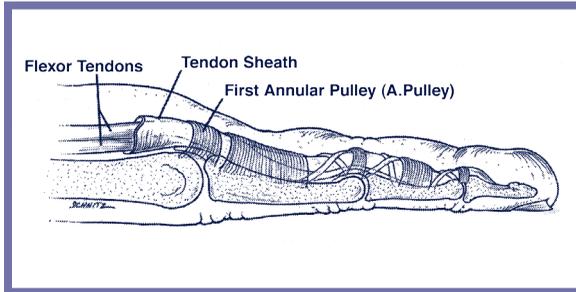


WHAT IS TRIGGER FINGER?

Trigger finger is a common disorder of the hand which causes a painful snapping or locking of the fingers or thumb. The medical name for this condition is Stenosing Tenosynovitis. Stenosing refers to the narrowing of an opening or passageway in the body. Tenosynovitis refers to inflammation of the outer covering of the tendons that bend and extend the fingers and thumb.



Anatomy involved in Trigger Finger

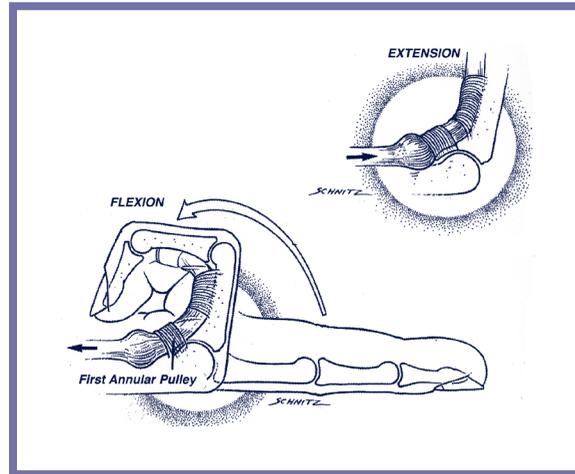
The tendons are tough, fibrous cords that connect the muscles of the forearm to the bones of the fingers and thumb. This muscle and tendon system enables one to bend the fingers inward when making a fist, and extend them out straight.

The tendons glide through a protective covering called the tendon sheath. The sheath is like a tunnel, and is lined with a thin membrane called synovium. The synovial lining helps reduce friction as the tendons glide through the tendon sheath. Areas of dense fibrous tissue called annular bands or pulleys are also part of the tendon sheath. These structures are attached to the bones of the fingers and thumb, and hold the tendons close to the bones over which they pass.

Trigger finger is often caused by inflammation of the synovial sheath surrounding the tendons. It may also result from enlargement of the tendon itself, or narrowing of the first annular band (A1 pulley).

When inflamed, the normally thin covering of the sheath may be thickened to several times its normal size. This reduces the amount of space through which the tendons are able to pass. The tendon is no longer able to glide freely through the sheath and the tendon itself may swell up in a balloon-like mass at the point where it tries to pass through the tunnel.

Upon forceful bending of the finger or thumb, the enlarged portion of the tendon is dragged through the constricted opening. This motion is often accompanied by a painful snap, and the finger or thumb may be locked in a bent position. Straightening the finger or thumb may require using the non-affected hand to actually pull the finger back into an extended position, causing another painful snap as the swollen portion of the tendon passes back through the sheath.



“Triggering” of the affected finger is due to flexor tendon swelling at the first annular pulley

WHAT ARE THE CAUSES?

The exact cause of trigger finger or thumb is not always readily apparent. In many cases, however, this condition may be the result of repeated strain of this area due to work or hobby activities.

Tasks that require repetitive grasping or the prolonged use of tools (scissors, screwdrivers, etc.) which press firmly on the tendon sheath at the base of the finger or thumb may irritate the tendons and result in thickening of the tendons themselves or the tendon sheath. Symptoms of trigger finger may also be associated with conditions such as rheumatoid arthritis, gout, or metabolic disorders such as diabetes that produce changes in connective tissues and synovium.

WHAT ARE THE SYMPTOMS?

Before the development of actual “triggering” (the painful snapping or locking of the finger or thumb), one of the first symptoms may be discomfort in the area of the palm directly beneath the affected finger or thumb. This region marks the entrance of the tendon sheath or A1 pulley area.

The painful snapping sensation during finger motion is the most common symptom. As the condition progresses, the finger or thumb may actually become locked in a bent position, or less often in an extended position. The problem is sometimes incorrectly thought to exist in the middle joint of the thumb. This joint may appear to jump or lock. The true problem, however, is found in the base of the finger or thumb. It is here that the smooth gliding of the tendon becomes obstructed.

HOW IS IT TREATED?

Conservative (non-surgical) treatment is an appropriate first step, unless the finger or thumb is in an unmovable, locked position. Initial treatment involves avoiding or modifying those activities that have caused the inflammation.

The physician may decide to restrict movement of the joint by means of a splint. Oral anti-inflammatory medications are often used to reduce inflammation and discomfort.

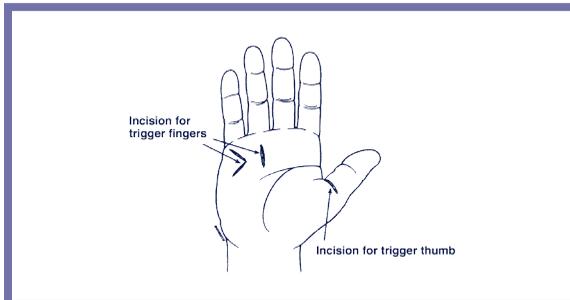
Anti-inflammatory medication may also be administered directly into the tendon sheath by means of an injection to reduce the soft tissue swelling.

In cases that do not respond to conservative treatment, or if the finger or thumb remain in a locked position, surgery may be recommended.

Surgery is performed on an outpatient basis. An incision is made in the palm of the hand at the base of the affected finger or thumb. In most cases, the surgeon will simply release (cut) the first annular band, relieving the constriction of the tendon as it passes through the sheath. The patient may be asked to actively move the tendon during surgery to confirm whether the triggering has been relieved.

In cases involving inflammation of the lining of the tendon, such as arthritis, it may be necessary to remove the thickened synovial covering and other tissue surrounding the tendon.

Following surgery, a light dressing is applied to protect the wound yet allow for active and passive motion of the finger or thumb. The dressing may be removed as directed by your surgeon. Sutures are usually removed 10–14 days following surgery. Activities requiring normal use of the affected hand may be restricted depending on your specific activity level.



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