



DR VANESSA SAMMONS

NEUROSURGEON



Guide to

CUBITAL TUNNEL SYNDROME

Ulnar Nerve Decompression

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KEY FACTS

- Cubital Tunnel Syndrome is a treatable condition caused by pressure on a nerve at the elbow
- It can be caused by repetitive movements, arthritis, bone spurs, and injury
- Symptoms include pain, tingling, numbness and/or weakness in the ring and little finger, particularly when the elbow is bent
- Rest, splints and braces, steroid injections, and surgery are treatment options
- Surgery requires a minimum of two weeks recovery time

WHAT IS THE CUBITAL TUNNEL?

The cubital tunnel is a tunnel of muscle, ligament, and bone. It's formed by the bony walls of the olecranon and the medial epicondyle of the humerus (the arm bone between the shoulder and elbow). The roof of the tunnel is formed by the overlying fascial bands of flexor carpi ulnaris and the medial ligament of the elbow. The ulnar nerve passes posterior to the medial epicondyle of the humerus.

WHAT IS CUBITAL TUNNEL SYNDROME?

Cubital Tunnel Syndrome occurs when the ulnar nerve on the inside of the elbow is compressed and becomes irritated, swollen, and inflamed.

WHAT ARE THE SYMPTOMS OF CUBITAL TUNNEL SYNDROME?

“Cubital tunnel syndrome causes pain that feels a lot like the pain you feel when you hit the ‘funny bone’ in your elbow,” reports Johns Hopkins University. The sensation is not actually caused by the bone, but by the ulnar nerve that crosses the elbow. This nerve begins in the side of your neck and ends in your fingers. When the nerve is compressed, patients may describe:

- Aching pain inside the elbow
- Hand pain
- Night-time numbness and tingling, particularly when the elbow is bent
- Numbness and the feeling of pins and needles particularly in the fourth and fifth fingers
- Muscles weakness within the palm of the hand itself, creating a sense of weakness and also loss of dexterity
- Noted weakness **when** spreading the fingers apart and also when bending the fourth and fifth fingers.

“If the nerve is very compressed or has been compressed for a long time, muscle wasting in the hand can occur,” warns the American Academy of Orthopaedic Surgeons. “Once this happens, muscle wasting cannot be reversed.” It’s important to see your doctor if symptoms are severe or have been present for more than a few weeks.

WHAT CAUSES CUBITAL TUNNEL SYNDROME?

The pain associated with cubital tunnel syndrome may be the result of:

- Arthritis
- Anatomy (the ulnar nerve snaps back and forth over a bony bump as you move your elbow, which can irritate the nerve)
- Bone spurs
- Injury
- Repeated leaning on the elbow
- Previously healed fractures or dislocations of the elbow
- Repetitive stress from bending the elbow or pulling, reaching, or stretching

In many cases, the cause of cubital tunnel syndrome cannot be identified with specificity.

WHEN SHOULD I CONSULT A DOCTOR?

Contact your physician when you have symptoms of ulnar nerve compression that are painful, interfere with your normal activities, and have been with you for more than a few weeks. If you are concerned you might have Cubital Tunnel Syndrome symptoms, it's never too soon to seek advice from your doctor. Early diagnosis can lead to a more beneficial treatment outcome.

HOW IS CUBITAL TUNNEL SYNDROME DIAGNOSED?

Early diagnosis and treatment can help prevent cubital tunnel syndrome from causing permanent damage to the ulnar nerve. It's also important to speak with a doctor regarding CTS as medical conditions such as diabetes, thyroid disease, and systemic neuropathy may be the source of the pain. As well as a comprehensive medical history and a physical exam, diagnostic tests used to identify cubital tunnel syndrome include:

- **Nerve conduction test** – determines the speed at which signals travel down the nerve to find compression or constriction
- **Electromyogram (EMG)** – assesses muscle and nerve function
- **MRI** – Assesses the anatomy

The tests are non-invasive and are usually well-tolerated with a possible need for pain medication. The results will help determine the most appropriate treatment plan for a person's Cubital Tunnel Syndrome needs.

HOW IS CUBITAL TUNNEL SYNDROME TREATED?

Early-stage treatments for Cubital Tunnel Syndrome include:

- Rest
- Avoiding activities that aggravate the elbow
- Using an elbow pad to reduce irritation from hard surfaces
- Sleeping in a foam elbow brace or splint to limit movement and reduce irritation
- Anti-inflammatory medicines
- Nerve gliding exercises
- Steroid injections

When cubital tunnel syndrome persists, if there is weakness, or symptoms begin to interfere with daily life, the most appropriate management is ulnar nerve decompression surgery. An incision is made at the elbow so that the nerve may be located and decompressed. The skin is closed with absorbable sutures.

Ulnar nerve decompression can be performed using local anaesthesia with or without sedation, depending on a patient's preference. The surgery takes under an hour to perform and does not require an overnight stay in hospital.

WHAT CAN I EXPECT AFTER ULNAR NERVE DECOMPRESSION SURGERY?

When your surgery is complete, you will be observed and should be able to return home the same day. To ensure optimal healing, you will:

- Have your arm bandaged for a few days
- Exercise your elbow, shoulder, and fingers gently to prevent stiffness

“Symptoms may continue to improve for up to 18 months,” says HealthDirect.

ARE THERE RISKS TO ULNAR NERVE RELEASE SURGERY?

All surgical procedures carry some risk. Surgery for cubital tunnel syndrome can result in:

- Bleeding
- Continuing numbness in the ring and little fingers
- Infection
- Numbness in the skin just below the tip of the elbow
- Pain
- Scarring
- Tenderness at the incision site

WHAT SHOULD I DO AFTER SURGERY?

After you return home, you can use your hand and do whatever is comfortable. You should also:

- Keep your hand elevated as much as possible for the first 24 hours
- Avoid lifting and sporting activities for 4-6 weeks post-surgery
- Exercise your elbow, wrist, and arm gently

If at any stage you see increasing redness or if your wound becomes swollen or more painful, see your doctor immediately.

SHOULD I FOLLOW UP WITH DR SAMMONS AFTER SURGERY?

Yes. You will need to see Dr Sammons for a follow-up visit 4-6 weeks after surgery. You will be contacted by our practice nurse during the week after surgery to set up your appointment. If you have any concerns at any time, Dr Sammons is happy to talk and meet with you earlier to address them.

DOES CUBITAL TUNNEL SYNDROME COME BACK?

The majority of patients who undergo ulnar nerve decompression surgery regain full, pain-free use of the affected elbow, wrist, and hand. It may take 4 to 5 months for full strength to return. Some patients continue to experience improvement for up to a year. In rare cases, revision surgery is required.



Hello!

I'm a Neurosurgeon at North Shore Private Hospital, Gosford Private Hospital, Brisbane Waters Private Hospital and the Sydney Adventist Hospital. I treat all neurosurgical conditions, but with a particular interest in Peripheral Nerve Surgery. I pride myself on providing personalised and thoughtful patient care and utilising my skills to achieve the best outcome possible.

I believe that a great neurosurgeon will ensure you feel listened to, will ensure that you understand what your surgery involves, and should also work together with your GP to achieve the best outcome for you.

Dr Vanessa

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