

## What is Carpal Tunnel syndrome?

Carpal tunnel syndrome is a condition in which there is pressure on the median nerve where it passes through the wrist.

The median nerve controls movement of the thumb and carries information back to the brain about sensations felt in the thumb and fingers. Women are more likely than men to develop carpal tunnel syndrome.

The condition affects people of all ages, although occurs most often in people aged 30-60 years old.



## What are the symptoms of Carpal Tunnel Syndrome?

Carpal tunnel syndrome causes symptoms in the hand. These typically are felt as:

- Pain
- Aching
- Tingling
- Numbness
- Weakness

The symptoms are generally worse in the thumb, index and middle fingers although sometimes it may feel like your whole hand is affected. You may have an ache in your forearm and it can affect either one or both hands. It tends to come on gradually over a period of weeks.

The symptoms tend to be worse at night and may disturb your sleep. You may notice it most when you wake up in the morning. You may not notice the problem at all during the day, although certain activities such as typing, writing, DIY or housework may bring on the symptoms. Sometimes in more severe cases you may have a tendency to drop things and you may find that activities that require fine finger movements, like sewing become more difficult.

## What causes Carpal Tunnel Syndrome?

It may not be possible to say what the cause is in your particular case. The reason is generally unknown. Some of the possible causes are:

- Arthritis of the wrist, particularly Rheumatoid arthritis which can cause swelling of the wrist joint or the tendons that run through the carpal tunnel
- Repetitive use of the arm/degeneration of the wrist ligaments which can cause micro trauma and scar tissue which can cause compression
- Fluid retention, which can affect women during pregnancy or can be related to menstruation/menopause
- An underactive thyroid gland
- Diabetes
- Fracture of the wrist leading to narrowing or distortion of the carpal tunnel
- Some medications, particularly anastrozole (a treatment for breast cancer)
- Alcohol abuse
- Infections
- A cyst or tumour that grows in the wrist
- Obesity

Your risk of developing carpal tunnel syndrome may be greater if your job places heavy, repetitive demands on your wrist or if you use vibrating tools. A family history of carpal tunnel syndrome may increase your risk of developing the condition.

## What can I do to manage Carpal Tunnel syndrome?

### ADVICE

Patients with carpal tunnel syndrome should avoid repetitive wrist and hand motions that may exacerbate symptoms or make symptom relief difficult to achieve.

Patients who work on computers may benefit from improved wrist positioning or looking at their work space ensuring good work station ergonomics.

### WRIST SPLINTS

Splints keep the wrist in a neutral alignment which helps to decrease strain on the wrist thereby helping to relieve any soft tissue swelling.

- Working Splints: Wearing a splint during activities which aggravate or bring on symptoms can be useful.
- Night Splints: Wearing a resting splint can help prevent the symptoms occurring at night by keeping the wrist in a neutral alignment and preventing prolonged wrist flexion (bending forward) or extension (bending backwards) of the wrist.

### EXERCISES

#### Stage 1

#### Isometric carpal tunnel wrist exercises

- Start with isometric exercises, which means contracting the muscles against resistance, without movement.
- These are very low level exercises which should be used at the first point of strengthening.
- Make a fist with your affected hand.
- Place the other palm on top of your hand (near the knuckles).
- Try to extend your wrist (bend it back), using the hand on top to resist the movement.
- Hold each contraction for between 5 & 10 seconds, gradually increasing as required.
- Perform between 5 & 10 reps.
- Do the same with wrist flexion - use the good hand to apply resistance as you try to flex the wrist.
- Once you can achieve 10 reps of 10 second holds without any negative effects (either immediately or over the next 24 hours), move on:

# Carpal Tunnel Syndrome

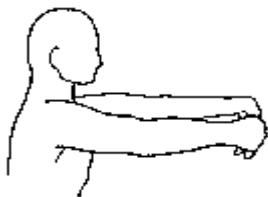
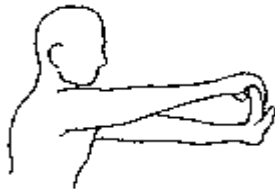


1) Wrist bends (forward and back): Rest your forearm on a table. Gently bend your wrist forward at a right angle and hold for 5 seconds. Straighten your wrist. Gently bend it backwards and hold for 5 seconds. Do 3 sets of 10 repetitions.



2a) Finger bend: Make a fist and then straighten your fingers. Do 3 sets of 10 repetitions

2b) Start with your fingers held out straight. Gently bend the middle joints of your fingers down toward your upper palm and hold for 5 seconds. Do 3 sets of 10 repetitions.



3) Wrist stretches: Keeping your arm straight in front with your palm facing down. Gently bend the stretching hand backwards and use the opposite hand to pull the fingers back. Hold for 15 seconds. Straighten your wrist and gently bend your wrist down. Use the opposite hand to press the stretching hand back towards your body and hold for 15 seconds. Repeat 3 times.

4) Hand squeeze: Squeeze a rubber ball/rolled up towel and hold for 5 seconds. Do 3 sets of 10 repetitions.

## What if this doesn't work?

If conservative management is not beneficial, then your doctor may recommend further investigations and more invasive management strategies:-

### **STERIOD INJECTIONS**

To reduce inflammation, your doctor can give you a steroid injection into your carpal tunnel. The injection may be uncomfortable, but the effects can last for weeks or months. A steroid injection into the wrist joint itself may help if you have arthritis in your wrist.

### **SURGERY**

Carpal tunnel release surgery relieves pain by reducing the pressure on the median nerve. Surgery usually takes place as a day case. For most people surgery is very successful but as with all surgical treatments some people may have complications.

## Further information

If you have followed the information and advice in this leaflet and your symptoms are not improving or if they start to worsen it is important you speak to a medical professional.

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