

# Carpal Tunnel Release

Carpal tunnel syndrome is a condition where pressure on the nerve that runs in front of the wrist (the median nerve) can result in pain or numbness of the thumb, index and middle finger, and weakness grasping objects.

The median nerve, together with the tendons involved in bending the fingers, passes through a small tunnel at the wrist that can for some people become too tight, compressing the nerve and causing the described symptoms (which are often worse at night).

Carpal tunnel syndrome is more common in women than men and may be associated with arthritis, obesity, pregnancy, wrist fractures, diabetes or thyroid problems. For many people however the cause is non-specific.

Benefits of carpal tunnel release surgery include relief from pain and numbness in the hand, along with prevention of permanent nerve damage. Three out of four people will experience a rapid improvement of symptoms, however for some people recovery can be slower or incomplete due to damage caused by pressure on the nerve prior to the operation. Symptoms in particular weakness, may continue to improve for up to 12 months post-operatively.

## Alternative options to Carpal Tunnel Release

For mild symptoms a **splint** worn at night may help. Alternatively, a **steroid injection** near the carpal tunnel may reduce numbness or pain (however, symptoms often return within weeks or months). For severe symptoms, or where alternatives are not effective, surgery is usually recommended.

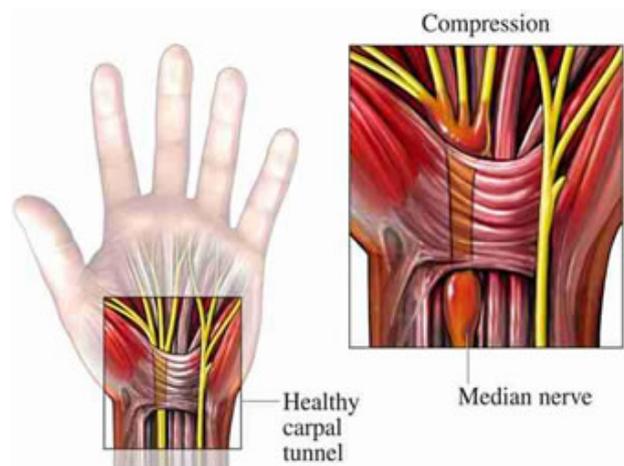
## What does the operation involve?

The operation is usually a day procedure and is performed under local anaesthetic and sedation. The operation itself usually takes around 20 minutes.

A small incision(3cm) is made on the palm of the hand and a ligament (known as the transverse carpal ligament) that forms the roof of the carpal tunnel is released to stop the nerve from being compressed.

You need to follow the post-operative instructions regarding dressings. You will attend a review appointment at WPRS approximately one week following your operation to check your wound and to commence hand therapy.

Hand therapy is considered an integral component of your post-operative management following a Carpal Tunnel Release. Your hand therapist will help you to control swelling, provide structured exercises and advice regarding movement and scar management.



## Post-operative course

Warrnambool Plastic & Reconstructive Surgery

You will be able to go home on the same day of surgery in most instances following carpal tunnel release.

Post operatively you will have a small scar on the palm. The wound will be closed with suture material and then covered with a dressing.

Your hand will be wrapped in a crepe bandage and you should keep your hand elevated and bandaged for two days. After this you will be able to remove the bandage, however the wound should remain clean until your stitches are removed. You should move your fingers normally and exercise your shoulder and elbow to prevent stiffness.

You will be provided with post-operative instructions and pain relief medication and you should follow these as directed. You will be discharged home with an appointment card for a wound check and dressing change at WPRS. Contact phone numbers to call if you have any concerns once you have been discharged home will be available with your post-operative instructions.

You should rest following your operation and only perform light duties. You should avoid heavy lifting and strenuous activity for a few weeks, returning to normal activities by around four to six weeks. You may drive a car when you feel safe and comfortable to do so. Most people can return to work at around one week post-operative (depending on the type of work).

## Potential risks of surgery

**Bleeding/haematoma:** any bleeding after surgery is usually minor. Rarely you may bleed enough to require a return to theatre.

**Infection:** uncommon, if it occurs you may be required to commence antibiotics.

**Wound separation/delayed healing:** is uncommon in carpal tunnel release.

**Scar widening/hypertrophy:** Your wound will be carefully closed however some people may develop widened or elevated scars. WPRS monitor for this and provide information to avoid this potential complication.

**Scar tenderness:** is common for around 6 weeks and improves for most people, though is rarely permanent.

**Nerve damage:** Damage to the median nerve or branch can result in numbness to finger or thumb weakness. Risk is 1 in 400,000.

**Recurrence:** Rare, But may occur in <1% due to scar tissue. Often long term, >10 years before recurrence.

**Incomplete release:** Occurs if carpal ligament not completely released. This will mean symptoms do not resolve, risk <1%.

**Aching/"Pillar pain":** of the wrist when using the hand can occur and usually settles with time and hand therapy.

### **Complex regional pain syndrome:**

Approximately 2-3% risk. This results in pain, sweating and swelling of the hand. Often resolves with hand therapy although may require medication and may be permanent.

**Anaesthetic complications:** sore throat, nausea/vomiting, other rare complications (i.e. allergic reaction to anaesthetic) can be discussed with your anaesthetist.