Carpal Tunnel Syndrome

Patient information for the treatment of Carpal Tunnel Syndrome.
Carpal Tunnel Syndrome is a medical condition that causes numbness, pain, and discomfort in the hand, afflicting an estimated 75 million people globally. Treatments for Carpal Tunnel Syndrome are generally successful, but early diagnosis is important. If you suspect that you have Carpal Tunnel Syndrome, contact your doctor for treatment.

Numbness and tingling on this side of your hand may indicate that you have Carpal Tunnel Syndrome.

Carpal Tunnel Syndrome symptoms usually appear in the thumb, index, and middle fingers and may travel up to your shoulder. It is also common for these symptoms to worsen at night.

Symptoms

NUMBNESS  TINGLING  BURNING  SENSATION  WEAKENED  GRIP

This information does not replace professional medical advice, diagnosis, or treatment. It is not a substitute for and should not be relied upon for specific medical recommendations. Please talk with your doctor about any questions or concerns.
Causes

HOW DOES IT HAPPEN?

In the center of the wrist there is a space called the carpal tunnel where a major nerve (the median nerve) and nine tendons pass from the forearm into the hand. The roof of this tunnel is formed by a strong ligament called the transverse carpal ligament.

When there is swelling in the carpal tunnel, pressure builds on the median nerve, which supplies most of the feeling and movement to the fingers and thumb. When this pressure becomes great enough to compress the median nerve, Carpal Tunnel Syndrome may occur.

WHAT CAN CAUSE IT?

OTHER MEDICAL CONDITIONS

Swelling in the carpal tunnel may be caused by heredity, diabetes, thyroid problems, fractures or arthritis.

FLUID RETENTION

Fluid retention during pregnancy may create Carpal Tunnel Syndrome symptoms, but these symptoms will typically go away after delivery.

REPETITIVE HAND MOTION

Repetitive hand motion and activities that involve grasping, squeezing or clipping can make the symptoms worse, but for most people the actual cause is unclear.
Getting Treatment

NONSURGICAL
Nonsurgical treatments may include behavioral changes such as reducing or eliminating repetitive hand motion, wearing wrist splints at night or receiving anti-inflammatory medication taken orally or injected into the carpal tunnel.

SURGICAL
Surgical treatments vary, but the two most common are Open Surgery and Endoscopic Surgery. Both procedures share the goal of easing pressure on the median nerve by surgically cutting the transverse ligament and thereby enlarging the carpal tunnel to make more room for the nerve. Both procedures are effective, but Endoscopic Surgery results in faster recovery time, less post-operative pain and a smaller, less-noticeable scar.¹
ENDOSCOPIC SURGERY

The guiding principle of this minimally invasive procedure is to minimize post-operative pain by avoiding an open incision extending from the wrist across to the palm.

Endoscopic Surgery is highly effective and has been used for more than 20 years. It results in less post-operative pain, a minimal scar concealed by a wrist crease, and generally allows patients to resume some normal activities in a short period of time.¹

During Endoscopic Surgery:

1. A small incision is made in the crease of the wrist, where the surgeon inserts a small camera mounted to a surgical instrument called a SmartRelease®. This device allows the surgeon to see inside the carpal tunnel using a video monitor.

2. The surgeon then precisely cuts the ligament using a retractable blade within the SmartRelease®, without opening the entire palm.

3. Once the ligament is fully released, the blade is retracted, the instrument is withdrawn and the small incision is sutured and dressed.

OPEN SURGERY

This procedure is effective, but it may not be the best option for some patients because it leaves a scar from the wrist to the center of the palm. Recovery and rehabilitation can take several weeks due to post-operative pain, the deep cutting of the hand and a longer incision.

During Open Surgery:

1. An incision is made from the crease of the wrist toward the center of the palm, through layers of skin, fat and connective tissue.

2. Once the transverse ligament is exposed, the surgeon cuts the ligament with a blade to release pressure on the nerve.

3. The surgeon then closes the incision with sutures and dresses the hand.
Ask Your Doctor

If you need treatment for Carpal Tunnel Syndrome, your doctor will help you make an informed decision by explaining the options as well as the risks and contraindications associated with any treatment.

REFERENCES


This is not intended as a substitute for medical advice.

This information is intended to provide you with a better understanding of Carpal and Cubital Tunnel Syndrome and their associated procedures. Only your doctor can determine diagnosis and your suitability for treatment and treatment options. The best way to get complete information and answers to your specific questions is to consult your doctor.

MicroAire Surgical Instruments makes no guarantee or assurance of achievability of any particular treatment outcome or that you will be an eligible candidate for SmartRelease® treatment.

SmartRelease® is a trademark of MicroAire Surgical Instruments, LLC. ©2020 All rights reserved.