

Introduction

Cubital tunnel syndrome is a condition that causes numbness and possibly pain in the forearm and the fourth and fifth fingers. It can also cause weakness in the arm and all the fingers, affecting the use of the hand.

Doctors may recommend surgery for people suffering from cubital tunnel syndrome. If your doctor recommends surgical treatment for your condition, the decision whether or not to have surgery is also yours. This reference summary will help you understand better the benefits and risks of this surgery.

Anatomy

The ulnar nerve, also known as the “funny bone,” is a big nerve that crosses the elbow on its way to the hand. The ulnar nerve passes through a tunnel across the elbow.

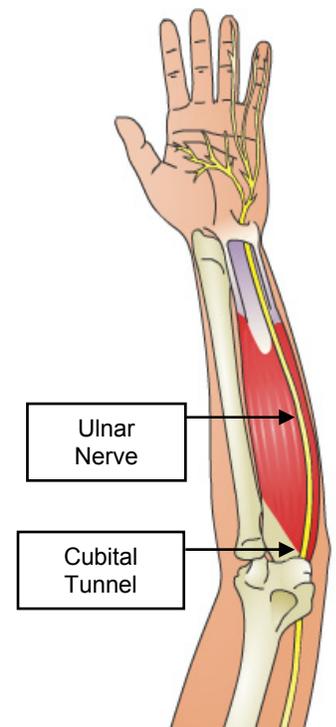
The roof of the tunnel is a thick ligament. This tunnel is called the cubital tunnel.

Symptoms and their Causes

When the nerve gets pinched in the cubital tunnel, the syndrome occurs. Symptoms include numbness and possibly pain in the forearm, starting at the elbow and going all the way down to the fifth and fourth fingers. This may be accompanied by some weakness in the grip, and the muscles that open and close the fingers.

Patients tend to drop objects because of the:

- Weakness,
- numbness
- and clumsiness.



The most common reason for cubital tunnel syndrome is the constant rubbing of the nerve in the cubital tunnel. This occurs mainly in cases where patients repeatedly bend their arm at the elbow. That bending causes the nerve to stretch and be compressed in the cubital tunnel.

Thickening of the ligament that covers the tunnel or of the muscles in which the nerve enters after leaving the tunnel can also cause the cubital tunnel syndrome. There may be, however, other reasons for this syndrome.

Other reasons include swelling of the tissues and the bones surrounding the cubital tunnel, as in rheumatoid arthritis. Fractures in the arm or elbow can affect the nerves resulting in cubital tunnel syndrome. Diseases such as diabetes can also cause symptoms similar to cubital tunnel syndrome. This occurs when diabetes damages the ulnar nerve directly.

Alternative Treatments

Keeping pressure off the elbow by not laying the elbow down on hard surfaces may help the symptoms.

Keeping the arms straight sometimes helps the symptoms significantly. For example using a headset can help patients who use the phone frequently.

Wearing a splint at night can also be helpful. It is important to place the computer keyboards far enough to prevent bending of the arm while typing. Injection of steroids in the cubital tunnel itself is also a possibility.

Physical therapy to strengthen the muscles and to teach patients about ways to prevent further damage to the ulnar nerve may also help.



Surgical Treatment

Operations to treat cubital tunnel syndrome aim at taking the pressure off the nerve. This is called “decompressing the nerve.” When the nerve is decompressed, the pressure on it decreases and the symptoms improve.

The shape of the incision depends on whether the surgeon is moving the nerve or cutting a part of the elbow bone.

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The procedure consists of cutting open the ligament and freeing the nerve. This is known as “decompressing the nerve.” The nerve is then moved to the front, taking it out of the tunnel and protecting it from further injury. In some procedures, the doctor may remove bone material to enlarge the cubital tunnel.

Cubital tunnel release is an outpatient operation where the patient goes home the same day of the operation.

Risks and Complications

This operation is very safe with good results, especially if done early. There are, however, several possible risks and complications, which are unlikely, but possible. You need to know about them just in case they happen. By being informed, you may be able to help your doctor detect complications early.

The risks and complications include those related to anesthesia and those related to any type of surgery.

Risks of general anesthesia include nausea, vomiting, urinary retention, cut lips, chipped teeth, sore throat and headache. More serious risks of general anesthesia include heart attacks, strokes and pneumonia. Your anesthesiologist will discuss these risks with you and ask you if you are allergic to certain medications.



Blood clots in the legs can occur due to inactivity during and after the surgery. These usually show up a few days after surgery. They cause the leg to swell and hurt.

Blood clots can become dislodged from the leg and go to the lungs where they will cause shortness of breath, chest pain and possibly death. It is extremely important to let your doctors know if any of these symptoms occur. Sometimes the shortness of breath can happen without warning.

Getting out of bed shortly after surgery may help decrease the risk of blood clots in the legs.

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Some of the risks are seen in any type of surgery. These include:

- Infection, deep in the cubital tunnel or at the skin level.
- Bleeding.
- Skin scar that may be painful or ugly.

Other risks and complications are related specifically to this surgery. These again are very rare. However, it is important to know about them.

The nerve may be injured resulting in weakness, paralysis and loss of feeling in the hand. The elbow may be damaged causing persistent pain in the elbow area.

There is also the possibility that the operation may not help the symptoms or may even make them worse. The symptoms may recur.

After the Surgery

Your arm will be bandaged. Your doctor will ask you to keep your arm elevated above the heart level to reduce swelling. When you shower, you will need to cover the dressing with a plastic bag, making sure the arm stays dry.

Your doctor will tell you how long it will take before you can go back to work. This depends on your age, type of work, and medical condition, as well as other factors.

Your doctor will arrange for a follow-up visit to examine the incision and remove any sutures. Your doctor will indicate the hand and arm rehabilitation program suitable for you.

Summary

Surgery to release the cubital tunnel may help relieve your hand pain and numbness when other non-surgical treatments fail.

This operation is very safe with excellent results. However, as you have learned, complications may happen.

Knowing about them will help you detect them early if they happen.



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