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De Quervain's Tendinitis (De Quervain's  
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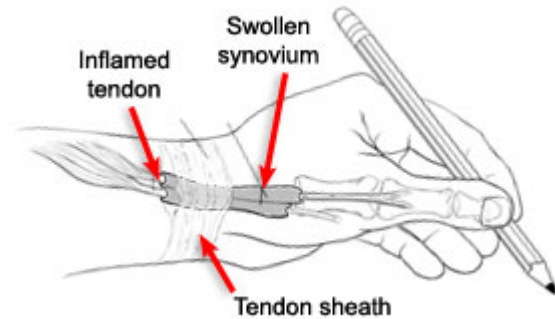
De Quervain's tendinitis occurs when the tendons around the base of the thumb are irritated or constricted. The word "tendinitis" refers to a swelling of the tendons. Thickening of the tendons can cause pain and tenderness along the thumb side of the wrist. This is particularly noticeable when forming a fist, grasping or gripping things, 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 the tunnel. Any swelling of the tendons located near these nerves can put pressure on the nerves. This can cause wrist pain or numbness in the fingers.

## Flexor Tendon Injuries

(<http://orthoinfo.aaos.org/topic.cfm?topic=A00015>)



De Quervain tenosynovitis of the first extensor compartment.

*Reproduced with permission from: Griffin LY (ed): Essentials of Musculoskeletal Care, 3rd Edition. Rosemont, IL. American Academy of Orthopaedic Surgeons, 2005.*

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#### Causes

De Quervain's tendinitis is caused when tendons on the thumb side of the wrist are swollen or irritated. The irritation causes the lining (synovium) around the tendon to swell, which changes the shape of the compartment. This makes it difficult for the tendons to move as they should.

Tendinitis may be caused by overuse. It can be seen in association with pregnancy. It may be found in inflammatory arthritis, such as rheumatoid disease. De Quervain's tendinitis is usually most common in middle-aged women.

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#### Symptoms

Signs of De Quervain's tendinitis:

- 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

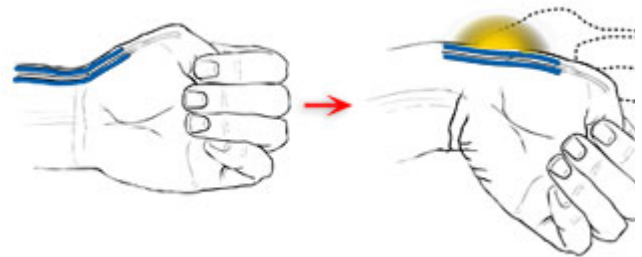
occur together with a fluid-filled cyst in this region.

- 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.
- Numbness may be experienced on the back of the thumb and index finger. This is caused as the nerve lying on top of the tendon sheath is irritated.

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### Diagnosis

The Finkelstein test is conducted by making a fist with the fingers closed over the thumb and the wrist is bent toward the little finger.



Finkelstein test. Arrow indicates location of pain when test is positive.

*Adapted with permission from the American Society for Surgery of the Hand: Brochure: de Quervain's Stenosing Tenosynovitis. Engelwood, CO, 1995.*

The Finkelstein test can be quite painful for the person with De Quervain's tendinitis.

Tenderness directly over the tendons on the thumb side of the wrist is a common finding with this test.

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### Treatment

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

#### **Nonsurgical Treatment**

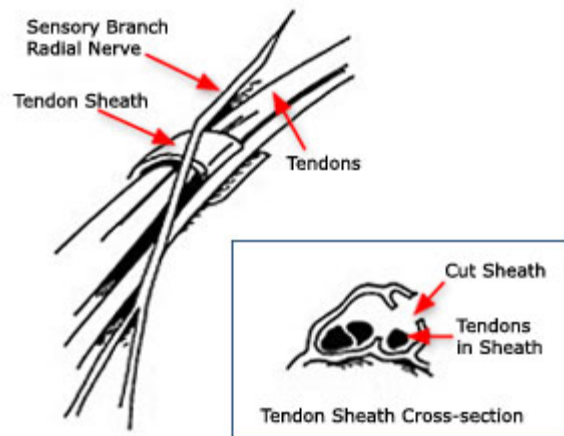
- **Splints.** Splints may be used to rest the thumb and wrist.
- **Anti-inflammatory medication**

**(NSAIDs).** These medications can be taken by mouth or injected into that tendon compartment. They may help reduce the swelling and relieve the 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 compartment (covering) to make more room for the irritated tendons.



Surgery opens the sheath over the inflamed tendons.

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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