**Carpal tunnel Syndrome**

**What is carpel tunnel syndrome?**

Carpal tunnel syndrome (CTS) is a condition in which the median nerve is compressed where it passes under the transverse carpal ligament at the wrist. CTS affects more women than men and is most common in those aged between 40 and 65. In more than 50% of patients it can affect both wrists.

**How is it caused?**

Any condition that reduces the amount of space within the carpal tunnel can cause CTS. Examples of these can include (but are not limited to): inflammation, wrist arthritis, wrist fractures, fluid retention, diabetes, obesity or rheumatoid arthritis.

**What are the symptoms?**

* Pain, pins and needles or numbness in the thumb, forefinger, middle finger and half of the ring finger nearest the thumb.
* Clumsiness of the hand or a weakened grip – some people find they drop things
* Symptoms are often worse at night but can also be experienced during the day.

**How is it diagnosed?**

CTS is can be diagnosed clinically following an assessment by a healthcare professional. Further investigations such as nerve conduction studies may be considered when the diagnosis is unclear.

**What can I do?**

There are a few strategies that can help you reduce or prevent the symptoms of CTS. Recent research shows that it can reduce the need for surgery by up to 21% in mild to moderate cases.

Exercises

These exercises help relieve CTS symptoms by gently gliding the median nerve and tendons through the carpal tunnel.



If you feel an increase in your pain or symptoms you should stop that exercise until you can talk to your therapist. Your exercises are an important part of getting better. They will only help if you do them as often as instructed.

Splinting

Wearing a resting splint at night may help to reduce the severity of your symptoms. Splinting can reduce the pressure in the carpal tunnel (pressure is the least when the wrist is straight) and allow inflamed areas in the wrist to rest. Splinting has been shown to provide symptom relief for up to 6 months in less severe cases. Please be aware it may take several weeks for the before you see an improvement in your symptoms.

Activity and environment modification

* Take regular breaks when lifting heavy objects and consider alternating heavy tasks with lighter tasks.
* Consider using cutlery with thicker handles

**How long will it last?**

Symptoms of CTS recover without any treatment in 30% of people within 6 months of diagnosis. In some people symptoms of CTS may fluctuate for many years and worsen during periods of increased hand use.

**Is there anything I avoid?**

* Avoid positioning the wrist in extremes of movement as this can increase the pressure in the carpal tunnel.
* Avoid prolonged or repetitive pinching or gripping.
* Consider using padded gloves during activities to reduce vibration such as riding a bike or mowing the lawn.

**What other options are there?**

If there’s a particular cause, like an underactive thyroid or arthritis, treating that condition may help.

Other treatment will depend on the severity of your symptoms.

In less severe cases, steroid injections can help to reduce swelling and pressure on the nerve in your wrist. Steroid injections have been shown to provide symptom relief for up to six months. Steroid injections are not always a cure. CTS can come back and you may need another injection or consider other options. Side effects are rare but include a possible temporary flare in pain and symptoms.

In more severe cases, surgery may be needed release pressure from the nerve in the carpal tunnel. This would be considered where:

* symptoms of numbness are constant
* there is evidence of muscle wasting
* when symptoms are not relieved by nonsurgical measures.

Surgery has been shown to produce successful outcomes in 75-90% of patients.

The goal of carpal tunnel surgery is to relieve pressure by cutting the ligament pressing on the median nerve. The operation takes around 20 minutes and you do not have to stay in hospital overnight. It can take a month after the operation to get back to normal activities. Possible side effects include scar sensitivity, injury to the nerves or blood vessels, wound infections and a lack of effect in around 10-25% of patients particularly in those with longer term symptoms. Recurrence rates following carpal tunnel decompression surgery vary between 0.3 and 12%.

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