

What is carpal tunnel syndrome?

The Median nerve supplies the palmar aspect of the thumb, index and middle fingers with sensation and the short muscles of the thumb with motor function. It passes through the Carpal tunnel at the wrist together with all the tendons to the fingers. The carpal tunnel is found at the base of the palm. It is formed by the bones of the wrist and the transverse carpal ligament. Increased pressure in the tunnel affects the function of the median nerve. If the Median nerve is compressed (pinched) at the wrist you may experience tingling of these fingers, increased clumsiness and perhaps pain especially at night; this is called Carpal Tunnel Syndrome (**CTS**).

What causes carpal tunnel syndrome?

Usually the cause is unknown, but CTS is associated with Rheumatoid Arthritis, Diabetes, Thyroid disease, Pregnancy, joint dislocations and fractures.

Diagnosis of carpal tunnel syndrome

The diagnosis can usually be made on the history and simple examination. Sometimes you will also be examined by a physiotherapist to exclude any pinching of the nerve in the neck. Neuro-physiological tests (Nerve Conduction Study or Electro-myogram), bloodtests and xray may be done to make sure and to measure the severity of the CTS.

Treatment of carpal tunnel syndrome

CTS can be treated with or without surgery: steroid injections, splinting and surgery. Your doctor will guide you to which option is best for you.

Carpal Tunnel Syndrome

Symptoms can sometimes be controlled with straight night-splints and or Steroid injections in the wrist. The splint prevents the wrist bending at night, as this position produces a pressure on the nerve. The Steroid injection reduces the pre-existing swelling of the nerve and thereby reduces the pressure in the nerve. The injection can be done at the consultation under Local Anaesthesia, but you must take some pain killers when you return home as the hand will be painful, once the local anaesthesia wears off. During the injection, you may feel tingling in the fingers or even a sharp pain radiating to the fingers. This happens if the nerve is accidentally touched. The needle is then withdrawn a little before the injection is done.

Surgery makes more space for the nerve and is usually done under Local Anaesthesia as a Day Case. The Transverse Carpal Ligament (see above) is divided through a small incision in the palm and the skin is stitched up with dissolvable sutures.

You will wear a bulky dressing for the next 5 days only, but the scar will take two full weeks to heal and you should have normal hand function after four to 6 weeks.

The possible complications of this surgery are:

Infection (very rare)

A bleed in the palm after the surgery

Wound dehiscence (wound comes apart, this will be treated with dressings until the wound is healed)

Pillar pain (pain on using the palm of the hand to get up from a sitting position, this is usually treated with a splint)

Painful scar

Complex Regional Pain Syndrome (pain disproportionate with the procedure, needs urgent attention) – very very rare

Incomplete recovery of the sensation and muscle function of the hand (if the nerve compression has been very long-standing pre-operatively)

