

Carpal tunnel syndrome is common and treatable

Carpal tunnel syndrome (CTS) is a common hand problem that most people have at least heard of, if not experienced personally.

The carpal tunnel is made up of a carpal bone floor with a thick inflexible ligamentous roof. Within the carpal tunnel are nine tendons which move the fingers and thumb as well as the softer median nerve.

Anne Stewart



When inflammation occurs in this area whether it is from trauma such as a wrist fracture or a medical condition, this can compress the median nerve and cause symptoms.

A few of the medical conditions include: rheumatoid arthritis, pregnancy, menstrual periods, tendinitis of the digital flexors as well as thyroid conditions or diabetes. These all can have an effect of increasing swelling in the small space called

the carpal tunnel. Often females are affected more than males, possibly due to a smaller anatomic opening in the carpal tunnel to begin with.

CTS can also be related to performing repetitive motions. Occupations or activities which are commonly involved with carpal tunnel syndrome can include: carpenters, jackhammer operators, truck drivers, computer operators and assemblers. Any job which involves pressure on the carpal tunnel at the wrist, vibration, sustained grasping, or repetitive finger and wrist motions can be associated with CTS in some people.

The symptoms that often evolve are numbness and tingling of the thumb, index finger, middle finger and half of the ring finger. This is the area of the hand that is innervated by the median nerve. People often report night pain and awakening in the middle of the night or morning with a numb hand. As the condition worsens, off and on numbness continues during the day with activity

and people report weakness in the hand and the unintentional dropping of items. Initial symptoms are sensory (numbness/tingling) but can progress into muscle weakness

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of the thumb muscles depending on how much and how long the compression is. As with any nerve compression, if left untreated, it could result in permanent nerve and muscle damage. It is very important to see your medical doctor and follow the advice given for your specific situation. This advice can

include a referral to occupational/hand therapy.

During therapy sessions, you will be provided with a full home exercise program which will include nerve and tendon glides, massage, splinting and modalities like ultrasound if appropriate. The therapist will discuss your daily and work activities and make suggestions as to ways to incorporate proper body mechanics into these activities. Often after a few sessions of therapy, people notice decreased symptoms of numbness and increased strength.

If there is not an improvement in symptoms, the person will be referred back to their doctor who may ask for a nerve conduction study, called an EMG (electromyogram) which will show how much compression and/or involvement there is of the median nerve. Generally, patients with mild to moderate compression respond to conservative treatment-i.e. therapy, if the nerve is more severely compressed, surgery may be suggested. During surgery, the surgeon will

release the ligament thereby creating more space in the carpal tunnel and release of the pressure on the median nerve. The patient will be placed in a bulky dressing for approximately a week and then the stitches are removed and therapy can be recommended.

In summary, CTS is a common hand and wrist condition which can be successfully treated with therapy and/or surgery. The condition can, however, develop into permanent nerve and muscle damage if left untreated. Start with an examination by your physician and follow through with their recommendations which may include seeing an occupational/hand therapist.

Anne Stewart, OTR/L, CHT, is a Certified Hand Therapist at Rehab Dynamics 2 located at the Bristol Hospital Wellness Center, 842 Clark Ave, Bristol. She can be reached for appointments at 860-582-9355. A physician's referral is required to initiate any occupational/hand therapy program. For more information, please visit www.bristolhospital.org



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