



Midlands
Orthopaedic Centre

Trauma & Orthopaedics

Cubital Tunnel Syndrome

Patient Information Leaflet



The Dudley Group
NHS Foundation Trust

What is it?

Cubital tunnel syndrome is an irritation or a compression 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 and activities which require the elbow to be bent such as when driving or sitting at a desk, can also aggravate the symptoms.

In 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.

What tests are done?

Your doctor will do an examination of the hand and elbow, to perform some simple tests which indicate a nerve entrapment or weakness of muscles in the hand. Investigations may include x-rays of the elbow and electrical studies to measure nerve conduction and muscle function.

What is the treatment?

In the mild cases simple measures are usually enough to resolve the problem. Avoiding or modifying any provocative activity where appropriate in the first instance is often effective. For example, wearing a headset for using the telephone; avoidance of leaning on the inside of the elbows or wearing protective pads. Excessive bending of the elbow at night can be minimized by a folded towel wrapped around the elbow during sleep, or by a splint provided by a therapist. These measures may be curative in early cases.

Nerve glide exercises may be recommended by your doctor and a physiotherapist can advise on these exercises.

Steroid injections are not known to be effective, and can potentially cause damage to 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.

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 will advise on the technique most appropriate to your problem.

What are the risks of surgery?

The general risks of surgery such as infection, damage to nerves and bleeding all of which are relatively rare and can be managed. Specifically, the scar can be either sensitive or painful even after it has healed. There is almost always some numbness around the scar. In a small proportion of patients these complications might lead to a poor outcome such that patients feel they are worse off after surgery, than they were before.

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.

Depending on the severity, and the type of operation required, your surgeon may recommend a splint during the initial weeks of recovery or certain type of exercises to regain strength and motion in the arm and hand.