

Carpal Tunnel Syndrome

The carpal tunnel is a passageway in the wrist formed by the eight carpal (wrist) bones, which make up the floor and sides of the tunnel, and the transverse carpal ligament across the roof of the tunnel. Running through the carpal tunnel is the median nerve supplying sensation (feeling) to your thumb, index and middle fingers, and half of the ring finger. The median nerve lies directly beneath the transverse carpal ligament. Carpal tunnel syndrome is caused by increased pressure in the carpal tunnel resulting in compression of the median nerve.

WHAT ARE THE CAUSES?

Carpal tunnel syndrome can be caused by a variety of problems. Certain medical conditions that may lead to compression of the median nerve include:

Inflammation or swelling about the tendons, Fluid retention, Wrist fractures and dislocations, Crushing injuries to the wrist, Rheumatoid/ degenerative arthritis, Diabetes, Hypothyroidism, Pregnancy

Non-work related activities may also provoke symptoms of carpal tunnel syndrome. Lawn mowing, long distance driving, or hobbies such as knitting or wood carving may elicit symptoms of carpal tunnel syndrome.

WHAT ARE THE SIGNS AND SYMPTOMS?

Numbness, burning, or tingling of one or more fingers (excluding the little finger) is the most common symptom of carpal tunnel syndrome. This numbness can happen at any time: often these symptoms occur at night and may awaken the individual from sleep. Partial relief can sometimes be gained by shaking, massaging, or elevating the hands. A decrease in sensation may result in weakness of the affected hand. Patients may find themselves dropping objects and less capable of performing tasks requiring gripping or pinching strength.

HOW IS IT TREATED?

Conservative treatment of patients with mild symptoms usually involves avoidance of activities that may provoke further symptoms. Your physician may prescribe a splint to be worn to restrict movement of the wrist. In some instances, a cortisone injection may be administered into the carpal tunnel to decrease swelling.

When conservative treatment does not achieve the desired results, or in cases involving more severe symptoms, surgery may be recommended. Surgery involves releasing the ligament which forms the roof of the tunnel. This relieves the pressure of the median nerve. With the blood flow to the median nerve restored, the symptoms of burning and tingling are usually relieved soon after surgery. Patients can expect soreness from the incision for 2-4 weeks and discomfort from deep pressure for as long as several months.