

# CARPAL TUNNEL SYNDROME

## ◆ What is it?

Carpal tunnel syndrome is a nerve disorder in the wrist that causes pain, hand weakness, and loss of feeling, often in the thumb and first three fingers. It involves compression, stretching, or irritation of the median nerve at the wrist joint. It can severely affect activities requiring a lot of wrist and hand use (gripping, lifting, using tools, typing, writing, etc)



## ◆ Signs and Symptoms of this Condition

- Tingling, numbness, or burning pain in part of the hand or fingers that may awaken you at night.
- Sharp pains that may shoot from the wrist up the arm or to the fingers, especially at night.
- Morning stiffness or cramping of the hand.
- Thumb weakness, frequent dropping of objects, inability to make a fist.
- Reduced performance in any sport requiring a strong grip.

## ◆ Causes

Pressure on the median nerve can come from the any of the following sources:

- Inflammation of the tendon sheaths, often due to repetitive or forceful gripping or squeezing during sports, home activities, or work.
- Scarring or shortening of the ligament that covers the median nerve at the wrist.
- Fracture, sprain, or dislocation of the forearm or wrist.
- Prolonged hyperextension (wrist bent backward) or hyperflexion (wrist bent downward) of the wrist.

## ◆ What Can I do to Prevent Carpal Tunnel Syndrome?

- Wear a wrist brace that keeps your hand and wrist straight if your home activities, work, or sport involves repetitive grasping activities.
- Periodically change the position of your wrists if your activity requires prolonged hyperextension of the wrist (cycling, weightlifting) or results in repetitive vibration or shaking of the hands or wrist.
- Use proper technique in activities that result in the wrist position in neutral to slight extension.

## ◆ Prognosis

- Carpal tunnel syndrome is usually curable with appropriate treatment and sometimes resolves spontaneously. Surgery may be necessary at times if conservative management does not resolve the symptoms.

## ◆ Treatment

Initial treatment consists of rest from the offending activities and the use of medications to help reduce inflammation. A wrist splint worn at night is often recommended as well to keep the wrist in a neutral position. Discomfort improves by wiggling the hands or dangling arms. If you awaken at night with pain in your hand, hang it over the side of the bed and rub or shake it. Activity modification, including technique changes and varying the position of the wrist often, are also helpful. Occasionally a cortisone injection may be given to reduce inflammation.

Surgery is performed to free the pinched or compressed nerve when these conservative treatments fail. Surgery, which is performed on an outpatient basis (you go home the same day), provides almost complete relief of all symptoms in 95% of patients. Allow at least 2 weeks for healing.

- Rest from the offending activity.
- Anti-inflammatory medication (aspirin, ibuprofen, etc.).
- Wear of a wrist splint (especially at night) to keep the wrist in a neutral position.
- Discomfort improves by wiggling the hands or dangling arms. If you awaken at night with pain in your hand, hang it over the side of the bed and rub or shake it.
- Activity modification/technique changes utilizing varying positions of the wrist
- Cortisone injection is sometimes helpful to reduce inflammation if the symptoms are not responding to the above interventions.
- Surgery to free the pinched or compressed nerve when these conservative treatments fail.