

# **Carpal Tunnel Release Surgery**

#### What is it?

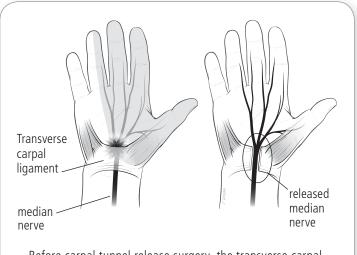
**Carpal tunnel release** is surgery to treat carpal tunnel syndrome. **Carpal tunnel syndrome** is pain, weakness, tingling, and numbing in the thumb and fingers. It's caused by pressure on the **median nerve** in the wrist.

The median nerve and the tendons that bend and flex your fingers pass through the narrow area of the wrist called the **carpal tunnel**. In carpal tunnel release surgery, the surgeon cuts the **transverse carpal ligament**, a band of tissue on the palm side of the carpal tunnel. This takes pressure off the median nerve and relieves symptoms. You will still be able to use your wrist and hand, and eventually scar tissue will form where the ligament was cut.

## Why do I need it?

Most cases of carpal tunnel syndrome are treated without surgery. Sometimes, though, symptoms of carpal tunnel syndrome don't improve with non-surgical treatments. Your doctor may recommend surgery if:

- You have tried non-surgical treatments for several weeks or months and your symptoms have not improved.
- Your symptoms are severe and interfere with your daily activities.
- Your median nerve is damaged.
- Other tissue, such as a tumor, is putting pressure on the median nerve.



Before carpal tunnel release surgery, the transverse carpal ligament is putting pressure on the median nerve and causing pain and weakness. During surgery, the ligament is cut to take pressure off the nerve.

# Talking with your doctor

The table below lists the most common potential benefits, risks, and alternatives for carpal tunnel release surgery. There may be other benefits or risks in your unique medical situation. Talking with your doctor is the most important part of learning about these risks and benefits. If you have questions, be sure to ask.

Potential benefits	Risks and potential complications	Alternatives
<ul> <li>Decrease pain</li> <li>Decrease nerve tingling</li> <li>Decrease numbness</li> <li>Restore muscle strength</li> </ul>	Risks that can be related to any surgery include allergic reaction to medications, bleeding, and infection.  Risks related to carpal tunnel release surgery include:  Injury to a blood vessel  Return of pain and numbness in the hand  Injury to the median nerve or the nerves that branch off it (very rare)	Surgery is considered after non- surgical treatments have been tried and not helped. These may include:  • Bracing or splinting  • Anti-inflammatory medications  • Activity changes  • Steroid injections

#### How is it done?

Carpal tunnel surgery is usually performed by a surgeon who specializes in treating the bones and tissues of the hands. These are some of the steps of your surgery:

- Anesthesia. Most patients receive local anesthesia.
   This prevents feeling only in the area of the surgery, and lets you remain awake. You will receive other medication to help you relax.
  - Some patients receive intravenous (IV) anesthesia. This allows you to stay awake and communicate with your doctor. You won't feel or remember the surgery.
- Cutting the transverse carpal ligament. The surgeon will cut the transverse carpal tunnel ligament to decrease pressure on the median nerve. This may be done in one of two ways:
  - With open surgery, the surgeon makes an incision in the skin of your palm. This provides a view of the transverse carpal ligament and other tissues.
     Then the surgeon will cut the ligament. Open surgery leaves a bigger scar, and may require longer recovery. There may be fewer complications than with endoscopic surgery.
  - With endoscopic surgery, the surgeon makes one or two small incisions near the wrist. A tiny camera (an endoscope) is inserted and displays images of the inside of your wrist on a monitor. The transverse carpal ligament is cut from underneath. Endoscopic surgery may have faster recovery.
- **Closing the skin.** The surgeon will close the skin with sutures (stitches) or staples.

## What happens after surgery?

You will stay in the surgery facility until your surgeon feels it is safe for you to go home. Most patients go home the day of surgery.

- After surgery, your wrist may be in a splint or heavy bandage for a week or more.
- You will still be able to use your wrist and hand.
- Your stitches will be removed 10 to 14 days after surgery. Be sure to make a follow-up appointment.

## How do I care for myself at home?

When you go home, do these things to help you heal:

- **Elevate your hand** above the level of your heart and move your fingers. Do this during the first 48 hours after surgery to reduce swelling.
- **Control your pain.** You will have some pain and swelling after surgery. Take the pain medication your doctor recommends exactly as directed.
- Wear your brace or splint. If your doctor recommended a brace or splint, wear it as directed to protect your hand and help it heal correctly.
- Do your recovery exercises. Your doctor or therapist
  will recommend exercises to help you build strength
  and motion in your hand. It's important to do them
  as directed.
- **Use your hand for light tasks.** As soon as you feel comfortable, you can drive, brush your teeth, and do normal daily activities. Don't do heavy work with your hand for 4 to 6 weeks.

## What can I expect?

- In most patients, pain, numbness, and tingling will be relieved shortly after surgery. Grip and pinch strength usually return by about 2 months after surgery.
- You may have some soreness and weakness in the hand for up to 6 months after surgery. If you still have pain or weakness after 2 months, your doctor may recommend that you work with a hand therapist.
- Complete recovery may take up to a year. If your carpal tunnel syndrome before surgery was severe, your recovery may take longer.

### When should I call the doctor?

Call your doctor if you experience:

- Fever greater than 100.5°F (38°C)
- Redness or swelling in the area of the surgery
- Pain that is not relieved by your pain medication