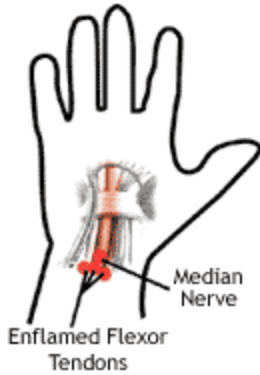


## What is Carpal Tunnel Syndrome?



Carpal Tunnel Syndrome (CTS) is the result of an impairment to the median nerve caused by cumulative trauma through use of the muscles and tendons in and around the carpal tunnel.

CTS can begin with a simple case of muscle overuse in the forearm area. The muscles in the forearm make all hand movements possible. If these forearm muscles are overused and tighten up, the tendons that attach these muscles to the bones in the hand become irritated and inflamed.

When the flexor tendons in the carpal tunnel become irritated or inflamed, the tenosynovium (the lubricated sheath protecting the tendons) swells, pinching the median nerve against the transverse carpal ligament. The damage to the median nerve generates the symptoms associated with CTS.

CTS can result from problems apparently unrelated to the wrist or forearm. The double crush phenomenon results from damage or pinching of the median nerve at the neck or shoulder area. Nerve compression can result from poor posture or tight muscles in the neck or shoulders. The compression pulls the joints out of working alignment, irritating delicate support tissue and thereby putting pressure on the nerve pathway.

### Are There Degrees Of CTS?

Some doctors have classified CTS into three levels, based upon degree of suffering as well as method of treatment.

<b>Level 1:</b>	Tingling and soreness are reduced by rest or massage. No nerve damage is detected.
<b>Level 2:</b>	Symptoms intensify while orthopedic and neurological tests indicate nerve damage.
<b>Level 3:</b>	With severe symptoms, the pain is constant. Doctors recommend total immobilization of the wrist or surgery to relieve the stress on the median nerve.

### What are common symptoms?

#### Sensory

numbness  
tingling  
burning  
coldness  
pain  
stiffness

#### Motor

loss of hand strength  
weakness of thumb  
reduced muscle development in thumbs  
difficulty holding or pinching items