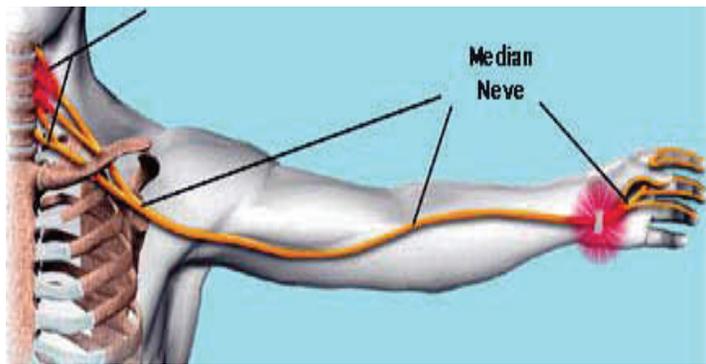


# A Patient's Guide to Carpal Tunnel Syndrome



## What is Carpal Tunnel Syndrome?

The standard medical definition of Carpal Tunnel Syndrome is an entrapment of the median nerve, which innervates the hand, as it passes through the carpal tunnel of the wrist. The carpal tunnel is a narrow space in the wrist that the tendons and nerves must pass through to get to the hand. The median nerve must go under a thick band of tissue in the wrist that can compress down on the nerve and produce the numbness and tingling symptoms commonly seen with Carpal Tunnel Syndrome. However, the median nerve passes 18 other common nerve entrapment sites from the neck to the hand that can result in carpal tunnel-like syndrome. The nerves of the hand begin in the neck and travel down the arm into the hand. These nerves must wind their way between muscles and tendons all the way down the arm until they reach the hand. Often times, the nerve is entrapped well before it reaches the carpal tunnel at different sites in the neck and arm. Research has shown that the most common site of nerve entrapment is actually in the forearm, in a muscle called the *pronator teres*, and not at the carpal tunnel.

## How does Carpal Tunnel Syndrome develop?

Carpal Tunnel Syndrome is commonly linked with occupations that require a significant amount of repetitive motions such as typing, writing or working on an assembly line. In reality, Carpal Tunnel Syndrome can happen to anyone. Any repetitive motions such as washing dishes, combing your hair, brushing your teeth, or driving can be responsible for carpal tunnel symptoms. These repetitive motions put continued stress on the muscles of the forearm and neck. As tension builds in the muscles and tendons, changes in biomechanics occur. Changes in biomechanics of the neck and arm create increased stress, internal pressure and increased friction that leads to inflammation, and eventually the formation of scar tissue along the median nerve. Scar tissue restricts the translation or movement of adjacent tissues causing friction which leads to inflammation and pain.

## What does Carpal Tunnel Syndrome feel like?

One of the first symptoms of Carpal Tunnel Syndrome is gradual tingling and numbness in the hand and arm. This is typically followed by dull, vague pain where the nerve gives sensation in the hand. The hand or arm may begin to feel like it's asleep, especially in the early morning hours after sleeping. Sometimes pain may even spread up the arm to the shoulder and neck. If the condition progresses, the muscles of the hand and arm can weaken, causing the hand to be clumsy when picking up a glass or cup. If the problem continues to persist, it may become difficult to lift objects as the hand and arm feels weak.

## What is the treatment for Carpal Tunnel?

In our office we use a combination of chiropractic treatments, Active Release Technique (ART) soft tissue manipulation and rehabilitation to allow restoration of proper biomechanics to the neck, shoulder, arm and hand. The key to fully resolving Carpal Tunnel Syndrome is the use of chiropractic adjustments and ART to fully release all the restrictions along the entire nerve.

## Ways We Treat Your Carpal Tunnel Syndrome:

### Chiropractic

- Chiropractic is a natural healing approach that promotes a healthy, pain-free lifestyle without the use of drugs or surgery. An adjustment is a hands-on therapy that delivers a controlled pressure that restores proper motion to a restricted joint.

### Active Release Technique (ART)

- ART is a manual therapy that corrects muscular and soft-tissue problems caused by the formation of adhesive or scar tissues. Adhesions/scar tissue occur naturally in the body in response to overuse or cumulative trauma.

### Flexibility

- Good flexibility enables muscles and joints to move through their full range of motion. Poor flexibility leads to a higher chance of injury to muscles, tendons and ligaments.

### Strength

- Strength training is essential for the rehabilitation of any injury. When new tissue is laid down to repair an area, it is very thin and weak. If this tissue is not properly re-strengthened, it can lead to re-injury.

### Proprioception

- Proprioception describes the body's ability to react appropriately to external forces. It also helps rebuild proper motor patterns of the body. Proprioceptive exercises form the basis for the agility, strength, and endurance for complete rehabilitation.



With our combination of different treatments, resolution can be seen in over 90 percent of Carpal Tunnel Syndrome cases. Effective treatment of the neck and arm, or any soft tissue injury, requires an alteration in tissue structure to break up the restrictive cross-fiber adhesions and restore normal function to the affected soft tissue areas. When executed properly, this process substantially decreases healing time, treats the root cause of the injury, and improves athletic performance. Active Chiropractic and Rehabilitation Clinic is very successful at treating this type of injury. Our therapies remove restrictive adhesions between both the superficial and deep tissue structures along the entire kinetic chain. This comprehensive approach creates a complete, time efficient healing process.



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