

DR REBECCA AYERS

Plastic, Reconstructive and Hand Surgeon

TRIGGER FINGER

What is it?

As the tendons that bend (flex) the fingers move through the hand and into the fingers they travel through a fibro-osseous tunnel (flexor pulley system). There are 8 pulleys. The pulleys bind the tendons against the finger bones and improve the mechanical advantage of the tendons. The pulleys and tendons are covered with tenosynovium, a thin slippery layer that helps the tendons glide easily through the tunnel.

For various reasons the tendons can swell and then become stuck as they move through the pulleys. The A1 pulley, located in the palm, towards the fingers is narrow and frequently the site of obstruction.

Why does this occur?

The swelling of the tendon is often a function of age. Other diseases may cause swelling of the tendon such as diabetes, rheumatoid arthritis or kidney disease. Sometimes local trauma to the pulleys or tendons can cause swelling also.

Triggering is common and occurs in 2% of the population and 20% of diabetics.

What are the symptoms?

In the early stages, there is swelling, stiffness and pain with grasp. It may be difficult to make a complete fist.

As the triggering becomes worse the finger becomes stuck in a bent position; it may take some force to straighten the finger, sometimes the other hand is needed to bring the digit straight. There is a snapping sensation as the swollen tendon is forced through the pulley.

Some people have some mild tenderness over the palm.

Treatment options

Steroid injections

- A steroid injection improves the vast majority of trigger fingers
- A single injection is all that is required in 50% of patients
- Steroid reduces inflammation and allows the tendon to glide easily
- Depending on the result of the injection another injection may be required
- Failure to respond to two injections (or one injection for diabetics) may require surgical correction (25% of patients)
- *Side effects of steroid injections:*
 - o Thinning and discolouration of skin, development of fine blood vessels (telangiectasia) and infection (redness, swelling, throbbing discomfort). Two injections is the maximum as side effects become more prevalent with increasing injections
 - o Diabetic patients: your blood glucose control may be more variable and difficult to control for the next few weeks

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Surgery

- **Release of the A1 pulley**
 - o Under local or general anaesthetic
 - o A small incision is made in the palm
 - o The A1 pulley is divided (allowing the tendon to glide freely)
 - o In severe cases or rheumatoid arthritis, a slip of tendon may also need to be resected
 - o The wound is sutured
- A light dressing is applied and an information sheet about wound care and exercises is provided
- You may drive a car after a about a week, provided your hand is comfortable and able to control a motor vehicle safely
- Return to work depends on your level of occupation: Office workers may need a few days away from work, heavy manual labourers, who need to grip strongly, 4-8 weeks
- Complications
 - o Bleeding
 - o Infection
 - o Scarring : painful or unsightly scars
 - o Stiffness: exercises should resolve this
 - o Complex regional pain syndrome: About 5% of patients have nerves that are very sensitive to surgery or trauma; they develop a very painful, stiff and swollen hand after the operation. The symptoms are usually out of proportion to the level trauma or extent of surgery. This condition requires special pain relief and physiotherapy. You will be monitored for this.
 - o Damage to nerves: fortunately very rare but a second operation would be required to repair this