

Fact Sheet: Trigger Finger



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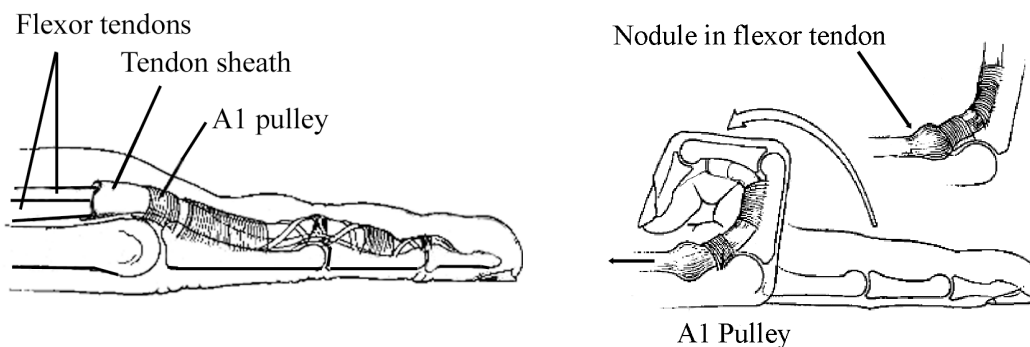
What is Trigger Finger?

Trigger finger is a common disorder of the hand which causes painful clicking 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.

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 allows us to bend the fingers in 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 produces a small amount of lubricating fluid which helps reduce friction as the tendons glide through the tendon sheath. Areas of thick fibrous tissue called 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 (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 and may swell forming a nodular thickening at the point where it tries to pass into 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 click. The finger or thumb may become locked in a bent position. Straightening the finger or thumb may require using the other hand to pull the finger out straight causing another painful snap as the swollen part of the tendon passes back through the sheath.

Who gets Trigger Finger?

This condition most often occurs in people over 40 years of age. It can also occur in toddlers. In infants it is a painless condition where the thumb becomes fixed in the bent position.

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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 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 or diabetes that produce thickening of the sheath or tendon. The cause in children is poorly understood but possibly tendon thickening follows a minor injury.

What are the signs & symptoms?

before development of the actual "triggering", the first sign may be discomfort in the palm at the base of the affected finger. Painful clicking is the most common symptom. As the condition progresses the finger may become locked. In children the condition is usually painless and is only noticed when the thumb becomes stuck in the bent position.

How is it treated?

If symptoms are mild the initial treatment may involve the use of a small plastic splint that slides over the finger to reduce the movement of the tendon and reduce swelling. If the finger is painful and frequently clicking or locking a steroid injection into the tendon sheath is also recommended. Steroids are very strong anti-inflammatories and reduce swelling slowly over several weeks in conjunction with splint treatment. The splint is worn for four weeks both day and night and removed only for washing.

In cases that do not respond to conservative treatment, or when the symptoms have been present for several months or the finger/thumb is locked, surgery may be recommended.

In infants no treatment is recommended as most cases resolve spontaneously. If the thumb deformity has not corrected by the age of 3 years surgery is advised.

If surgery is required

Surgery is performed on a day surgery basis under local anaesthetic and sedation in adults or a short general anaesthetic in infants. A horizontal incision is made in the palm at the base of the affected finger or thumb. The surgeon will release the first (A1) pulley, relieving the constriction of the tendon as it passes through the sheath.

In cases involving inflammation of the tendon lining, it may be necessary to remove the thickened synovial covering surrounding the tendon (tenosynovectomy).

A light dressing is then applied to protect the wound but allow the finger to move. The dressing may be removed after five days. The sutures are removed at 10-14 days following surgery. Dissolving sutures are used in infants. Activities requiring the use of the affected hand may be uncomfortable for 6-8 weeks.

