

CUBITAL TUNNEL RELEASE

Patient Information



Understanding Cubital Tunnel Syndrome

Cubital tunnel syndrome is a condition caused by increased pressure on the ulnar nerve at the elbow. The ulnar nerve is one of the major nerves in the arm, responsible for sensation in the little and ring fingers, as well as controlling some of the muscles in the hand. Where the ulnar nerve passes around the elbow it travels through a tight space called the *cubital tunnel*.

Symptoms

Symptoms of cubital tunnel syndrome can vary, but commonly include:

- Numbness and tingling in the little and ring fingers
- Pain at the elbow, sometimes radiating up the arm or down into the hand
- Weakness in the hand, particularly with grip and pinch
- Clumsiness and difficulty with fine motor skills
- In severe cases, muscle wasting in the hand

Diagnosis

A diagnosis of cubital tunnel syndrome is typically made based on a combination of factors:

- **Physical Examination:** Your doctor will assess your symptoms, examine your elbow and hand, and perform specific tests to evaluate nerve function.
- **Nerve Conduction Studies (NCS) and Electromyography (EMG):** These tests measure the electrical activity of your nerves and muscles, helping to determine the severity and location of nerve compression.
- **Imaging Studies:** X-rays may be taken to rule out other conditions, such as arthritis or bone spurs. In some cases, MRI may be used to visualize the ulnar nerve and surrounding tissues.

Natural History

In some cases, cubital tunnel syndrome may improve with conservative treatment, such as activity modification, splinting, and physical therapy. However, if symptoms are severe or do not improve after several months of conservative treatment, surgery may be recommended to relieve pressure on the ulnar nerve.

Without treatment, cubital tunnel syndrome can lead to permanent nerve damage, resulting in chronic pain, weakness, and loss of function in the hand.

Surgical Treatments

Several surgical options are available to treat cubital tunnel syndrome. The most common procedures include:

- **Ulnar Nerve Decompression:** This involves cutting the roof of the cubital tunnel to release pressure on the ulnar nerve. This can be performed through an open incision or endoscopically (using small incisions and a camera).
- **Ulnar Nerve Transposition:** This involves moving the ulnar nerve from behind the elbow to a new location in front of the elbow, where it is less likely to be compressed. This procedure is typically reserved for cases where the ulnar nerve is unstable or has been previously injured.

The best surgical option for you will depend on the severity of your condition, your anatomy, and your surgeon's experience.

Risks of Surgery

As with any surgery, there are potential risks associated with cubital tunnel release. These risks are generally low but it's important to be aware of them:

- **Infection:** Although rare, infection can occur after surgery. Antibiotics are typically used to treat infection.
- **Nerve Injury:** There is a risk of injury to the ulnar nerve or other nerves in the arm during surgery. This can result in numbness, tingling, or weakness.
- **Incomplete Relief of Symptoms:** In some cases, surgery may not completely relieve all symptoms of cubital tunnel syndrome.
- **Pain and Stiffness:** Some patients may experience pain and stiffness in the elbow after surgery. Physical therapy may be needed to improve range of motion and reduce pain.
- **Recurrence:** Symptoms can occasionally recur after surgery, although this is uncommon.

Expected Outcomes

The majority of patients experience significant improvement in their symptoms after cubital tunnel release surgery. Numbness and tingling typically improve first, followed by pain and weakness. However, it may take several months for full recovery.

Following surgery, you will likely need to wear a splint or brace for a period of time to protect your elbow. Physical therapy may also be recommended to improve range of motion, strength, and function. It is important to follow your doctor's instructions carefully to ensure a successful outcome.

Next Steps

If you are considering surgery for cubital tunnel syndrome, talk to your doctor about the risks and benefits. They can help you determine if surgery is the right option for you and answer any questions you may have. This document is meant to inform and is not a substitute for seeking advice from a medical professional.