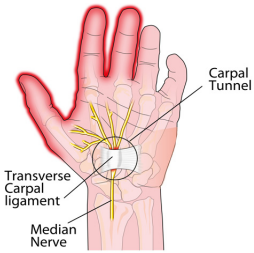


## WHAT'S WRONG?

### Carpal Tunnel Syndrome



The eight bones of your wrist form a U-shaped channel that houses several tendons and your Median nerve. This channel is called the Carpal tunnel. Your median nerve is responsible for sensation on the palm side of your first 3 ½ fingers. Compression or irritation of this nerve as it travels through the carpal tunnel causes the condition known as "Carpal tunnel syndrome". Carpal tunnel syndrome is the most common nerve entrapment, affecting 3-5% of the general population. Females are affected two or three times more frequently than males. Carpal tunnel syndrome most often affects adults age 45-60.

Carpal tunnel syndrome can be brought on by prolonged wrist flexion and/or repetitive wrist movements like supermarket scanning, keyboard use, carpentry, or assembly line work. Exposure to vibration or cold may also aggravate the condition. Carpal tunnel syndrome is more common in your dominant hand but frequently affects both hands. Some risk factors for developing carpal tunnel syndrome include diabetes, thyroid disease, rheumatoid arthritis, alcoholism, kidney disease, and being short or overweight. Fluid retention during pregnancy is a common cause of carpal tunnel symptoms.

Symptoms of carpal tunnel syndrome include numbness, tingling, or discomfort on the palm side of your thumb, index, middle finger, and half of your ring finger. The discomfort can sometimes extend towards your elbow. The symptoms usually begin as nighttime discomfort or waking up with numb hands but can progress to a constant annoyance. Your symptoms are likely aggravated by gripping activities like reading the paper, driving, or painting. Early on, your symptoms may be relieved by "shaking your hands out". You may sometimes feel as though your hands are tight or swollen. In more severe cases, hand weakness can develop.

Compression of your median nerve in the carpal tunnel is often accompanied by compression at a second or third site as well. Researchers call this "double crush syndrome." Common "double crush" partners for carpal tunnel syndrome involve the spine or muscles in your neck, shoulder, and forearm.

To help resolve your condition, you should avoid activities that involve repetitive wrist flexion, i.e. pushups. Grasping the handlebars on your bicycle will likely irritate your condition. Our office may prescribe a special splint that holds your wrist in a neutral or slightly extended position that will help with your nighttime symptoms.

If left untreated, carpal tunnel syndrome can result in permanent nerve damage. The American Academy of Neurology recommends conservative treatment, like the type provided in our office, before considering surgical alternatives.

## THINGS WE CAN DO TO HELP YOU

Here is a brief description of the treatments we may use to help manage your problem.



## Joint Manipulation

Your provider has found joints in your body that are not moving freely. This can cause tightness and discomfort and can accelerate unwanted degeneration i.e. arthritis. Your provider will apply a gentle force with their hands, or with handheld instruments, in order to restore motion to any "restricted" joints. Sometimes a specialized table will be used to assist with these safe and effective "adjustments". Joint manipulation improves flexibility, relieves pain, and helps maintain healthy joints.



## Therapy Modalities

We may apply electrotherapy modalities that produce light electrical pulses transmitted through electrodes placed over your specific sites of concern. These comfortable modalities work to decrease your pain, limit inflammation and ease muscle spasms. Hot or cold packs are often used in conjunction, to enhance the effect of these modalities.

Another available option is therapeutic ultrasound. Ultrasound pushes sound vibrations into tissues. When these vibrations reach your deep tissues, heat develops, and unwanted waste products are dispersed.



## Myofascial Release

Overworked muscles often become tight and develop knots or "trigger points". Chronic tightness produces inflammation and swelling that ultimately leads to the formation of "adhesions" between tissues. Your provider will apply pressure with their hands, or with specialized tools, in order to release muscle tightness and soft-tissue adhesions. This will help to improve your circulation, relieve pain and restore flexibility.

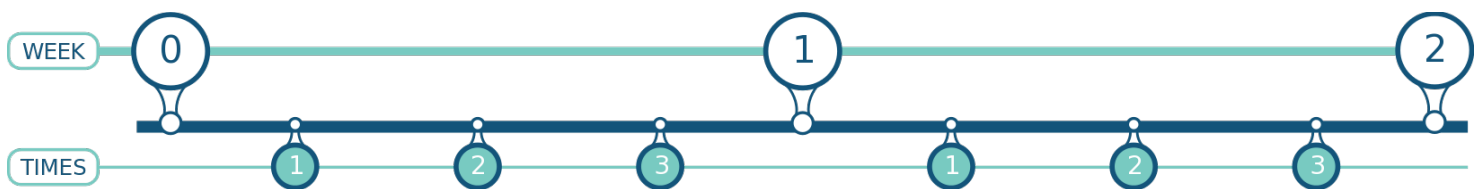


## Therapeutic Exercise

Muscle tightness or weakness causes discomfort and alters normal joint function, leading to additional problems. Your chiropractor will target tight or weak muscles with specific therapeutic stretching and strengthening to help increase tissue flexibility, build strength, and ease the pain. Healthy, strong, and flexible muscles may help prevent re-injury.

## TREATMENT GOALS AND OUTCOME MEASURES

Your treatment will be most effective when scheduled at a rate of 3 times per week for 2 weeks. After this initial course of treatment we will reassess to make sure that you have met your initial treatment goal of at least 33% overall improvement. We will determine the need for any additional care after your reassessment.



## THINGS YOU CAN DO TO HELP YOURSELF

Your everyday activities, habits, and postures can have a dramatic impact on your body. The following advice will help you minimize stress while improving your comfort and health:



## Workstation Ergonomics

Ergonomics is the science of adjusting your workstation to minimize strain in the following ways:-  
Monitors should be visible without leaning or straining and the top line of type should be 15 degrees below eye level.

- Use audio equipment that keeps you from bending your neck (i.e., Bluetooth, speakerphones, headsets).
- Keep your shoulders relaxed and elbows bent to 90 degrees.
- Wrists should not be bent while at the keyboard. Forearms and wrists should not be leaning on a hard edge.
- Keep frequently used objects, like your telephone, close to your body to prevent excessive reaching.
- Take a 10-second break every 20 minutes: Micro activities include: walking, stretching, or moving your head in a "plus sign" fashion.
- Periodically, perform the "Brugger relief position" - Position your body at a chair's edge, feet pointed outward. Weight should be on your legs and your abdomen should be relaxed. Tilt your pelvis forward, lift your sternum, arch your back, drop your arms, and roll out your palms while squeezing your shoulders together. Take a few deep cleansing breaths.

Sitting Workstations- Hips and knees bent 90 degrees, feet flat on floor or footrest.

- Use a lumbar roll for lower back support.
- Avoid sitting on anything that would create an imbalance or uneven pressure (like your wallet).

Standing Workstations- Keep your head, neck, torso, and legs vertically aligned.

- Wear shoes that provide proper arch support.
- Use a footrest to shift your weight from foot to foot.
- Adjust the footrest to approximately 10% of your total body height.

## EXERCISES AT HOME

The following exercises have been specifically selected to assist with your recovery and help minimize future problems. Exercises should be performed slowly and within a relatively comfortable range. Maintain good posture and breathe naturally. Do not hold your breath. Unless otherwise instructed, stop any exercises that cause pain, or radiating symptoms.

## 2 WAYS TO VIEW YOUR EXERCISES

**ONLINE**



OR NAVIGATE TO  
[www.HealthCom.io](http://www.HealthCom.io)



LOGIN:  
bsample6

TEMPORARY  
PASSWORD:  
(your current password)

**DOWNLOAD**  
OUR HEALTHCOM APP



### Current Exercises

#### Median Nerve Floss



**Perform 3 sets of 10 reps, 2 times per day.**

Begin with your elbow, wrist, and fingers bent with your hand at chest level, palm up. Your head should be tilting away from the arm that you are flossing. As you simultaneously move your head toward the opposite shoulder, also move your arm down across the front of your chest out to the side of your hip. As your wrist and fingers move into extension, follow your hands motion with your eyes. Return to the start position. Perform as directed.

#### Scalene Stretch



**Perform 3 sets of 10 reps, 2 times per day.**

While sitting or standing, reach down with your right arm, grasping your thigh or the bottom of a chair for stability. While looking straight ahead, place your left hand on top of your head, and gently pull your head sideways toward the left. You may feel a stronger stretch if you rotate your head slightly toward the left then up. Against the resistance of your hand, attempt to laterally flex your right ear toward your right shoulder for seven seconds. Relax and stretch further toward the left. "Lock-in" to each new position, and do not allow any slack. Repeat three contract/relax cycles on each side twice per day or as directed.

## Unilateral Pec Stretch



**Perform 1 set of 3 contract/relax cycles, 2 times per day.**

Stand with your arm straight out at shoulder level reaching backwards, thumb up. Position yourself so that your hand is against a door frame or wall. Gently turn your body away from the wall, until you feel a gentle stretch in your chest and shoulder. Against the resistance of the wall or door frame, attempt to rotate your arm forward in front of your body for seven seconds. Relax and rotate your body away from the door frame or wall to increase the stretch on your shoulder. "Lock in" to this new position and repeat three contract/relax cycles on each side twice per day or as directed.

## Median Nerve Glide



**Perform 1 set of 20 reps, 2 times per day.**

Begin by making a fist. First, flex your fist downward, then bring your wrist back to a neutral position. Straighten your fingers and thumb so that all five tips are pointing forward. Bend your wrist back/up as to make a "stop" motion and move your thumb away from your palm. Turn your wrist palm up. Use your opposite hand to pull your thumb further away from your palm. Perform 20 repetitions twice per day or as directed.

## Wrist Flexor Stretch



**Perform 1 set of 3 contract/relax cycles, 2 times per day.**

Straighten your arm in front of you with your hand at chest level, palm up. Keep your elbow locked and use your opposite hand to grasp your fingers and gently pull down on your fingers until you feel a stretch in your forearm. Keep your elbow straight throughout the exercise. Against the resistance of your opposite hand, contract your wrist and fingers upward for seven seconds. Relax and increase the stretch on your wrist and forearm by pulling downward and backward on your fingers. "Lock in" to the new position and repeat three contract/relax cycles twice per day or as directed.