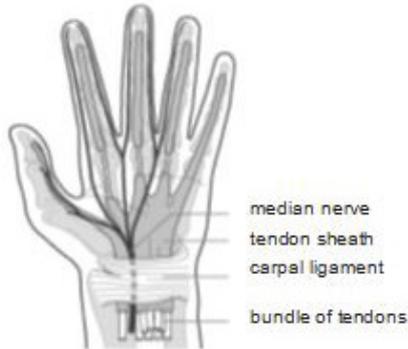


# Carpal Tunnel Syndrome

## What is Carpal Tunnel Syndrome?



The carpal tunnel is a channel in the palm side of the wrist. The bones of the wrist are arranged in a semi-circle and a tough ligament forms a roof over them known as the carpal tunnel. The carpal tunnel also contains tendons and nerves.

Carpal tunnel syndrome is a common condition of abnormal pressure on a median nerve at the wrist which results in finger numbness, pins and needles, weakness, discomfort and sleep disturbance. It commonly affects the middle fingers and ring fingers. Patients complain of difficulty doing up buttons or dropping things. The discomfort may be felt in the hand and forearm and even the shoulder.

## What are the causes of carpal tunnel syndrome?

The median nerve supplies the feeling to the thumb side of the hand and power to the thumb muscle. The nerve passes in the canal at the wrist joint where it is prone to increase pressure against the wrist bones. Fluid retention and altered blood supply probably affects the carpal tunnel. This may explain the reason why carpal tunnel is more common in pregnancy or may follow a monthly cycle in some female patients. The symptoms are worse at night due to the altered circulation of the palm of your hand at night. Carpal tunnel syndrome is common in diabetic patients and frequently affects both hands.

## How is a diagnosis made?

The diagnosis is normally made on the history of the condition together with simple tests of finger sensation and movement. Electronic studies (nerve conduction studies) are normally arranged to confirm diagnosis. These involve electrical tests above and below the wrist in both hands to confirm the diagnosis.

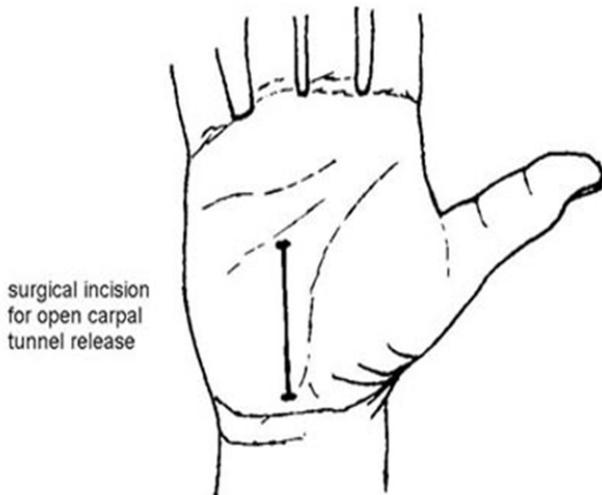
## Non-operative treatment

We advise the use of Futura splints (with Velcro) on the affected hand at night or during working activity. Avoidance of activities that can provoke the symptoms is sensible. Occasionally an injection of some local anaesthetic into the carpal tunnel will assist in making the diagnosis.

## Operative treatment– Carpal Tunnel Decompression.

An operation may be needed if the symptoms in your hand never go away and if other treatments have not worked. Surgical release of the median nerve is a minor and safe procedure. The operation takes less than 30 minutes and can be done under local anaesthetic and this is normally undertaken as a day case procedure. A small cut is made at the bottom of your palm. The ligament is then cut which releases pressure on the median nerve. It is rare for there to be further symptoms after surgery. A wrist splint may be applied to the hand after the operation. The dressing may be changed between 1 week and 10 days. Normal activity is resumed at about two weeks from the operation and the hand has returned to normal strength usually by 6 weeks.

## Carpal Tunnel Syndrome



### Further Information

[www.nhsdirect.co.uk](http://www.nhsdirect.co.uk)

[www.netdoctor.co.uk](http://www.netdoctor.co.uk)

[www.youranaesthetic.info](http://www.youranaesthetic.info)

[www.roh.nhs.uk](http://www.roh.nhs.uk)

Admissions and Day Case Unit  
0121 685 4080.

### What are the risks of surgery?

There are a few risks at carpal tunnel release other than failure to release the carpal tunnel ligament completely. This should not occur in a recognised hand unit. If there has been pressure on the nerve for many years then full recovery of the nerve is unlikely. If there is wasting of the muscles of the palm this is likely to be permanent change and will not be affected by surgical release. Some patients (20%) develop tenderness in the palm which takes some months to settle, but this is unusual.

### After operation

Interference of hand function following the operation affects very basic tasks of daily living such as dressing, washing, toilet, etc. After the operation you will have either a bulky dressing or a forearm plaster. You are not safe to drive after an anaesthetic or with a wrist plaster. We recommend you arrange for some assistance if you live alone. The timing of your return to work should be discussed individually. Redness and tenderness of the scar are sometimes seen after operation and take time to settle.