

# Effectiveness of splinting in the treatment of trigger finger

<b>Submission date</b> 21/09/2022	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 28/09/2022	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 29/12/2023	<b>Condition category</b> Musculoskeletal Diseases	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aim

Trigger finger is a common clinical disorder that affects about 2.6% of the general population and is characterized by clicking and/or catching during finger movement. A trigger finger often results in pain and functional limitations, which often affect one's performance in activities of daily living, work, and leisure. Hand therapy and splinting offer alternative options for patients who do not wish to endure steroid injections or surgery. Hand therapy intervention and splinting are non-invasive and may provide relief for the idiopathic trigger finger. However, the evidence for their effectiveness remains limited. The aim of the study is to evaluate the effect of hand therapy in comparison to hand therapy and the use of a splint in the treatment of trigger fingers.

### Who can participate?

Individuals with a trigger finger

### What does studying involve?

An occupational therapist assesses the hand's movement and pain and will provide intervention (either a finger splint or an exercise program). The study will run in Kuwait, and each participant will be followed for six months

### What are the benefits and risks of taking part in this study?

This study will help us understand which treatment method is more effective in treating trigger fingers. There are no risks to participating in this study.

### Where is the study run from?

Physical Medicine & Rehabilitation Hospital (Kuwait)

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

September 2020 to August 2022

### Who is funding the study?

Investigator initiated and funded

Who is the main contact?  
Dr Mohammed Sh. Nadar (Kuwait)  
mohammed.nadar@ku.edu.kw

## Contact information

### Type(s)

Principal investigator

### Contact name

Dr Mohammed Nadar

### ORCID ID

<https://orcid.org/0000-0003-4281-5630>

### Contact details

Occupational Therapy Department  
Faculty of Allied Health Sciences  
Kuwait University  
Jabriah  
Kuwait  
00000  
+965 2463 3491  
mohammed.nadar@ku.edu.kw

## Additional identifiers

### Clinical Trials Information System (CTIS)

Nil known

### ClinicalTrials.gov (NCT)

Nil known

### Protocol serial number

Nil known

## Study information

### Scientific Title

Splinting versus exercise for the treatment of adult idiopathic trigger fingers

### Study objectives

Splinting is more effective than hand therapy in treating adult idiopathic trigger finger

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

Approved 25/04/2022, Kuwait University Health Sciences Center Ethical Committee (Centre for Research Support & Conferences, Office of the Vice Dean for Research & Postgraduate Studies, HSC, Faculty of Medicine, P.O. Box 24923, Safat 13110, Kuwait; +965 24634524; hsc.ethicalcommittee@ku.edu.kw), ref: VDR/EC – 4019

## **Study design**

Double-blind randomized controlled study

## **Primary study design**

Interventional

## **Study type(s)**

Treatment

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

Idiopathic trigger finger

## **Interventions**

The study has two groups:

1. The hand therapy control group
2. The experimental group, with splinting of the proximal interphalangeal (PIP) joint of the involved finger, in addition to the hand therapy program.

A simple randomization procedure of computer-generated random numbers was used to assign patients to hand therapy alone versus hand therapy in combination with joint blocking splinting trial arms.

The participants from both groups were required to attend one session of therapy per week, for six consecutive weeks, in addition to following a hand therapy home program. The participants were instructed to perform their therapy program three times a day as a home program.

For the experimental splint group, the participants received a static ready-made Oval-8 splint that immobilizes the PIP joint of the involved digit at approximately zero degrees, while maintaining the metacarpophalangeal (MCP) and distal interphalangeal (DIP) joints unrestricted. The PIP joint was immobilized day and night for 6 weeks. The splint allowed full movement of the MCP and DIP joints. In addition to the splint, the experimental group received the same hand therapy intervention as the control group.

At a four-month follow-up, the discharged participants were asked to return to the clinic for a final assessment.

## **Intervention Type**

Device

## **Phase**

Not Applicable

## **Drug/device/biological/vaccine name(s)**

Proximal interphalangeal joint blocking splint

## **Primary outcome(s)**

The outcome measures were collected at baseline, 6 weeks, and 4 months:

1. Pain measured using a Numeric Pain Rating Scale (NPRS)
2. Severity of triggering measured using Green's classification of triggering
3. Upper extremity function in daily life activities measured using the short-form version of the Disabilities of the Arm Shoulder and Hand (QuickDASH).

**Key secondary outcome(s))**

There are no secondary outcome measures

**Completion date**

30/08/2022

## **Eligibility**

**Key inclusion criteria**

1. Confirmed clinical diagnosis of trigger finger at the A1 pulley
2. Affecting a single digit
3. Trigger finger of idiopathic origin
4. Green's grade 2 or 3

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Total final enrolment**

49

**Key exclusion criteria**

1. Trigger thumb
2. Multiple digit involvements
3. Presence of an associated condition (i.e., diabetes mellitus, de Quervain's tenosynovitis, carpal tunnel syndrome, osteoarthritis, rheumatoid arthritis, gout, or hypothyroidism)
4. Caused by trauma (i.e., presence of chronic trauma or repetitive strain)
5. Use of a nonsteroidal anti-inflammatory drug (NSAID)
6. Previous treatments for the involved trigger digit

**Date of first enrolment**

01/05/2022

**Date of final enrolment**

15/08/2022

# Locations

## Countries of recruitment

Kuwait

## Study participating centre

**Physical Medicine & Rehabilitation Hospital**

Ibraheem Dhahi Al Dhahi St

Andalous

Kuwait

00000

# Sponsor information

## Organisation

Kuwait University

## ROR

<https://ror.org/021e5j056>

# Funder(s)

## Funder type

Other

## Funder Name

Investigator initiated and funded

# Results and Publications

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analyzed during the current study will be available upon reasonable request from the study author (Mohammed Nadar, [mohammed.nadar@ku.edu.kw](mailto:mohammed.nadar@ku.edu.kw)). The data can be available in Excell format, with no time restriction, to any researcher.

## IPD sharing plan summary

Available on request

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
-------------	---------	--------------	------------	----------------	-----------------

<a href="#">Results article</a>		20/10/2023	29/12/2023	Yes	No
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes