

## Carpal Tunnel Syndrome



## What is Carpal Tunnel Syndrome?

The wrist has a tunnel through which tendons and the median nerve pass. When pressure builds up in this tunnel, the nerve gets squeezed & then it can't function properly.

## What causes Carpal Tunnel Syndrome?

The exact cause of Carpal Tunnel Syndrome is unknown. There are some conditions that are associated with it like fluid retention in pregnancy, arthritis, diabetes and minor repetitive trauma.

## What are the symptoms?

There is usually some pain, numbness, or a tingling sensation in the hand. Sometimes patients will note waking up at night and obtaining some relief with the shaking of the hands. In more severe cases you may experience a weaker thumb grip, and this can affect daily life activities for example buttoning shirts or opening jars. An accurate history of the condition and an examination is usually sufficient to make a diagnosis. A nerve test, called NCS (nerve conduction study) may be ordered to confirm the diagnosis.

## How is Carpal Tunnel Syndrome treated?

### Conservative Treatment:

Rest from heavy use of the hand with splinting, analgesia, and advice on activity modification by the occupational therapist. However, the result of this treatment is unpredictable and may not be effective to everyone. To feel significant recovery with this treatment it can take up to 3 months and results vary with many factors including the stage of the compression.

### Steroid Injection:

Is a reliable way to lessen the pain and discomfort. A steroid injection comprises a mixture of local anaesthetic and a steroid. The efficacy of the injection is up to 80%.

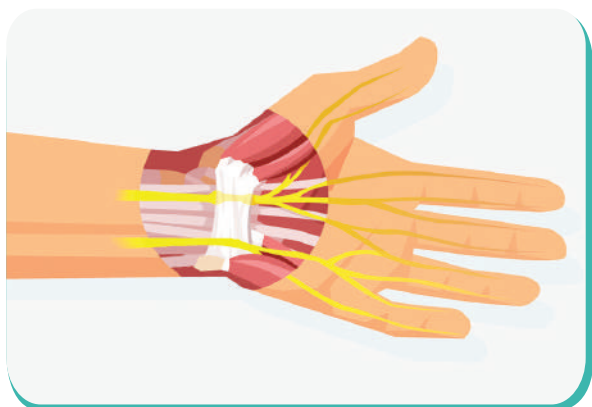


### **Risks of a steroid injection**

- Steroid flare (30%)
- Recurrence (30%-40%)
- Hypopigmentation (skin whitening)
- Injury to nerves and vessels
- Infection
- Bleeding
- Fat atrophy
- Nerve injury
- Transient rise in blood sugar for diabetic patients
- Potential decreased milk production in lactating women

### **What to expect?**

The injection will be administered in the clinic, your hand will stay numb for about 3 hours after the injection. The effects of the injection are usually seen between 2-3 weeks after the injection. Pain medication may be prescribed to relieve pain. If you are diabetic, monitor your blood sugar, or if you have hypertension, please check your blood pressure occasionally in the first three days after the injection.



### **Surgery:**

It offers a curative solution to the problem. It is indicated when the symptoms persist despite nonsurgical treatment or when recurrence occurs after steroid injection. Surgical release of the carpal tunnel is a day surgical procedure that is performed under local anaesthesia. The procedure itself takes about 30 minutes.

### **Risks:**

- Allergic reaction to local anesthesia
- Infection
- Nerve injury
- Scar formation
- Incomplete release
- Weakness

### **Post-surgery recovery:**

Your wound will be dressed for about 2 weeks before the stitches are removed. After surgery you will be able to move your finger without restriction.

### **Expected outcomes:**

- Pinch strength returns by 6 weeks
- Grip strength is expected to return up to 100% preoperative levels by 12 weeks post operation
- Rate of continued symptoms for more than a year is 2% in moderate and 20% in severe carpal tunnel syndrome
- If there is muscle wasting, most likely it will not improve post-surgery.