

Carpal Tunnel Syndrome (CTS)

Dr. Levi Merritt, DC, CPT, CHC

www.DocLevi.com

What Is Carpal Tunnel Syndrome?

Carpal tunnel syndrome (CTS) happens when a nerve in the wrist (called the **median nerve**) becomes compressed or irritated as it passes through a narrow space in the wrist known as the carpal tunnel. CTS is one of the most common causes of hand numbness and tingling.

Common Symptoms

- Numbness or tingling in the thumb, index finger, middle finger, and part of the ring finger
- Symptoms that may affect the whole hand in some cases
- Symptoms that are worse at night and may wake you from sleep
- Pain or tingling with repetitive hand use
- Weakness in the hand or reduced grip strength (in more advanced cases)
- Difficulty holding objects or performing fine hand movements
- In long-standing cases, visible weakness or muscle loss at the base of the thumb

What Causes It?

CTS is usually caused by pressure on the median nerve from:

- Repetitive hand and wrist movements
- Prolonged gripping or typing
- Awkward wrist positions (especially bending the wrist)
- Swelling or inflammation in the wrist
- Medical conditions such as arthritis, diabetes, or thyroid disorders (in some cases)

How Is It Diagnosed?

Diagnosis is based on your symptoms and a physical examination.

In some cases, additional testing may be recommended:

- **Nerve conduction studies (NCS/EMG):** measure how well the nerve is working
- **Ultrasound:** may show swelling of the nerve
- MRI is rarely needed

Treatment

Most mild to moderate cases improve without surgery.

Common treatments include:

- Wearing a wrist splint (especially at night) to keep the wrist in a neutral position
- Reducing or modifying activities that worsen symptoms
- Stretching and nerve gliding exercises
- Ergonomic changes (keyboard, mouse, or work position adjustments)
- Manual therapy and soft tissue treatment in some cases

Other Treatment Options

If symptoms are more severe or persistent, additional options may include:

- Anti-inflammatory medications
- Cortisone injections for temporary relief
- Surgery (carpal tunnel release) if symptoms do not improve or nerve damage is progressing

Prognosis

- Mild cases often improve within **4–8 weeks** of conservative care
- Early treatment improves outcomes and helps prevent long-term nerve irritation
- More severe cases may take longer to improve and sometimes require surgery

Typical Duration of Care

A common treatment plan may include:

- About **2 visits per week for 4–6 weeks**
- Total of approximately **8–12 visits** in the initial phase

Ongoing home exercises, splinting, and ergonomic changes are important for long-term improvement.

When to Seek Medical Attention

Seek care if you notice:

- Worsening numbness or tingling
- Constant symptoms that no longer improve with rest
- Increasing weakness or dropping objects
- Visible loss of muscle at the base of the thumb