

# Carpal Tunnel Syndrome

**C**arpal tunnel syndrome (CTS) is a condition brought on by swelling and pressure inside a “tunnel” made up of bones (carpal bones) and a ligament (transverse carpal ligament) in your wrist. Several tendons and the median nerve pass through the carpal tunnel. It is the compression of the median nerve that causes the symptoms of CTS.

The September 11, 2002, issue of *JAMA* includes a study comparing 2 treatments for CTS: use of a wrist splint and carpal tunnel release surgery.

## SYMPTOMS OF CARPAL TUNNEL SYNDROME

- Pain, frequent tingling, or numbness in the fingers that can sometimes disturb sleep
- Cramping in the hand or wrist
- Feeling of fingers being swollen, although there is no swelling
- Weakness, with difficulty making a fist or squeezing objects in the hand
- Symptoms of CTS may be variable and are often felt in the thumb, index, middle, and part of the ring finger.

## RISKS FOR CARPAL TUNNEL SYNDROME

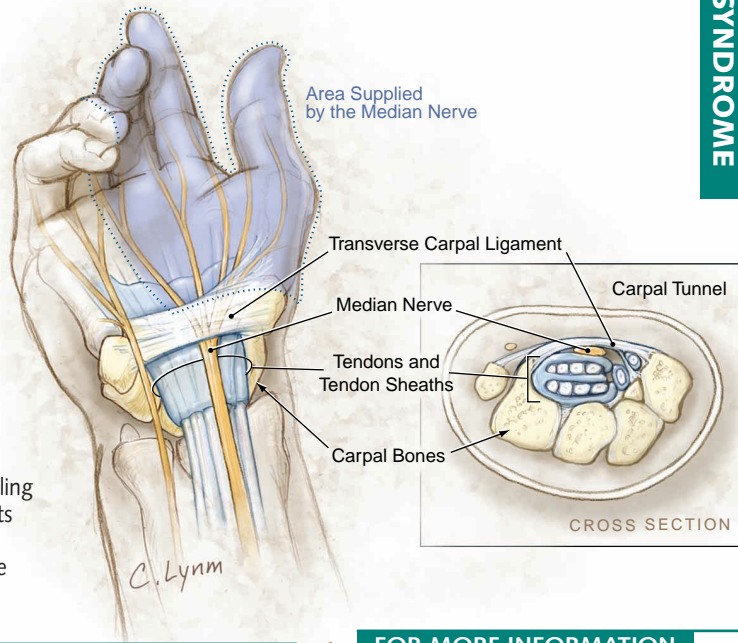
People who type, work in manufacturing, use vibrating machinery, play sports involving hand movements, knit, or do any kind of repetitive motion involving the hand may be at risk of developing CTS. However, sometimes there is no definite cause, and there are many other risk factors, including

- Arthritis or fracture near the wrist
- Injury of the wrist causing swelling in the carpal tunnel
- Pregnancy
- Diabetes
- Thyroid disease, particularly an underactive thyroid

## TREATMENT

Treatment usually begins with a wrist splint to be worn mainly at night. Anti-inflammatory drugs can help relieve pain and numbness. Your doctor may also recommend a corticosteroid shot to help reduce swelling. It may be important to modify your workplace to ensure that your wrist stays in the neutral position (wrist joint straight, not down) while you perform your job.

If your CTS symptoms are severe or do not improve using the above treatments, your doctor might recommend **carpal tunnel release surgery** to release pressure on the median nerve. This surgery is usually performed through an incision in the wrist or palm. It may take several months for strength in the hand and wrist to return to normal. Unfortunately, CTS may not go away completely after surgery in some cases.



## FOR MORE INFORMATION

- American Society for Surgery of the Hand  
847/384-8300  
[www.assh.org](http://www.assh.org)
- National Institute for Occupational Safety and Health  
800/356-4674  
[www.cdc.gov/niosh](http://www.cdc.gov/niosh)

## INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page Index on JAMA's Web site at [www.jama.com](http://www.jama.com). A Patient Page on carpal tunnel syndrome was published in the July 14, 1999, issue.

Sources: American Society for Surgery of the Hand, Harvard Medical School's Consumer Health Information, National Institute for Occupational Safety and Health

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