

CARPAL TUNNEL SURGERY

Patient Information



Understanding Carpal Tunnel Syndrome

Carpal tunnel syndrome (CTS) is a common condition that causes pain, numbness, and tingling in the hand and arm. It occurs when the median nerve, which runs from the forearm into the hand, becomes compressed at the wrist. The carpal tunnel is a narrow passageway on the palm side of your wrist formed by bones and ligaments. When the median nerve is compressed, it can cause the symptoms of carpal tunnel syndrome.

Symptoms of Carpal Tunnel Syndrome

Symptoms of carpal tunnel syndrome usually start gradually and can include:

- **Numbness and tingling:** Primarily in the thumb, index, middle, and ring fingers.
- **Pain:** Can radiate up the arm towards the shoulder.
- **Weakness:** In the hand, making it difficult to grip objects.
- **Shock-like sensations:** That move into the fingers.
- **Symptoms that worsen at night:** Due to sleeping position.
- **Dropping things:** Due to weakness or numbness.

Diagnosis

A doctor can diagnose carpal tunnel syndrome based on your symptoms, a physical examination, and nerve conduction studies. The physical examination will include testing the sensation in your fingers and the strength of your hand. Nerve conduction studies measure the speed of electrical impulses through the median nerve, which can help determine if it is being compressed.

Surgical Treatment: Carpal Tunnel Release

Carpal tunnel release surgery is a procedure to relieve pressure on the median nerve. The surgery involves cutting the carpal ligament, which forms the roof of the carpal tunnel. This increases the size of the tunnel and reduces pressure on the nerve. There are two main types of carpal tunnel release surgery:

- **Open carpal tunnel release:** A traditional approach involving a small incision in the palm of the hand.
- **Endoscopic carpal tunnel release:** A minimally invasive approach using a small camera (endoscope) inserted through one or two small incisions.

Open Release

- Larger Incision
- Direct Visualisation
- Traditional Method

Endoscopic Release

This approach uses a small camera (endoscope) inserted through one or two small incisions.

- Smaller Incisions
- Less Scar Tissue
- Faster Recovery (potentially)

Risks of Carpal Tunnel Surgery

As with any surgery, there are potential risks associated with carpal tunnel release. These risks are generally low but can include:

- **Infection:** At the incision site.
- **Nerve injury:** Damage to the median nerve or its branches.
- **Bleeding:** Excessive bleeding during or after surgery.
- **Scar tenderness:** Pain or sensitivity around the scar.
- **Stiffness:** In the hand or wrist.
- **Complex Regional Pain Syndrome (CRPS):** A chronic pain condition.
- **Incomplete Release:** In rare cases, the ligament may not be fully released, requiring further surgery.

Expected Outcomes and Recovery

Most people experience significant relief from carpal tunnel symptoms after surgery. Recovery time varies depending on the type of surgery and individual factors. Generally, endoscopic surgery has a faster recovery time than open surgery.

- **Pain relief:** Most patients experience a significant reduction in pain.
- **Improved function:** Hand strength and grip usually improve.
- **Numbness and tingling:** These symptoms often resolve, but it may take several months for full recovery.

Following your surgeon's post-operative instructions is crucial for a successful recovery. This may include:

- **Hand therapy:** Exercises to improve strength and range of motion.
- **Splinting:** Wearing a wrist splint to support the wrist.
- **Activity modification:** Avoiding activities that aggravate symptoms.

Summary

This document has provided an overview of carpal tunnel syndrome and its surgical treatment. Understanding the symptoms, diagnosis, surgical options, risks, and expected outcomes is vital for patients considering carpal tunnel surgery. Discuss any concerns or questions with your doctor to make an informed decision about your treatment.