

DR REBECCA AYERS

Plastic, Reconstructive and Hand Surgeon

DE QUERVAIN'S TENOSYNOVITIS

What is it?

There are two tendons that extend the thumb: Abductor pollicis longus (APL) and Extensor pollicis longus (EPL).

As the tendons that extend the thumb travel from the forearm and into the hand they run through a tight tunnel. The tunnel is part of the extensor retinaculum that binds the tendons down against the forearm, and means the tendons work in a mechanically advantageous way. 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.

In De Quervain's tenosynovitis, inflammation of the tenosynovium narrows the tunnel and means that that the two tendons do not move easily but graunch and grind their way through. This is very painful.



Why does it occur?

The cause of this condition is local trauma, recent uncustomary overuse especially repetitive use of the hand and wrist. It is common in women of child-bearing (especially new mothers) and peri-menopausal ages.

What are the symptoms?

- Pain near the base of the thumb
- Swelling near the base of the thumb and up onto the thumb side of the lower forearm
- Pain on moving the thumb, making a fist, grasping or holding objects
- A snapping or catching feeling when the thumb moves
- A positive Finklestein's test: exacerbation of pain when the thumb is grasped within the palm and the wrist is bent to the side

What are treatment options?

Conservative (non-surgical) treatment

A combination of the following should resolve 70% of De Quervain's tenosynovitis over about 6 weeks

- Rest
- Anti-inflammatory medication: Diclofenac (Voltaren) or Ibuprofen (Nurofen)
 - o Not advised if you are allergic to this medication, have stomach ulcers, asthma or kidney failure

DR REBECCA AYERS

Plastic, Reconstructive and Hand Surgeon

- Splint: Needs to immobilize the wrist and thumb
- Steroid injection: Steroids are very helpful in treating the problem; they reduce the inflammation of the tenosynovium and allow the tendons to glide easily
 - o Side effects of steroid injections: thinning and discolouration of skin, development of fine blood vessels (telangiectasia) and infection (redness, swelling, throbbing discomfort). Two injections is the maximum as side effects become more prevalent with increasing injections
 - o Diabetic patients: your blood glucose control may be more variable and difficult to control for the next few weeks

Surgical treatment – De Quervain’s release or 1st extensor compartment release

Is sometimes required for De Quervain’s tenosynovitis, but only after conservative treatment has been trialled.

- The operation is performed under local or general anaesthetic
- A small incision about 2-3 cm long is made along the thumb side of forearm, towards the wrist. The tendon sheath is divided and explored. Sometimes there are additional sub-compartments that also need to be divided. Division of the sheath gives the tendons plenty of room to move, preventing pain as the tendons are forced through the swollen tunnel
- The wound is sutured
- A light dressing is applied and an information sheet about wound care and exercises is provided
- You may drive a car at about a week, provided your wrist is comfortable and able to control a motor vehicle safely
- Return to work depends on your level of occupation: Office workers may need a few weeks from work, heavy manual labourers, 6 weeks
- Complications
 - o Bleeding
 - o Infection
 - o Scarring
 - o Neuroma: there are small nerve branches that pass just at the site of incision and are occasionally damaged during the operation. If these are damaged they can cause a painful lump and further surgery may be need to correct this
 - o Stiffness: exercises should resolve this
 - o Complex regional pain syndrome: About 5% of patients have nerves that are very sensitive to surgery or trauma; they develop a very painful, stiff and swollen hand after the operation. The symptoms are usually out of proportion to the level of trauma or extent of surgery. This condition requires special pain relief and physiotherapy. You will be monitored for this.
 - o Tendon movement: the division of the sheath, that usually binds the tendons down, can cause the tendons to move from side to side when the wrist is bent. This may be an odd sensation but usually causes no further trouble