
Recently Reviewed and Updated CAT June 2018

Short Question:

Specific Question:

Does exercise or splinting in the treatment of trigger finger reduce pain, improve range of movement, grip strength, function and return to work when compared with usual care?

Clinical bottom line

There is a lack of quality evidence for exercise and splinting in the management of adult trigger finger. However, in the absence of evidence of harm or effectiveness of these interventions, they maybe an option for those individuals who wish to avoid invasive procedures.

Why is this important?

Adults (18+) are referred to therapy departments for exercise and splinting to manage trigger finger symptoms. There are differing opinions on exercise regimes, splint design and wear regimes.

Inclusion Criteria

Adult patients 18+ Patients with a medical diagnosis of trigger finger (stenosing tenosynovitis)

Search 2004- 2010 (Original CAT completed 2012)

Updated search October 2010 to October 2017

Previous CAT Lead: Carol Graham

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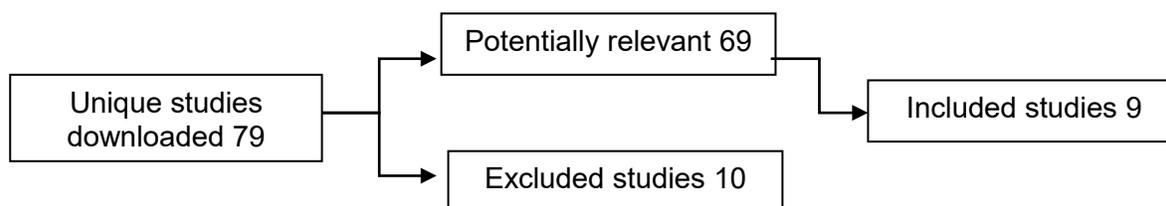
Date CAT to be reviewed: 2021

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	Description	Search terms
Population and Setting	Adults 18+ in primary or secondary care setting with trigger finger/ stenosing tenosynovitis	Human adults Primary/secondary care Trigger finger Stenosing tenosynovitis
Intervention or Exposure (i.e. what is being tested)	Physiotherapy Occupational Therapy Hand therapy Exercise Splint Orthotics	Passive mobilisation Passive exercise Active exercise Active movement Stretches Splints Orthoses
Comparison, if any	Routine care Usual care Advice Any other treatment Steroid injection Surgery	Routine care Usual care Advice Education Any other treatment Steroid injection
Outcomes of interest	Range of movement (ROM) Grip strength Return to work Function Reduction in pain Quality of life Cost effectiveness	Range of movement (ROM) Grip strength Grip Return to work Pain Quality of life Cost effectiveness Cost benefits
Types of studies	Systematic reviews RCT's Qualitative studies Patient satisfaction studies	

Results (from the previous CAT)



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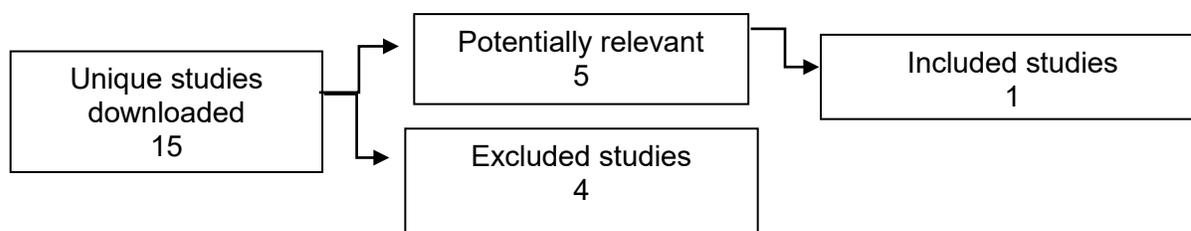
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Results of updated search



First Author, year and type of study	Population and setting	Intervention or exposure tested	Study results	Assessment of quality and comments
Amirfeyz R et al. 2016 BEST systematic review	Adults 16yrs plus with trigger digit (thumb or finger)	Split into operative and non-operative treatment. Non operative review included evaluation of trials with use of splinting, local corticosteroid injection, treatment, stretching/muscle stretching exercise, wax therapy, heat, ultrasound, electrotherapy and acupuncture	<p>Non-operative component identified 2 studies – both comparing efficacy of steroids therefore not relevant to CAT No robust RCT's on exercise or splinting but evidence was reviewed.</p> <p>Minimal evidence of hand therapy techniques one study (Salim 2011) comparing steroid injection with hand therapy showed significance in reduction of triggering, VAS pain scores for both treatment modalities and no recurrence of symptoms in hand therapy group at 6 months..</p>	<p>Good quality review with defined search strategy and methodology. Includes results on those included in systematic review in addition to discussion on splinting and hand therapy RCT's excluded from the review.</p> <p>Recommends well designed, large RCT's for:</p> <ul style="list-style-type: none"> DIP and MCP joint splints (with corticosteroid injection) <p>Individual hand therapy treatments Poor quality study lacking in detail of hand therapy treatments and injection depth, in addition to multiple hand therapy modalities used</p>

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Conclusions

There remains a lack of good quality evidence on exercise and splinting in the management of trigger finger. There is lack of consensus regarding exercises; splint design and optimal splint wear regimes.

Implications for Practice/research

Splinting is non-invasive and may provide short term relief in reducing triggering symptoms with minimal complications. However, there is a lack of comprehensive data to support its use.

The following should be considered:

- Time and cost required for fabrication and maintenance of a splint compared to a single steroid injection.
- Potential negative effects on neighbouring digits and hand function if splinting used long term.

Splinting maybe an option for individuals who do not wish to have corticosteroid injections or pursue surgery.

Further research should include large, well designed RCT's looking at MCP and DIP joint splinting with corticosteroid injection and at individual hand therapy treatment modalities.

References (*new references in italics and blue*)

Akhtar et al (2005) Management and referral for trigger finger /thumb. BMJ vol 331 July

Amirfeyz R et al 2016 British society of the Hand Evidence for Surgical Treatment (BEST)

Colbourn J et al (2008) Effectiveness of splinting for treatment of trigger finger. Journal of Hand Therapy 21(4)336-43

Corticosteroid injections compared to splinting or surgery for trigger finger in adults, (April 2010), DUETS

Fleisch SB et al (2007) Corticosteroid injections in the treatment of trigger finger: a level I & II systematic review. Journal of the American Academy of Orthopaedic Surgeons; 15(3): 166-171. Database of Abstracts of Reviews of Effects (DARE) 2008
http://healthguides.mapofmedicine.com/choices/map/trigger_finger2.html
<http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/535/CN-0647535/frame.html>

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Makkouk AH, et al (2008) Trigger finger: etiology, evaluation, and treatment. *Curr Rev Musculoskeletal Med* 1: 92-6

PATEL M & Bassini L (1992) Trigger fingers and thumb: when to splint, inject, or operate. *The Journal of Hand Surgery*, Vol 17a 1:110-113

Peters-Veluthamaningal C et al (2009) Corticosteroid injection for trigger finger in adults. *Cochrane Database of Systematic Reviews* 2009, Issue 1

Rogers J et al (1998) Functional distal interphalangeal joint splinting for trigger finger in labourers: a review and cadaver investigation. *Orthopaedics*, vol 21 p305-310

Trigger finger Map of medicine (July 2011)

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