

INFORMATION FOR PATIENTS

Carpal tunnel syndrome

What is carpal tunnel syndrome (CTS)?

This is the effect of compression on the **median nerve**, one of the main nerves of the hand. The nerve runs through the carpal tunnel at the wrist (see diagram).



The base of the carpal tunnel is formed by the wrist bones. A ligament stretches across to form the roof of the tunnel. Running through the tunnel are nine flexor tendons which bend your fingers and thumb.

The median nerve provides feeling to the thumb, index finger, middle finger and half of the ring finger. Both the nerve and tendons pass through the carpal tunnel.

What causes it?

Carpal tunnel may occur with pregnancy, thyroid problems, diabetes, rheumatoid arthritis, and other less common conditions.

It may occur from increase in pressure in the carpal tunnel as a result of swelling caused by inflammation of the tendons, wrist arthritis or following a wrist fracture.

The cause often cannot be identified.

Symptoms may be provoked by repetitive or strenuous activities involving the hand.

The main symptoms

These include altered feeling with tingling and numbness affecting the thumb, index, middle and ring fingers, often worse at night or first thing in the morning.

In more advanced cases symptoms can also occur in the day and you may notice weakness or clumsiness of the thumb and fingers whilst carrying out everyday activities.

Pain in the wrist may radiate up the forearm.

Non-surgical treatment

Splints

Splints are often used to support the wrist at night, and sometimes during activity, to rest the inflamed tissues and reduce pressure on the nerve. When the wrist is level the nerve is in a relaxed position.

The splint can be used until the symptoms reduce, which may be approximately four to six weeks. It is very important that these fit correctly, otherwise symptoms may worsen.

Daily activities

Some activities and postures can contribute towards symptoms of carpal tunnel syndrome. The following points may help:

- Try to keep your wrist in a straight position when carrying out daily activities, e.g. computer, phone.
- Avoid long durations of forceful or repetitive work, or use of vibrating machinery; take regular rests until symptoms ease.
- Where possible, use tools that have larger grips that are easy to handle.
- Avoid positioning your wrist in a bent posture, especially at night.
- If hand sensation is reduced, take extra care with hot/cold temperatures, regularly checking skin for areas of injury. Moisturise any dry skin frequently with non-perfumed cream.

Your hand therapist may also suggest a pressure glove to reduce swelling to the area. Extra information will be provided on these.

What if symptoms persist?

When a nerve has been compressed it can take time for symptoms to settle. It is advisable to allow at least six to eight weeks of using the above techniques before seeking further treatment. However, your health professionals may give different advice regarding this.

Injections

In some instances, a cortisone injection may be administered in clinic into the carpal tunnel, to reduce swelling and inflammation. This can also assist diagnosis. In some cases, nerve conduction studies are requested to confirm the diagnosis.

Surgery

Surgery is intended to provide more space for the nerve and tendons if other treatments have not helped. It involves opening the roof of the tunnel to relieve pressure on the nerve.

Night pain and tingling often disappear in a few days.

It is important to maintain finger range of motion exercises.

In severe cases, improvement of numbness and muscle weakness may be slow or incomplete.

Once the wound has healed it is important to take care of the scar and massage regularly with a non-perfumed cream.

Recovery from surgery generally takes three months to regain grip strength and a fully comfortable scar.

You may be referred back to the hand therapy team for post-operative advice.

If you have any questions or concerns about your condition, please contact your hand therapist:

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Telephone: (01623) 622515, extension 4271.

For appointment queries please contact Therapy Services reception on telephone (01623) 622515, extension 322.

Further sources of information

NHS Choices: www.nhs.uk/conditions
Our website: www.sfh-tr.nhs.uk

Patient Experience Team (PET)

PET is available to help with any of your compliments, concerns or complaints, and will ensure a prompt and efficient service.

King's Mill Hospital: 01623 672222
Newark Hospital: 01636 685692
Email: sfh-tr.PET@nhs.net

If you would like this information in an alternative format, for example large print or easy read, or if you need help with communicating with us, for example because you use British Sign Language, please let us know. You can call the Patient Experience Team on 01623 672222 or email sfh-tr.PET@nhs.net.

This document is intended for information purposes only and should not replace advice that your relevant health professional would give you.

External websites may be referred to in specific cases. Any external websites are provided for your information and convenience. We cannot accept responsibility for the information found on them.

If you require a full list of references for this leaflet, please email sfh-tr.patientinformation@nhs.net or telephone 01623 622515, extension 6927.

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