

Acute Services Division



Information for patients

# Carpal Tunnel Syndrome

Orthopaedic Department



## **What is Carpal Tunnel Syndrome?**

There are 8 small bones in the wrist called the carpal bones. A ligament (also called retinaculum) lies across the front of the wrist.

The space between the bones and the ligament is called the carpal tunnel. The tendons that attach the forearm muscles to the fingers pass through the tunnel.

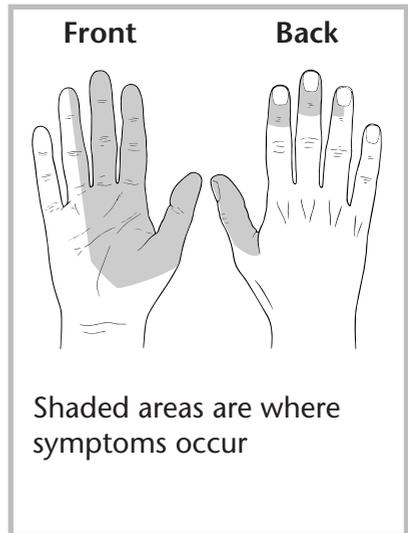
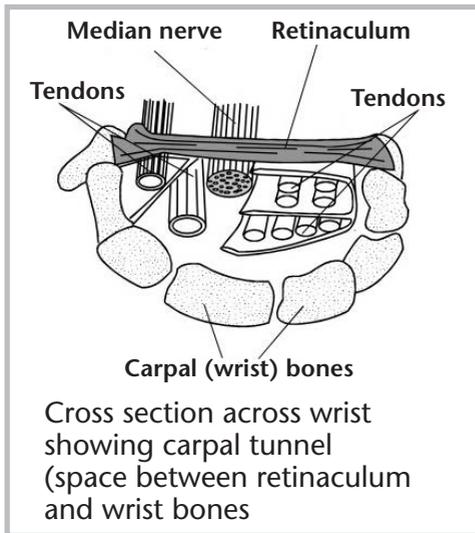
The main nerve to the hand (the median nerve) also goes through this tunnel before dividing into smaller branches in the palm. The median nerve gives feeling to the thumb, index middle finger and half the ring finger. It also controls the movement of the small muscles at the base of the thumb.

Carpal tunnel syndrome is caused by pressure on the median nerve as it passes through the carpal tunnel. It is graded into mild, moderate and severe. This grading may guide the best treatment options for you. The treatments will be discussed later.

## **What are the Symptoms?**

The main symptom is a funny feeling in the hand. This is usually described as pins and needles or tingling. It is usually felt in part or all of the area that the median nerve supplies. Which is the thumb, index, middle and half of the ring finger.

The tingling or pins and needles are usually worse first thing in the morning and during the night. If the symptoms are more severe they can be there all the time and can become numbness and cause loss of feeling. This can cause you to drop things and in the most severe cases there can be a loss of power of some of the muscles in your thumb.



## What causes carpal tunnel syndrome?

In most cases it is not known what causes carpal tunnel syndrome but some reasons are listed below.

- Fluid in the carpal tunnel caused by inflammation of or on the tendons
- Arthritis
- Pregnancy
- Obesity
- Broken (Fractured) wrist

## What to expect at your appointment

When you attend clinic the staff will ask you to complete some questionnaires. You may need to bring glasses if you require them to read.

The staff will measure your height and weight.

You will have an assessment which will involve asking you some questions about your problem and examining your hand. You may have a test carried out called Nerve Conduction Studies.

This test involves a sticky pad being placed on your hand. You will feel a small electrical current - some people do find this test uncomfortable but it is very helpful in diagnosing carpal tunnel syndrome.

Once your examination is complete we will discuss your diagnosis and treatment options with you.

## **Treatment Options**

### **1. Conservative**

- **Wrist splint or Brace**

A wrist splint will help symptoms, especially in the milder cases. The flattened splint keeps the wrist in the best position to give the nerve the most space. When we are sleeping we often bend our wrists and squash the nerve. You should wear the splint in bed which will stop this happening when you are sleeping. This should help stop the symptoms of carpal tunnel.

- **Steroid injections**

We may offer you a steroid injection. We tend to recommend this when the diagnosis is more that of mild carpal tunnel. The injection will help get rid of any swelling and inflammation in the carpal tunnel and make more space for the nerve. We would discuss this with you more fully if you decide to have steroid injections. In some cases the symptoms may return and that is when we may recommend surgery.

## 2. Surgery

This is usually recommended if you have moderate or severe carpal tunnel or if you have mild carpal tunnel which has failed to settle with conservative treatments.

The surgery involves cutting the ligament over the front of the wrist up into the palm of your hand. This will open up the carpal tunnel and take the pressure of the median nerve. The wound will be about 3-4 cm (1 ½ inches) in length (see below). This is normally done as a day case surgery with a local anaesthetic to numb the hand. You will go home with a bulky bandage on. We recommend you wear a loose fitting top that will fit over the bandage and that you arrange for someone to come and collect you.



This is minor surgery with a low risk of complications. If you do decide to proceed to surgery we will discuss these risks with you.

### **What should I expect after surgery?**

You or your practice nurse can remove the bulky dressing 2 days after your surgery.

You will have a small dry dressing over the wound until the stitches have been removed by the practice nurse in your GP surgery (usually 10 - 14 days following surgery). You should make an appointment with your practice nurse to have the stitches removed. Once the stitches have been removed you can start to use your hand normally.

## **Recovery times:**

Starting gentle exercises as soon as possible, (e.g. bending and straightening the fingers and wrist), helps stop stiff in your fingers and wrist.

The wound will be tender and sometimes even painful for a few months after your surgery. Once the wound has healed massaging the scar will help make it less sensitive.

Some people get almost immediate relief from the tingling and pins and needles, but if the symptoms have been more severe it can take longer for symptoms such as numbness to improve. It can be many months and if there is weakness this is unlikely to change in the thumb before

Time off work depends on what you do, you can return to light manual or office based jobs 2-3 weeks after surgery. Returning to more heavy manual work such as joinery or working in kitchens can be around 6 weeks.

You can return to driving when it is comfortable to do so but you should check with your insurance company. If you drive for a living you may wish to check with the DVLA or your company insurance as they may be specific guidelines that apply.





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