

Carpal Tunnel Syndrome



Many more people use computers than they did just ten years ago. A bi-product of this computer revolution has been an increased occurrence of carpal tunnel syndrome, or CTS. Repetitive movements such as using a keyboard can damage the tendons that run from the hands to the forearms. If not dealt with properly, this causes extensive pain and limited hand use.

Within the hand and wrist there is a collection of bones, tendons and nerves. This area is tunnel-shaped and not very roomy. If you flex your hand over and over again, as you do when you type, you cause these tendons in your wrists to rub against each other, leading to irritation. **The irritation results in swelling, and those swollen tendons press against what is called the median nerve,**

causing tingling, numbness and eventually significant pain.

What are the symptoms of carpal tunnel syndrome?

Symptoms most often occur in the parts of the hand supplied by the median nerve: the thumb, index finger, middle finger, and half of the ring finger. If your little finger is not affected, this may be a sign that the condition is carpal tunnel syndrome, because the little finger is usually controlled by a different nerve than the thumb and other fingers.



- Weakness in the thumb when trying to bend it at a right angle, away from the palm (abduction).
- Numbness or pain that gets worse while you are using your hand or wrist, especially when gripping an object with your hand or bending (flexing) your wrist.
- Burning, prickling sensation in the hand that is similar to pins and needles.
- Occasional aching pain in your forearm between your elbow and wrist.
- Becoming much less sensitive to touch.

Who is at risk of developing carpal tunnel syndrome?



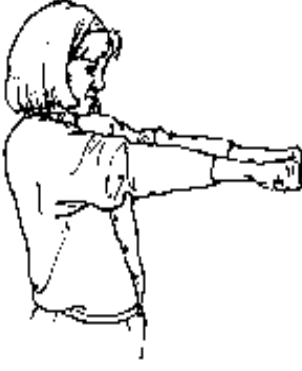
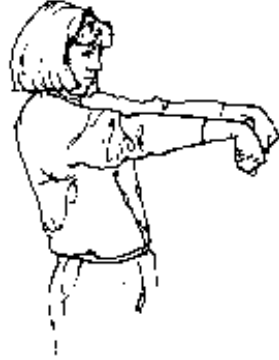

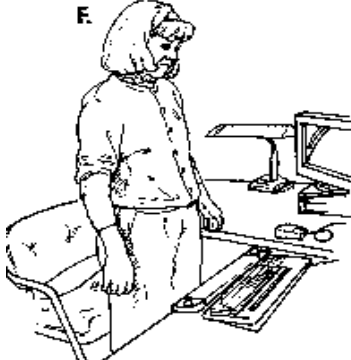
1. Carpal tunnel syndrome is common in people who perform **repetitive motions of the hand and wrist**. Typing on a computer keyboard is probably the most common cause of carpal tunnel. Other causes include:
 - Sewing
 - Driving
 - Assembly line work
 - Painting
 - Writing
 - Use of tools (especially hand tools or tools that vibrate)
 - Sports such as racquetball or handball
 - Playing some musical instruments
2. Women are three times more likely than men to develop carpal tunnel syndrome, perhaps because the carpal tunnel itself may be smaller in women than in men.
3. The dominant hand is usually affected first and produces the most severe pain.
4. Persons with diabetes or other metabolic disorders that directly affect the body's nerves and make them more susceptible to compression are also at high risk.

Preventions of Carpal Tunnel Syndrome

1. Avoid or reduce the number of repetitive wrist movements whenever possible.
2. Use tools and equipment that are properly designed to reduce the risk of wrist injury.

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3. **Ergonomic aids**, such as split keyboards, keyboard trays, typing pads, and wrist braces, may be used to improve wrist posture during typing. Take frequent breaks when typing and always stop if there is tingling or pain.
4. For those with hand-intensive jobs should do a **five-minute exercise warm-up before starting work**, just as runners stretch before a run to prevent injury. The exercises are:

A. 	B. 	C. 
Extend and stretch both wrists and fingers acutely as if they are in a hand-stand position. Hold for a count of 5.	Straighten both wrists and relax fingers.	Make a tight fist with both hands.
D. 	E. 	F. 
Then bend both wrists down while keeping the fist. Hold for a count of 5.	Straighten both wrists and relax fingers, for a count of 5.	The exercise should be repeated 10 times. Then let your arms hang loosely at their side and shake them for a couple of seconds.

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