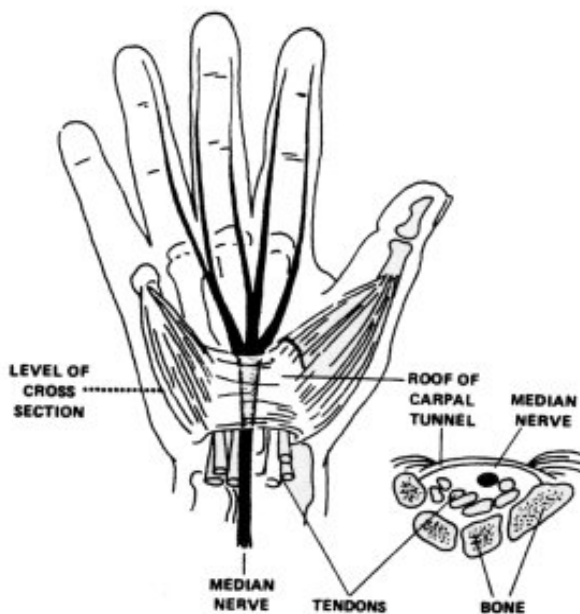


## What is it?

Carpal tunnel syndrome is a condition affecting the wrist and hand. It is caused by compression of the median nerve as it passes through the carpal tunnel of the wrist. This affects the sensation and muscle function of the hand and fingers.



Palm of hand

## Why does it occur?

There are many causes of carpal tunnel syndrome, and most are related to swelling within the carpal tunnel (for example – during pregnancy, following inflammation, or after vibration stress).

More commonly carpal tunnel syndrome occurs as a result of repeated movement or sustained positions that stress this area of the wrist. Many occupations involve these types of movements, and carpal tunnel syndrome is therefore common amongst certain groups of workers, for example typists, office workers and musicians.

## What are the symptoms?

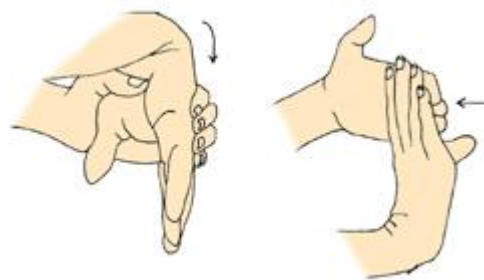
The symptoms of carpal tunnel syndrome include pain in the wrist and hand, numbness and pins and needles through the thumb and first three fingers, interrupted sleep, weakness in the hand, and loss of grip strength.

Correct diagnosis is important in carpal tunnel syndrome, particularly in chronic cases. Nerve irritation occurring in the neck can produce similar symptoms in the wrist and hand, but will be associated with additional signs and symptoms, such as arm pain, and whole hand pins and needles (described as “glove” distribution).

## How will Physiotherapy help me?

All of the following physiotherapy treatment techniques have a good level of evidence to support their use in the treatment of carpal tunnel syndrome:

- ✧ Splinting (to provide rest)
- ✧ Ultrasound therapy
- ✧ Nerve gliding exercises
- ✧ Carpal bone mobilisation
- ✧ Yoga / Pilates
- ✧ Exercise (either joint specific, functional or whole body)

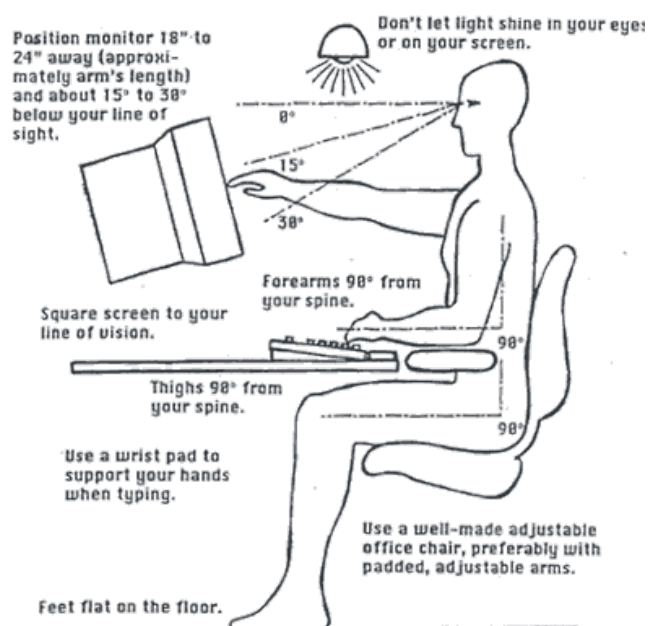


Gentle wrist stretches

## Returning to work

Manual handling skills and workstation set-up are very important in preventing recurrent symptoms of carpal tunnel syndrome in the workplace.

The diagram below gives a general outline of the correct desk set-up that can be used at work or at home.



Your physiotherapist will be able to provide you with training and advice regarding safe manual handling techniques. They will also consult with you in regards to your workplace, to ensure the optimum environment is achieved. Recurrence is common with carpal tunnel syndrome, and therefore it is essential to reduce as many risk factors as possible from the work environment.

## What else can be done?

Your Doctor will be able to offer you some relief with medications such as non-steroidal anti-inflammatory drugs. These have been shown to be beneficial in the acute phase of carpal tunnel syndrome.

Corticosteroid injection into the wrist can also provide some relief, particularly within the first 3 months of the onset of symptoms.

## Surgery

In some chronic cases of carpal tunnel syndrome, surgery is necessary to relieve symptoms. Surgery for carpal tunnel syndrome usually involves cutting the transverse carpal ligament to allow for more space within the carpal tunnel.

Research has shown that surgery provides a significantly better outcome than conservative treatment in moderate to severe cases. Your GP can provide you with more information, and refer you to a specialist if this is required.

## References

1. Muller M et al (2007) Effectiveness of hand therapy interventions in primary management of carpal tunnel syndrome: a systematic review. *Journal of Hand Therapy* 17(2):210-228
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