

Carpal Tunnel Release

What is carpal tunnel syndrome?

Carpal tunnel syndrome is a condition caused by increased pressure on the **median nerve**, which runs through the front of your wrist in a narrow passage known as the **carpal tunnel**.

Your surgeon may recommend a procedure called **carpal tunnel release** to alleviate the condition. However, the decision to proceed with the operation is entirely yours.

This document aims to provide information about the **benefits** and **risks** of the procedure to help you make an informed decision. If you have any unanswered questions after reading this, it is essential to discuss them with your surgeon or the healthcare team.

Once your questions have been addressed and you feel prepared to move forward, you will be asked to sign an **informed consent form**, marking the final step in the decision-making process. However, you are free to change your mind at any time.

How does carpal tunnel syndrome happen?

The **median nerve** runs through a narrow tunnel at the front of your wrist, alongside the tendons responsible for bending your fingers.

If this tunnel becomes too tight, it can put pressure on the nerve, leading to the following symptoms:

- **Pain or numbness**, often felt in the thumb, index, and middle fingers.
- **Weakness** in the affected hand, which can make it difficult to grip or hold objects.

The symptoms are typically **worse at night**, which may interrupt your sleep.

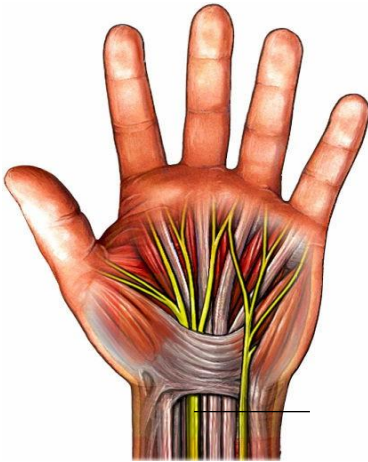
If your symptoms are unusual or less typical, your surgeon may suggest additional diagnostic tests, such as nerve conduction studies, to confirm the diagnosis.

Who is at risk?

Carpal tunnel syndrome is more common in **women** than in **men**. While many cases have no specific cause, certain factors can increase the likelihood of developing the condition, including:

- **Arthritis**
- **Obesity**
- **Pregnancy**
- **Wrist fractures** or injuries
- **Diabetes**
- **Thyroid disorders**

In most cases, however, no clear cause is identified.



What are the benefits of surgery?

Undergoing carpal tunnel release surgery typically provides:

- **Relief from pain** and **numbness** in your hand.
- Gradual improvement in **hand strength**, although it may take some time to fully recover.

Are there any alternatives to surgery?

If your symptoms are mild, the following treatments may help:

- **Wrist supports:** Wearing a wrist support at night can alleviate symptoms for many people.
- **Steroid injections:** An injection near the carpal tunnel can reduce numbness or pain. However, the relief is often temporary, with symptoms typically returning after a few weeks or months.

For severe symptoms or if these treatments do not work, **surgery** is usually recommended.

What will happen if I decide not to have the operation?

- Symptoms may improve if there is an underlying condition that is treated, such as **diabetes** or a **thyroid disorder**.
- If there is no underlying cause, symptoms often persist and may either improve or worsen without any clear reason.

If the **nerve compression** is severe and left untreated for an extended period:

- The **median nerve** may suffer **permanent damage**.
- **Muscles at the base of your thumb** may weaken and waste away.
- You could experience **permanent numbness** in your hand.

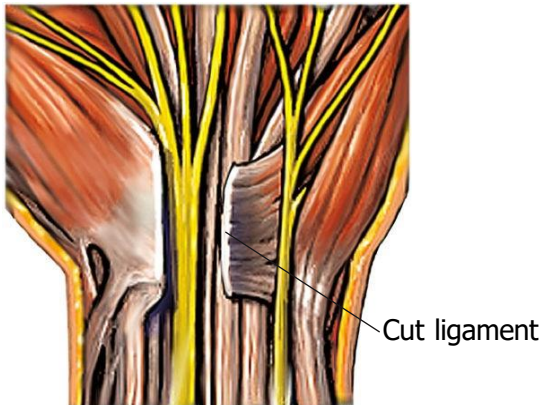
At this advanced stage, a carpal tunnel release operation may not fully reverse the damage.

What does the operation involve?

The procedure for a carpal tunnel release typically includes the following steps:

1. **Pre-surgery checks:**
 - The healthcare team will verify your identity and the operation you are having.
 - You can help by confirming your name and procedure details.
2. **Preparation:**
 - If possible, remove any **rings** from your hand before coming to the hospital.
3. **The operation:**
 - The procedure is usually performed under a **local anesthetic** and takes approximately **20 minutes**.
 - Your surgeon will make a **small cut** on the palm of your hand.
 - They will cut the **flexor retinaculum**, the tight ligament that forms the roof of the carpal tunnel. This relieves pressure on the median nerve.
4. **Closing the incision:**
 - Your surgeon will close the cut with **stitches**.

This minimally invasive procedure is designed to alleviate nerve compression and improve symptoms effectively.



Carpal tunnel release

What should I do about my medication?

It is essential to inform your healthcare team about all the medication you are taking, including:

- **Blood-thinning medications** (such as aspirin or warfarin).
- **Herbal remedies, dietary supplements, and complementary treatments.**
- **Over-the-counter medications.**

Follow their advice on whether to stop or continue taking specific medications before and after the procedure.

How can I prepare myself for the operation?

Taking the following steps can help reduce the risk of complications and promote a smoother recovery:

1. **Stop smoking:**
 - Quitting smoking now may lower your risk of complications and improve your overall health.

2. **Maintain a healthy weight:**
 - If you are overweight, losing weight can reduce the likelihood of complications.
3. **Exercise regularly:**
 - Gentle exercises can help you prepare for the operation and aid your recovery. Seek advice from the healthcare team or your GP before starting.
4. **Lower your risk of infection:**
 - Have a bath or shower either the day before or on the day of your procedure.
 - Stay warm before and after surgery; inform the healthcare team if you feel cold.
 - If you have **diabetes**, keep your blood sugar levels under control around the time of surgery.
5. **Speak to your healthcare team about vaccinations:**
 - Ask about any vaccinations that may help reduce your risk of serious illnesses during recovery.
6. **Practice good hygiene at the hospital:**
 - Wash your hands regularly and wear a face covering when instructed by the healthcare team.

What complications can happen?

The healthcare team will take every precaution to minimize the risks associated with your procedure. However, some complications can occur.

General complications of surgery

- **Bleeding:**
 - May occur during or after the procedure. A blood transfusion is rarely needed.
- **Infection at the surgical site:**
 - Typically treated with antibiotics, but in some cases, specialized dressings or another operation may be required.
- **Allergic reactions:**
 - To the materials, medications, or equipment used during surgery. Let your doctor know about any known allergies.
- **Blood clots:**
 - A **deep vein thrombosis (DVT)** in your leg or a **pulmonary embolism (PE)** in your lung. Preventive measures, such as special stockings or medication, will be provided.
- **Chest infections, heart attacks, or strokes:**
 - These rare complications can sometimes result in severe outcomes.

If you have concerns

It is important to ask your doctor or surgeon if there is anything you do not fully understand about the procedure or its potential risks.

Your anesthetist will also explain the possible complications associated with anesthesia.

These precautions and preparations can help ensure a safer procedure and a smoother recovery process.

General complications of any operation

- **Bleeding during or after the operation:**
 - This is usually minor but can lead to a painful swelling (**haematoma**) that typically resolves within 1–2 weeks.
- **Allergic reaction:**

- You may have a reaction to the equipment, materials, or medication used. The healthcare team is trained to identify and manage these reactions. Inform your doctor about any known allergies or past reactions to medication, tests, or dressings.
- **Infection at the surgical site (risk: less than 1 in 20):**
 - Infections can usually be managed with antibiotics, though special dressings or additional surgery may be required in some cases.
 - It is generally safe to shower after 2 days if the wound is kept clean and dry.
 - Notify the healthcare team if you develop a fever, notice redness, pain, or pus around the wound.
- **Chest infection:**
 - Risk is reduced if you have stopped smoking and have been symptom-free of **COVID-19** for at least 7 weeks before the operation.

Specific complications of this operation

- **Nerve damage:**
 - Damage to the median nerve or its branches may cause numbness in the thumb, index, and middle fingers. This is typically temporary (**risk: 1 in 100**) but can be permanent (**risk: 1 in 600**).
- **Scar tenderness:**
 - Common for the first 6 weeks and usually improves. However, it may persist (**risk: less than 1 in 20**).
- **Wrist pain:**
 - Some aching in the wrist when using your hand (**risk: 1 in 25**) is normal and usually resolves with time.
- **Symptom recurrence:**
 - Scar tissue forming around the nerve can cause numbness and pain to return (**risk: 1 in 17**), possibly requiring another operation.
- **Complex regional pain syndrome (CRPS):**
 - This rare condition can cause severe pain, stiffness, and reduced hand function. Treatment may include painkillers and physiotherapy. Symptoms can take months or years to improve and, in rare cases, may persist. Taking **vitamin C daily for 6 weeks** may reduce the risk—consult your doctor for advice.
- **Slow or incomplete recovery:**
 - Pre-existing nerve damage may limit recovery. Approximately **3 in 4 people** experience quick improvement in carpal tunnel symptoms.
- **Failure to improve symptoms:**
 - In some cases, the surgery does not resolve symptoms (**risk: 1 in 8**).

Consequences of this procedure

- **Pain:**
 - The incision is small, and pain usually subsides after the anaesthetic wears off. Pain management will be provided by the healthcare team.
- **Scarring:**
 - The incision is placed along a skin crease, making the scar nearly invisible over time.

How soon will I recover?

In hospital

- After the operation, you will be transferred to the recovery area and then the ward.
- Your hand will be bandaged, and you may need to wear a sling.

- Most patients can go home the same day, but some may need to stay longer based on the doctor's advice.
- If you have concerns, whether in the hospital or at home, contact the healthcare team for reassurance or to address any complications.

Returning to normal activities

If you had sedation or general anaesthesia and go home the same day:

- Ensure a responsible adult accompanies you home and stays with you for at least 24 hours.
- Avoid driving, operating machinery, or engaging in dangerous activities (e.g., cooking) for at least 24 hours or until you fully recover coordination and movement.
- Do not sign legal documents or consume alcohol for at least 24 hours.

Your surgeon will advise when you can resume daily activities.

Key recovery steps:

1. **Elevate your hand:**
 - Keep it raised and bandaged for 2 days to minimize swelling.
2. **Exercise your hand gently:**
 - Move your fingers, elbow, and shoulder to prevent stiffness.
3. **Wound care:**
 - Reduce the dressing after 2 days but keep the wound clean and dry until stitches are removed.
4. **Driving and cycling:**
 - Avoid driving or riding a bike until you can safely control your vehicle, even in emergencies. Verify this with your healthcare team and your insurance policy.

Regular exercise will aid recovery, but seek guidance from your GP or healthcare team before beginning any routine.

By understanding the potential complications and following the recovery guidelines, you can enhance your recovery and minimize risks associated with carpal tunnel release surgery.

The Future

For **3 in 4 people**, symptoms of carpal tunnel syndrome improve quickly after surgery. However, recovery might be slower or less complete if the nerve was severely compressed before the operation.

- **Gradual Improvement:**
Your symptoms may continue to improve for up to **6 months**, though full recovery can take up to **12 months** in some cases.
- **Muscle Recovery:**
If you experienced muscle wasting at the base of your thumb before the operation, it is less likely to fully recover. However, the surgery should alleviate pain and prevent further nerve damage.
- **Surgical Success Rate:**
The operation is successful in approximately **7 out of 8 people**.

Summary

Carpal tunnel syndrome is a condition that causes numbness in the thumb, index, and middle fingers. A carpal tunnel release surgery is designed to:

- Improve your symptoms.
- Prevent permanent nerve damage.

Key Points:

- Surgery is typically **safe and effective**, but complications can occur.
- Understanding the potential risks and benefits helps you make an informed decision about undergoing surgery.
- Being aware of possible complications can also help in early detection and treatment if they arise.

Important Note:

- Keep this information document for reference. It may be helpful if you need to discuss concerns or questions with your healthcare team.
- Some data, including risk and complication statistics, are derived from global studies and databases. Your surgeon or doctor can provide more information tailored to your specific situation, including other potential treatment options.

This document is for **information purposes only** and is not a substitute for the personalized advice your healthcare team can provide.

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