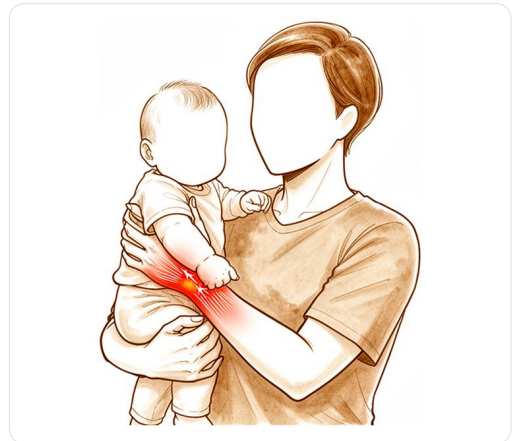


De Quervain's Tenosynovitis

Anatomy of the thumb tendons affected in De Quervain's — abductor pollicis longus and extensor pollicis brevis as they cross the wrist.

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What you're feeling

You will likely feel pain on the thumb side of your wrist. This is where your wrist meets your hand, near the base of your thumb. The pain often starts gradually but can become sharp or burning. You might notice swelling in this area, which can make the skin feel tight or warm to the touch.

The pain tends to flare up when you move your thumb or wrist. Everyday tasks that involve gripping or pinching can become difficult. You may find it hard to lift a coffee mug, turn a key in a door, or open a jar. Twisting motions, such as wringing out a wet towel or turning a steering wheel, often trigger a sharp sting. Even simple actions like shaking hands or holding your phone can cause discomfort.

Symptoms often worsen after periods of activity. You might feel more pain at the end of the day or after doing repetitive hand work. Some people notice their wrist feels stiff and achy when they first wake up in the morning. This stiffness usually eases slightly as you start to move, but the pain returns with further use.

If the condition persists, the pain can interfere with sleep. You might find it hard to find a comfortable position for your hand, or the throbbing sensation can keep you awake. In some cases, you may feel a catching or snapping sensation when you move your thumb. This happens because the tendons that move your thumb are inflamed and swollen within their sheath.

It is important to recognise that pain in this specific area is a key sign. If your pain is located elsewhere on the wrist, or if you have a history of injury to that spot, your surgeon may look for other causes. Persistent pain on the radial side of the wrist following an injury could still be related to this condition, but it requires careful assessment. Understanding these patterns helps you and your surgeon decide on the best path forward.

What's actually happening

Your thumb moves because two small tendons slide smoothly through a tight tunnel on the outside of your wrist. Think of these tendons like ropes and the tunnel like a sleeve. In de Quervain's tenosynovitis, the lining

of that sleeve becomes swollen and inflamed. This swelling makes the space tighter, so the tendons rub against each other and the tunnel walls instead of gliding freely.

This friction causes the pain you feel on the side of your wrist near your thumb. The area is sensitive to touch, and simple movements like gripping or twisting can trigger sharp discomfort. Sometimes, the swelling is so significant that the tendons catch or lock, a condition known as triggering. This is rare, but when it happens, it often requires surgical release to restore smooth movement.

Your surgeon will check for this specific pattern of pain. If you have pain in a different location, they may look for other causes. The goal is to reduce the swelling in that sleeve so your tendons can move without irritation. Most people start with non-surgical treatments to calm this inflammation down.

What we can do about it

Dr Kieran Hirpara, an upper-limb surgeon at Mater Private Hospital Rockhampton, starts with the least invasive options that suit your condition. We begin with self-management and physiotherapy. You can rest your hand and avoid movements that trigger pain. A physiotherapist will guide you through gentle exercises to reduce stiffness and improve strength. We often use splinting to support your thumb and wrist. This helps the inflamed tendon sheath heal. Give these conservative measures a fair trial before considering stronger interventions.

If symptoms persist, we move to medical management. We may recommend pain relief or anti-inflammatory medication to help you manage discomfort. The preferred initial treatment is a corticosteroid injection into the affected tendon sheath. This is the only nonsurgical treatment that can potentially modify the course of your condition. Corticosteroid injections are effective, leading to treatment success 73.4% of the time within two injections. A single injection was effective in alleviating symptoms in 82% of patients, with over half remaining symptom-free for at least 12 months. We may combine the injection with a short period of immobilisation to optimise results. For diabetic patients, the probability of success following a single injection is lower, but additional injections remain effective.

Surgery is considered when non-operative care has not given enough improvement. We offer surgical release to open the tight sheath around the tendon. Endoscopic release seems to provide earlier improvement after surgery, with fewer nerve complications and greater scar satisfaction compared with open release. We discuss all options with you to ensure the treatment matches your values and lifestyle.

Patients are generally referred to our clinic by their GP; if a physiotherapist has suggested you see us, you will still need a referral from your GP in order to be eligible for the Medicare rebate. A clinic assessment establishes the diagnosis. For long-standing problems, we usually try non-operative care first. We consider surgery when that has not given enough improvement.

What to expect

De Quervain's tenosynovitis is a condition where the tendons on the side of your wrist become inflamed. It often causes pain when you grip or twist your hand. The good news is that most people do not need surgery right away. Initial treatment usually involves non-surgical options, with corticosteroid injections being the preferred first step. This injection can help reduce inflammation and modify how the condition progresses.

If you have diabetes, you should know that a single injection may be less likely to succeed compared to someone without diabetes. However, additional injections remain effective for many patients with diabetes. Overall, corticosteroid injections lead to treatment success 73.4% of the time within two injections. If the first injection does not fully resolve your symptoms, repeat injections are a viable option with a high rate of success, even if the success rate decreases slightly with each additional treatment.

For those who do not receive injections or if they are not effective, the condition can persist. About 34.9% of patients with new stenosing tenosynovitis required surgery within a 2-year follow-up period. Most patients who eventually need surgery progress to that point within 1 year of presentation. If your pain interferes significantly with daily life or your physical function scores are low, you may be more likely to consider surgical release.

If surgery is needed, the outlook remains positive. Endoscopic release, a minimally invasive technique, often provides earlier improvement than traditional open surgery. It is also associated with fewer nerve complications and greater satisfaction with the resulting scar. While some patients worry about long-term stiffness or complications, these are rare. Stiffness in the finger joints is uncommon, and most patients find that their symptoms settle with appropriate management. Your surgeon will help you decide which path fits your values and lifestyle best.

When to see someone

See your GP if you have persistent pain on the thumb side of your wrist that does not improve with rest. Ask for a specialist review if you notice weakness, instability, or if your thumb locks or gives way. Seek help if symptoms interfere with sleep or work, or if you experience a sudden worsening of pain. If diagnostic tests cause pain in a location other than the radial styloid, advanced imaging may be needed to identify other causes. Persistent radial wrist pain following an injury could also be due to de Quervain's syndrome. Early assessment helps ensure you receive the most appropriate treatment for your specific situation.

In more depth

This section goes further than you need for your own treatment decisions. De Quervain's tenosynovitis is worth the extra reading because of a small anatomical variant that accounts for much of the dissatisfaction after an operation that is otherwise reliable – and because the best non-operative result comes from combining two treatments rather than choosing between them.

THE COMBINATION BEATS EITHER PART

The first dorsal compartment holds two tendons in a tunnel at the thumb side of the wrist. Treatment aims to settle inflammation in that tunnel and reduce the load passing through it.

A network meta-analysis of **823** patients concluded that **corticosteroid injection with a short duration of immobilisation remains the primary and effective treatment**, with extracorporeal shockwave therapy a secondary option [1]. Looking at the components directly, **combined orthosis and corticosteroid injection approaches are more effective than either intervention alone** [2].

That is a more specific instruction than “try a splint, then an injection if it fails”. The evidence supports doing both together, with the splint worn for a defined short period after the injection.

A SECOND INJECTION IS STILL WORTH HAVING

Where symptoms return, the reflex is to conclude injections have failed and to move to surgery. The data across a large cohort say otherwise: although the **success rate decreases with multiple injections, repeat injections have a high rate of success and are a viable clinical option** [3].

Declining success with repetition is expected. But a lower success rate is not the same as futility, and a second injection remains a reasonable step rather than a delaying tactic.

THE VARIANT THAT EXPLAINS MOST SURGICAL DISAPPOINTMENT

Release of the first dorsal compartment is effective, and where it disappoints there is usually a specific reason. Dissatisfaction can result from **incomplete release, tendon subluxation, nerve injury, or simply the duration of recovery** – and **an unidentified and unreleased extensor pollicis brevis subsheath is a discrete source of dissatisfaction** [4].

This deserves unpacking because it is the single most useful fact in this section. In a substantial proportion of people the compartment is not one tunnel but two, with the extensor pollicis brevis tendon running in its own separate sheath alongside the other. A release that opens the main compartment and stops leaves that second sheath intact – and the tendon inside it still compressed. The wrist is opened, the operation is completed as described, and the symptoms persist.

It is also why the two other listed causes matter: releasing too widely allows the tendons to subluxate out of the groove with wrist movement, producing a painful snap, and the superficial branch of the radial nerve crosses immediately over the operative field. The compartment must be opened completely but not excessively, with a nerve in the way – which is why an apparently minor operation warrants the same care as a larger one.

NOT EVERYTHING AT THE RADIAL WRIST IS DE QUERVAIN'S

Pain in this region has a differential worth knowing, because the treatments differ: arthritis at the base of the thumb, intersection syndrome a few centimetres further up the forearm, and radial nerve irritation can all produce pain in overlapping territory. A localised tenderness directly over the compartment, with pain reproduced by ulnar deviation of the wrist with the thumb tucked in the palm, is what points to the tendon sheath rather than to its neighbours.

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