Ulnar nerve entrapment occurs when the ulnar nerve in the arm becomes compressed or irritated.

The ulnar nerve is one of the three main nerves in your arm. It travels from your neck down into your hand and can be constricted in several places along the way, such as underneath the collarbone or at the wrist. The most common place for compression of the nerve is the inside of the elbow. Ulnar nerve compression at the elbow is called “cubital tunnel syndrome.” In many cases of cubital tunnel syndrome, the exact cause is not known. The ulnar nerve is especially vulnerable to compression at the elbow because it must travel through a narrow space with very little soft tissue to protect it.

What are the symptoms?

- Aching pain on the inside of the elbow. Most of the symptoms, however, occur in your hand.
- Numbness and tingling in the ring finger and little finger are common. Often, these symptoms come and go. They happen more often when the elbow is bent, such as when driving or holding the phone. Some people wake up at night because their fingers are numb.
- Weakening of the grip and difficulty with finger coordination (such as typing or playing an instrument) may occur.
- In later stages, the numbness is constant and the hand becomes weaker. There may be a 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.

Who gets it? People that have:

- Prior fracture or dislocations of the elbow
- Bone spurs/ arthritis of the elbow
- Swelling of the elbow joint
- Cysts near the elbow joint
- An occupation or activities that require the elbow to be bent or flexed
Things that can help relieve the symptoms

Rest and activity modification - Overuse of the affected hand and elbow can often result in an increase in your symptoms. Try and avoid heavy lifting/carrying and repetitive actions. Avoid activities where you have to bend your elbow for long periods. For example when sleeping you may find that wrapping a towel around your elbow to prevent it from bending may help.

Non-steroidal anti-inflammatory medicines - If your symptoms have just started, your doctor may recommend an anti-inflammatory medicine, such as ibuprofen, to help reduce swelling around the nerve.

Steroid injection - Although steroids, such as cortisone, are very effective anti-inflammatory medicines, steroid injections are generally not used because there is a risk of damage to the nerve.

Surgery - A surgical option may be indicated in severe cases.

This may involve a ‘Cubital tunnel release’. In this operation, the ligament “roof” of the cubital tunnel is cut and divided. This increases the size of the tunnel and decreases pressure on the nerve. After the procedure, the ligament begins to heal and new tissue grows across the division. The new growth heals the ligament, and allows more space for the ulnar nerve to slide through.

Alternatively your surgery may involve an ‘Ulnar nerve anterior transposition’. In this case, the nerve is moved from its place behind the medial epicondyle to a new place in front of it. Moving the nerve to the front of the medial epicondyle prevents it from getting caught on the bony ridge and stretching when you bend your elbow.

The outcome

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

When to return to clinic

If you notice any weakness in your hand or the pins and needles/numbness becomes constant you should return to your GP or MSK Team for further advice.

If you have any comments about this leaflet or the service you have received you can contact:

MSK (Musculoskeletal) Team
Calderdale Royal Hospital Main switchboard: 01422 357171 Extension 2677
www.cht.nhs.uk

If you would like this information in another format or language contact the above.