

Carpal tunnel syndrome (CTS) is a relatively common condition where a nerve (the median nerve) is squashed as it passes through a short tunnel at the wrist.

The tunnel contains the tendons that bend the fingers and thumb as well as the nerve. This can cause pain, numbness and a burning or tingling sensation in the thumb side of the hand and fingers.

A 'carpal' is a term that refers to the wrist bones.

Causes of CTS

Possible causes include:

- Occupation — A job that involves repeated forceful movements of your wrist, for example
- using a screwdriver or vibration tools or computer based activities.
- Diabetes.
- Inflammation of the tendons.
- Fracture at the wrist.
- Rheumatoid arthritis in your wrist joint.
- Pregnancy/menopause.
- Thyroid problems.
- Cysts in your carpal tunnel.

It tends to develop in people of any age, and is more likely to affect women than men.

It is also common during pregnancy, affecting up to 50% of pregnant women.

What are the symptoms?

The symptoms of CTS can range from mild to severe.

Common symptoms include:

- Altered feeling in your hand, usually of the thumb, index, middle and ring fingers.
- Tingling that is often worse at night or first thing in the morning.
- Pain in the hands (and sometimes the wrist or forearm). Maybe worse when holding an object (hand elevated). You may experience pain further up the arm, sometimes to the shoulder.
- Weakness and wasting of the muscles at the base of the thumb.
- Weakness of pinch grip.
- Clumsiness and dropping objects easily.
- Fingers feeling swollen or heavy

What tests can be done?

If you see a healthcare professional they will ask you questions and carry out a clinical examination to help establish the cause of your problem. Sometimes nothing abnormal is found.

Some of the tests you may be offered include:

- movement, sensation and strength tests
- tapping over the tunnel (Tinel's test)
- squashing the tunnel (Phalen's test)
- nerve conduction tests are needed to confirm the diagnosis.
- blood tests are sometimes taken to see if there is any inflammation, or thyroid problems.

Nerve tests

Nerve tests are ordered to find out how badly the nerve is squashed before any surgery is considered.

The operation involves opening the roof of the tunnel to reduce the pressure on the nerve.

The surgery is usually done under local anaesthetic, but sometimes regional anaesthetic (injected at the shoulder to numb the entire arm) or general anaesthetic is required.

What is the treatment?

Some possible treatments include:

- Try not to over use your wrist, for example lots of squeezing, gripping or wringing. If you are overweight, losing some weight may help.
- Painkillers may be prescribed to ease the pain.
- If the condition is part of a more general medical condition (such as arthritis) then treatment of that condition may help.
- Self-help — It is important to try to limit any activities that make your symptoms worse. It may help if you change the way you make repetitive movements, reduce how often you do them and increase the amount of rest you take between periods of activity. Hanging your arm out of bed or shaking your hands when they are numb or tingling may help. Stretching your wrist back may also help. Reach forward as if pushing a door open, and then reach upward as if pushing the ceiling. Try this 4 times a day, 10 times in a row.
- A wrist splint — This is often advised as a first active treatment. The aim of the splint is to keep the wrist in a midline position. This may settle the problem if used for a few weeks. It is common to wear a splint just at night. This is often enough to ease symptoms.
- A steroid injection — An injection into the carpal tunnel is an option, but this is only done by a suitably trained healthcare professional.
- Surgery can be required — The hand can be used for light activities from the day of surgery. Surgery is usually successful but if you have had the symptoms for a long time there may be only partial recovery. It generally takes about 3 months to regain full strength and a fully comfortable scar.

You can find more [information about treating muscle, bone and joint problems](#) in the NHS inform Musculoskeletal (MSK) Zone.

No treatment

Sometimes carpal tunnel syndrome improves without any treatment after 6 months, especially if you're pregnant or less than 30 years old.

The symptoms go without treatment within a year or so in 1 in 4 cases. So, not treating is an option, particularly if symptoms are mild.

The situation can be reviewed if symptoms get worse.

Further information

If you have a muscle, bone or joint problem, visit the [MSK Zone](#) on NHS inform for self-management advice and exercises to get you moving normally, and safely.