

# Carpal Tunnel Syndrome

## What Is It?

Carpal tunnel syndrome is a condition caused by increased pressure on the median nerve at the wrist. Patients experience numbness, tingling, and pain in the fingers, wrist and hand.

## What Causes It?

Usually the cause is unknown but many risk factors have been identified.

1. Female sex (3 times more likely than males)
2. Age over 40 years
3. Poor fitness and obesity
4. Smoking
5. Thyroid disease, diabetes or gout
6. Pregnancy
7. Wrist injury or fracture
8. A job requiring repetitive, forceful grasping
9. Keyboarding is a surprisingly weak risk factor
10. Most commonly, there is a combination of causes.

## Signs and Symptoms

Symptoms usually are pain or numbness and tingling in the thumb, index, middle, and ring fingers. Patients may have difficulty sleeping and notice symptoms when driving or reading a newspaper. They may experience occasional clumsiness, and may drop things. In severe cases, sensation may be permanently lost and the muscles at the base of the thumb slowly shrink.

## Diagnosis

Your history and physical examination are most important to making the diagnosis. An X-ray may be taken to check for other causes of the complaints such as arthritis or a fracture. Laboratory tests may be done if there is a suspected medical condition that is associated with Carpal Tunnel Syndrome. A nerve test may be done to check for other sites of nerve problems and confirm the diagnosis.

## Treatment

**Non-Operative.** Symptoms most often are relieved without surgery. Identifying and treating medical conditions, changing the patterns of hand use, or keeping the wrist splinted in a straight position at night may help reduce pressure on the nerve. Your physician may recommend anti-inflammatory medication taken orally or injected into the Carpal Tunnel.

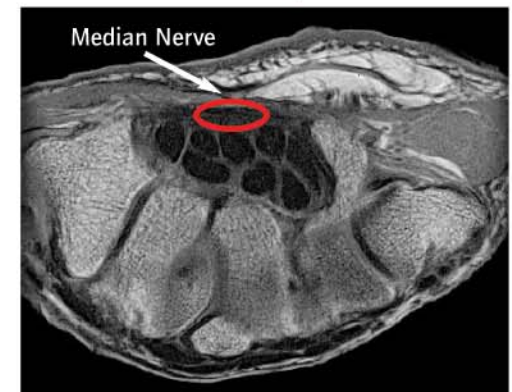
**Operative.** When symptoms are severe or do not improve, surgery may be needed to make more room for the nerve. Pressure on the nerve is decreased by cutting the ligament that forms the top of the tunnel on the palm side of the hand. Incisions for this surgery may vary, but the goal is the same — to enlarge the tunnel and decrease pressure on the nerve.

Following surgery, soreness around the incision may last for several weeks or months. The numbness and tingling may disappear quickly or slowly. Carpal tunnel symptoms may not completely go away after surgery, especially in severe cases.

Surgery is performed as an outpatient, and can be done under local anesthesia with or without sedation medicine.

Patients are kept off of work the day after surgery and then are allowed to return with no use of the operated hand. After 10-14 days, they are allowed to work with a 5 pound lifting restriction. Most patients are able to return to full duty by 6 weeks post-operatively.

## MRI of the Carpal Tunnel



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