

Alyssa Curtis, OTS, Sarah Greenwalt, OTS, Erik Huffman, OTS, Kristen Lucas, OTS  
Hawai'i Pacific University, Doctor of Occupational Therapy Program, Honolulu, Hawai'i

## Condition

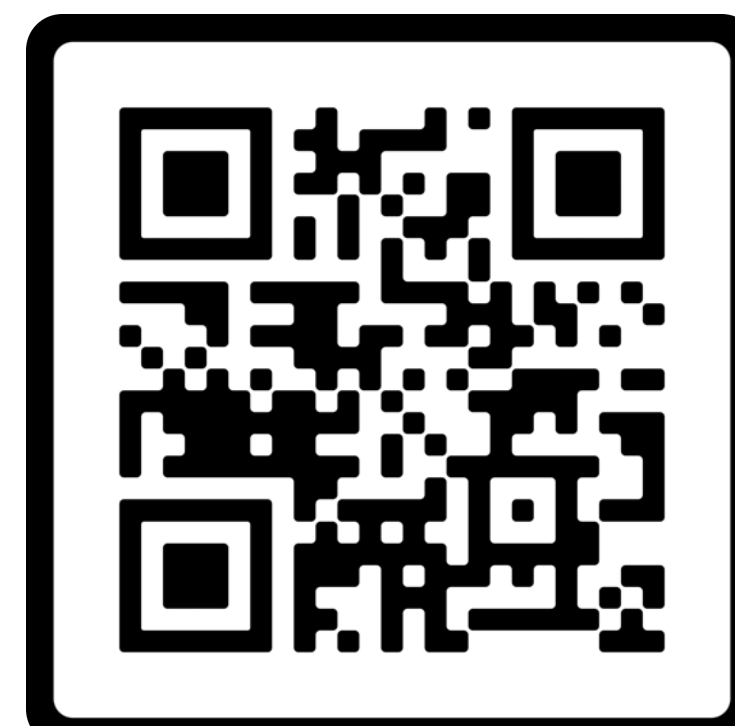
- **Overview of the diagnosis/condition**
  - When a digit is stuck in a bent position. It mainly affects the thumb but can affect any digit.
- **Etiology/ common mechanism of injury**
  - It can occur when the tendon can't glide smoothly, which can be caused by irritation or inflammation. It can occur from repetitive finger movement or trauma to the tendon.
- **Signs/symptoms, precautions**
  - Popping or clicking sensation during movement
  - Finger locked in a bent position
  - Stiffness in finger
  - Repeated gripping can inflame the area more

## OT Assessments/Special Tests

- QuickDash
- DASH
- Quinell Grade
- Michigan Hand Questionnaire (MHQ)
- MMT
- SST (Stages of stenosing tenosynovitis)
- Pain Scale

## Evidence-Based Interventions & HEP

- Nighttime Splinting (Atthakomol et al., 2023; Colbourn et al., 2008; Drijkoningen et al., 2018).
- Splinting with difference wearing schedules (Avery et al., 2020; Valdes, 2012).
- Steroid injections (Atthakomol et al., 2023).



## Research Question

Is nighttime splinting an effective intervention for patients experiencing trigger finger to increase functional use of the affected hand?



Figure 1: Single digit orthosis (Volar view of night orthotic)



Figure 2: Thumb orthosis



Figure 3: Multiple digit orthosis

## Method

Systematic review consisting of five articles related to the effectiveness of splinting for trigger finger in one or more digits. Adhered to PRISMA standards.

A broad literature search was conducted with articles from the last ten years. Inclusion criteria was as follows: peer-reviewed, published in English, and dated between 2014 and 2024. Exclusion criteria were as follows: systematic reviews, scoping reviews, dissertations and presentations.

Databases searched included Medline, Pubmed, Sage Journals, and EBSCOHost through Hawai'i Pacific University's online library database.

## Results

Two different themes were identified from five articles selected.

**Splinting at Night:** Three of the five studies on the topic discussed efficacy of splinting for trigger finger at night. All three articles within this theme provided evidence that splinting is effective and potentially beneficial in reducing symptoms.

**Multiple Splinting Schedules:** Two of the five studies compared multiple splinting schedules and found that some form of a continuous wear schedule provided the most positive results.

## Discussion & Implications for OT Practice

Splinting for trigger finger improves hand function, increases engagement in daily occupations, while also decreases symptoms and pain.

- Nighttime splinting is an effective intervention that does not significantly limit daily life tasks.
- Splinting can promote patient's independence by increasing functional use of the hand.
- Splinting can be tailored to meet individual needs and desired outcomes.
- Nighttime splinting requires more research and literature as it becomes more commonly used in practice.

## References

