



Repetitive motion injuries (RMIs) are also called **repetitive strain injuries (RSIs)**. They result from doing the same activity over and over for a long period of time. This can be at work, at home, during sports, and/or with hobbies.



Repeated use of tools that vibrate the hand and wrist can lead to RMIs.

Repetitive Motion Injuries

Signs & Symptoms

Signs and symptoms depend on the injury.

For Carpal Tunnel Syndrome (CTS)

- Thumb, index, middle, and ring fingers feel numb.
- Tingling feeling in the hand(s).
- Pain is felt in the thumb and fingers. The pain may be worse at night. It can wake you up.
- Pain starts in the hand and spreads to the arm. The pain can even travel to the shoulder.
- The fingers swell. It feels like your fingers are swollen. Your hands feel weak in the morning.
- You have trouble holding on to things. You drop things.
- You have a hard time writing with a pencil or pen, opening a jar, buttoning a blouse, etc.

For back strain, **Back Pain**, see at www.HealthyLearn.com.

For **Eyestrain from Computer Use**, see at www.HealthyLearn.com.

For tendinitis, **Shoulder Pain & Neck Pain**, see at www.HealthyLearn.com.

Causes

In general, RMIs are caused by repeated movements that involve:

- Drilling or hammering.
- Lifting.
- Pushing or pulling.
- Squeezing.
- Twisting.
- Wrist, finger, and hand movements.



Repetitive Motion Injuries, Continued

For Carpal Tunnel Syndrome (CTS)

Repeated motions, typing vibrations, etc. cause swelling of the tendons inside the carpal tunnel. This is the narrow tunnel in the wrist. The swelling puts pressure on the nearby nerves.

Treatment

For Carpal Tunnel Syndrome (CTS)

This is easier to treat and less likely to cause future problems if it is found early. Women are more likely to get CTS than men, because their carpal tunnel is usually smaller. Once diagnosed, CTS can be treated with:

- Preventing further damage.
- Wearing a wrist brace, splint, etc. as advised. It may need to be worn while you sleep and during the day.

- Over-the-counter medicines to reduce pain and swelling. Examples are aspirin, ibuprofen, and naproxen sodium.



A physical therapist can show you what exercises to do at work and at home to treat CTS.

- Physical therapy.
- Occupational therapy.
- Cortisone shots in the wrist area.
- Surgery, if needed.

Questions to Ask

Do any of these problems occur?

- Severe or persistent pain, swelling, or spasm.
- Tenderness or stiffness and limited motion in the affected area, such as the shoulder, arm, or wrist.



NO

Does pain in your hand, shoulder, etc. wake you from sleep?



NO

Have you had one or both of these problems?

- Pain, numbness, and tingling in your hand for more than 2 weeks.
- You haven't been able to make a fist for a couple of weeks.



NO

Do you drop things often and does your thumb feel weak?



NO



Self-Care / Prevention

For Preventing Wrist and Hand Injuries

Whenever your hands and wrists do the same activity time and again, you increase your risk for CTS and tendinitis. Change how you do a task and you may avoid some of these injuries.

- Follow **Proper Position and Support for Computer Users** at www.HealthyLearn.com.
- Do not hold an object in the same position for a long time. Even simple tasks, such as hammering nails, can cause injury when done over a period of time.



Exercise your hands and wrists often during the day.

Repetitive Motion Injuries, Continued

- Give your hands a break. Rest them for a few minutes each hour.
- Lift objects with your whole hand or with both hands. Gripping or lifting with the thumb and index finger puts stress on your wrist.
- If your line of work causes pain in your hands and wrists, alternate the stressful tasks with other work.
- Exercise your hands and wrists as often as you can. Here are two examples:
 - Place your hands in front of you. Spread your fingers as far apart as possible. Hold for 5 seconds. Relax. Repeat 5 times with each hand.
 - Turn your wrists in a circle, palms up and then palms down. Relax your fingers and keep your elbows still. Repeat 5 times.

For Carpal Tunnel Syndrome

- Follow **Self-Care / Prevention** tips already listed in this topic.
- Lose weight. CTS is linked to obesity.
- Take an over-the-counter medicine to reduce the pain and swelling as directed.
- Use a wrist splint. Many drug and medical supply stores carry splints that keep the wrist angled slightly back with the thumb parallel to the forearm. This position helps to keep the carpal tunnel open.

Other Tips

- Keep your head upright and your ears, shoulders, and hips in a straight line.
- Keep your work within reach without having to stretch or strain your arms, shoulders, or back. Don't stretch to reach items on an assembly line. Wait for the items to reach you.
- Change positions or tasks often. This avoids repeated stress on a single body part.
- Use the proper tools for the job. Use tools made to reduce vibration and/or pressure, if needed.



Get more information from:

HealthyLearn®
www.HealthyLearn.com

National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
www.nih.gov/niams