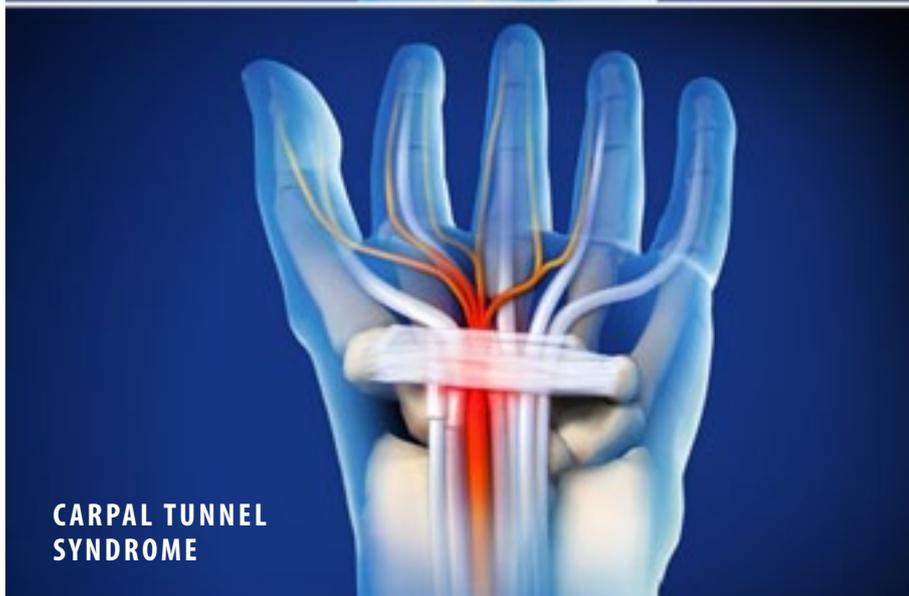
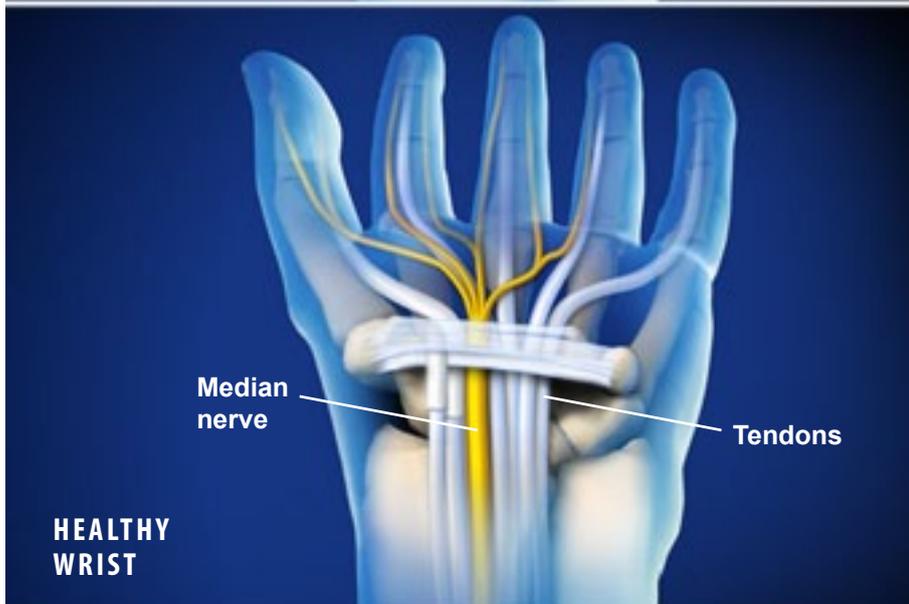
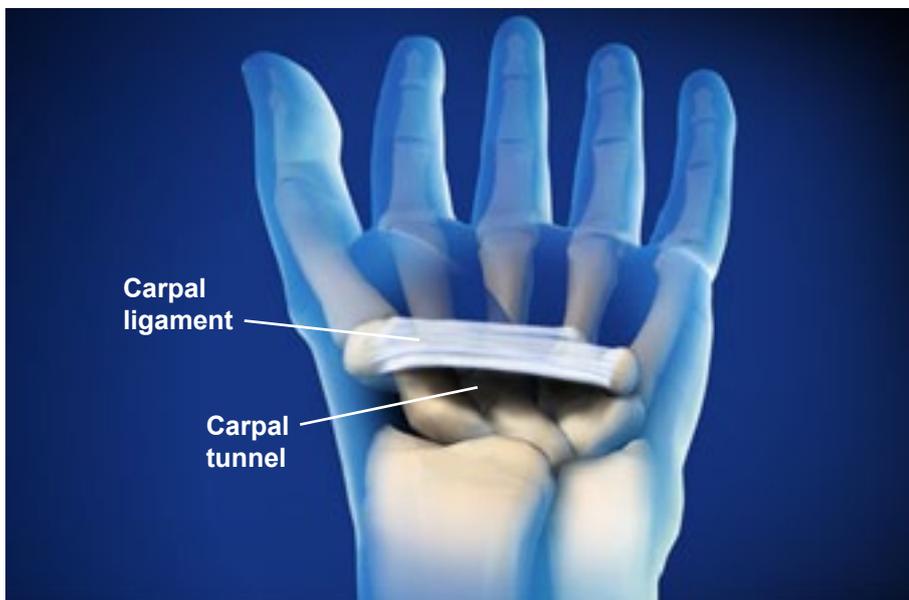


## CARPAL TUNNEL SYNDROME (CTS)



### Overview

This condition is a painful compression of a nerve in the wrist that can interfere with a person's ability to use the wrist and the hand. Carpal tunnel syndrome is a progressive condition that can worsen without proper care.

### Anatomy

The carpal tunnel is a passageway in the wrist formed by the carpal ligament and the bones of the hand. This passageway protects the hand's main nerve (called the median nerve).

Branches of the median nerve travel to the thumb, index, middle and ring fingers. Along with the median nerve, the carpal tunnel also houses the tendons that control the bending of the fingers.

### Compressed Nerve

Carpal tunnel syndrome occurs when the median nerve is compressed within the carpal tunnel. This compression can be caused by any of the structures that surround the nerve, including bones and soft tissues. In many cases, no single cause can be identified.

### Risk Factors

A variety of factors can increase a person's risk for carpal tunnel syndrome. It is believed to be more common in people who have smaller carpal tunnels. It is more common in women than in men. The condition may be caused by a fracture or dislocation of the wrist. It may be linked to conditions such as diabetes or rheumatoid arthritis. It can also be triggered by conditions that cause the body to retain fluid, including pregnancy. Repetitive motions of the hand and fingers, especially extensive keyboard use, are often discussed as a possible cause. However, evidence for such a link is conflicting.

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### Symptoms

Carpal tunnel may affect one or both wrists. Symptoms for carpal tunnel syndrome may begin with an aching, tingling, burning or itching sensation in the palm and fingers. Often, this aching begins at night. As the condition progresses, the person may experience numbness or tingling in the thumb and in the index, middle and ring fingers. The wrist may become painful, and this pain may radiate up the arm or down into the hand and fingers. The hand may feel weak, and the person may have trouble gripping objects. Symptoms worsen with repetitive use of the hands. In chronic or untreated cases, the muscles at the base of the thumb may waste away. The person may have difficulty distinguishing between hot and cold sensations.

### Treatment

Treatment options may include rest and ice. The hand may be immobilized with a splint. A physician may recommend non-steroidal anti-inflammatory drugs, steroid injections, and physical therapy. If these methods are not effective, surgery may be recommended to relieve pressure on the median nerve.

