**Trigger Finger**

Trigger Finger is a common problem that can occur in any of the fingers or in the thumb. It results in painful motion of the involved digit, ultimately leading to a “catch” or “trigger” as the digit is moved.

This problem involves the flexor tendons of the digits. Flexor tendons are strong rope-like structures that originate from muscles in the forearm, and insert into bone in the digits. When a muscle is fired, the tendon then moves and causes the bone on its other end to move, resulting in joint motion. Each finger has two of these flexor tendons, while the thumb has one.

Near the distal part of the palm, these tendons enter a tunnel or sheath called the “flexor tendon sheath”.

This tunnel has several functions including lubricating the tendons and providing nutrition to the tendons. Trigger digits occur because of a decrease in size of the tendon sheath, or an increase in size of the tendons. For example, swelling can occur around the tendons. This swelling causes a nodular like enlargement in the tendon, making it difficult for the tendon to pass through the tendon sheath.

Trigger digits occur in almost any age group. In adults they are related to use of the fingers, but several factors are involved including hand use, individual anatomy, and systemic contributions. Other medical conditions, such as diabetes, gout, kidney disease and rheumatoid arthritis, make it easier for trigger digits to occur. Trigger digits may be work-related if the patient’s job involves repetitive digital motion on a continuing basis, such as someone who does constant data entry with a keyboard.

Treatment options for this condition include

1. **The use of a splint** to rest the digit, usually for 2 to 4 weeks. Different splints have been utilized, including some that immobilize the entire digit and others that splint only part of the digit. If there is one specific activity that has caused the triggering, it may be able to be modified to prevent that. **Anti-inflammatory medications** such as advil may also be used. This treatment option is less predictable than the others, with a lower success rate. Patients with a history of stomach problems, ulcer disease, asthma, or patients on blood thinners are probably not able to take anti-inflammatory medications.

2. **Cortisone shot** into the flexor tendon sheath. This injection is given in the office, with local anesthetic mixed in with the cortisone. The cortisone is designed to coat the tendons and decrease the swelling around them. This injection has to be done with caution in patients with diabetes, because it will cause a temporary increase in blood sugar levels. Allergic reactions to cortisone or local anesthetic are rare. Other risks of the shot are rare, and include a small risk of infection, or causing a small patch of skin to turn white and atrophy. The cortisone injection works for most patients, providing at least temporary relief of the triggering. In many patients, the relief is permanent. If only temporary relief is experienced, the injection can (if desired) be repeated 2 more times. Too much cortisone in one place can cause weakening of the tendon, so injections are limited to a total of three in one digit which makes tendon weakening unlikely. Relief of triggering is usually experienced one week after the injection.
3. **Surgical release of the tendon sheath.** This is a common surgery, usually done under local anesthesia in an operating room. Because only local anesthesia is used, no preliminary lab testing is needed. The surgery is designed to open and enlarge the flexor tendon sheath at the area of tendon swelling, allowing free passage of the tendon. There is a high success rate following this surgery, with later recurrence being rare (2-3%). Risks of the surgery include a very small risk of injury to nerve, tendon, or blood vessel. Infection is also a small risk. Full motion of the digit is usually recovered within several weeks. Motion exercises are done at home, and therapy is rarely required. Residual loss of motion is very rare. Some patients have loss of motion in one or more joints before surgery, and these patients may require supervised therapy to regain that motion. Patients may experience swelling and tenderness at the surgery site for several months, which gradually resolves. A padded dressing is worn for one week after the surgery and most patients return to work after several days to one week. Sutures are removed at two weeks after surgery.