

PATIENT INFORMATION

A publication of Jackson-Madison County General Hospital, An affiliate of West Tennessee Healthcare

Carpal Tunnel Syndrome

What is Carpal Tunnel Syndrome (CTS)?

The carpal tunnel is an opening in your wrist that is surrounded by bones and ligaments. One of the nerves to your hand (the median nerve) passes through this opening. In Carpal Tunnel Syndrome, the tissues around this nerve swell, causing pressure on the nerve. This causes pain, numbness, and tingling in the wrist, hand, or fingers. With repetitive movements, the nerve remains irritated and the symptoms may get worse. The hand that you use the most is usually affected although you may have this problem in both wrists and hands.

What causes Carpal Tunnel Syndrome?

The exact cause of CTS is not known. It is often caused by a combination of problems. Some things that may lead to CTS are:

- ◆ Jobs that cause you to repeatedly move your wrist or hand in the same direction. This is especially true if you have to use a lot of force or if you use machines or tools that vibrate.
- ◆ Some hobbies such as knitting, needlepoint, and computer games.
- ◆ Jobs that require your hands to stay in abnormal positions for long periods of time.
- ◆ Some diseases such as:
 - Diabetes
 - Some types of arthritis
 - Kidney failure
 - Some bone and muscle problems.
- ◆ An injury to your wrist.
- ◆ Women are more likely than men to have carpal tunnel syndrome.

What are the symptoms?

The symptoms vary from person to person and they may get worse over time. Symptoms may include:

- ◆ An abnormal feeling in the hands including numbness and tingling. Most often, the symptoms start in the index, middle, and ring fingers. You may have these symptoms in one or both hands.
- ◆ You may not be able to move your hand or wrist in all directions, or moving it certain directions may cause pain.
- ◆ The pain may be worse at night.
- ◆ Some patients lose the ability to tell if their hands are hot or cold.
- ◆ You may have less strength in your hands or may have a tendency to drop things.
- ◆ You may feel like your hands or wrists are swollen even if they do not appear to be swollen.

How is Carpal Tunnel Syndrome diagnosed?

Usually CTS is diagnosed based on the symptoms that you are having and your description of what makes your symptoms better or worse. There is no specific test that diagnoses CTS. The doctor will often look for three symptoms during his examination:

- ◆ Pain that runs down to the tips of the fingers when the wrist is tapped.
- ◆ Pain when the hands are held back to back with the fingers pointing down and the wrists forming a ninety-degree angle and held for one minute.
- ◆ Weakness in the thumb when it is raised up or down.

Certain types of nerve conduction studies can also be used to see how well the nerve signals move up and down the median nerve.

What is the treatment for Carpal Tunnel Syndrome?

Some cases of CTS are mild and will resolve on their own. The doctor may give you a brace to keep your wrist from moving. It is usually recommended that this brace be worn at all times when you first begin using it. After the initial treatment period, some patients may only need to wear the brace at night or when doing a repetitive activity.

The use of ice packs or alternating hot and cold packs may be recommended. Certain exercises of the hands and wrists may be helpful. Medicines may be used to decrease the swelling and irritation. In addition to medicines taken by mouth, the area can be injected with a steroid medicine to decrease the inflammation.

Smoking is discouraged since it slows down blood flow and will make symptoms worse. It is recommended that you use good posture: keeping your back straight and not rounding your shoulders. If your CTS is related to your work activity, the doctor may suggest things that you can do to change your work environment and help decrease the stress to your wrist. If the CTS is related to a disease such as diabetes or arthritis, treating these problems may make the CTS better.

If these treatments do not work, surgery may be needed to release the nerve that is compressed. Surgery is often recommended if you have had severe symptoms for more than six months or if the CTS is causing you to lose muscle strength in your thumb. There are several different types of surgery that can be done to treat CTS. Ask your nurse for a copy of the teaching sheet "Carpal Tunnel Release Surgery"

Talk with your doctor about your treatment options.