



KATARZYNA MACKENZIE

PLASTIC SURGEON

De Quervain's Tenosynovitis

De Quervain's tenosynovitis is a condition that results from inflammation and swelling of tendons in the wrist as they run towards the base of the thumb. There may be swelling and thickening of the sheath and it becomes very painful to move the thumb. This causes movements of the thumb and wrist, such as gripping objects, to become painful. It is common in mothers who are constantly picking up and holding their children.

Treatment is needed if movement of the thumb and wrist thumb is causing discomfort or stopping you from being able to perform normal daily activities.

Length of surgery	45-60 minutes
Anaesthesia	General or regional anaesthetic
Hospital stay	Day case
Risks/complications of surgery	Frequent: Swelling, stiffness, discomfort on movement Infrequent: Infection, bleeding (haematoma), delayed wound healing, painful scar, damage to the nerve, recurrence, incomplete resolution of symptoms, complex regional pain syndrome
Recovery	1-2 weeks until return to office work 5 days splint 3-16 weeks until swelling disappears 6-8 weeks until return to gym and other strenuous activities 6-10 weeks no heavy lifting 3-6 months until final result
Driving	1-2 weeks
Hand position	Elevation above the heart level
Follow up	1 week, 6 weeks, 3 months, 6 months
Duration of results	Permanent

KATARZYNA MACKENZIE

PLASTIC SURGEON

De Quervain's tenosynovitis information sheet

Any hand surgery procedure is a personal choice and understandably there are a number of questions that arise. This information sheet is a general guide for patients considering De Quervain's tenosynovitis treatment under the care of Dr Mackenzie. It should provide the answers to some questions that you may have. There are many factors that can affect your individual operation, your recovery and the long-term result. Some of these factors include your overall health, previous surgery, any bleeding tendencies that you have and your healing capabilities, some of which will be affected by smoking, alcohol and various medications. Such issues that are specific to you need to be discussed with Dr Mackenzie and are not covered here. Please feel free to ask her any further questions before you sign the consent form.

What is De Quervain's tenosynovitis?

De Quervain's tenosynovitis is inflammation of the sheath which surrounds the two tendons that are involved in moving the thumb, called Abductor pollicis longus (APL) and Extensor pollicis longus (EPL). The tendons run through a tunnel between the wrist and the thumb. The tunnel and the tendon are covered with a layer of tissue called tenosynovium to help the tendons glide as they move through the narrow tunnel. Inflammation of the tenosynovium narrows the tunnel. There may be also swelling and thickening of the sheath and it becomes very painful to move the thumb.

Surgery involves an incision over the painful area after it has been numbed and the tight tunnel around the affected tendons is released.

What are the symptoms of De Quervain's tenosynovitis?

Pain can appear suddenly or develop over time. Symptoms may follow a period of heavy or extensive hand use, particularly repetitive movements used at work or in a sport. They may include:

- Swelling and pain near the base of the thumb
- Movements involving the thumb and wrist such as pinching, grasping or wringing make the pain worse
- Swelling may be seen over the thumb side of the wrist
- A "catching" or "snapping" sensation may be felt when moving the thumb
- Tenderness if you press on the site of pain
- A positive Finkelstein's test: The pain gets worse when you grasp your thumb within the palm, and you bend your wrist to the side

KATARZYNA MACKENZIE

PLASTIC SURGEON

What are the risk factors for De Quervain's tenosynovitis?

In most cases it is not clear why De Quervain's tenosynovitis occurs. Several factors may increase the risk for developing the condition. It is often associated with:

- Overuse, especially mother of small babies
- Pregnancy
- Middle aged woman
- Medical conditions such as rheumatoid arthritis, kidney disease, gout
- Local trauma- it is known to occur after forceful blow to the thumb side of the wrist
- There is little evidence that it is caused by work activities, but the pain can certainly be aggravated by hand use at work, at home, in the garden or at sport

How is De Quervain's tenosynovitis diagnosed?

Dr Mackenzie will take a detailed history including complete medical history, how the hands have been used, and any prior injuries.

That will be followed by examination of the hand. Dr Mackenzie will check the hand for stiffness, pain, tenderness over the wrist and thickening of the tendon.

Finkelstein's test is a simple way of diagnosing De Quervain's. It can be performed by placing your thumb in the palm of your hand and making a fist around it, then bending your wrist towards your little finger. If you have De Quervain's tendinosis, this test is quite painful, causing tendon pain on the thumb side of the wrist. Sometimes ultrasound scan can be requested to diagnose the problem.

Why do I need surgery?

De Quervain's tenosynovitis is not harmful but can be a really painful nuisance. The goal in treating de Quervain's tenosynovitis is to relieve the pain caused by irritation and swelling. If your symptoms are constant, don't recover over a few weeks without treatment and are not relieved by non-surgical measures, surgery may be needed.

What is the treatment?

Non-surgical treatment

Non-surgical treatments are usually tried first. Treatment begins with:

- Splint to rest the thumb and wrist. A splint can be fitted by a hand therapist

KATARZYNA MACKENZIE

PLASTIC SURGEON

- Avoiding activities that cause pain and swelling. This may allow the symptoms to go away on their own
- Gentle stretching and strengthening exercises can help decrease stiffness and improve range of motion
- Taking nonsteroidal anti-inflammatory drugs such as ibuprofen, to relieve pain and inflammation
- Cortisone can be injected into the compartment where the tendons run. A steroid injection may resolve pain and swelling in 70% of cases. The risks of injection are small, but it very occasionally causes thinning or colour change in the skin at the site of injection, infection. If symptoms do not improve with time, a second injection may be given. If two injections do not help the problem, surgery may be considered. These are less effective in diabetic patients and blood glucose may be more variable and difficult to control for the next few weeks

Surgical treatment

When symptoms are severe or do not improve, surgery may be needed. The decision for surgery is based on how much pain or loss of function you have in your hand.

The goal of surgery is to open the thumb compartment to make more room for the irritated tendons.

What happens during surgery?

De Quervain's release or 1st extensor compartment release is done as a day case. The anaesthetic may be regional (injected in the armpit to numb the entire arm) or general. Dr Mackenzie will make an incision of about 2-3 cm along the thumb side of your forearm, towards the wrist, protecting the nerve branches just under the skin. The tendon sheath is divided and explored. Cutting the sheath allows more room for the tendons to slide more easily through the sheath, preventing pain from forcing the tendons through the swollen tunnel. The tunnel roof forms again as the split heals, but it is wider and the tendons have sufficient room to move without pain.

During the procedure Dr Mackenzie will check that tendons move smoothly. Dr Mackenzie will protect the nerves. Wound will be closed and bulky dressing applied.

The surgery takes about 45 minutes.

What is the recovery after surgical decompression?

It is very important to elevate your hand as often as possible, following your operation as it helps to reduce the swelling. You will be encouraged to move your fingers to reduce swelling and prevent stiffness.

KATARZYNA MACKENZIE

PLASTIC SURGEON

You can expect some mild pain, swelling, and stiffness after your procedure. It may take from 4 to 9 months for swelling and stiffness in your hand and fingers or thumb to go away completely. If stiffness, swelling, or pain persist after surgery, hand physiotherapy will be recommended.

Although the scar may be red and tender for several weeks, it is seldom troublesome in the longer term.

You can have a bath or shower 24 hours after your operation, but keep your wounds dry until they have healed. It is helpful to wear a large plastic bag over your arm for showering or bathing.

You can drive a car at about 1-2 weeks, provided your wrist is comfortable and you are able to control a motor vehicle safely.

Recovery may take several months.

When can I return to work?

This will depend on the type of work you do, but it may be one to two weeks after your operation. Office workers may need a few days away from work. Heavier activities with the affected hand are restricted for 4 to 6 weeks.

What are the risks of surgery?

Complications associated with this surgery are rare, but can include:

- Infection – this can be settled by taking antibiotics
- Swelling-may last for a few months
- Stiffness can last from weeks to 9 months. Hand physiotherapy may be required
- Painful scar
- Wound healing problems
- Bleeding/hematoma
- Damage to the nerve which results in either a painful spot in the scar or some loss of feeling on the back of the thumb
- Blood vessel injury- damage to the vessel is very rare and can be immediately repaired
- Recurrence
- Tendon movement- the division of the sheath that binds the tendons down can cause the tendons to move from side to side when you bend your wrist. It usually causes no issues.
- Incomplete resolution of symptoms
- CRPS-complex regional pain syndrome-5%