

## Tenosynovitis

### RSI Conditions

The term Repetitive Strain Injury is an umbrella term used to describe a number of specific musculoskeletal conditions, including tenosynovitis, as well as 'diffuse RSI', which is more difficult to define but which recent research attributes to nerve damage. These conditions are often occupational in origin. Lack of adequate diagnosis or access to appropriate treatment can exacerbate the condition and sometimes leads to job loss and economic hardship.

### What is Tenosynovitis?

Tenosynovitis is the tender swelling of the rope or cord like structures (tendons) which connect muscles to the bones in order to work the joints of the body, and inflammation of the lining of the protective synovial sheath that covers these tendons. Areas most frequently affected are the hand, wrist or arms, although it may occur at any tendon site. De Quervain's or Stenosing Tenosynovitis results from inflammation or constriction of the tendons on the thumb side of the wrist. A localised swelling affecting the flexor tendons of the hand is known as Trigger Finger.

### The Symptoms

When the gliding surfaces of the tendon and sheath become roughened and inflamed from overuse, tenosynovitis will present as aching, tenderness and swelling of the affected area. There may also be stiffness of the joint, shooting pains up the arm and creaking tendons (crepitus). The ability to grip can be lost. A localised swelling at the base of the thumb may indicate De Quervain's. Tenosynovitis can just last a few days, but in some cases may go on for many weeks or even months. Usually, however, treatment can help.

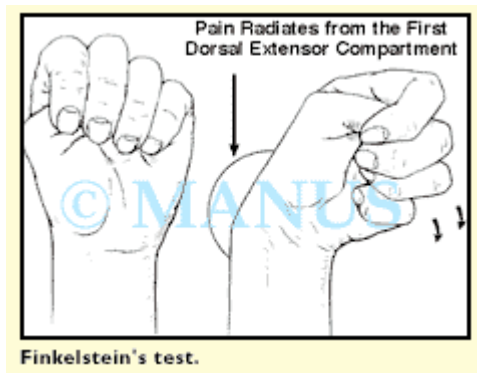
### The Causes

The most common recognisable factor is strain caused by repetitive physical activity. It sometimes results from rheumatism or arthritis and, in rare cases, may be caused by infection, but frequently the cause remains unknown. At work it can occur from overuse of the keyboard or computer mouse, and especially through routine assembly line work. It is a recognised industrial injury (A8) for occupations involving manual labour with frequent or repeated movements of the hand or wrist.

### The Doctor's Examination

In the UK, GPs receive little training in the diagnosis and treatment of musculoskeletal disorders. Ideally your doctor will refer you to a specialist who has taken an interest in RSI-type conditions, usually a rheumatologist or neurologist. Tenderness and swelling over and around the inflamed tendon are the obvious signs that a doctor will look for. When a joint is moved there may be a crackling noise, audible using a stethoscope or with an ear placed against the affected area. This

may sometimes be felt with the finger-tips. De Quervain's is usually diagnosed by a positive 'Finkelstein's test'; bending the wrist whilst grasping the thumb causing extreme pain.



## Treatment

Treatment by rest is only effective if the original cause is also addressed. Tablets may ease the pain, splints may quieten the inflammation and sometimes steroid injections are prescribed, but the problem will not go away unless some changes are made at work. Areas to consider include pacing, rest breaks, reducing repetition and force, posture and the use of ergonomically designed tools and equipment to reduce the risk of further injury.

Without changes or treatment, permanent restriction of the tendon may result. Surgery to release the pressure has occasionally proved effective but recovery rates vary and, before undergoing an operation, other alternative forms of treatment should be considered. Some physiotherapists treat Tenosynovitis with connective tissue manipulation to reduce tension in the affected area, improve the circulation and settle the inflammation. This allows the tendon to slide more easily through the sheath without pain. Chiropractors and osteopaths have some expertise in this area as well, but it is wise to check that s/he is a registered practitioner, in the same way you would expect your doctor to be. For more detailed advice, please refer to the RSI Awareness information sheet 'RSI – Its Nature And Treatment'.