

# Kinesio taping for individuals with carpal tunnel syndrome

<b>Submission date</b> 08/08/2022	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 12/08/2022	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 03/12/2024	<b>Condition category</b> Musculoskeletal Diseases	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Carpal tunnel syndrome (CTS) is a common neuromuscular disorder. The symptoms of CTS included numbness and may further influence the ability of daily activities. The limited studies in investigating the effects of the kinesio taping (KT) in individuals with CTS. Thus, the purpose of this study was to investigate the effect of KT on the pain intensity and disability levels of daily activities in individuals with mild to moderate CTS.

### Who can participate?

Individuals aged 18 - 65 years, diagnosed with mild to moderate CTS by a physician

### What does the study involve?

This study was a randomized controlled parallel design study. Participants with CTS were assigned to the (1) conventional therapy group and the (2) conventional therapy combined kinesio taping group for 6 weeks. The electroneuromyography assessments, hand grip strength and subjective questionnaires (such as pain intensity and disability levels) were measured.

### What are the possible benefits and risks of participating:?

Benefits: The pain intensity may be relieved after completing a 6-week experiment.

Risks: Participants may experience skin discomfort due to the allergy to kinesio taping.

### Where is the study run fro?

Taichung Veterans General Hospital (Taiwan)

### When is the study starting and how long is it expected to run for?

September 2020 to May 2021

### Who is funding the study?

This study was supported by the Ministry of Science and Technology, Taiwan (MOST111-2410-H-037-025-MY2) and National Yang Ming Chiao Tung and Kaohsiung Medical University joint project (NYCUKMU-111-I006) (Taiwan)

Who is the main contact?  
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## Contact information

### Type(s)

Principal Investigator

### Contact name

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### Contact details

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## Additional identifiers

### EudraCT/CTIS number

Nil known

### IRAS number

### ClinicalTrials.gov number

Nil known

### Secondary identifying numbers

CF20351A

## Study information

### Scientific Title

Effects of Kinesio tape for individuals with carpal tunnel syndrome: A randomized controlled study

### Study objectives

This study hypothesized that the pain intensity, hand grip strength, wrist function, nerve conduction velocity, and the motor latency improved after kinesio taping intervention, in addition, the extent of difference of pre- and post-measurements were greater after kinesio taping intervention compared to the conventional therapy only.

### Ethics approval required

Old ethics approval format

**Ethics approval(s)**

Approved 11/10/2021, Institutional review board of Taichung Veterans General Hospital (1650 Taiwan Boulevard Sect. 4, Taichung, Taiwan 40705, R.O.C; +886-4-23592525#4006; irbtc@vghtc.gov.tw), ref: CF20351A

**Study design**

Randomized controlled parallel trial

**Primary study design**

Interventional

**Secondary study design**

Randomised parallel trial

**Study setting(s)**

Hospital

**Study type(s)**

Treatment

**Participant information sheet**

No participant information sheet available

**Health condition(s) or problem(s) studied**

Treatment in individuals with carpal tunnel syndrome

**Interventions**

This study contained kinesio taping group and the control group.

For kinesio taping group, in addition to the conventional physical therapy, the kinesio tape (SKT-X-050, JAPAN, 50mm×4.6m) was applied on the forearm (from the elbow joint to the wrist joint) for six weeks, twice a week, and the kinesio tape was kept on the taping site for 2 days.

There was two kinesio tapes applied to a participant in one intervention session. Participants were asked to keep their wrists extended at 30 degrees with forearm supination. The x-shape kinesio tape was applied to the mediolateral epicondyles in a tension-free manner first. Then, the kinesio tape was attached through the forearm with a slight tension (15-25%) to the first and fifth metacarpophalangeal joint without tension.

The second kinesio tape was an I-shape tape. After the center point of the sticker was attached on the dorsal side of the distal radioulnar joint, the two ends were adhered to both sides of the distal radioulnar joint with a slight tension (15-20%).

Participants in the control group received conventional physical therapy including heat therapy, transcutaneous electrical nerve stimulation, ultrasound and laser treatment twice a week for six weeks.

Participants with CTS were assigned to the (1) conventional therapy group and the (2) conventional therapy combined kinesio taping group. This study drew lots to assign participants with CTS in different groups randomly. An assistant who did not participate this study drew lots. The outcome measurements were performed at the baseline and after a six-week intervention.

**Intervention Type**

Other

### **Primary outcome measure**

Measured at baseline and 6-weeks:

1. Pain intensity measured using Visual Analogue Scale
2. Hand grip strength measured using HAND Dynamometer
3. Severity and the disability levels of hand measured using Boston Carpal Tunnel Questionnaire

### **Secondary outcome measures**

Nerve conduction velocity, motor and sensory latency, motor amplitude measured using electroneurography at baseline and 6 weeks

### **Overall study start date**

20/09/2020

### **Completion date**

31/05/2021

## **Eligibility**

### **Key inclusion criteria**

1. Aged 18 - 65 years
2. Diagnosed with mild to moderate CTS by a physician
3. CTS symptoms persisted for at least 3 months

### **Participant type(s)**

Patient

### **Age group**

Adult

### **Lower age limit**

18 Years

### **Sex**

Not Specified

### **Target number of participants**

40

### **Total final enrolment**

27

### **Key exclusion criteria**

1. Severe CTS diagnosed by a physician and atrophy of the palm muscles
2. Steroids injection on the wrist in the past 1 year
3. Skin status was not suitable for kinesio tape, such as psoriasis, or was currently allergic, inflammation or has open wounds
4. History of surgery on the wrist

**Date of first enrolment**

01/01/2021

**Date of final enrolment**

19/04/2021

## **Locations**

**Countries of recruitment**

Taiwan

**Study participating centre**

**Taichung Veterans General Hospital**

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## **Sponsor information**

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**Sponsor type**

University/education

**Website**

<https://www.kmu.edu.tw/index.php/en-gb/>

**ROR**

<https://ror.org/03gk81f96>

## **Funder(s)**

**Funder type**

Government

**Funder Name**

Ministry of Science and Technology, Taiwan

**Alternative Name(s)**

Ministry of Science and Technology, R.O.C. (Taiwan), Ministry of Science and Technology of Taiwan, MOST

**Funding Body Type**

Government organisation

**Funding Body Subtype**

National government

**Location**

Taiwan

**Funder Name**

National Yang Ming Chiao Tung and Kaohsiung Medical University joint project

## Results and Publications

**Publication and dissemination plan**

Planned publication in a high-impact peer-reviewed journal

**Intention to publish date**

31/12/2024

**Individual participant data (IPD) sharing plan**

The datasets generated and/or analysed during the current study will be included in the subsequent results publication

**IPD sharing plan summary**

Published as a supplement to the results publication

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>		08/11/2024	03/12/2024	Yes	No