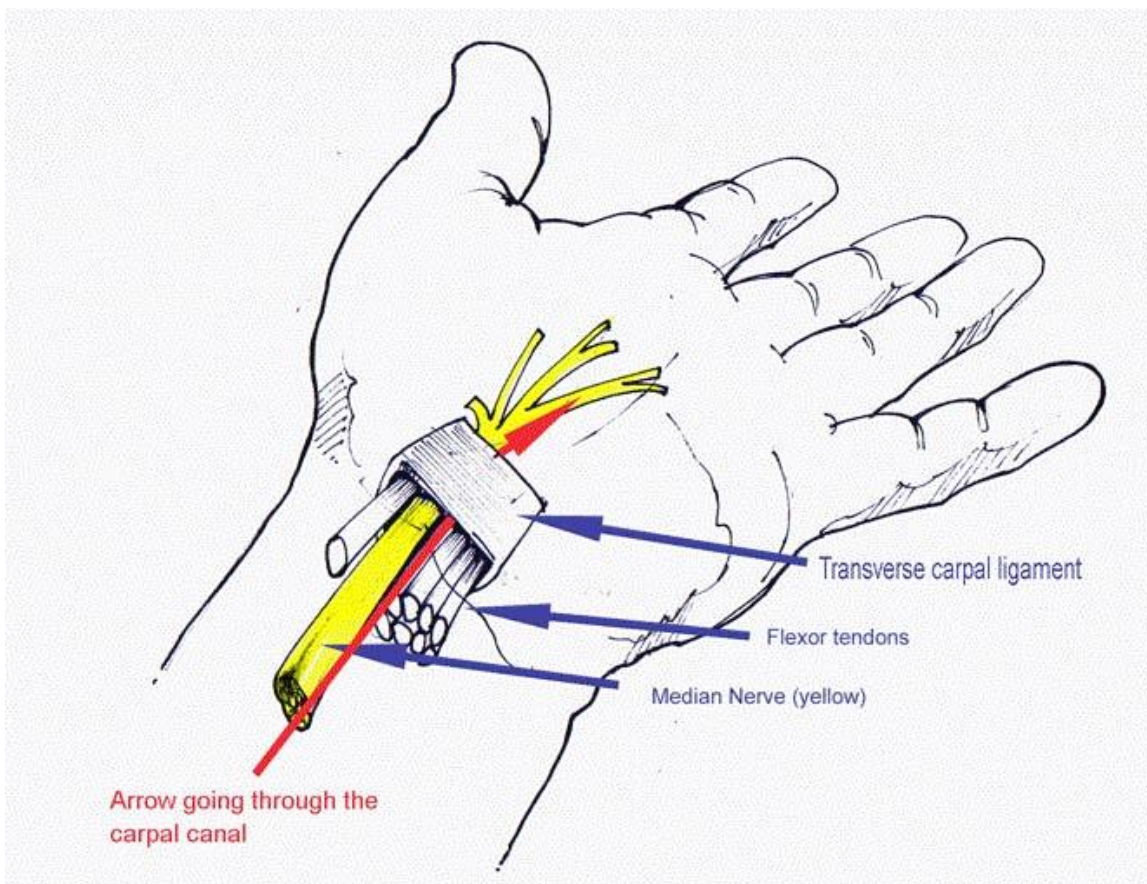


Carpal Tunnel Syndrome Surgery

Carpal tunnel syndrome (CTS) is a condition where the median nerve is irritated where it passes through a short tunnel at the wrist. As well as the nerve, the tunnel contains nine tendons that bend the fingers and thumb (see diagram). CTS commonly effects women in middle age but can occur at any age in either sex. Sometimes CTS can occur with pregnancy, diabetes, thyroid problems, rheumatoid arthritis and other less common conditions. CTS may also be caused by inflammation of the tendons, a fracture of the wrist, wrist arthritis and other less common conditions. However, in most cases, the cause is not identifiable.



What are the Symptoms?

The main symptom is altered feeling in the hand, affecting the thumb index, middle and ring fingers; it is unusual for the little finger to be involved. Many people describe the altered feeling as tingling and/or numbness. This is often worse at night or first thing in the morning.

It may be provoked by activities that involve gripping an object, for example a mobile telephone or newspaper, especially if the hand is elevated. In the early stages the symptoms are intermittent and sensation will return to normal. If the condition worsens, the

tingling/numbness may become continuous. There also may be notable weakness when gripping, and wasting of the muscles at the base of the thumb. People often describe a feeling of clumsiness and dropping objects easily.

CTS may be associated with pain in the wrist and forearm. Occasionally the pain may be related to the shoulder and neck and sometimes this may need investigating.

What is the treatment?

Non-surgical treatments include the use of splints, especially at night, and steroid injection into the carpal tunnel (see our Carpal Tunnel Syndrome Information sheet at www.sussexmskpartnershipcentral.co.uk/hand-wrist-help-with-your-diagnosed-condition/) CTS occurring in pregnancy may resolve after the baby is born.

Sometimes surgery is required. The operation involves a small incision at the base of the wrist to open the roof of the tunnel and reduce the irritation of the nerve (see diagram: the roof of the carpal tunnel is called the transverse carpal ligament).

The method of surgery varies slightly depending on the patient and the surgeons preferred method. This will be discussed at your Hand and Wrist Consultant Appointment.

Carpal tunnel release (Carpal Tunnel Decompression)

- Surgery is carried out conveniently as a day case, under a local anaesthetic.
- In patients who have needle phobia, general anaesthesia may be used.
- A small incision is made at the base of the palm.
- Afterwards this is stitched, usually with dissolvable stitches. You will be given a sling to elevate your hand above the level of your heart at all times.
- After the wound has healed in 7-14 days, the scar should be massaged with cream to desensitise it.

Milestones

- From 0-2 weeks – You will be in a bulky bandage and unable to use your hand.
- From 2 weeks- The bandage is removed, and you may be able to return to work (sedentary work)
- From 2 weeks - driving dependent on pain levels
- 6-12 weeks- Return to work for manual jobs
- 6 weeks- Swimming any stroke
- 3 months- Full return to sport and activities

Risks and Consequences

Pillar Pain/Scar Pain	Affects 20% or 1 in 5 people	In this case it may take 6-12 months for scar pain to settle
Infection	Affects 1% or 1 in 100 people	This is generally treated with oral antibiotics. Occasionally may need re-admission for Intravenous (I.V.) antibiotics or further surgery
Complex Regional Pain Syndrome	Affects 0.2% or 1 in 500 people	This can be a very serious consequence with some permanent changes including stiffness in the hand and arm. CRPS can usually be avoided by staying motivated with elevation, movement and scar massage.
Nerve Injury	Affects 0.14% or 1 in 700 people	Median, ulnar or cutaneous nerves. Consequences may be prolonged pain, further surgery and permanent disability.
Recurrence of Carpal Tunnel Syndrome	Affects 0.1% or 1 in 1000 people	The treatment will be the same

Benefits

- **Pain Relief.** This should be almost immediate, noted by absence of night pain and tingling.
- **Feeling in the Fingertips.** This can take up to 18 months to fully recover (in some severe cases, it may not fully recover).
- **Strength.** It generally takes about three months to regain full strength. However, if there is a weakness of the muscles making up the ball of the thumb before surgery, this will usually not improve (in some cases, it may require further surgery to strengthen the thumb).