



What are the Causes of carpal tunnel syndrome?

The cause of carpal tunnel syndrome is not fully understood in many of the cases but it happens when there is a pressure on the median nerve. It is often associated with the following:

Fluid retention in pregnancy (this tends to get better after delivery), Fractures and dislocation at the wrist, Wrist arthritis, Diabetes & under-active thyroid. In majority of cases the cause is unknown!

How is carpal tunnel syndrome Diagnosed?

Your doctor will make a diagnosis based on an examination and description of your symptoms and if required, a Nerve test.

Nerve Conduction Test

Nerve and muscle tests are usually carried out to confirm the diagnosis. **Nerve tests** assess how well a nerve is conducting electrical signals. The nerve is stimulated by a small electri-

cal impulse, and the time it takes for the impulse to travel along the nerve is measured. A probe is held against the skin over the nerve. An electrode placed further along the skin records the electrical impulse. Slowing of the nerve impulse in the carpal tunnel is the evidence for CTS

How can it be treated?

There are a number of different treatment options for carpal tunnel syndrome:

- Bracing the affected wrist with a splint – ‘Carpal tunnel splint’ is available from Chemists and also over the internet, e-bay etc. (Google search- carpal tunnel splint)
- Non-steroidal or anti-inflammatory pain-killers such as aspirin and ibuprofen are useful for relieving symptoms.
- Steroid injections can be given into the wrist to reduce inflammation in the body’s tissues. They are not always suitable for people with diabetes. They can work for an average of 3 months
- Operation.

Doing nothing – some elderly patients may decide to live with the clumsiness if there is no pain or paraesthesia.

Surgery

If the symptoms of carpal tunnel syndrome are persistent, surgery may be required. All surgical procedures aim at taking the pressure of the nerve by cutting the ligament sheet that is strangling the nerve.

A simple operation under local anaesthetic

to cut the ligament and release pressure on the median nerve is commonly performed. Surgery relieves pain for about 9 out of 10 of those who have it.

Surgery usually takes place as a day-case and it is done at a designated GP surgery.

Post Operative recovery

Pins and needles relieved overnight. Skin wound heals in 1-2 weeks and internal healing takes about 6 weeks. Scar tenderness on lifting or heavy work may persist for up to 6 months. Sensations usually return in 6-8 months.

It is important to make a fist and open hand fully to put the fingers through full range of movement straight after the operation and continue this exercise until the hand is normal.

You can expect to drive in 3 weeks and do manual work in 6 weeks. It usually leaves a small scar. However, the scar may be sore for some time after surgery.

If the operation is carried out on somebody who has had the syndrome for a long time – particularly if there is a lot of muscle wasting and loss of sensation – there may be only partial recovery. But even in this situation the pain is usually considerably reduced.

What are the complications associated with this procedure?

The possible complications are bleeding, infection, stiffness, and pain at the scar and rarely nerve damage. A very rare com-

plication is called regional pain syndrome where the fingers and wrist can become very painful red and stiff. Regional pain syndrome if severe can lead to many months or years of pain stiffness requiring significant treatment in the hospital and permanent stiffness. This can be prevented by active early moving of the fingers.

Infection occurs in about one in 100 people.

Infection can lead to many weeks of treatment, pain and a poor result. It can also lead to sepsis and loss of life.

Accidental nerve injury happens in less than one in 1000 operations. This will require nerve repair in hospital. It can result in permanent loss of use of the hand, numbness and nerve pain.

Scar tenderness can persist for many months or years.

There is no guarantee or warranty that the operation will result in improvement of symptoms.

Occasionally the wrist loses strength because the carpal ligament is cut.

Patients may need physiotherapy after surgery to restore wrist strength.

Some patients may need to adjust job duties or even change jobs after recovery from surgery.

Complications associated with Local Anaesthetic : Local Anaesthetic toxicity or allergy can be life threatening. Please tell the doctor or the nurse if you had any reaction to local anaesthetic injections before.

Can there be a recurrence?

Recurrence of carpal tunnel syndrome follow-

ing treatment is rare. Majority of the patients recover completely.

The Results of operation.

About 80% of patients will have good or excellent results. Another 10-15% will have good improvement. People who smoke and those with mental health problems seem to have poorer symptom improvement. Another reason for lack of improvement is the pinching of the nerve in the neck due to spondylosis which can also cause similar pins and needles in the fingers.

Key Points are

This procedure can be efficiently done by a trained GP at a place near to you and it is important to see your doctor early for the best chance of recovery.

Carpel tunnel syndrome (CTS) Surgery at the GP Surgery

What is carpal tunnel syndrome?

The carpal tunnel is a narrow space at the front of the wrist. The tendons that bend the fingers and wrist pass through this space. A tough ligament sheet covers the carpal tunnel and prevents the tendons bow stringing at the wrist when it is bent. The median nerve passes through the tunnel to the hand. Space in the carpal tunnel is limited. Any swelling of tissues or fluid retention tends to increase the pressure within the tunnel and compress the median nerve and interfere with working of the nerve. This nerve gives sensation to the thumb, index, middle and half of ring finger and also works the small hand muscles to the thumb. The nerve to the little finger comes to the hand outside the tunnel and so its sensation is not affected.

When the median nerve is compressed in the carpal tunnel often the first symptoms are pins and needles in the longer fingers, worse at night. As the pressure continues the sensation becomes blunt in the 3 ½ fingers, causing people to be clumsy, drop things or burn the finger. Later the muscles are affected and working with the thumb becomes clumsier.