with Mechanical Neck Pain

#### Protocol summary

##### Study aim

To compare the effects of post isometric relaxation and bruegger's exercises on pain, Range of motion and disability in patients with mechanical neck pain .

##### Design

It will Single blinded randomized clinical trial with parallel group design. 24 Participants will be allocated to two groups equally by random computer number generator

##### Settings and conduct

It will be conducted at Arif memorial teaching hospital. Outcome assessor will be kept blind.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: Both male and female patients age ranged from 20-40 years and suffering from Mechanical neck pain for at least three months Exclusion criteria: any orthopedic or neurological condition surgery in the cervical spine or shoulder Patients having Inflammation, malignancy and metabolic disorder will be excluded Patients with neck pain radiating into arms and upper extremity will be excluded from this study Neck pain associated with headache and facial pain, recent surgery, Vertebrobasilar insufficiency (VBI) positive will be exclusion criteria: History of recent trauma and fractures of cervical spine will be excluded

##### Intervention groups

Group A: Post isometric relaxation: Total 20 sessions will be given to each patient in 4 weeks with 3 sessions per week Group B: Bruegger's exercise: Total 20 sessions will be given to each patient in 4 weeks with 3 sessions per week Baseline Treatment: Baseline treatment will be given as common treatment to both groups. It include Hot pack for 10-15 minutes

##### Main outcome variables

Pain: Numeric Pain Rating Scale (NPRS) ROM: Universal Goniometer Disability: Neck Disability Index (NDI)

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20220701055331N2**  
Registration date: **2024-06-11, 1403/03/22**  
Registration timing: **prospective**

Last update: **2024-06-11, 1403/03/22**

Update count: **0**

##### Registration date

2024-06-11, 1403/03/22

##### Registrant information

##### Name

Ifra Zulqarnain Awan

##### Name of organization / entity

Rashid Latif Medical College

##### Country

Pakistan

##### Phone

+92 333 4975431

##### Email address

ifra.awan@rlmc.edu.pk

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2024-06-15, 1403/03/26

##### Expected recruitment end date

2024-11-15, 1403/08/25

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Effects of Post Isometric Relaxation and Bruegger's Exercises on Pain, Range of Motion and Disability in

patients with Mechanical Neck Pain

### Public title

Effects of post isometric relaxation and Bruegger's exercises on pain, range of motion and disability in patients with mechanical neck pain

### Purpose

Treatment

### Inclusion/Exclusion criteria

#### Inclusion criteria:

Both male and female patients Age ranged from 20-40 years and suffering from Mechanical neck pain for at least three months

#### Exclusion criteria:

Any orthopedic or neurological condition surgery in the cervical spine or shoulder Patients having Inflammation, malignancy and metabolic disorder will be excluded Patients with neck pain radiating into arms and upper extremity will be excluded from this study Neck pain associated with headache and facial pain, recent surgery, Vertebrobasilar insufficiency (VBI) positive will be excluded History of recent trauma and fractures of cervical spine will be excluded

### Age

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

### Gender

Both

### Phase

N/A

### Groups that have been masked

- Outcome assessor

### Sample size

Target sample size: **24**

### Randomization (investigator's opinion)

Randomized

### Randomization description

Random computer number generator will be used for randomization. Assign unique identification numbers to participants, then use a reliable software tool to generate a list of random numbers. Match these numbers to participant IDs and allocate individuals to different study groups based on the sorted random numbers. Ensure that the randomization process is concealed and documented for transparency and integrity.

### Blinding (investigator's opinion)

Single blinded

### Blinding description

Single blinding in a study involves keeping the outcome assessor blind to the intervention received by the participants. This helps to minimize bias in assessing the study outcomes. To achieve single blinding, the outcome assessor is not informed about the treatment allocation of the participants and remains unaware of which group received the intervention being studied.

### Placebo

Not used

### Assignment

Parallel

### Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Institutional Review Board of Rashid Latif Medical College, Lahore.

##### Street address

35-KM Ferozepur Road Lahore

##### City

Lahore

##### Postal code

54600

#### Approval date

2023-12-25, 1402/10/04

#### Ethics committee reference number

IRB/2023/133

## Health conditions studied

### 1

#### Description of health condition studied

Mechanical neck pain

#### ICD-10 code

#### ICD-10 code description

## Primary outcomes

### 1

#### Description

Pain

#### Timepoint

Before intervention and 4 weeks after intervention

#### Method of measurement

Numeric pain rating scale to measure pain

### 2

#### Description

Range of motion

#### Timepoint

Before intervention and 4 weeks after intervention

#### Method of measurement

Range of motion will be measured by Universal goniometer

### 3

#### Description

Disability

#### Timepoint

before intervention and 4 weeks after intervention

#### Method of measurement

Neck disability index (NDI) will be used to measure disability

## Secondary outcomes

empty

## Intervention groups

1

### Description

Intervention group A: Post isometric relaxation exercise: Total 20 sessions will be given to each patient in 4 weeks with 3 sessions per week.

### Category

Rehabilitation

2

### Description

Intervention group B: Bruegger's exercise: Total 20 sessions will be given to each patient in 4 weeks with 3 sessions per week.

### Category

Rehabilitation

## Recruitment centers

1

### Recruitment center

#### Name of recruitment center

Arif Memorial Teaching Hospital

#### Full name of responsible person

Dr. Ifra Zulqarnain Awan

#### Street address

35-km ferozepur road Lahore

#### City

Lahore

#### Postal code

54600

#### Phone

+92 333 4975431

#### Email

ifra.awan@rlmc.edu.pk

## Sponsors / Funding sources

1

### Sponsor

#### Name of organization / entity

Rashid Latif Medical College

#### Full name of responsible person

Dr. Ifra Zulqarnain Awan

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35-km ferozepur road Lahore

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#### Email

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### Grant name

### Grant code / Reference number

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

Yes

### Title of funding source

Rashid Latif Medical College

### Proportion provided by this source

100

### Public or private sector

Private

### Domestic or foreign origin

Domestic

### Category of foreign source of funding

Sponsor: country of origin

### Country of origin

PK

### Type of organization providing the funding

Academic

## Person responsible for general inquiries

### Contact

#### Name of organization / entity

Rashid Latif Medical College

#### Full name of responsible person

Rouman Naseer

#### Position

Physiotherapist

#### Latest degree

Bachelor

#### Other areas of specialty/work

Physiotherapy

#### Street address

Rashid Latif Medical College 35-km Ferozpur Road

Lahore

#### City

Lahore

#### Province

Punjab

#### Postal code

54600

#### Phone

+92 333 4975431

#### Fax

#### Email

ifra.awan@rlmc.edu.pk

## Person responsible for scientific inquiries

### Contact

#### Name of organization / entity

Rashid Latif Medical College

#### Full name of responsible person

Dr. Ifra Zulqarnain Awan

#### Position

Lecturer/Physiotherapist

#### Latest degree

Master

#### Other areas of specialty/work

Physiotherapy

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## Person responsible for updating data

**Contact**

**Name of organization / entity**

Rashid Latif Medical College

**Full name of responsible person**

Dr. Ifra Zulqarnain Awan

**Position**

Lecturer/Physiotherapist

**Latest degree**

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**Other areas of specialty/work**

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## 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**

Not applicable

**Analytic Code**

Not applicable

**Data Dictionary**

Not applicable