

Clinical Trial Protocol

Iranian Registry of Clinical Trials

06 Jun 2026

The Immediate and Short-term Effects of Facilitatory Kinesiotaping of Gastrocnemius on Electrical Activity of the Muscle and Dynamic Balance in Healthy Nonathlete Middle-age Men (Double Blinded Randomized Control Trial)

Protocol summary

Study aim

To evaluate the effects of gastrocnemius facilitatory kinesiotaping on the muscle activity and dynamic balance in non-athletic middle-aged men

Design

Randomized double blinded clinical trial, with sham group, community based, pragmatic, parallel group

Settings and conduct

Electero-diagnosis Research Center, Faculty of Rehabilitation Sciences, Isfahan University of Medical Sciences. Participants, care provider, outcome assessor and the analyzer are blind.

Participants/Inclusion and exclusion criteria

Non-athletic healthy middle-age men between 40-65 years old will be included and those with the history of musculoskeletal condition and balance defects, regular exercise, pain and inability to perform the test will not be included.

Intervention groups

in intervention group the facilitatory gastrocnemius taping will be applied according to the manual by Kinesiotaping International Association. in sham group only anchor and end will be applied with no tension

Main outcome variables

Root Mean Square of Surface EMG records of medial and lateral gastrocnemius; Y balance records in anterior, posteromedial and posterolateral direction

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20150131020888N8**

Registration date: **2018-02-11, 1396/11/22**

Registration timing: **retrospective**

Last update: **2018-02-11, 1396/11/22**

Update count: **0**

Registration date

2018-02-11, 1396/11/22

Registrant information

Name

Zahra Sadat Rezaeian

Name of organization / entity

Isfahan University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Isfahan University of Medical Sciences

Expected recruitment start date

2017-02-20, 1395/12/02

Expected recruitment end date

2017-12-20, 1396/09/29

Actual recruitment start date

2017-02-20, 1395/12/02

Actual recruitment end date

2017-07-22, 1396/04/31

Trial completion date

empty

Scientific title

The Immediate and Short-term Effects of Facilitatory Kinesiotaping of Gastrocnemius on Electrical Activity of the Muscle and Dynamic Balance in Healthy Nonathlete Middle-age Men (Double Blinded Randomized Control Trial)

Public title

The Effects of Facilitatory Kinesiotaping of Gastrocnemius on Dynamic Balance in Healthy Nonathlete Middle-age Men

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Men Being Healthy Middle-age (40-65 years) Nonathlete

Exclusion criteria:

any known musculoskeletal, cardiovascular and chronic problems require medication; any neurological, vestibular, visual and hearing problems; arthritis or other joint-related problems during the past 12 months; previous allergies to adhesive tapes; previous Use of kinesiotape or knowledge about the effects it; regular exercise activities during the six months prior to the study and during the study; pain in lumbar and lower extremities during the selection process and inability to perform the test

Age

From **40 years** old to **65 years** old

Gender

Male

Phase

3

Groups that have been masked

- Participant
- Care provider
- Outcome assessor
- Data analyser

Sample size

Target sample size: **30**

More than 1 sample in each individual

Number of samples in each individual: **5**

before kinesiotaping, immediately after, 20 minutes after, 24 hours after kinesiotaping, immediately after kinesiotaping off

Actual sample size reached: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple individual randomization using coin. a blind person throw the coin. if the one group samples were allocated before the other, the remaining subjects will be allocated to the second group

Blinding (investigator's opinion)

Double blinded

Blinding description

1. Participants are blind to the optimal kinesiotaping method 2. The one who put the tapes on participants' calf is blind to the study design and intervention plan 3. The outcome assessor can not see the tape in subjects' calf since every subject will wear a calf cover 4. the analyzer knows the study groups as 1 and 2 and has no clue that which group is the true kinesiotaping group

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Isfahan University of Medical Sciences, Ethics Committee

Street address

Hezar Jarib Aven. Isfahan University of Medical Sciences, Faculty of Rehabilitation Sciences

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81745-164

Approval date

2017-02-05, 1395/11/17

Ethics committee reference number

IR.MUI.REC.1395.3.814

Health conditions studied

1

Description of health condition studied

electromyography

ICD-10 code

ICD-10 code description

2

Description of health condition studied

balance

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Electrical Muscle Activity

Timepoint

Before, Immediately, 20 Minutes and 24 Hours after Kinesiotaping, Immediately after tape removal

Method of measurement

Surface Electeromyography

2

Description

Dynamic Balance

Timepoint

Before, Immediately, 20 Minutes and 24 Hours after

Kinesiotaping, Immediately after tape removal
Method of measurement
strip meter

Secondary outcomes

empty

Intervention groups

1

Description

Control (Sham) Group: this group will have sham kinesiotaping on origin and insertion of Gastrocnemius muscle of the dominant leg just as the anchor and end section of KT in intervention group. Sham KT will be from the same KT brand and will be applied b

Category

Rehabilitation

2

Description

Intervention Group: this group will have facilitatory kinesiotaping from origin to insertion of Gastrocnemius muscle of the dominant leg. the subject lies in prone, the "I" strap proposed by kase et al with no tension on the anchor, by 15-35% stretch in

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Electrophysiology Research Center

Full name of responsible person

Dr. Zahra Sadat Rezaeian

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Isfahan University of Medical Sciences, Vice
Chancellor of Research and Technology

Full name of responsible person

Dr. Mehdi Nemat Bakhsh

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Grant name

Grant code / Reference number

395814

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

Yes

Title of funding source

Isfahan University of Medical Sciences, Vice Chancellor
of Research and Technology

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

Electrophysiology Research Center, Department of
Physical therapy, Faculty of Rehabilitation Science

Full name of responsible person

Dr. Zahra Sadat Rezaeian

Position

PhD, Assistant Professor

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is no further information

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available