

# DeQuervain's Tendinitis

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**DeQuervain's tendinitis** is a condition brought on by irritation or swelling of the tendons found along the thumb side of the wrist (Figure 1). The irritation causes the compartment (lining) around the tendon to swell, changing the shape of the compartment; this makes it difficult for the tendons to move as they should. The swelling can cause pain and tenderness along the thumb side of the wrist, usually noticed when forming a fist, grasping or gripping things, or turning the wrist. The pain is usually described by patients as a very sharp, stabbing pain. It is not subtle. Although many physicians call this an inflammatory condition, actually inflammation is not a key component of the problem.

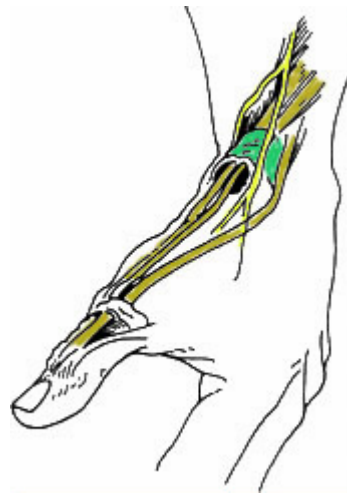


Figure 1

Swelling about the tendons to the base of the thumb results in pain with thumb extension

## What Causes It?

The cause of DeQuervain's tendinitis is an irritation of the tendons at the base of the thumb. For example, awkward hand positions required by a new mother in caring for an infant are a common cause of this condition.

In addition, many patients with DeQuervain's have more than the normal number of tendons in this compartment. The figures below are cross-sections of the forearm at the level of the base of the thumb. The figure on the left is the normal situation. The green line represents the ligament that helps to hold the two thumb tendons (shown in brown) down to the radius (the main bone of the forearm). There are usually two tendons. In patients with DeQuervain's (figure on the right), it is usual to find more than two tendons. Three or four tendons are common, but I have had one patient with five. If there are more than two tendons, it is common for there to be a septum (Latin for "wall") between some of the tendons (shown as a thin vertical green line in the figure on the right). It is thought that the patients who develop DeQuervain's have a combination of unusual anatomy plus unusual repetitive use of the thumb, but this is not proven.

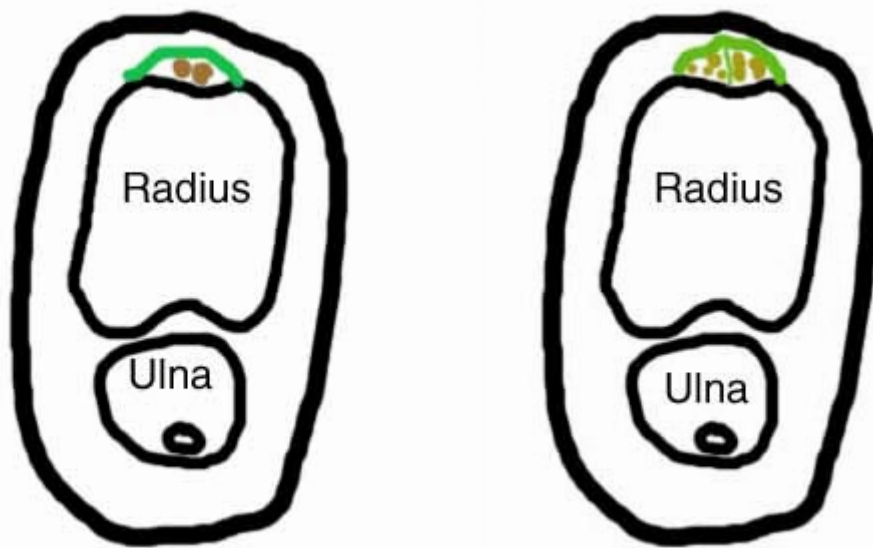
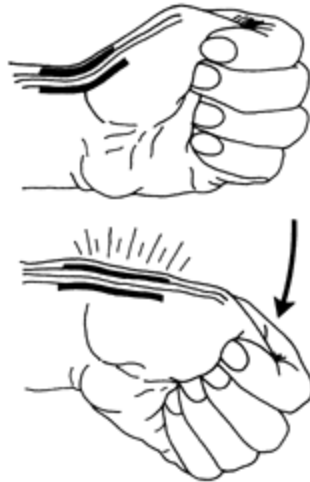


Figure 2

### Signs and Symptoms

Pain over the thumb side of the wrist is the main symptom. The pain may appear either gradually or suddenly. It is felt in the wrist and can travel up the forearm. The pain is usually worse with use of the hand and thumb, especially when extending the thumb (the "hitch-hikers" position). Swelling over the thumb side of the wrist is noticed and may be accompanied by a fluid-filled cyst in this region.

There may be an occasional catching, grating, or snapping when moving the thumb. Irritation of the nerve lying on top of the tendon sheath may cause numbness on the back of the thumb and index finger, although this is rare.



Finkelstein maneuver used to diagnose DeQuervain's tendinitis.

## Diagnosis

A Finkelstein's Test is generally performed. In this test, the patient makes a fist with the fingers over the thumb (i.e., the thumb is in the palm, under the fingers). The wrist is then bent in the direction of the little finger (Figure 2). This test can be quite painful for the person with DeQuervain's tendinitis. Tenderness directly over the tendons on the thumb-side of the wrist is the most common finding, however.

## Treatment

The goal is to relieve the pain caused by the irritation and swelling. The condition can be treated by a splint, but it is not very effective, it works only because you cannot use your thumb (and who can afford to give up the use of their thumb?), and usually returns as soon as the splint is discontinued. The most effective treatment is a cortisone injection. This injection is usually effective in about 90% of cases.

When symptoms are severe or do not improve, I may recommend surgery. The surgery opens the compartment (covering) to make more room for the irritated tendons (Figure 3). It is done on an out-patient basis. Patients can usually use the hand lightly right after surgery and most patients have normal use within about a month.



Figure 3

Surgery opens the sheath over the inflamed tendons.

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