



**United States Military Academy**  
**Sports Medicine-Physical Therapy Services**  
Keller Army Community Hospital and Arvin Gym, West Point, New York  
*"Academic, Research, and Clinical Excellence"*

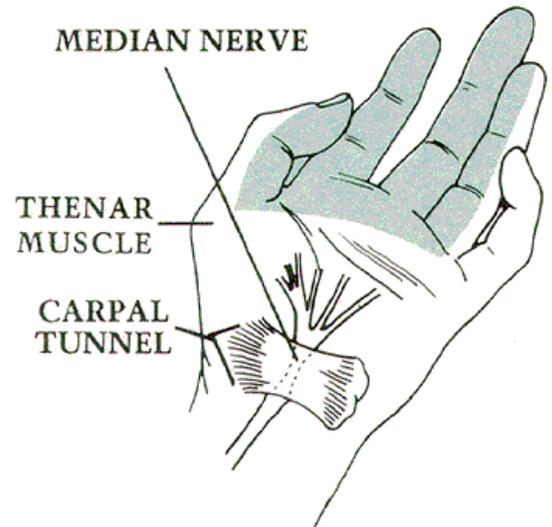
## Carpal Tunnel Syndrome

The carpal tunnel is formed by the bones of the wrist (base) and the transverse carpal ligament (roof). The median nerve passes through the tunnel along with many flexing tendons in the wrist.

### Symptoms

The symptoms of Carpal Tunnel Syndrome (CTS) are varied but may include:

1. Cramping and/or pain of the hand and wrist
2. A feeling of numbness to the areas outlined in gray in the adjacent illustration
3. Weakness to the hand
4. Pain radiating up the arm



### Causes

CTS is usually caused by overuse of the hand and fingers which results in swelling within the carpal tunnel placing pressure on the median nerve. Activities that may result in CTS include:

1. Typing
1. Working around vibrating machinery
2. Knitting
3. Sporting activities

The symptoms of CTS may also be brought on by pregnancy, thyroid conditions, diabetes, and traumatic events.

### Treatment

1. Relative Rest: If possible, avoid activities that aggravate your symptoms
2. Control Inflammation:
  - a. Ice Massage - Perform 2-3 times per day. Freeze water in Styrofoam or paper cup, peel away cup and apply directly to the carpal tunnel. Keep ice cup moving at all times. Apply Ice Massage for 7-10 minutes.
  - b. Medication - non-steroidal anti-inflammatory medication may be prescribed.
3. Splints may be prescribed for use at night or throughout the day
4. An ergonomic evaluation may be suggested to determine the cause and possible reduction of your repetitive strain at work.
5. Stretch Tight Muscles: Your Physical Therapist will evaluate your flexibility and recommend appropriate exercises to improve your flexibility
6. Other physical therapy modalities may be utilized if necessary
7. Injections are occasionally effective in reducing inflammation
8. The last resort is a carpal tunnel release surgery.

- **Based off of the findings of your exam your physical therapist will help you develop a well-balanced treatment plan that meets your specific needs.**