

# The use of Kinesio taping for managing elbow pain

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		<input type="checkbox"/> Protocol
<b>Registration date</b> 14/02/2017	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
<b>Last Edited</b> 15/03/2023	<b>Condition category</b> Injury, Occupational Diseases, Poisoning	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Chronic lateral epicondylitis is a long-term condition in which the outer part of the elbow becomes sore and tender. It is often referred to as "tennis elbow" as it often occurs due to strenuous overuse of the muscles and tendons of the forearm and around the elbow joint, such as by playing tennis or other racquet sports. Kinesio taping (KT) is a technique used in physiotherapy in order to help to provide support and stability to muscles and joints, without restricting a person's range of motion. It is commonly used to treat a range of conditions and previous studies have shown that it can be very effective at aiding healing and providing support. The tape is an elastic woven-cotton strip with heat-sensitive acrylic adhesive and can stretch 120%~140% of its original length. The aim of this study is to assess the immediate effect of KT on pain reduction in patients with tennis elbow.

### Who can participate?

Adult patients with tennis elbow.

### What does the study involve?

Participants attend two sessions spaced three days apart in a random order. In one session, participants undergo 15 minutes of Kinesio taping. This involves having special tape called Kinesio Tex Tape applied to the arm when it is straight at the elbow and bent at the wrist to create tension. In the other session, "sham" tape is applied, which involves ordinary tape being applied while the arm is in a relaxed position. In each session, before and after the taping, participants are asked to rate their pain levels.

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

Participants who receive the Kinesio taping may benefit from a reduction of pain. There is a small risk of skin irritation from the tape used.

### Where is the study run from?

Wan-Fang Hospital (Taiwan)

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

February 2016 to February 2018

Who is funding the study?  
Wan Fang Medical Center (Taiwan)

Who is the main contact?  
Dr Yen-Nung Lin

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Dr Yen-Nung Lin

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## Additional identifiers

**EudraCT/CTIS number**

**IRAS number**

**ClinicalTrials.gov number**

**Secondary identifying numbers**  
201505008

## Study information

**Scientific Title**  
The effectiveness of Kinesio taping on pain reduction in patients with chronic lateral epicondylitis: A randomized, double-blinded, cross-over study

**Study objectives**  
The aim of this study is to compare the effectiveness of Kinesio Taping with Sham Taping on pain reduction and other outcomes for patients with chronic lateral epicondylitis.

**Ethics approval required**  
Old ethics approval format

**Ethics approval(s)**

The Institutional Review Board of Taipei Medical University, 16/04/2016

**Study design**

Double-blind randomized cross-over trial

**Primary study design**

Interventional

**Secondary study design**

Randomised cross over trial

**Study setting(s)**

Hospital

**Study type(s)**

Treatment

**Participant information sheet**

No participant information sheet available

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

Lateral epicondylitis (tennis elbow)

**Interventions**

Participants are randomised to receive two taping sessions in a random order by a coin toss. There is a three day wash-out period between the two sessions.

Session 1: Participants receive 15 minutes of Kinesio Taping (KT) using two strips of Kinesio Tex Tape. The main strip is applied along the extensor muscles with the second strip vertical to the first one on the proximal forearm while the elbow is extended and the wrist ulnar is deviated and flexed. The tape is then cut into an Y-shape and the tape head is applied (anchor) at the wrist, stretched slightly with 20% of available tension to the tails, laying down the tape ends with no tension, and applying pressure to the tape surface to initiate adhesion. The anchor of the second strip is applied with no tension below the area of adhesion, at 40% tension to each tail, laid down the ends with no tension, and with pressure applied to the tape surface to initiate adhesion.

Session 2: Participants receive 15 minutes of Sham Taping (ST) using Elastic Adhesive Tape (3M™). The procedure is similar to the KT procedure, except that the wrist is placed in a neutral rather than a flexed position when applying the tape with no tension created.

In each session, before and after the 15 minutes of taping, participants are asked to rate their pain levels using a range of questionnaires.

**Intervention Type**

Other

**Primary outcome measure**

Pain on resisted wrist extension is measured using a numerical rating scale (NRS) before and after 15 minutes of taping in each session.

### **Secondary outcome measures**

1. Pain at rest is measured using a numerical rating scale (NRS) before and after 15 minutes of taping in each session
2. Pain-free grip strength is measured using a dynamometer (JAMAR Plus, Patterson Medical, Canada) before and after 15 minutes of taping in each session
3. Pain threshold is measured by applying the 1-cm<sup>2</sup> rubber probe tip of a digital algometer (Force Ten FDX Force Gage, Wagner Instruments, USA) to the most palpably tender site over the lateral epicondyle before and after 15 minutes of taping in each session

### **Overall study start date**

01/02/2016

### **Completion date**

17/03/2017

## **Eligibility**

### **Key inclusion criteria**

1. Diagnosed with chronic lateral epicondylitis
2. Visiting the rehabilitation outpatient department of Wan-Fang Hospital
3. Aged 20 to 80 years

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

Patient

### **Age group**

Mixed

### **Sex**

Both

### **Target number of participants**

20

### **Total final enrolment**

15

### **Key exclusion criteria**

1. Experience with KT treatment previously
2. Received a steroid injection for lateral epicondylitis within the past 3 months
3. Suspected of having elbow arthritis
4. Wounds where the tape is to be applied

### **Date of first enrolment**

16/04/2016

### **Date of final enrolment**

01/03/2017

# Locations

## Countries of recruitment

Taiwan

## Study participating centre

### Wan-Fang Hospital

No.111, Hsing-Long Road, Section 3

Taipei

Taiwan

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# Sponsor information

## Organisation

Wan Fang Medical Center

## Sponsor details

Taipei Medical University

No.111, Hsing-Long Road

Section 3

Taipei

Taiwan

116

## Sponsor type

Hospital/treatment centre

## ROR

<https://ror.org/058y0nn10>

# Funder(s)

## Funder type

Hospital/treatment centre

## Funder Name

Wan Fang Medical Center

# Results and Publications

## Publication and dissemination plan

Planned publication of study results in a peer reviewed journal.

## Intention to publish date

31/12/2018

## Individual participant data (IPD) sharing plan

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

## IPD sharing plan summary

Other

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Basic results</a>		17/03/2017	23/03/2017	No	No
<a href="#">Results article</a>		19/06/2018	15/03/2023	Yes	No