

Carpal Tunnel Syndrome

Here's the scenario: You first notice periodic tingling, numbness, or burning in your hands or fingers. Over time, these symptoms typically grow stronger and more frequent, and you may develop pain in your hand that can radiate up your arm. You may also lose hand strength and find it difficult to pinch or make a fist. These symptoms are often more pronounced at night and in the morning. What's going on? You probably have carpal tunnel syndrome.

Carpal Tunnel Syndrome

Carpal tunnel syndrome is most often caused by repetitive motion of the hand and wrist. It affects many thousands of people each year and appears to be increasingly common. The syndrome often affects people who perform keyboarding, lifting, or other repetitive activities that involve a lot of wrist movement.

Athletic activities associated with carpal tunnel syndrome include racquetball and other racket sports, bicycling, canoeing, kayaking, gymnastics, bowling, and baseball. Other people who have a high incidence of carpal tunnel syndrome include keyboard operators, homemakers, carpenters, gardeners, cooks, musicians, butchers, and beauticians. Women are affected more often than men.

Causes

The carpal tunnel, a type of archway in our wrists, is formed by the transverse carpal ligament on the palm side and wrist bones on the backside of your wrist. (The transverse carpal ligament is a flexible band that connects the wrist bones.) The median nerve and the tendons that flex your fingers pass through this tunnel. When you use your wrists over and over in the same way, sometimes the tissues inside the carpal tunnel become irritated and may swell causing pressure on the nerve. The pressure on the nerve causes the numbness, tingling, and other symptoms of carpal tunnel syndrome.

The median nerve may also be squeezed after an injury (such as a dislocated or broken wrist bone) or if you have arthritis or diabetes. Also, fluid retention from pregnancy or menopause may put pressure on the nerve.

Diagnosis

To help diagnose the problem, your clinician may use simple manual tests designed to reproduce symptoms, like tapping on the palm side of your wrist over the median nerve. He or she may also order tests, like measuring the electric impulses of the nerves that pass through the carpal tunnel.

Building Stronger Wrists

Once you are diagnosed as having carpal tunnel syndrome, the first thing your clinician will probably suggest is that you stop the activity that is aggravating your symptoms. If the condition is caught early, this alone may alleviate the problem.

Of course, if the aggravating motion is part of your job, you may not be able to stop completely. Your clinician can help you find solutions that work in your particular situation. And you can try the following suggestions, which often make a big difference:

- Keep your wrists straight when performing repetitive activities such as paddling a canoe or typing.
- Avoid prolonged periods of repetitive movements, of keeping your hands tensed, or of flexing or extending your wrists (when rock climbing or bagging groceries, for example).
- Decrease the speed and force of repetitive activities. For instance, roll a bowling ball with less force, or try using an electric screwdriver.
- Use the stronger muscles of your arms and shoulders to reduce the stress on your wrists. When rowing or carrying boxes, for example, you may have to adjust your technique.
- Take frequent rest breaks when using your hands.

- Massage the palm and back of your hand during the day. And shake your hand periodically if your wrist or hands feels stiff.

Additional Treatment

Your clinician may also prescribe a night splint to keep your wrist from bending. Some clinicians recommend using the splint during the day as well. The splint is usually worn for 3 to 6 weeks. Aspirin, ibuprofen, or another anti-inflammatory drugs can help decrease any inflammation you may have. In addition, your clinician may have you do exercises like those discussed above. Even with these measures, you will need to be patient; it may take 6 weeks to 6 months to recover.

If surgery is necessary, a simple operation divides the transverse carpal ligament. This usually relieves compression of the median nerve as it passes between the ligament and wrist bones. However, the surgery can cause complications, so trying the other treatments for a long time is important to do first.

Although symptoms may be disturbing, carpal tunnel syndrome doesn't mean the end to healthy wrists. Simple measures such as altering your activity, wearing a splint, and doing exercises often lead to the light at the end of the (carpal) tunnel.

Test Results and Advice Nurse

Please call the nurse for test results and advice: 863-4463

Appointments

Appointments can be made in person or by phone. If you are unable to keep your appointment, please call and cancel. Otherwise you will be charged for the visit.

To schedule or cancel appointments, call: 863-0774

For more information about health care issues, visit the UHS Web site at www.sa.psu.edu/uhs

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