

# Fact Sheet: Cubital Tunnel Syndrome



WESLEY  
HAND  
CENTRE

[www.wesleyhandcentre.com.au](http://www.wesleyhandcentre.com.au)

## What is Cubital Tunnel Syndrome?

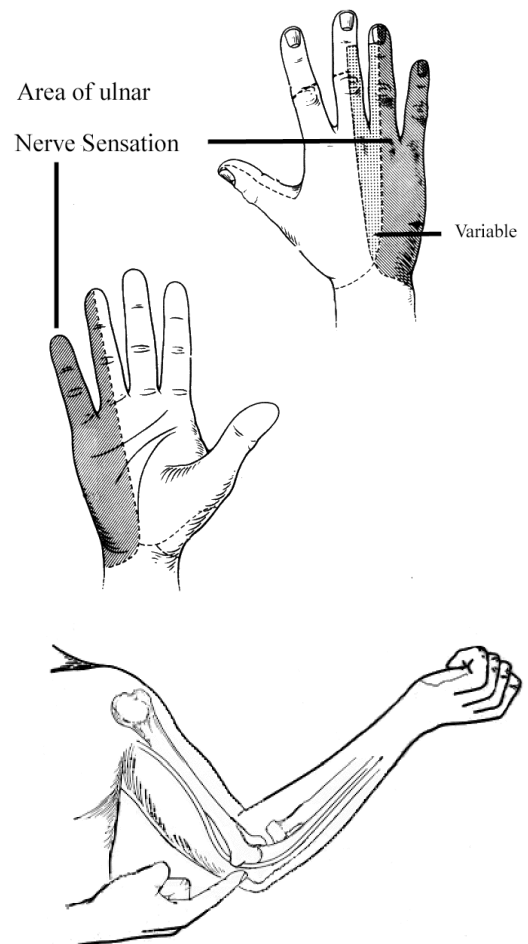
Cubitus is Latin for elbow. The cubital tunnel is a passageway between the bony prominence of the inside of the elbow (medial epicondyle) and the tip of the elbow (olecranon process). The ulnar nerve travels through this passageway and is prevented from moving in and out of position by a covering of tissue called fascia. The exit of the tunnel is between the two muscle origins of flexor carpi ulnaris.

Cubital tunnel syndrome occurs when there is compression or injury to the nerve in the cubital tunnel. The nerve can be felt in the tunnel.

## What are the causes?

There are many ways the ulnar nerve can be injured or compressed in the cubital tunnel.

1. Chronic compression to this area (such as resting on the elbow) may produce swelling within the cubital tunnel, irritating the nerve
2. Chronic stretching of the nerve may occur when a person sleeps with their elbows very bent up against them. When the elbow is bent, the nerve is a little stretched around the "corner" of the bony prominence (medial epicondyle). Long periods of this stretching at night or during the day may irritate the nerve.
3. The fascia covering the nerve may lose its ability to stabilize the nerve when the elbow is bent or straightened. The nerve is repetitively injured as it slides in and out of its normal position (subluxation).
4. Fractures of the elbow may cause deformity which stretches the nerve or narrows the tunnel.
5. As the floor of the cubital tunnel is formed by the elbow joint, any arthritis or swelling of the joint may narrow the tunnel, compressing the ulnar nerve.
6. Tumours such as ganglion cysts or extra muscles may compress the nerve.



## Who is affected?

Diabetic people are more often affected as their nerves are more prone to compression. People who partake in work or sports that require repetitive or prolonged elbow flexion (bending) or leaning on the elbow. Those with hypothyroidism (underactive thyroid) are also more likely to develop this problem

## What are the signs and symptoms?

The ulnar nerve provides feeling to the little finger and half of the ring finger. It supplies several muscles in the forearm but most importantly controls many of the small muscles in the hand responsible for strength of grasp and coordination. Symptoms include intermittent numbness

## Fact Sheet: Cubital Tunnel Syndrome



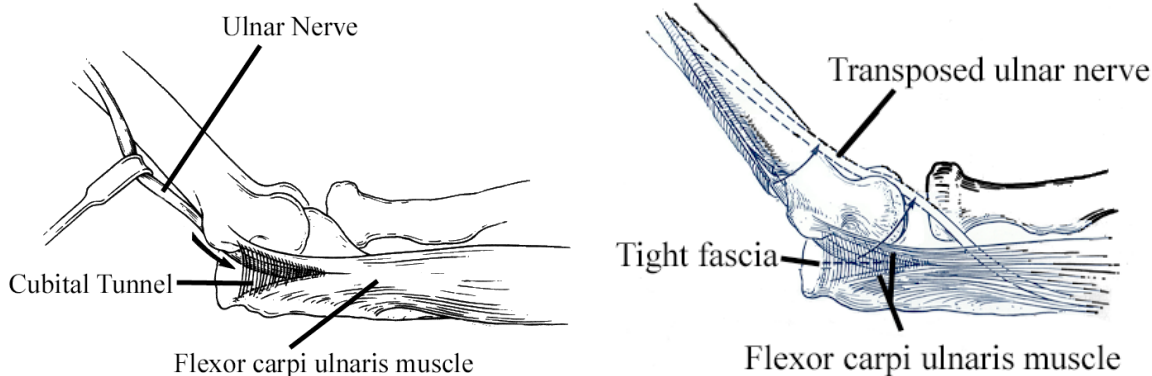
WESLEY  
HAND  
CENTRE

[www.wesleyhandcentre.com.au](http://www.wesleyhandcentre.com.au)

and tingling of the small and ring finger and aching along the inner aspect of the forearm and elbow. If nerve damage progresses there may be permanent loss of feeling in the ring and small fingers along with weakness and clumsiness of the hand.

### How is it diagnosed?

In most cases the diagnosis is made alone by taking a history of the symptoms and examination of the limb. Unless the compression is severe, nerve conduction tests are usually negative and not helpful.



### How is it treated?

In the early stages symptoms may be alleviated by avoiding prolonged or repetitive flexion or resting on the elbow. To prevent elbow flexion at night and to prevent pressure on the nerve during the day, an elbow pad may be beneficial. A hand therapist can fit an elbow pad and recommend exercises. The majority of people will respond well to these simple measures.

When cubital tunnel syndrome is severe or unresponsive to conservative treatment, surgery may be indicated. The aim of surgery is to relieve the nerve compression or the ulnar nerve within the cubital tunnel. The simplest method is to divide the fascia over the nerve (in situ decompression). If the nerve is more severely affected, it may be necessary to move it out of the cubital tunnel to the front of the elbow (decompression & transposition). This usually involves a general anaesthetic and an overnight stay in hospital.

### What happens after surgery?

Following surgery, the arm is immobilised in a bulky dressing from the hand to above the elbow. There is a plaster splint under the dressing which keeps the elbow bent at 90 degrees. This is all removed at 10-14 days and therapy commenced. The sutures are dissolving. You will have a plastic splint made to wear for a further week or two to rest the elbow between exercises. Strengthening begins at 4 to 8 weeks following surgery.

### Recovery

Recovery to using the arm for all activities without restriction takes approximately 3-4 months. Depending on the severity of the nerve compression, it may take many months for the nerve to recover. In severe cases complete recovery of feeling and strength may not be possible. With proper diagnosis and treatment, progression of the condition may be prevented.