



Carpal Tunnel Syndrome

Carpal tunnel syndrome is a painful affliction of the hand and wrist usually associated with repetitive stress injuries. Pain can be debilitating to the point where you cannot hold a pencil, brush your teeth, comb your hair, or hold a coffee cup.

Symptoms

The condition produces pain, burning, tingling, and weakness. The hands weaken and fall asleep, and, if left untreated, the nerves can eventually die, leading to atrophied muscles in the hand and fingers. The pain, described as burning or tingling, gets worse with motion and eases with rest.

Causes

Picture the wrist as a U-shaped cradle of bones, with the carpal ligament stretched across the open part of the U, forming the tunnel. Passing through this tunnel are the flexor tendons (they are attached to the fingers and enable the hand to close) and the median nerve in the wrist, which supplies nerve impulses to the mound at the base of the thumb and the next three fingers. The fifth, or pinky finger, is not affected because its nerve supply does not originate in the carpal tunnel. When the canal (the inside of the tunnel) becomes smaller, the nerve gets compressed, causing the problems in the hand. The most common cause of carpal tunnel syndrome is a flexion injury resulting from repeated wrist movements. Carpenters, computer operators, drummers, hairdressers, meat cutters, pianists, violinists, and people who knit and crochet are the most susceptible. Their repeated wrist movements cause irritation and swelling in the sheath of the flexor tendons, which can lead to fluid in the canal and cause pressure on the nerve. There are causes other than repetitive motion as well.

- Pregnancy can cause the canal to become smaller due to fluid retention, but this disappears after delivery in most cases.
- Rheumatoid arthritis causes the bones to thicken, leading to a narrowing of the canal.
- Tenosynovitis causes a chronic inflammation of the membranes around the tendon.
- Thyroid problems, diabetes, and injuries can lead to CTS, possibly because they can cause an increase of

swelling in the tunnel, or interfere with circulation to the nerve.

Diagnosing the Problem

Carpal tunnel syndrome is suspected when pain is present in the thumb and next three fingers, but not in the pinky. It often occurs during the night, interrupting sleep. There are a number of tests for this condition.

- Electromyographic studies test for hand-muscle strength, and they can detect abnormalities in the median nerve in the wrist.
- A nerve-conduction test determines the speed at which nerves carry a sensory message. If it is traveling slowly, that confirms a diagnosis of CTS.
- Phalen's test shows whether tingling occurs in at least one minute after arms and elbows are placed on the table in a flexed position while the wrists hang loosely over the edge.
- Tinel's sign is a test done to see if tingling in the fingers occurs when the doctor taps the skin over the median nerve in the wrist.
- X-rays can rule out arthritis and see if old fractures exist.

Conventional Treatments

The condition can be treated conservatively if diagnostic studies show no nerve injury is present. If there is no response to conservative treatment, surgery may have to be considered. The most frequently used treatments are:

- Anti-inflammatories;
- Cortisone injections;
- Ice;
- Night splint to keep the wrist straight while sleeping;
- Physical therapy;
- Reduction of repetitive hand motions;
- Surgery called carpal tunnel release opens the transverse carpal ligament, which releases pressure and allows more space in the tunnel for the median nerve;

At one time, the surgical incision for CTT was made into the skin and muscle from the wrist through the entire length of the palm, and recovery took months. Fortunately, surgery is less complicated nowadays

than it used to be. The newer procedure requires only a one-centimeter incision in the wrist. The ligament is cut with a special knife that resembles a seam ripper. Recovery is fast and patients can drive home.

Problems with Some Conventional Treatments

- ❑ Anti-inflammatories can cause gastrointestinal problems and bleeding.
- ❑ Casts and splints tend to weaken other areas of the wrist and hand.
- ❑ If your job requires repetitive hand motions, you may have to think about a career change.
- ❑ Surgery treats only the symptoms, but does not address the cause of carpal tunnel syndrome.

SELF-HELP ALTERNATIVE TREATMENTS

The following techniques can be done at home. Although they may not work as fast as drugs or surgery, natural alternatives help the body heal itself. They get at the root of the problem instead of just temporarily alleviating the symptoms. All herbs, homeopathic remedies, packs, and supplements discussed here are available in health food stores and, increasingly, in large drug and grocery stores, as well as on the Internet.

Compresses, Packs, and Poultices

Soak a cloth or towel in cold water, warm herbal tea, or the appropriate aromatherapy oils (diluted). Apply the soaked cloth to the affected area, cover with a towel to retain the heat or the cold, and leave in place for twenty to thirty minutes. (See COMPRESSES, PACKS, and POULTICES in PART 2 Treatment Section for additional information.)

Diet

Carpal tunnel syndrome is inflammatory in nature so certain dietary modifications may be helpful.

Good Foods

Eat foods that contain B-vitamins such as complex carbohydrates, fruits, nuts, seeds, vegetables, and whole grains. (See NUTRITIONAL THERAPY in PART 2 Treatment Section for additional information.)

Bad Foods

Alcohol, fast food, processed meats, saturated fats, simple sugars, and spicy foods can all trigger an inflammatory reaction in your body.

Exercise

If your job requires repetitive hand motions, do some warm-up exercises specifically for your hands. If you were a runner, you wouldn't do a marathon without warming up, would you?

- ❑ Squeeze a sponge ball for four or five minutes before starting work.
- ❑ Make a fist and bend your wrist down for five seconds. Repeat ten times.
- ❑ When you are finished exercising, shake your hands and wrists for a few seconds. Do this also at work periodically.

(See EXERCISE, STRETCHING, and SPORTS in PART 2 Treatment Section for additional information.)

Herbal Remedies

- ❑ Coltsfoot and comfrey, used externally in soaks or poultices, reduce fluid retention. (Note: Comfrey taken internally has the potential to cause liver damage and should be used only under supervision.)
- ❑ Hydrangea acts like cortisone.
- ❑ Watercress reduces fluid retention.
- ❑ Yucca is a precursor to cortisone. It enables your adrenal glands to produce and release their own cortisone into your system.

Take the above herbs as directed on label. They can also be used in teas and infusions. (See HERBAL REMEDIES in PART 2 Treatment Section for additional information.)

Homeopathic Remedies

You can self-treat with homeopathic remedies by selecting the one that most closely matches your symptoms. If you don't see improvement, try another, or a combination product. Follow the instructions on the label. If you do not have relief in a reasonable amount of time, consult a physician who specializes in homeopathic medicine.

- ❑ Arnica soothes inflammation. It is also available in cream and ointment form for external application.
- ❑ Calcarea phosphorica eases pain and stiffness.
- ❑ Causticum helps those who have had the condition for a long time.
- ❑ Hypericum eases nerve pain.
- ❑ Rhus toxicodendron is useful for stiffness and pain that eases with motion.
- ❑ Ruta graveolens helps ease stiffness and weakness.

Take the above remedies as indicated on label. Combination remedies sometimes work more effectively than single ones. (See HOMEOPATHY in PART 2 Treatment Section for additional information.)

Hydrotherapy

Use ice packs for twenty-minutes at a time as long as the area is inflamed. After the inflammation has gone, when the joint no longer feels warm or appears red, then use moist heat for twenty-minute periods. Always wait until the inflammation has gone before using heat. Running hot water over the painful spots while in the shower can alleviate the pain. (See HYDROTHERAPY in PART 2 Treatment Section for additional information.)

Supplements

- Bromelain acts as an anti-inflammatory. Take 500 mg twice daily on an empty stomach.
- Magnesium citrate, 500 mg three times daily, acts as a muscle antispasmodic.
- Vitamin B₆ aids the normal function of nerve cells and helps reduce swelling because it has a natural ability to

FAST-ACTING MINERAL SUPPLEMENT

SierraSil, dubbed “nature’s ultimate mineral,” is a recently formulated supplement blending more than sixty-five naturally occurring minerals in order to alleviate the pain, stiffness, and inflammation of arthritis and related conditions. One of its advocates is Ken Venturi, the former US Open golf champion, who had been forced into early retirement at the age of thirty-nine due to severe carpal tunnel syndrome. Since using SierraSil, Ken reports he has been able to successfully return to playing golf with no discomfort in his hands.

A double-blind, randomized, placebo-controlled study involving 120 patients, all age twenty or older, and all diagnosed with osteoarthritis of the knee, is currently evaluating the efficacy of Sierrasil alone and Sierrasil combined with vincaria, an extract of cat’s claw. In both human and animal clinical tests, SierraSil has been found completely safe. It can be purchased in health food stores, or by calling 1-888-888-1464, or going to the website: www.sierrasil.com.

eliminate water retention. Dr. Edward M. Wagner, ND, recommends 200 mg three times a day. He says it is more effective to use the pyrodoxal #5 phosphate form of B₆ which has a higher assimilation rate than plain pyrodoxine.

- Vitamin B₁₂, sublingual, helps prevent nerve damage. Take 500 mcg twice daily. Note: For balance when taking individual Bs, be sure to supplement with a B-complex once daily, or a multivitamin containing B-complex.
- Vitamin C (Ester-C), 1000 mg three times daily, is a general overall antioxidant.

(See SUPPLEMENT THERAPY in PART 2 Treatment Section for additional information.)

Additional Self-Help Treatments

For information on these therapies, refer to individual entries in PART 2 Treatment Section.

- Heat Therapy/Cold Therapy.
- Magnet Therapy.

ASSISTED ALTERNATIVE TREATMENTS

The following techniques may require specialized training or the aid of a healthcare professional.

Acupuncture and Acupressure

Acupuncture and acupressure create a smooth flow of vibratory energy throughout the body that can help alleviate the symptoms of carpal tunnel syndrome. (See ACUPUNCTURE and ACUPRESSURE in PART 2 Treatment Section for additional information.)

Applied Kinesiology

Applied Kinesiology is excellent for reducing pain rapidly. The AK practitioner tests your muscles to determine the origin of your problem and then decides on the best course of action, choosing from a wide variety of therapeutic methods at his or her disposal. (See APPLIED KINESIOLOGY in PART 2 Treatment Section for additional information.)

Chiropractic

By adjusting misaligned vertebrae (subluxations), the nervous system can function at its optimum level which enhances healing. (See CHIROPRACTIC in PART 2 Treatment Section for additional information.)

Reflexology

Reflexology helps your body heal itself by eliminating energy blockages, improving circulation, and relieving stress and tension. (See REFLEXOLOGY in PART 2 Treatment Section for additional information.)

Tai Chi, Qigong, and Yoga

These therapies help you relax and direct healing energy where it is needed in your hands and feet. (See TAI CHI, QIGONG, and YOGA in PART 2 Treatment Section for additional information.)

Additional Assisted Treatments

For information on these therapies, refer to individual entries in PART 2 Treatment Section.

- ❑ Guided Imagery and Visualizations.

- ❑ Massage.
- ❑ Osteopathic Manipulation.
- ❑ Physical Therapy.
- ❑ Rolfing.

PRACTICAL SUGGESTIONS

- ❑ Adjust your work area so you avoid using your wrist in a bent position. Just use your fingers to strike the keys.
- ❑ If you work at a computer, keep your palms up off the keyboard. You might want to investigate keyboards that have been ergonomically designed to help with CTS.
- ❑ Try changing the height of your desk or chair.
- ❑ Support your elbows on the armrest of your chair.

PROBLEM FOR ONE LEADS TO SOLUTION FOR MANY

Julie got carpal tunnel syndrome in her left hand from the repetitive nature of the massages she gave and was forced to close her practice. It was one thing to be out of work, she said, but quite another when her problem almost caused her to drop her infant granddaughter—that's when she knew she needed to do something serious, so she experimented on herself until she came up with a therapy that worked. It involved finding and fixing the spasms in all the muscles that, in the case of CTS, interact with the median nerve which originates in the neck, goes across the front of the shoulder, down the inside of the arm, through the carpal tunnel, and into the hands.

Julie, who refers to herself as a deep-tissue muscular therapist, and who co-authors books and works with an MD, has since helped hundreds of people, including Earl. Paralyzed with a stroke on his left side, Earl relied on his good right side for all movements,

and the constant pressure of putting the weight of his right hand onto his cane (without which he was completely chairbound) caused his right wrist to develop very painful CTS. One treatment by Julie gave him immediate relief and taught him how to self-treat daily to maintain his pain-free status. Monique was another success story. A carriage driver in New York's Central Park, she had CTS and ulna entrapment in both hands, which made her wrists hurt and her hands numb, thereby threatening her ability to continue with the livelihood she enjoyed. Monique found her way to Julie, but treatment for her took a little longer. There was one visit to teach her what to do, then one month of self-treating daily to get rid of the pain and reverse the whole situation. All three of these people now go about their lives pain-free, as do the many others who have been helped at Julie's center.