

# Maine Medical

## PARTNERS

### Neurology

## WHAT IS CARPAL TUNNEL SYNDROME?

**Carpal tunnel syndrome** occurs when the median nerve, which runs from the forearm into the palm of the hand, passes through a tight space (or tunnel) in the front of the wrist. Bones and joints in the wrist make up three sides of the tunnel, and a ligament across the top of the tunnel completes the circle. Nine tendons and the median nerve pass through this tunnel. If the space becomes tight, then symptoms of pain and numbness may occur. This tightness may be caused by:

- Being born with a small carpal tunnel
- Developing arthritis in the joints around the tunnel
- Swelling of the tendons which pass through the tunnel
- Previous fracture or endocrine problems

**What Symptoms Occur?** Symptoms of carpal tunnel syndrome may include periods of numbness and tingling in one or both hands. Most often, this numbness occurs in the thumb, the index, and middle fingers. The numbness is often worse at night. It can become painful and actually wake a person up from sleep.

**To evaluate** symptoms of carpal tunnel syndrome, a patient should have a careful history and physical examination. Electromyography (the recording of electrical activity in muscle tissue) and nerve conduction testing are performed to determine the degree of severity and help guide therapy.

### **Treatment of carpal tunnel syndrome includes:**

- Exercises and stretching
- Adjusting your work place to fit your body and hands (ergonomic evaluation)
- Use of a wrist splint
- Occupational therapy evaluation and treatment
- Performing a surgical procedure on the transcarpal ligament
- Steroid injections

For additional information on carpal tunnel syndrome, please visit the following links or contact (207) 883-1414.

**NIH:** [http://www.ninds.nih.gov/disorders/carpal\\_tunnel/carpal\\_tunnel.htm](http://www.ninds.nih.gov/disorders/carpal_tunnel/carpal_tunnel.htm)

### **Mayo Clinic:**

<http://www.mayoclinic.org/diseases-conditions/carpal-tunnel-syndrome/basics/prevention/con-20030332>

### **American College of Rheumatology:**

[http://www.rheumatology.org/Practice/Clinical/Patients/Diseases\\_And\\_Conditions/Carpal\\_Tunnel\\_Syndrome/](http://www.rheumatology.org/Practice/Clinical/Patients/Diseases_And_Conditions/Carpal_Tunnel_Syndrome/)

**Ergonomics:** <http://ergonomics.about.com/od/carpaltunnelsyndrome/a/ctstandp.htm>

**Exercises:** <http://physicaltherapy.about.com/od/flexibilityexercises/a/CTSexercise.htm>