Cubital tunnel syndrome

What is it?

Cubital tunnel syndrome is compression or irritation of the ulnar nerve in a tunnel on the inside of the elbow (where your 'funny bone' is). The ulnar nerve provides sensation to the little finger and part of the ring finger, and power to the small muscles within the hand.





What are the causes?

Most cases arise without an obvious cause, but the tunnel can be narrowed by arthritis of the elbow joint or by an old injury.

What are the symptoms?

Numbness or tingling of the little and ring fingers are usually the earliest symptom. It is frequently intermittent, but may later become constant. Often the symptoms can be provoked by leaning on the elbow or holding the elbow in a bent position (e.g. on the telephone). Sleeping with the elbow habitually bent can also aggravate the symptoms. In the later stages, the numbness is constant and the hand becomes weak. There may be visible loss of muscle bulk in severe cases, particularly noticeable on the back of the hand between the thumb and first finger, with loss of strength and dexterity.

Investigations may include x-rays of the elbow and nerve conduction studies.

What is the treatment?

Avoid or modify any provocative activity where appropriate. For example, wear a headset for using the telephone; avoid leaning on the inside of the elbows or wear protective pads. Excessive bending of the elbow at night can be minimised by a folded towel wrapped around the elbow, or by a splint provided by a therapist. These manoeuvres may be curative in early cases.

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.





Several operations are used, including simple opening of the roof of the tunnel (decompression), moving the nerve into a new location at the front of the elbow (transposition) and widening the tunnel by removing some of its bony floor (medial epicondylectomy). Your surgeon can advise on the technique most appropriate to your problem.

What is the outcome?

The outcome depends upon the severity of the compression being treated. Numbness frequently improves, though the improvement may be slow. Surgery generally prevents worsening of the muscle weakness, but improvements in muscle strength are often slow and incomplete.

In the mild cases you can expect there to be full resolution of symptoms in most cases, the more severe the case the less predictable the long term outcome in regard to the nerve function fully recovering. Your surgeon and therapist should discuss the potential outcome with you.