ORTHOPAEDICS WA

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CARPAL TUNNEL SYNDROME

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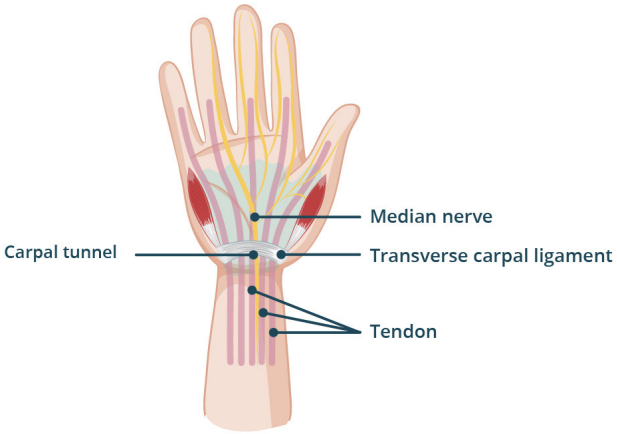
WHAT IS CARPAL TUNNEL SYNDROME?

Carpal tunnel syndrome (CTS) is a common condition that affects people of all ages but is most prevalent in women over 40 years old. It occurs when the **median nerve** is compressed as it passes through the **carpal tunnel in the wrist**, leading to symptoms that affect hand function.



Carpal tunnel syndrome can impact daily activities, but with proper treatment - whether non-surgical or surgical - most patients can achieve significant relief and regain hand function.

If you have questions or concerns, consult your specialist for further guidance.

WHY DOES IT OCCUR?

CTS is caused by increased pressure in the carpal tunnel, which may result from:

- Repetitive hand or wrist movements
- Underlying health conditions such as **pregnancy, thyroid disease or rheumatoid arthritis**
- Wrist fractures or trauma
- Fluid retention or swelling in the wrist

WHAT MIGHT I NOTICE?

- **Pins-and-needles** sensation in the **thumb, index, and middle fingers**
- Symptoms may **worsen at night**, causing sleep disturbances
- Weakness in the hand, leading to difficulty gripping objects
- Numbness, which may cause objects to be dropped unintentionally
- In severe cases, muscle weakness in the thumb

WHAT TESTS MIGHT WE DO?

A doctor may perform the following tests:

- **Tinel's Test** – Tapping on the wrist to trigger tingling sensations
- **Phalen's Test** – Bending the wrist to reproduce symptoms
- **Durkan's Compression Test** – Applying direct pressure to the carpal tunnel
- **Nerve Conduction Studies** – Measuring how quickly signals pass through the nerve

TREATMENT OPTIONS

There are both non-operative and operative treatment options available:

NON-OPERATIVE TREATMENT

- **Wrist Splinting** - Wearing a splint at night to relieve pressure
- **Steroid Injections** - Can provide temporary symptom relief
- **Activity Modification** - Avoiding repetitive wrist movements
- **Managing Underlying Conditions** - Addressing contributing factors such as arthritis or thyroid disease

SURGICAL TREATMENT

If symptoms persist or worsen, surgery may be recommended. The procedure, called carpal tunnel release, involves cutting the transverse carpal ligament to relieve pressure on the median nerve. It can be performed in two ways:

- **Open Surgery** - A small incision is made in the palm to release the ligament.
- **Endoscopic Surgery** - A smaller incision is used, and a camera guides the procedure.

POST-OPERATIVE CARE & RECOVERY

- The procedure is typically **performed as a day surgery** under local or general anaesthesia
- **Hand elevation** is recommended to reduce swelling
- **Finger movements** are encouraged early to prevent stiffness
- Dressings are usually removed after **48 hours**, and sutures after **10-14 days**
- **Driving** may be resumed once sutures are removed
- Return to **light work within 2 weeks**, but heavy manual work may require longer recovery

POSSIBLE COMPLICATIONS

While over **95% of patients** achieve good results, potential complications include:

- I**nfection** (less than 1%)
- **Neuroma** (damaged nerve regrowth) (less than 1%)
- **Chronic Regional Pain Syndrome** (1-2%)
- **Persistent symptoms** (less than 5%), especially in long-standing cases
- **Pillar Pain** – Pain on either side of the surgical incision, which may last for months
- **Temporary wrist pain** which typically resolves within 12 weeks

WHAT IF YOU HAVE A PROBLEM?

If you have any concerns once you are discharged from hospital you should either telephone the hospital ward, or the surgeons rooms. If they are not available you should consult your GP or local ED. Your surgeon would always want to know about any issues or complications, and would want the GP or nurse to call them to discuss the problem.

Further information is available on the OrthopaedicsWA website.