

Carpal Tunnel Syndrome

Alternative Names: Median Nerve Compression or Entrapment

Definition: Carpal Tunnel Syndrome (CTS) is a condition in which the median nerve in the wrist is compressed. This causes numbness and pain in the fingers and hand.

What is going on in the body?

A ligament and the bones at the base of the palm of the hand, just beyond the wrist, form the carpal tunnel. Through this tunnel passes the median nerve and tendons going to the fingers and thumb. The median nerve conducts sensation from the palm side of the thumb and fingers, except for the little finger. It also carries impulses to small muscles in the hand, particularly at the palm side of the base of the thumb. If the pressure in the carpal tunnel increases enough, the median nerve is compressed.

What are signs and symptoms of the condition?

CTS usually starts gradually, with a vague aching in the wrist, extending into the hand or forearm. Acute onset occurs when the compression of the nerve happens suddenly. This sudden onset is more likely to cause pain. The numbness and tingling is felt in the thumb, index finger, long finger, and half of the ring finger on the palm side. Sharp pains may radiate up through the arm or shoulder

How is the condition diagnosed?

The diagnosis of carpal tunnel syndrome begins with a medical history and physical exam. The healthcare provider may order additional tests, including:

- An electromyogram, or EMG, which test the electrical activity of the muscle
- An MRI of the wrist, which may show the compressed nerve
- A nerve conduction velocity test, which measures electrical conduction along the median nerve.

Classifications of CTS:

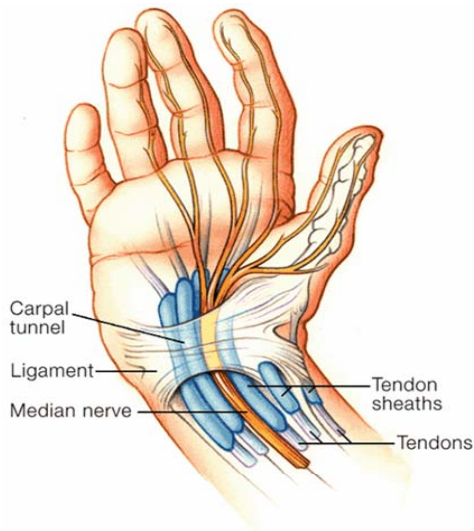
- 0 Asymptomatic w. Median nerve pathology: does not need treatment, ? need prophylactic work modification
- 1A Subclinical Median nerve irritability: Phalen's or Tinel's sign positive, no motor/sensory deficit, normal NCS. Does not need treatment, ? need prophylactic work modification.
- 1B Mild CTS: brief numbness, tingling, wrist pain at night or with repetitive use or sustained gripping. No motor/sensory deficit. Symptoms disappear with treatment or underlying disorder corrected or with modification of activity. Benefit from conservative treatment.
- 1C Moderate CTS: frequent symptoms. Signs of Median nerve irritability. Mild sensory loss, no motor weakness. NCS abnormal.
- 2 Moderate severe CTS: frequent symptoms. Sensory deficit present. May have motor deficit. NCS abnormal. EMG reduced recruitment of MUAP, no fibrillation. Splinting usually reduce symptoms. Good chance of respond to surgical decompression.
- 3 Severe CTS: continuous symptoms. Sensory and motor deficit. Median nerve sensory & motor conduction abnormal. Denervation on EMG. Splinting may help. Surgery: recovery is slow and incomplete.

For Nationwide Diagnostic Scheduling Call Toll Free

800-331-6062



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Common CPT Codes

- 73221** – MRI Upper Extremity, Joint
- 95900** – Nerve Conduction, amplitude and latency/velocity study, each nerve; motor, without F-wave study.
- 95903** – Motor, with F-wave study
- 95904** – Sensory

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