

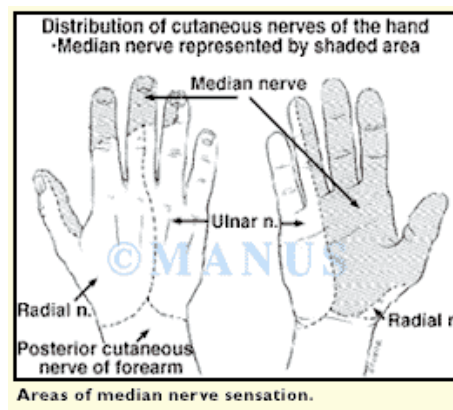
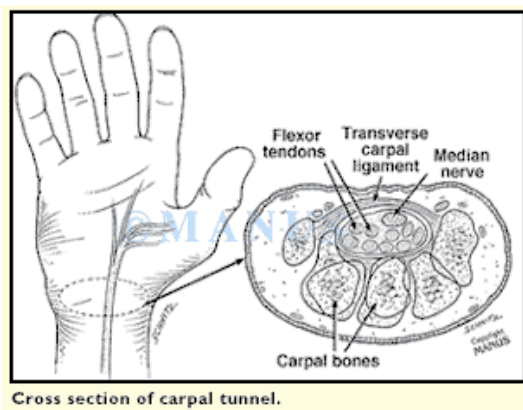
## Carpal Tunnel Syndrome

### RSI Conditions

The term Repetitive Strain Injury is an umbrella term used to describe a number of specific musculoskeletal conditions, including carpal tunnel syndrome, 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 Carpal Tunnel Syndrome?

The carpal tunnel is a passageway in the wrist formed by the eight carpal (wrist) bones, which make up the floor and sides of the tunnel, and the transverse carpal ligament, a strong ligament stretching across the roof of the tunnel. Inside the carpal tunnel are tendons which run down from the muscles in the forearm and work to flex your fingers and thumb. Also running through the tunnel is the median nerve, a cord about the size of a pencil, supplying information back to the brain about sensations you feel in your thumb, index, middle and (occasionally) ring fingers. In carpal tunnel syndrome the median nerve gets squeezed, often because the tendons become swollen and overfill the tunnel, and this causes the symptoms described below.



### The Symptoms

If you have carpal tunnel syndrome the most common symptoms are numbness, burning or tingling of the fingers (excluding the little finger). Occasionally they are so severe that the whole hand feels affected. Pain may extend up the arm, into the elbow, and as far up as the shoulder and neck. You may find one or both hands are affected. If you are right-handed the right hand tends to be worse, similarly the left hand if you are left-handed. The symptoms often occur at night. Partial relief can sometimes be gained by shaking or massaging the hands. Numbness

and tingling may occur whilst performing everyday activities that involve flexing or bending the wrist.

## **The Causes**

The median nerve within the carpal tunnel is very sensitive to pressure and so there are many possible causes including arthritis, fluid retention and diabetes. If the problem comes on during the day it is important to look for a link to regular physical activities at work or home, for example; writing, typing, using a computer mouse, DIY, housework or knitting. Repeated flexion and extension of the wrist, as is common in various work activities, can cause inflammation which puts pressure on the nerve. Work factors which can contribute to the condition include insufficient breaks and awkward posture. It is also well documented that the prolonged use of vibrating tools can cause carpal tunnel syndrome and it is a recognised industrial injury (A12) for occupations involving the use of power tools.

## **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. To confirm a diagnosis of carpal tunnel syndrome you may get referred for a nerve conduction test to measure electrical impulses along the median nerve.

## **Treatment**

Most commonly you will be advised to return to work after a period of rest or simply offered painkillers or anti-inflammatories. You could be prescribed a splint to restrict movement of the wrist. In some instances a cortisone injection may be administered into the carpal tunnel to decrease swelling. Though each case has to be considered individually and non-occupational factors should also be investigated, generally some changes will be needed 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. The classic treatment for patients with persistent symptoms is surgery to relieve the pressure on the median nerve. However, recovery rates vary and, before undergoing an operation, other alternative forms of treatment should be considered, including physiotherapy (including ANT *adverse neural tension*). For more detailed advice, please refer to the RSI Association information sheet 'RSI – Its Nature And Treatment'.