Carpal Tunnel Syndrome Surgery Information Sheet

What is Carpal Tunnel Syndrome (CTS)

The Carpal tunnel is a tunnel at the base of the palm, through which the finger tendons and a large nerve (the median nerve) passes into the hand. In CTS, the tunnel becomes too tight and the nerve becomes squashed.

Patients complain of pins and needles or numbness, of the fingers and sometimes pain, especially at night, disturbing sleep. Driving, holding up a phone and knitting commonly provoke the tingling during the day. In the early stages these symptoms may come and go, but after a while they may be there all the time.



Figure 1. Carpal tunnel

Treatment for Carpal Tunnel Syndrome

When the problem is mild, a splint supporting the wrist, at night, can control symptoms very well.



Figure 2. Splint to support the wrist

If the CTS is regularly waking you many nights a week, an injection of corticosteroid into the carpal tunnel, can be very effective in giving relief for 6 months or more.

Surgery is the permanent way of curing the problem – the operation makes the tunnel bigger and so relieves the pressure on the nerve.

If CTS is equally bad in both hands, it is usual to have the operation on the worst side first leaving the other side for a second operation at a later time. Occasionally a person will have both hands operated on at the same time but this is only possible if there is very good home support and the patient is prepared to be very limited in function for 2-3 weeks.

When is Surgery Needed?

CTS is usually a slowly developing condition over months or years, until eventually symptoms become severe and/or regular; then patients reach a stage when their problem is no longer tolerable and they want to have it resolved.

However in the elderly person, pressure on the nerve may not cause so many symptoms and, instead, a steady loss of feeling in the fingers may occur (as the nerve is damaged) which the patient may not realise is important. In the elderly, the GP or surgeon may have to advise the patient to have surgery, based on a concern of nerve damage.

What the Surgery Involves

Usually, the operation is performed, under local anaesthetic, (which means that the hand is numbed by an injection but you are awake during the procedure) – if you feel that you cannot cope with this and want to be asleep for the operation – you must mark option B on the consent for surgery questionnaire at the end of this form.

If you have the operation under local anaesthetic you will be in hospital about 3 hours. You will need someone to drive you home after the operation, and possible you should have someone to stay with you overnight.

The operation is called an "open carpal tunnel release". It involves a 3-4 cm cut at the base of the palm, then the tight roof of the tunnel is released and so the tunnel is enlarged giving the nerve more room. The wound is then stitched and a bandage applied over palm and wrist, leaving the fingers and thumb free.



Figure 3. Carpal tunnel release

After the Operation

Long acting local anaesthetic is left in the wound to keep the hand numb for 10-20 hours post operatively, so only mild pain relieving tablets are needed to take at home.

You should keep the hand elevated in a sling for 1-2 days after surgery but you can take the hand out of the sling to use for light tasks e.g. getting dressed/undressed, eating, keyboarding, writing.

You should gently exercise your fingers and when you can make a full fist and hold firmly, you can return to driving.

You will be seen in clinic at about 2 weeks for review and removal of stitches.

Return to Work: Those in light employment (clerical, managerial) usually go back to work by 1-3 **weeks** while those in heavy work (builders, heavy labourers) may take 2-3 **months** to be able to use their operated hand (especially if it is the dominant side that has surgery) for heavy tasks.

Recovery of the CTS and from the Operation

Where pins and needles/numbness has been intermittent (i.e. coming and going) these symptoms will disappear very quickly after the operation.

However if there has been many months/years of permanent numbness, it may take many months/years for recovery to occur especially in the elderly when recovery of nerve function is much slower.

After the operation, you are able to do light tasks very quickly, often within days, but it takes 3-4 months for the hand to really recover for heavy jobs eg hammering, push ups, tennis. This time – of **3-4 months for full recovery** – is important to remember.

CTS may **come back** in about 10% of cases – if this happens, in the future, the operation can be done again.

Side Effects/Complications of the Operation

There are certain outcomes of the operation that are expected – that are part of natural healing – that are sometimes more troublesome in some patients than others. These are not complications of surgery so are termed "side effects".

It is common for 2-3 months for the wound to be a bit thickened and scarred – some patients find this tender but it always gets better with time and if bothersome in the short term, hand therapy can help settle this.

It is important to exercise the fingers to regain mobility of the hand after the operation and most patients can make a fist within a week of surgery - but sometimes stiffness is a temporary problem and hand therapy may be needed to overcome this.

True complications are uncommon. These include:

- Infection
- Complex Regional Pain Syndrome this problem is an involuntary reaction to trauma/surgery with more-than-expected pain and stiffness. It is rarely severe but up to 5% of patients having CTS surgery may get a mild form of this needing hand therapy and medicines to overcome the problem in the early stages before it becomes serious. If you have ever had this condition before, you must inform your surgeon before proceeding with your CTS surgery
- Failure to completely release the carpal tunnel this is uncommon but occasionally can occur where an operation is technically difficult. If this were to unfortunately be the case, a further operation under a general anaesthetic is very likely to be successful
- Nerve damage. This is highly unlikely to happen for your surgeon is experienced but is a very small risk of any surgery.