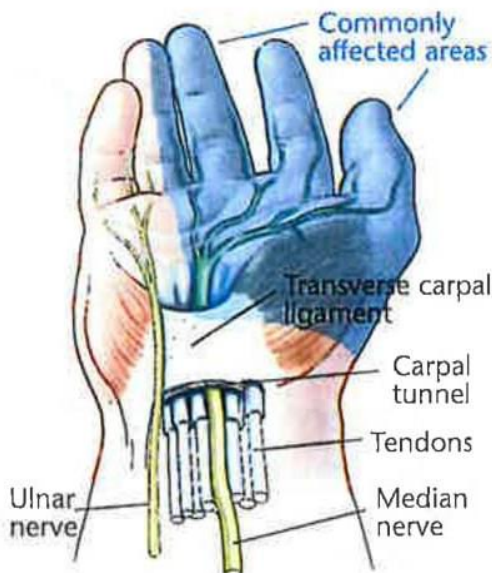


What is Carpal Tunnel Syndrome?

Carpal Tunnel Syndrome (CTS) is a condition that occurs when pressure is applied to the median nerve. This nerve, along with nine tendons, run through a narrow passage found at the base of the palm called the Carpal Tunnel. The median nerve controls some of the muscles and feeling to the thumb, index and middle finger. CTS often occurs when the tendons in the wrist become inflamed causing pressure on the median nerve.



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Common symptoms of carpal tunnel syndrome include:

- Tingling and numbness of the thumb, index finger, middle and ring finger, especially at night
- Pain running up the arm and shoulder
- Pain when gripping
- A tendency to drop objects
- Decrease in hand-motor skills

How is Carpal Tunnel Syndrome diagnosed?

Mostly the diagnosis is made based on the symptoms and signs on clinical examination during the appointment. This can be further checked with an electromyogram (EMG) test to confirm a diagnosis of CTS or help in difficult cases. This test measures the ability of the median nerve to transmit messages (electrical impulses) from the brain through the Carpal Tunnel. If the nerve is compressed it will not be able to transmit the impulse normally. Other nerves are also tested at the same time to be certain that the abnormality is limited to the median nerve and that it is not the result of some other medical problem or general nerve impairment.

How is Carpal Tunnel Syndrome treated?

Treatment for mild CTS is fairly simple. Patients must rest, avoid strenuous activity with their hands and fingers, and wear a wrist splint to support the wrist during sleep or activities that may aggravate symptoms. A cortisone-related drug may be injected into the Carpal Tunnel to reduce swelling.



Wrist splint for CTS

If these measures are not successful, and in more severe cases surgery may be necessary to expand the Carpal Tunnel and to relieve pressure on the median nerve. The procedure, known as Carpal Tunnel Release, is usually done as a day patient under local anaesthesia.

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Decompression usually stops the symptoms of nerve irritation, such as tingling and "pins-and-needles". However, numbness and weakness may persist, depending on the nerve's severity of injury before the operation. If there is an underlying cause for the nerve compression, such as arthritis or inflammation of a tendon, then the underlying discomfort is not relieved.

Before Surgery

Tell your surgeon if you have had:

- An allergy or bad reaction to antibiotics, anaesthetic drugs or other medicines, surgical tapes or dressings
- Prolonged bleeding or excessive bruising when injured
- Recent long-term illness
- Previous problems with blood clots in the legs or lungs
- Psychological or psychiatric illness
- Keloid scars or poor healing of scars after previous surgery

Smoking

Stop smoking at least 4 weeks before surgery. Smoking increases surgical and anaesthetic risk and impairs healing.

It is best to quit.

Possible Complications of Surgery

As with all surgical procedures, peripheral nerve surgery does have risks, despite the highest standards of practice. While your surgeon makes every attempt to minimise risks, complications can occur that may have permanent effects.

General Risks of Surgery:

- Wound infection (treatment with antibiotics may be needed)
- Pain and discomfort in treated areas
- Excessive swelling and stiffness

- Haematoma (an accumulation of blood around the surgical site that may require drainage)
- Heavy bleeding from an incision
- Keloid or hypertrophic scars. Most scars fade and flatten, but some may become raised, itchy, thick and red. Such scars can be annoying but are not a threat to health. Additional surgery or chemical treatment may be needed to try to improve the scar
- Separation of wound edges
- Allergy to anaesthetic agents, antiseptic solutions, suture material or dressings
- Long-term disability, weakness or numbness of the limb, requiring physiotherapy
- General anaesthesia carries risks of chest infection, pneumonia, blood clots in the legs or lungs (deep venous thrombosis or pulmonary embolus), or drug sensitivity that can be life-threatening; anaesthetic deaths have occurred but are rare

Specific Risks:

- The nerve may recover incompletely or not at all, even if the operation was technically perfect. Your surgeon cannot predict with certainty the amount of nerve recovery that is likely. Recovery often depends on the extent of nerve damage that occurred before surgery
- The treated nerve and operated site can be slow to heal. This may delay a return to normal work activities
- Damage to a nerve, leading to further weakness and numbness
- Failure to completely release the nerve from compression, so symptoms may persist
- A small number of patients may develop excessive swelling and stiffness near the

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joint. This may be corrected with prolonged physiotherapy

- There may be some sensitivity and discomfort around the surgical scar that requires desensitisation or permanent numbness around the operated site
- Risk of Complex Regional Pain Syndrome. This is the development of a burning sensation and sharp pain that becomes much worse than normally expected for the degree of surgery. If it occurs, the syndrome usually settles down in a few days or weeks; in some cases, it may persist and require pain management
- Adjacent structures and organs may be injured, for example, blood vessels or other

After Surgery:

- Keep dressing clean and dry
- Use sling to keep hand elevated in the first few days
- See your GP 2 weeks after surgery to have stitches removed
- A follow up appointment will be made with your surgeon 6 -8 weeks after surgery for review
- Only light use of the hand, avoid heavy lifting and repetitive activities for 6 -8 weeks after surgery
- Keep fingers moving to prevent joint stiffness
- Driving is usually permitted when comfort allows, however, please discuss with your surgeon

Tell your Dr or nurse at once if you develop any of the following:

- Temperature higher than 38c or chills
- Severe pain, tenderness or increased swelling
- Unusual amount of drainage on the dressing, or a foul odour at the dressing site
- A dressing or plaster that is uncomfortable, tight, wet or broken
- Any change in movement, colour, warmth or sensation in the fingertips
- Nausea or vomiting
- Any concerns you have regarding your surgery

Please keep all follow-up appointments

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