

de Quervain Syndrome

Patients with de Quervain syndrome have painful tendons on the thumb side of the wrist. Tendons are the ropes that the muscle uses to pull the bone. You can see them on the back of your hand when you straighten your fingers. In de Quervain syndrome, the tunnel (the first extensor compartment; **see Figure 1A-B**) where the tendons run narrows due to the thickening of the soft tissues that make up the tunnel. Hand and thumb motion cause pain, especially with forceful grasping or twisting.

Causes

Doctors are not sure what causes de Quervain syndrome. Patients often describe a feeling of inflammation, but studies have shown that the process is not inflammatory. People of all ages get it. When new mothers develop de Quervain syndrome, it typically appears 4 to 6 weeks after delivery. The old theory that it was caused by wringing out cloth diapers has been replaced by concerns about holding the baby, but changes in hormones and swelling seem more probable.

Treatment

Treatments that can relieve symptoms include:

- A splint that stops you from moving your thumb and wrist.
- Tylenol or aspirin type medications (e.g., ibuprofen).

Treatments that attempt to change the course of the disease include:

- A cortisone-type of steroid injection into the tendon compartment. It has not been clearly established that these injections change the course of the disease and response to the injection varies.
- Surgery to open the tunnel and make more room for the tendons.

Figure 1B: A drawing of the first dorsal compartment.

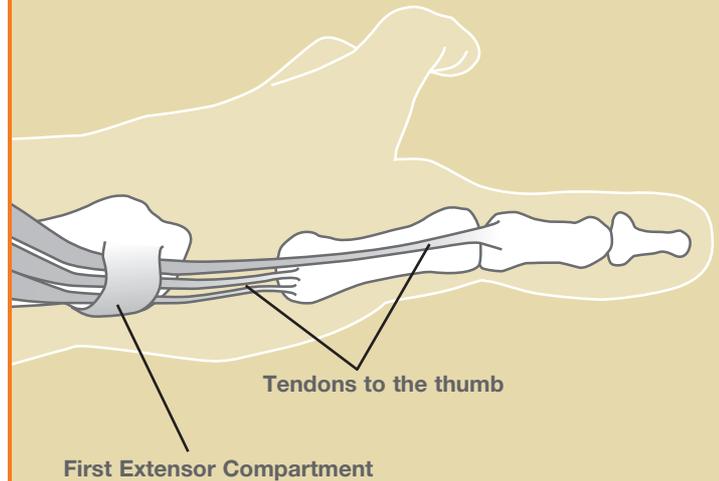
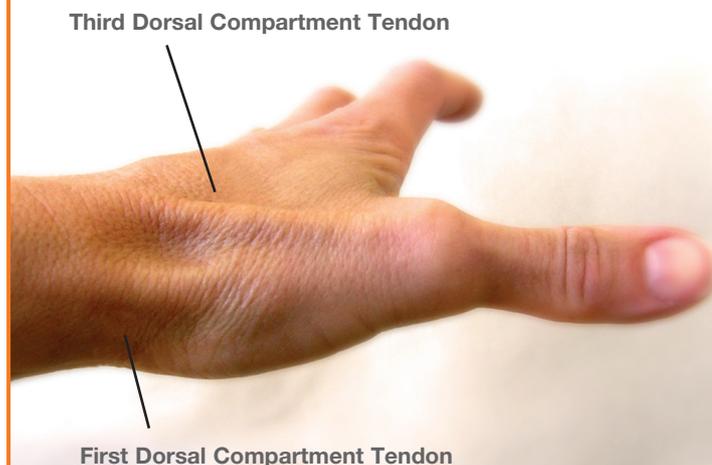
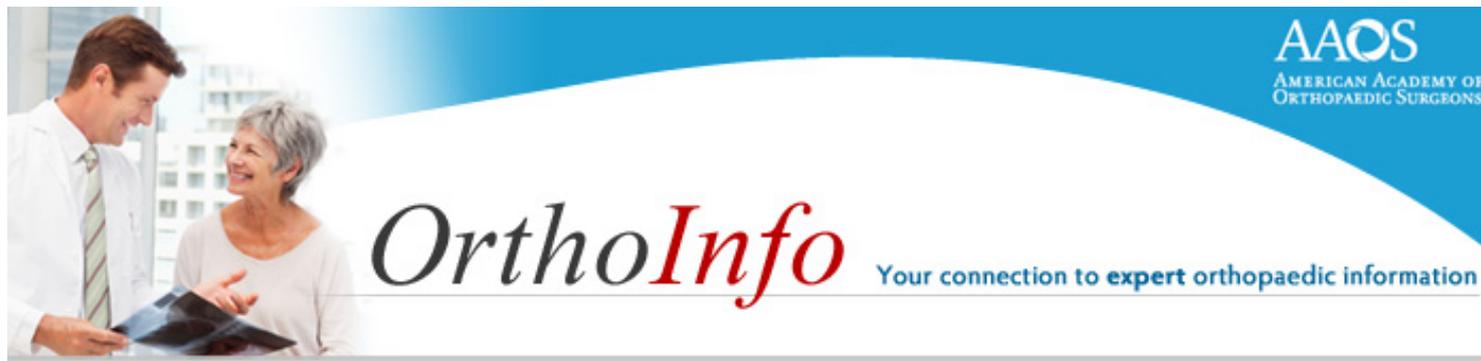


Figure 2A and B: Pain with this motion (a hammering motion with the thumb in the fist) is characteristic of de Quervain syndrome.



Figure 1A: The first dorsal compartment. There are six compartments on the dorsal, or back, side of the wrist. The first and third compartments house tendons that control the thumb.





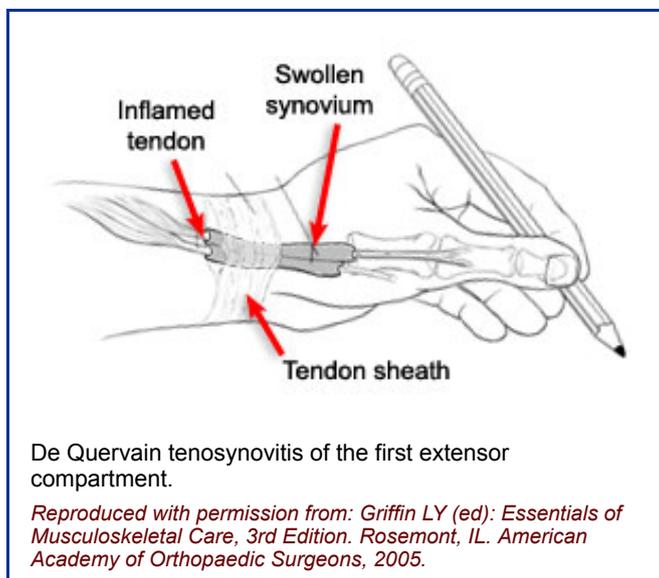
De Quervain's Tendinosis

De Quervain's tendinosis occurs when the tendons around the base of the thumb are irritated or constricted. The word "tendinosis" refers to a swelling of the tendons. Swelling of the tendons, and the tendon sheath, can cause pain and tenderness along the thumb side of the wrist. This is particularly noticeable when forming a fist, grasping or gripping something, or when turning the wrist.

Anatomy

Two of the main tendons to the thumb pass through a tunnel (or series of pulleys) located on the thumb side of the wrist. Tendons are rope-like structures that attach muscle to bone. Tendons are covered by a slippery thin soft-tissue layer, called synovium. This layer allows the tendons to slide easily through a fibrous tunnel called a sheath.

Any swelling of the tendons and/or thickening of the sheath, results in increased friction and pain with certain thumb and wrist movements.



Causes

De Quervain's tendinosis may be caused by overuse. It also is associated with pregnancy and rheumatoid disease. It is most common in middle-aged women.

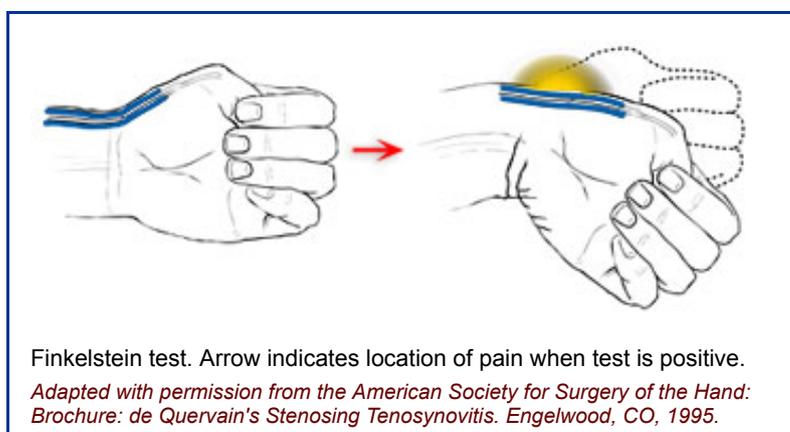
Symptoms

Signs of De Quervain's tendinosis:

- Pain may be felt over the thumb side of the wrist. This is the main symptom. The pain may appear either gradually or suddenly. Pain is felt in the wrist and can travel up the forearm. The pain is usually worse when the hand and thumb are in use. This is especially true when forcefully grasping objects or twisting the wrist.
- Swelling may be seen over the thumb side of the wrist. This swelling may accompany a fluid-filled cyst in this region.
- A "catching" or "snapping" sensation may be felt when moving the thumb.
- Pain and swelling may make it difficult to move the thumb and wrist.

Doctor Examination

To determine whether or not you have De Quervain's tendinosis, your physician may ask you to perform the Finkelstein test by placing your thumb against your hand, making a fist with your fingers closed over your thumb, and then bending your wrist toward 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.

Treatment

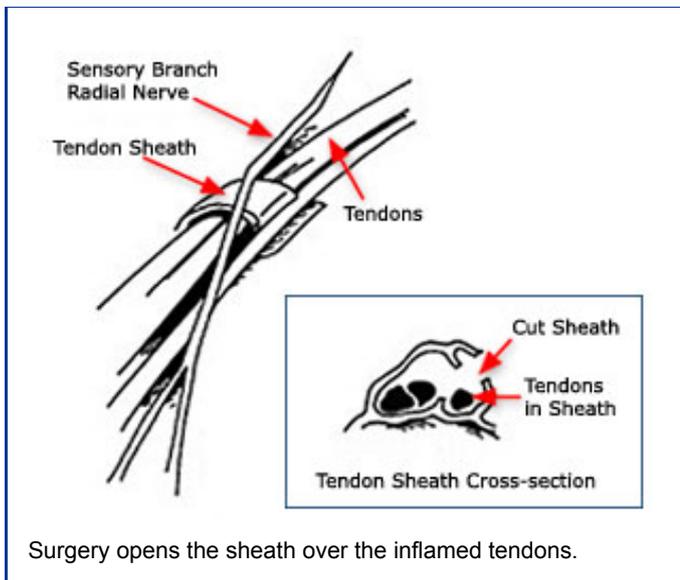
The goal in treating de Quervain's tendinosis is to relieve the pain caused by irritation and swelling.

Nonsurgical Treatment

- **Splints.** Splints may be used to rest the thumb and wrist.
- **Anti-inflammatory medication (NSAIDs).** These medications can be taken by mouth or injected into a tendon compartment. This may help reduce swelling and relieve pain.
- **Avoiding activities that cause pain and swelling.** This may allow the symptoms to go away on their own.
- **Corticosteroids.** Injection of corticosteroids into the tendon sheath may help reduce swelling and pain.

Surgical Treatment

Surgery may be recommended if symptoms are severe or do not improve. The goal of surgery is to open the thumb compartment (covering) to make more room for the irritated tendons.



Regardless of the treatment, normal use of the hand usually can be resumed once comfort and strength have returned. Your orthopaedic surgeon can advise you on the best treatment for your situation.

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