

Cubital Tunnel Syndrome (Ulnar Neuropathy)

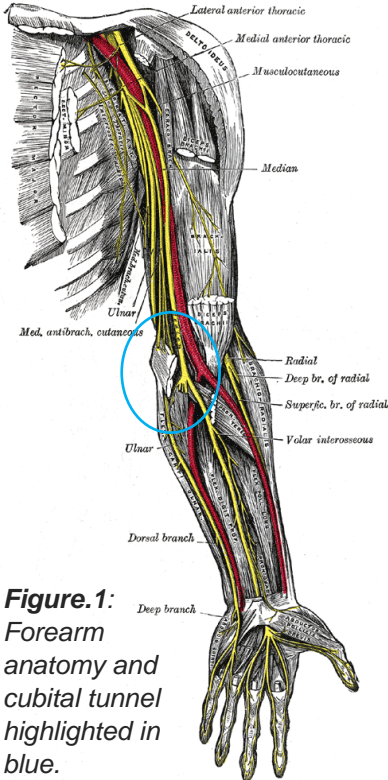


Figure 1:
Forearm
anatomy and
cubital tunnel
highlighted in
blue.

The cubital tunnel is a natural space in the forearm made up of the bones and the muscles which run across the inside of elbow joint (see Figure.1). The ulnar nerve passes through the tunnel. In simple terms, when you bash your ‘funny bone’, you are actually irritating the ulnar nerve inside the cubital tunnel. The ulnar nerve supplies sensation to the little finger, part of the ring finger, and power to the small muscles within the hand, which is why these areas go numb.

What is Cubital Tunnel Syndrome (also Known as Ulnar Neuropathy)?

Cubital tunnel syndrome is a disorder of the ulnar nerve caused by is compression or irritation within the cubital tunnel.

What are the Symptoms?

Symptoms include:

- Numbness, tingling and/or pain on the inside of the forearm and into the hand/fingers on the side affected, mostly the little and ring fingers.
- Weakened grip.
- Reduced control and clumsiness with hand function.
- Commonly these symptoms are experienced more at night.
- Muscle wasting in more extreme cases.

What Causes Cubital Tunnel Syndrome?

Trauma: An injury in the region of the elbow may be cause for the compression either directly or due to inflammation, such as a fractures, dislocation, direct blow or severe twisting of the elbow.

Repetitive tasks: Keeping the elbow bent for long periods of time or manual jobs that require repetitive elbow flexion.

Age-related: Natural changes to the joint, commonly known as osteoarthritis, can cause narrowing of the cubital tunnel and lead to compression of the ulnar nerve.

Pregnancy: Hormone changes can lead to fluid retention in the cubital tunnel.

Insidious: Some people develop symptoms with no known cause.

How is it Treated?

- Activity modification/rest from aggravating factors e.g. wear a headset for using the telephone; avoid leaning on the inside of the elbows.
- Non-Steroidal Anti-inflammatory Drugs (NSAIDs) e.g. over-the-counter ibuprofen or naproxen prescribed by your GP.
- Splints to wear at night to avoid excessive elbow bendingflexion e.g. folded towel wrapped around the elbow, tubigrip or by a splint provided by a therapist.
- Exercises can be prescribed by your physiotherapist which aim to improve movement patterns of the elbow and allow flexibility of the nerve.
- Surgery to decompress the nerve is required in severe cases, or in those that do not respond to the non-surgical treatments above. Surgery frequently improves the numbness, but its chief objective is to prevent the progressive muscle weakness and wasting that tends to occur in severe untreated cases. This is called a Cubital Tunnel Decompression or Release

What are the outcomes of treatment?

The outcome depends upon the severity of the compression being treated. In mild cases you can expect there to be full resolution of symptoms. The long-term outcome of more severe cases is less predictable in regard to the nerve function fully recovering.

Numbness frequently improves in most cases, though the improvement may be slow. Surgery generally prevents worsening of the muscle weakness, but improvements in muscle strength are often slow and incomplete. Your surgeon and therapist should discuss the potential outcome with you.