

This primary care pathway was co-designed provincially by Primary Care Providers, Specialist Physicians (Hand and Wrist specialists including plastic surgeons and orthopedic surgeons; rehabilitation medicine), Patient and Family Advisors, and the Provincial Pathways Unit. It is intended to be used in conjunction with specialty advice services, when required, to support care within the medical home.

# EXPANDED DETAILS

## **Pathway Primer**

Trigger finger (stenosing tenosynovitis) can happen in fingers and thumbs and occurs when there is impaired tendon gliding at the level of the A1 digital pulley [1]. This results in pain in the palmar region and digit catching/locking. The overall incidence of developing trigger finger is 2-3% in the general population and 10-20% for those with diabetes mellitus [2]. The condition is six times more common in women and usually occurs in 5<sup>th</sup> and 6<sup>th</sup> decades of life [2].

Trigger finger can be diagnosed by history, symptoms and a physical exam. Trigger finger is one of the most common reasons for referral for hand surgery (<u>Trigger finger: Symptoms and Anatomy Video</u>) but can usually be managed in primary care and most cases will resolve with non-operative management [3].

### 1. History

### **Present illness**

- Presence of palmar tenderness/pain at the A1 pulley site (base of each digit where the digit meets the palm [16]): Pain at the base of the affected finger or thumb is often the initial symptom. Pain is initially felt only when activities like gripping are performed but may progress and occur without hand use [5].
- Triggering, locking, catching, clicking reported: Even though pathology is at the A1 pulley site (MCP), patients report the catching/locking/clicking at the PIP joint (finger) or IP joint (thumb).
- Stiffness or loss of motion: Loss in ability to bend and/or straighten finger [5]. Digit may be fully flexed to the palm upon waking and then relax throughout the waking hours.
- History of finger getting caught in flexion at the PIP joint.
- Treatments to date and their effectiveness.



Image 1: Adapted from Mayo Clinic [4]

### Relevant medical history:

Although the cause of trigger finger is not usually known, there are conditions that have been shown to increase one's risk [5].

- **Diabetes Mellitus:** Refer early as the condition is often more profound and impacts multiple digits. Patients with diabetes and multiple digit involvement are less likely to get permanent symptom relief from conservative management. Good glycemic control is imperative to reduce symptoms and the risk of infection if surgical management is ultimately undertaken.
- Inflammatory Arthritis: Treat underlying cause and consult rheumatology as necessary. Patients with inflammatory arthritis may be less likely to respond to conservative management unless arthritis is well controlled.
- **Carpal Tunnel Syndrome** has been associated with multiple trigger fingers (see <u>Provincial</u> <u>Carpal Tunnel Syndrome (CTS) Primary Care Clinical Pathway</u>). Multiple trigger fingers are a reason for early referral.

# 2. Physical Exam

- Resting posture of the digit: Full extension vs flexion contracture of PIP joint.
- Palpation along the flexor (palmar) surface of the fingers: Tenderness, pain and/or nodule over A1 pulley.
- Triggering over A1 pulley (may not be present at time of examination)
  - Edema, pain and/or nodule at the A1 pulley.
  - Ask the patient to make a fist while applying pressure over the affected tendon. This will often elicit pain and clicking [3].
  - Patients may have difficulty extending the digit and may require the use of their opposite hand to obtain full range of motion [1].
  - The most painful finger can overshadow the others. All affected digits should be treated at the same time regardless of severity [1].
- Locked digits: If flexion contracture is noted upon initial exam or develops while non-operative measures are being trialed, the patient should be referred urgently to a hand and wrist surgeon.
  If steroids have not yet been trialed, refer the patient for steroid injections as this treatment may downgrade the severity of trigger finger while the patient awaits appointment with a specialist.
- Trigger finger severity: This information may help triage referrals. Patients with locked trigger fingers should be referred most urgently.

**Note:** History of triggering is sufficient. The patient does not need to be able to demonstrate triggering during the in-office exam.

### Other considerations

- Dupuytren's contracture: Painless; palpable cord (line of nodules) and/or pitting along the palm or fingers. See <u>Provincial Dupuytren's Disease Primary Care Clinical Pathway</u>.
- Unclear clinical picture: Imaging is not necessary unless the diagnosis is uncertain, exam findings are atypical or to rule out other pathology. Ultrasound **may** be beneficial in some cases (where uncertainty exists, <u>not for routine cases</u>).

# 3. Non-Operative Management Strategies

**Treatments can be trialed <u>simultaneously</u>**. Goal of conservative management is to reduce swelling and inflammation to allow smooth and painless motion of the finger(s) and/or thumb(s). Recovery is best achieved with early diagnosis and treatment [5] [6]. The European Handgroup recommends that the main factors to be considered when choosing treatment options are: 1) severity, 2) duration, and 3) previous treatments trialed [7].

Treatment can include one or all of the approaches below based on patient circumstances and preference.

### • Time and rest

- Resting the hand will reduce inflammation. This on its own may improve/resolve symptoms. There have been limited studies conducted to evaluate the natural history of trigger finger and the rate of spontaneous recovery. A study by McKee et al., reported complete spontaneous resolution ("no treatment") of trigger finger symptoms in 52% of the patients they evaluated (mean time 8 months post initial consult) [8].
- Limit triggering/exacerbating activities (e.g., forceful, repetitive or sustained gripping) [5].
- **Splinting**: Suitable for patients with mild symptoms/early presentation of trigger finger or those who decline corticosteroid injections. Splint with either the MCP or PIP in full extension during sleep only for a trial of 2 months. Splinting during waking hours is not needed. Splints can be purchased off the shelf or be custom fit by hand therapist.
  - Splinting is an efficacious treatment for trigger finger. A study by Colbourn et al., demonstrated that 53% of their participants experienced complete resolution of symptoms, and 39% had partial resolution of symptoms after 6 to 10 weeks of wearing a custom fit MCP blocking splint. This resulted in 92.9% of their participants had improved symptoms, which they reported to be consistent with current literature [9].
  - Due to a high proportion of non-compliant day time splinting, Drijkoningen et al. (2017) assessed patients who wore their splints at night for 6 weeks. They showed that a resolution of symptoms occurred in 55% of patients presenting with mild trigger finger of 3 months or less in duration [10].

#### Table 2: Trigger finger splint options

Velcro trigger splint	Trigger Oval	Alumifoam trigger splint	MCP extension trigger
Amazon CA		Arrance Cd	HANDER

### • Referral for steroid injections: Should be considered as first line treatment.

Steroid injections within or over the flexor tendon sheath should be trialed prior to referral to a hand and wrist surgeon. Intermediate acting steroids (methylprednisolone or triamcinolone) are recommended [1]. It is important to note that steroid injections for trigger finger have limited systemic impacts.

- o It may take up to 2 weeks for clinical improvement.
- $\circ$  There should be an interval of 3 months between steroid injections.
- Lifetime maximum of 3 steroid injections per digit. If trigger finger does not resolve or symptoms return after the third steroid injection, the patient should be referred for surgery. Tendon rupture has been associated with additional steroid injections.

#### Effectiveness of steroid injections

- Administering steroids early (symptoms ≤ 3 months) has been shown to promote symptom resolution [6].
- Symptoms resolve in a significant number of patients after a single steroid injection. Evidence suggests that the success rate of steroid injections decreases with multiple trigger fingers and increased trigger finger symptom severity [11].
- A second injection may be effective in up to 50% if first has little to no effect. Second and third injections increase the likelihood of overall remission without increasing morbidity [6] [12].
- Steroid injection(s) have been shown to offer permanent symptom resolution for some patients [6].
- Patients with diabetes and multiple digit involvement are less likely to get permanent symptom relief from a steroid injection.
- Consider privately funded hand therapy (physiotherapists or occupational therapists with specialized training in hands) may be considered for patients with mild symptoms/early presentation of trigger finger or those who decline corticosteroid injections [1]. Specialized hand therapists can offer support with the assessment and diagnosis of the severity of trigger finger and can custom design splints. Active physiotherapy (exercises and range of motion maneuvers) is not recommended for trigger finger. Evidence about the effectiveness of hand therapy for trigger finger is limited and it can be costly for patients. Accessing hand therapy should not delay other treatments.

# 4. Referral Process (Surgery)

Surgery can result in the immediate resolution of symptoms and is associated with minimal risk. Use of hand may be restricted for a few weeks post-operatively and driving may be restricted while in dressings.

Referral to a hand and wrist surgeon should be considered for patients with:

- Trigger fingers that are locked in flexion that cannot be passively corrected [3]
- No improvement after steroid injections or if steroids are declined/not tolerated
- Severe functional disability [3]
- Diabetes mellitus and multiple trigger fingers [3]

Referral pathways are guidelines to help referring providers know what information, labs and diagnostic imaging are required with their referral to a specialty. These pathways are co-designed with Primary and Specialty Care, AHS Operations, and patients to ensure the right amount of information is included throughout the referral process to triage the patient as quickly as possible.

To ensure referring providers have referral information at their fingertips, referral pathways may link to clinical pathways when available. AHS manages referral pathways and extensive work is ongoing as part of the <u>Alberta Surgical Initiative</u>. If you have questions or want to know more about the referral pathway development process, please email access.ereferral@ahs.ca.

- Urgent Referral Call surgeon on call via <u>RAAPID</u> or call 911.
- Follow the provincial referral pathway(s):
  - o Plastic Surgery, Adult Referral Pathway
  - o Orthopedic & Spine, Adult Referral Pathway
- <u>Alberta Referral Directory</u> is also a helpful resource for all referral information.

## **Advice Options**

If this patient needs to be directed to hospital through RAAPID or the ER, call <u>RAAPID</u> for on-call surgeon or 911.

Zone	Program	Online Request	Phone Number
Urgent Telephone			
All Zones	RAAPID CHD RAAPID Reard, Access, Adrice, Pacement, Hormation & Destinator	N/A	North: 1-800-282-9911 or 780-735-0811 South: 1-800-661-1700 or 403-944-4486
Non-Urgent Advice – next page			

Non-Urgent Advice – Electronic			
Calgary, Central, Edmonton, North (Plastic surgery) All Zones (Orthopedic surgery)	Netcare eReferral eReferral	Online Request	N/A
Non-Urgent Telephone			
Edmonton, North	ConnectMD ConnectMD	Online Request	1-844-633-2263

You can request non-urgent advice at any point when uncertain about next steps in treatment or resources available.

# BACKGROUND

### About this pathway

- This pathway was developed in collaboration with hand and wrist surgeons (orthopedic and plastic surgeons), primary care providers, a physiatrist, patient and family advisors, and the Provincial Pathways Unit (PPU).
- Condition-specific clinical pathways are intended to offer evidence-based guidance to support primary care providers in caring for patients with a range of clinical conditions.

#### Authors and conflict of interest declaration

The authors represent a multi-disciplinary team. Names of the content creators and their conflict-ofinterest declarations are available on request by emailing <u>albertapathways@primarycarealberta.ca</u>.

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### Pathway review process, timelines

Primary care pathways undergo scheduled review every three years or earlier if there is a clinically significant change in knowledge or practice. The next scheduled review is **May 2025.** However, we welcome feedback at any time. Please send us your feedback here.

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#### DISCLAIMER

This pathway represents evidence-based best practice but does not override the individual responsibility of healthcare professionals to make decisions appropriate to their patients using their own clinical judgment given their patients' specific clinical conditions, in consultation with patients/alternate decision makers. The pathway is not a substitute for clinical judgment or advice of a qualified healthcare professional. It is expected that all users will seek advice of other appropriately qualified and regulated healthcare providers with any issues transcending their specific knowledge, scope of regulated practice or professional competence.

# PROVIDER RESOURCES

Resource	Link
Dynamed	Trigger Finger (Stenosing Tenosynovitis) in Adults
UpToDate	Trigger finger (stenosing flexor tenosynovitis)

# PATIENT RESOURCES

This section is intended to list resources that primary care providers may find useful to share with patients to help support self-management and care in the medical home.

Resource	Link
<b>Patient Pathway</b> on <u>MyHealth Alberta</u> > A webpage and two PDF formats are available to allow for easy printing, download, or scanning a QR code with the patient's smart phone for more information at their convenience.	Coming soon
<u>MyHealth Alberta</u> : Trigger Finger: Care Instructions	Trigger Finger: Care Instructions
<u>MyHealth Alberta</u> : Tigger Finger release: Before your surgery	Trigger Finger Release: Before Your Surgery
<u>MyHealth Alberta</u> : Trigger Finger Release: What to expect at home (your recovery)	Trigger Finger Release: What to Expect at Home
Mayo Clinic: Trigger Finger	Trigger finger - Symptoms and causes

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