Carpal tunnel syndrome is a condition that can cause pain, tingling, numbness and weakness in your fingers and thumb. Carpal tunnel syndrome can affect one or both hands and can occur at any age.

In the wrist, the median nerve and several tendons pass through a bony arch called the carpal tunnel. The median nerve carries signals between the hand and the spinal cord and provides sensation to the thumb, index finger, third finger and parts of the fourth finger. The median nerve also supplies the small thenar muscles located at the base of the thumb. Tendons allow the fingers to bend. Swelling around the tendons causes increased pressure on the median nerve. This pressure, in turn, causes the numbness, tingling and weakness associated with carpal tunnel syndrome.

What are the symptoms of carpal tunnel syndrome?
If you have carpal tunnel syndrome, you may experience any of the following symptoms:
• Pain, tingling and numbness in your thumb, index, mid and/or ring fingers
• Pain that shoots from your hand up your arm as far as your shoulder
• A swollen feeling in your finger - even though they may not visibly be swollen
• Symptoms are worse at night
• Trouble grasping or pinching objects
• Drop objects more than usual
• Difficulty using your hands for certain tasks, such as writing, buttoning a shirt or opening a jar
• Muscles at the base of your thumb are smaller and weaker than they used to be

Symptoms typically come and go at first, early in the course of carpal tunnel syndrome. Although carpal tunnel syndrome can begin suddenly, its onset usually is gradual. If not treated, it can lead to permanent nerve and muscle damage, possibly resulting in the loss of hand function. With early diagnosis and treatment, however, complete recovery is often possible.
Nonsurgical Treatments

- Changing or avoiding activities that may be causing the condition and taking frequent breaks from repetitive tasks.
- Wearing a wrist splint
- Using non steriodal anti-inflammatory drugs (NSAIDS)
- Corticosteriod injections into the carpal tunnel may be considered if it is difficult to reduce inflammation with other methods.
- Doing exercises to stretch and strengthen the muscles in the hand and arm

When to call the Doctor

Call your doctor if home treatments have not helped or if your symptoms become more severe:

- Tingling, numbness, weakness or pain in your fingers or hand that have not gone away after 2 weeks or home treatment.
- Have little or no feeling in your fingers or hand
- Cannot pinch your thumb and first finger together or your pinch is week
- Cannot use our thumb (no thumb strength)
- Have problems at work because of pain in the fingers or hands

Exams and Tests

There are two tests commonly used to check the median nerve in the wrist. The nerve conduction velocity test measures the speed of electricity as it moves through the nerve. Electromyelography (EMG) records the electrical activity of a muscle which reveals any nerve damage, surgery may be considered to prevent permanent damage. Nerve tests are usually completed before surgery is done. Nerve testing may confirm diagnosis and thus prevent unnecessary surgery.

Surgery for carpal tunnel syndrome

Surgery may be considered if other treatment has not helped, if your condition has continued for a long time, or if there is nerve damage or the risk of nerve damage. Surgery involves cutting a ligament that forms the roof of the carpal tunnel. This relieves the pressure on the median nerve and thus the symptoms of carpal tunnel syndrome.

Surgery is usually successful. In some cases, surgery may not completely relieve the numbness and pain in the fingers or hand. This may be the case if there has been permanent nerve damage associated with underlying conditions (such as diabetes).