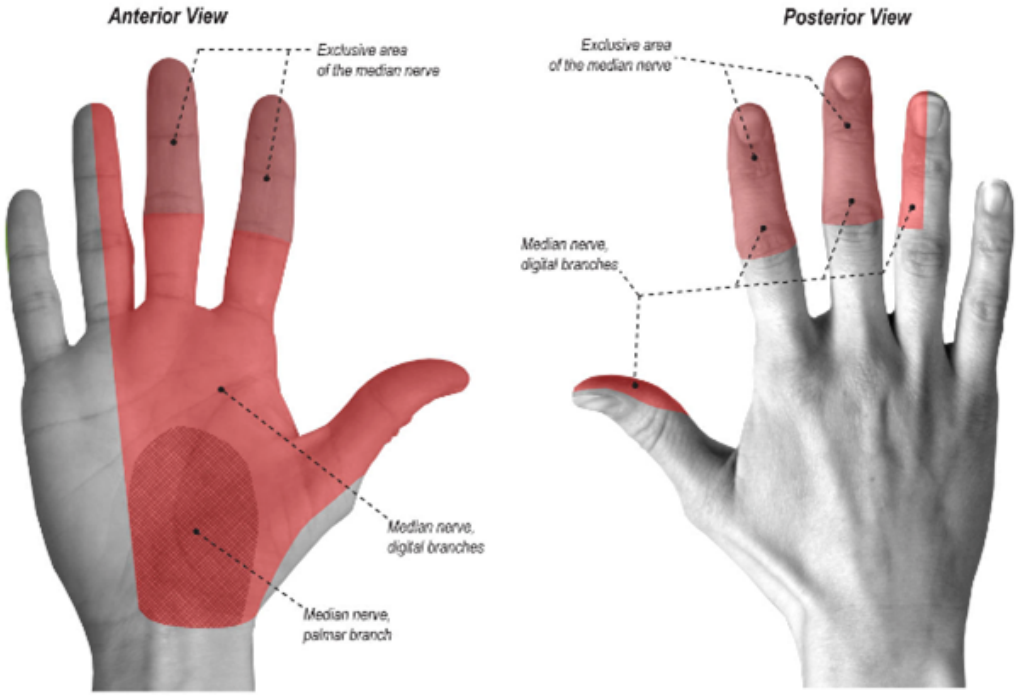
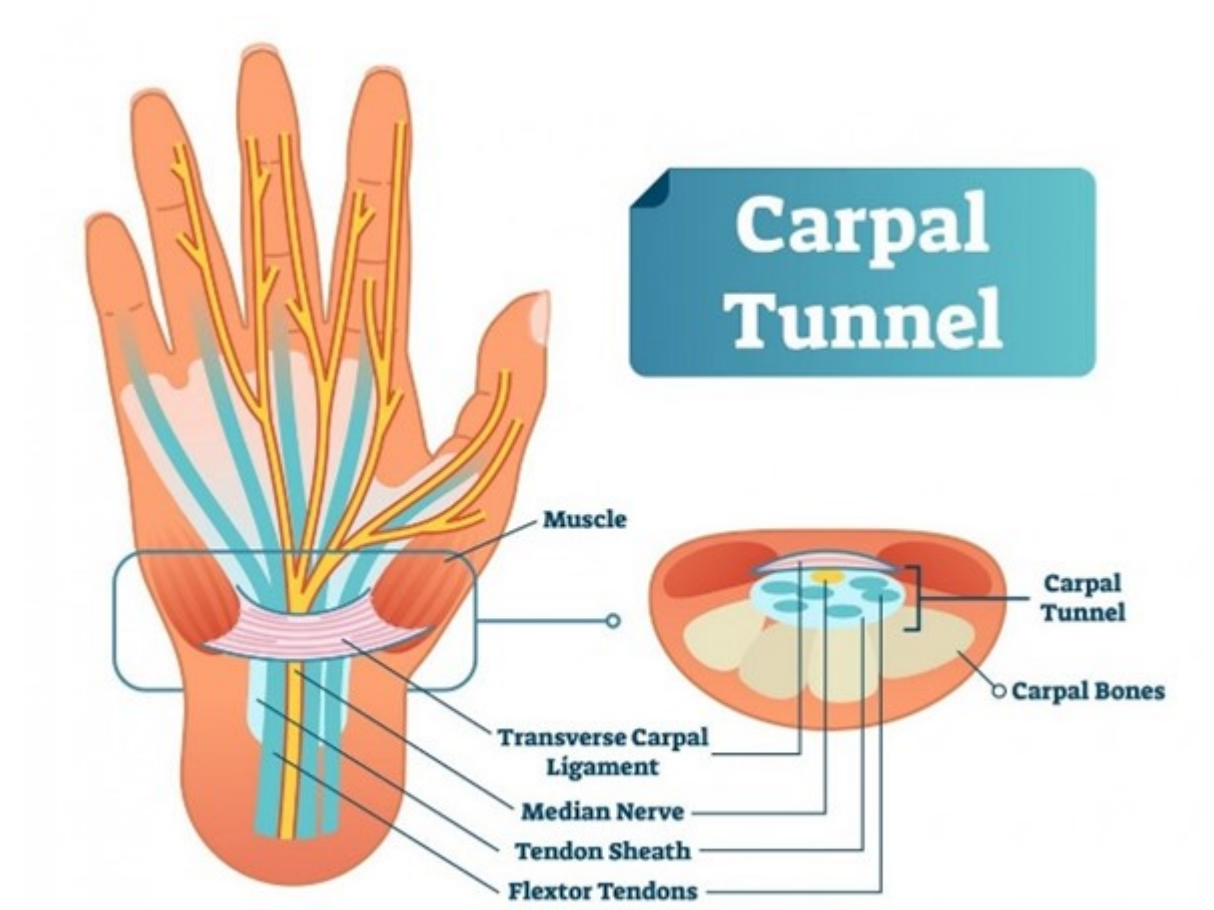
Carpal tunnel syndrome

Carpal tunnel syndrome (CTS) is a common upper limb condition affecting hand function and sensation. The proportion of the population who will experience carpal tunnel in their lifetime is around 8%. The prevalence for women is nearly twice that of men (10% compared to 5.8%), and it is a condition that tends to become increasingly common in people over the age of 50.



The carpal tunnel is formed by the carpal bones in the hand and the transverse carpal ligament. Within the tunnel runs several different tendons to help control the hand, blood vessels and also the median nerve which is susceptible to compression due to both internal and external factors. Changes in blood flow and elevated pressure through the tunnel can also irritate the median nerve. When this occurs the compression of the median nerve can cause different hand symptoms. These are most commonly pins and needles or numbness in the median nerve distribution of the hand (as shown on the left) and loss of power in certain hand and finger muscles.

E: admin@ibphysio.com.au | T: 02 9976 3540 | F: 02 9976 3290 | Suite 14, Level 2, 22 Darley Road, Manly, NSW 2095 Australia



Risk factors

There are a few risk factors that predispose a person to experiencing CTS at some stage in their life. These include:

- Being older than 45 years of age
- Pregnant women
- Increased BMI
- People in repetitive hand and wrist occupations or hobbies
- Peri-menopasual women
- Rheumatoid arthritis

Diagnosis

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A physiotherapist or hand specialist will be able to diagnose CTS with a comprehensive subjective and objective assessment. There are several special tests to help reproduce symptoms and check sensation changes around the hand and fingers. Strength testing would also be carried out to determine whether loss of motor function is present on the affected side.

Nerve conduction testing and MRI are an option for diagnosis but are not routinely used by health professionals.

Management

There are numerous management options for CTS (both conservative and surgical), and a multimodal approach to treatment is vital in exploring the most efficient way to manage someone's symptoms. Management for carpal tunnel syndrome includes:

- Load management – adjusting positions and activities that aggravate the pain throughout the day is a critical strategy for resolving CTS. For example, changing the mouse from right hand to left hand at work, or taking more regular breaks from typing.
- Orthoses – a splint worn in a neutral wrist position at night whilst sleeping can often be used for short-term pain relief and improved function.
- Ergonomic design – rectifying any issues surrounding work-station setup, or other repetitive lifestyle habits may help to reduce aggravation of CPS. Common factors to look out for may be desk, seat or monitor height, mouse use, or even the use of a standing desk to alter positions more regularly.
- Manual therapy – massage, dry needling or joint mobilisation aimed at the cervical spine and upper limb will often have a positive effect on symptoms.
- Exercise therapy – a combination of exercises aimed at reducing pressure through the nerve path is a mainstay of conservative management.
- Carpal tunnel release (CTS) surgery – if other conservative measures have been exhausted then referral to a wrist and hand specialist may be warranted. Releasing the transverse carpal ligament in the carpal tunnel can help to reduce pressure in the tunnel and relieve symptoms.
- Medication use – occasionally your medical professional may prescribe the use of some medications such as anti-inflammatories or anti-coagulants as an adjunct to therapy.

If you feel you have been experiencing symptoms similar to those described above, please come in for a thorough examination from one of the physiotherapists at In Balance Physio and Pilates and let us help you get back on track!

Article by Kieran Watson

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