# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

09 Nov 2026

## The effect of facilitatory and inhibitory kinesio tape on thoracic superficial erector spine muscle activity in healthy 18-25 year old men

## Protocol summary

**Study aim**
The effect of facilitatory and inhibitory kinesio tape on thoracic superficial erector spine muscle activity in healthy 18-25 years old men

**Design**
1) Facilitation taping from origin to insertion with 30% tension 2) Sham facilitation taping with no tension 3) Inhibition taping from insertion to origin with 30% tension 4) Sham inhibition taping with no tension The cases enter groups using the table of random numbers. The subjects will be blind in the study.

**Settings and conduct**
The study is done in Biomechanics Laboratory of Rehabilitation Faculty of Tabriz Subjects undergo to introduction and allergy test on the first day. Data recording will take place with surface Electromyography device. Subjects lay prone and researcher records data on 3 maximal trunk extension contraction, 3 record on resting and 3 records on subjects holding the horizontal position parallel to ground while their hip and legs are supported. All groups will have same phases and the tape application will be different.

**Participants/Inclusion and exclusion criteria**
Inclusion criteria:BMI=19-25, right hand dominant, normal kyphosis, age between 18-25 years old, muscle strength higher than 4 Exclusion criteria: spine pathology, allergy to tape, CNS or PNS conditions, back strain in the past 6 months, spine surgery history, spine malalignments, limb pathology

**Intervention groups**
4 groups of facilitation, facilitation sham, inhibition and inhibition sham

**Main outcome variables**
height; age; BMI; taping; maximal voluntary contraction; RMS; type of activity

## General information

**Reason for update**

**Acronym**

**IRCT registration information**
IRCT registration number: **IRCT20151007024412N4**
Registration date: **2019-01-31, 1397/11/11**
Registration timing: **prospective**

Last update: **2019-01-31, 1397/11/11**
Update count: **0**

**Registration date**
2019-01-31, 1397/11/11

**Registrant information**

**Name**
Sakineh Goljaryan

**Name of organization / entity**
Tabriz University of Medical Sciences

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Iran (Islamic Republic of)

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**Recruitment status**
**Recruitment complete**

**Funding source**

**Expected recruitment start date**
2019-02-20, 1397/12/01

**Expected recruitment end date**
2019-06-20, 1398/03/30

**Actual recruitment start date**
empty

**Actual recruitment end date**
empty

**Trial completion date**
empty

**Scientific title**
The effect of facilitatory and inhibitory kinesio tape on thoracic superficial erector spine muscle activity in

healthy 18-25 year old men

**Public title**
The effect of kinesio tape on back muscles
**Purpose**
Treatment
**Inclusion/Exclusion criteria**
**Inclusion criteria:**
right hand dominant normal kyphosis age between 18 to 25 old BMI between 19-25 Muscle Strength higher than 4
**Exclusion criteria:**
any spine pathology( fracture, tumor and inflammatory diseases) allergy to kinesiotape CNS or PNS diseases back muscles strain in the past 6 months surgery history malalignment and musculoskeletal conditions limb pathology history
**Age**
From **18 years** old to **25 years** old
**Gender**
Male

**Phase**
N/A
**Groups that have been masked**

- Participant

**Sample size**
Target sample size: **40**
**Randomization (investigator's opinion)**
Randomized
**Randomization description**
the subjects will be allocated to one of the groups using table of random numbers and receive the specific intervention
**Blinding (investigator's opinion)**
Single blinded
**Blinding description**
The size and color of tapes will be same and just the tension will be different so the participants won't know the difference.
**Placebo**
Used
**Assignment**
Parallel
**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

**Ethics committee**
**Name of ethics committee**
Ethics committee of Tabriz University of Medical Sciences
**Street address**
Golgasht St.
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**Postal code**
5166615363
**Approval date**
2020-01-22, 1398/11/02
**Ethics committee reference number**
IR.TBZMED.REC.1397.843

## Health conditions studied

### 1

**Description of health condition studied**
effect of kinesiotape on muscle activation
**ICD-10 code**
**ICD-10 code description**

## Primary outcomes

### 1

**Description**
amplitude of muscle activation
**Timepoint**
24 hours before tape application, after tape application, 48 hrs later before removing tape and after tape removing
**Method of measurement**
Megawin surface EMG device

## Secondary outcomes

empty

## Intervention groups

### 1

**Description**
Intervention group 1: Facilitation kinesiotape. Kinesiotape model is BB Tape made of Korea. the edges of the kinesiotape are cut to have a smoothed edge. tape is applied with 30% of tension(3 cm of both ends are applied without tension, only the mid point of the tape has tension) on right erector spine muscles from origin to insertion while the subjects are bent over and their hand are on their knees.
**Category**
Treatment - Other

### 2

**Description**
Intervention group 2: Facilitation sham kinesiotape. Kinesiotape model is BB Tape made of Korea. the edges of the kinesiotape are cut to have a smoothed edge. tape is applied with no tension on right erector spine muscles from origin to insertion while the subjects are bent over and their hand are on their knees.
**Category**
Placebo

**3**

**Description**
Intervention group 3: Inhibitory kinesiotape. Kinesiotape model is BB Tape made of Korea. the edges of the kinesiotape are cut to have a smoothed edge. tape is applied with 30% of tension(3 cm of both ends are applied without tension, only the mid point of the tape has tension) on right erector spine muscles from insertion to origin while the subjects are bent over and their hand are on their knees.
**Category**
Treatment - Other

**4**

**Description**
Intervention group 4: Inhibitory Sham kinesiotape. Kinesiotape model is BB Tape made of Korea. the edges of the kinesiotape are cut to have a smoothed edge. tape is applied with no tension on right erector spine muscles from insertion to origin while the subjects are bent over and their hand are on their knees.
**Category**
Placebo

## Recruitment centers

**1**

**Recruitment center**
**Name of recruitment center**
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**Full name of responsible person**
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## Sponsors / Funding sources

**1**

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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**
Tabriz University of Medical Sciences
**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**
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PHD of physiotherapy- Assisstant professor
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## Person responsible for scientific inquiries

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## Person responsible for updating data

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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**
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