



# Dr A Anzarut, MSc, CIP, MD, FRCSC

ASSH Fellowship trained hand surgeon

201 – 2763 Beverly Street, Duncan, British Columbia

Tel: (250) 597 – 2064

Fax: (250) 597-1297

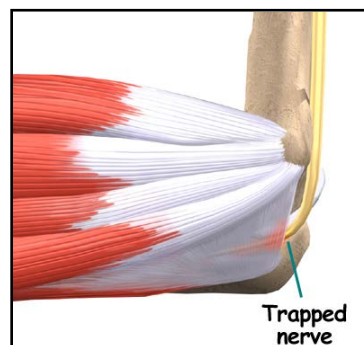
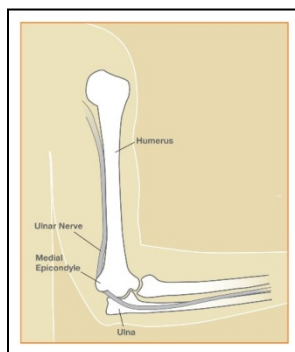
## Cubital Tunnel Syndrome

### What Is Cubital Tunnel Syndrome?

Ulnar nerve the arm can be becomes compressed or irritated. The nerve travels from your neck down into your hand, and can be compressed in several places along the way, most commonly at the elbow. When the nerve is compressed at the elbow, it is called "cubital tunnel syndrome."

### Where Is The Cubital Tunnel?

The ulnar nerve travels through a tunnel of tissue at the elbow called the cubital tunnel. At this site the nerve runs under a bump of bone at the inside of your elbow. This bony bump is called the medial epicondyle. The spot where the nerve runs under the medial epicondyle is the cubital tunnel and is commonly referred to as the "funny bone." At the funny bone the nerve is close to your skin, and bumping it causes a shock-like feeling.



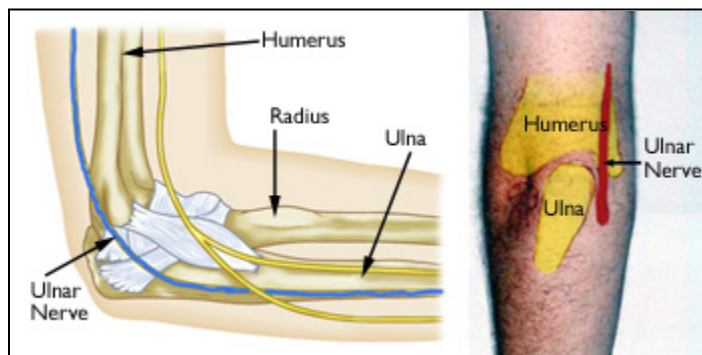
## What Is The Function Of The Ulnar Nerve?

The ulnar nerve gives feeling to the little finger and half of the ring finger. It also controls most of the small muscles of the hand. It controls the muscles that allow fine hand movements. It also contributes to control of some of the bigger muscles in the forearm that help you make a strong grip.



## What Causes Cubital Tunnel?

Cubital tunnel occurs when there is excess compression or pressure on the ulnar nerve at the elbow. This leads to nerve damage and symptoms of cubital tunnel. The nerve is especially vulnerable to compression at the elbow because it must travel through a narrow space with very little soft tissue to protect (the cubital tunnel).



There are several things that can cause pressure on the ulnar nerve at the elbow. Bending your elbow will increase the pressure in the cubital tunnel. You can test this yourself. Pinch the skin under your elbow while the arm is straight, and then slowly bend your elbow. The skin becomes tight as the elbow flexes. As the elbow flexes the pressure on the ulnar nerve also increases. Keeping your elbow bent for long periods or repeatedly bending your elbow may irritate the nerve. Leaning, or even resting lightly, against your elbow will compress the ulnar nerve. Many people do this while reading, on the computer, or in the car. All of these things can lead to injury of the ulnar nerve. Many people sleep with their elbows bent. This may cause them to wake up at night with their fingers asleep.

## What Are Common Symptoms Of Cubital Tunnel?

Cubital tunnel syndrome can cause an aching pain on the inside of the elbow. Most of the symptoms, however, occur in your hand. Ulnar nerve compression can cause the ring finger and little finger to "fall asleep", especially when your elbow is bent. Often, these symptoms come and go. They happen more often when the elbow is bent, such as when driving or holding the phone. Some people wake up at night because their fingers are numb.

Weakening of the grip and difficulty with finger coordination (such as typing or playing a musical instrument) may occur in more severe cases. When the nerve is very compressed or has been compressed for a long time, muscle shrinkage in the hand can occur. With severe cubital tunnel syndrome the muscle shrinkage and numbness may be irreversible. For this reason, it is important to see your doctor if you have these symptoms.

## How Is Cubital Tunnel Diagnosed?

By discussing your medical history and doing a complete physical examination your doctor may be able to diagnose whether you have cubital tunnel syndrome. He or she may ask you whether there you have a favorite chair or desk at home? Whether that chair has arm rests and whether you use those? X-rays of the elbow can identify whether there is a bone or joint problem contributing to the development of your cubital tunnel. Nerve conduction tests are special tests that your doctor may recommend. It is important to be aware that not all patients with cubital tunnel syndrome will have an abnormal nerve conduction test. However, this test is helpful to find out whether the nerve is being compressed at other sites such as the neck or wrist.

## What Are The Non-Surgical Treatments For Cubital Tunnel?

Cubital tunnel can usually be treated without surgery. Treatment should start before it becomes severe. There are several things you **must** do to treat cubital tunnel and avoid your hand from getting worse. First, you *must* never lean or put pressure on your elbows again. For many people this requires them not to sit in chairs with arm rests. *Never* rest your elbow on the window or arm rest while driving. *Never* lean your elbows on a table. Finally, keep your elbows straight at night when you are sleeping. This can be done by wrapping a towel around your straight elbow or wearing an elbow pad backwards. If these changes do not lead to symptom resolution after three months you should see your doctor to discuss other options.

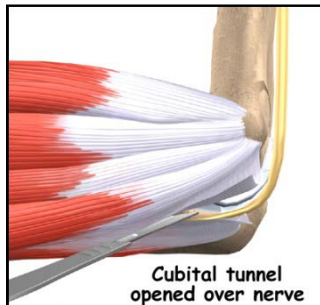


## When Is Surgery Recommended?

People with severe cubital tunnel syndrome may have constant numbness and or muscle shrinkage. Surgery may be indicated immediately for severe cubital tunnel syndrome. For most patients, surgery is considered if a 3 month trial of non-surgical therapy does not lead to symptom improvement.

## What Are The Surgical Options?

Several traditional surgical treatments for cubital tunnel are described. These include 1) Standard Cubital Tunnel Release, 2) Ulnar Nerve Anterior Transposition and 3) Medial Epicondylectomy. Researchers have not been able to show one method to be superior to another. Normal recovery period can be 4 – 8 weeks. During this period patients usually need narcotic pain killers. Since 2010 Dr. Anzarut has been performing a Minimal Incision Release. By using specially designed equipment Dr. Anzarut is able to safely release the nerve through 1-2 cm incision. As a result the standard recovery period can be 2 – 10 days and patients take only plain Tylenol for post-operative pain control.



## What Should I Expect If I Have Surgery?

Minimal Incision Release for cubital tunnel is a day surgery. Patients are sent home with a small dressing and usually require only plain Tylenol for their post-operative discomfort. Patients are seen in the office at 1 week to have their incision checked and again at 3 weeks to have their sutures removed. In order to ensure optimal recovery patients are asked to ice the area for the first 48 hours while awake. Indirectly ice the area for 15 minutes on and then 15 minutes off. To avoid infection and other complications patients should avoid certain activities for the first 7 days. These include heavy lifting, sports or other activities that may expose the incision to sweat or dirt. After the first week patients can gradually resume full activities. Patients will have some tenderness if they lean on their incision during the first 3 weeks.

Cubital tunnel surgery is done primarily to prevent worsening your symptoms and your hand function. If you have numbness and muscle loss from cubital tunnel there is no guarantee surgery will improve this. The ulnar nerve is very sensitive to injury. With surgery noticeable improvement can be expected to take weeks to months. The ulnar nerve may continue to improve for many years after a cubital tunnel release. For these reasons it is important to treat cubital tunnel early on to prevent irreversible damage.