

Cubital Tunnel Syndrome

What is Cubital Tunnel Syndrome?

- It occurs when the ulnar nerve is compromised at the elbow.
- Compression of the nerve causes sensation change to the little finger and half of the ring finger and can cause weakness of muscles in the hand.
- The ulnar nerve wraps around the inside of the elbow joint and is covered by a fibrous sheath to keep it stable.
- The Ulnar nerve can be compressed in this area. It can also become unstable and aggravated because it slips back and forth over the inside of the elbow.

What causes Cubital Tunnel Syndrome?

- The Cubital tunnel can become smaller (e.g. Due to arthritis, or a fracture of the elbow)
- The contents of the tunnel can increase due to inflammation (e.g. overuse or inflammatory arthritis), lesions such as ganglions, or general fluid retention in the body.
- The nerve can become more sensitive to compression e.g.
 - In diabetics or people with thyroid problems
 - Where the nerve is pinched higher up (e.g. in the neck)
 - People with peripheral neuropathy.
- The nerve can be compressed by enlarging muscles or by scar tissue in the area.

How does it present?

- Tingling, ‘pins and needles’ and numbness in the little and ring fingers when, especially when the elbow is bent or if there is pressure on the inside of the elbow.
- There can be loss of strength in the hand.
- Muscles in the hand can waste away

- In severe cubital tunnel syndrome, the little and ring fingers can assume a 'claw' posture.

What can be done?

- Avoid activities that bring on pins and needles and find other ways to do them.
- Keep the elbow straight as much as possible and avoid avoid pressure on the inside of the elbow. An Elbow sleeve can sometimes help in this regard.
- Taking an anti inflammatory can sometimes help.

When is surgery needed?

- When non operative treatment is unsuccessful and
- Symptoms in the hand:
 - stop you from doing the 'things that you have to do' such as getting dressed, making a meal, driving a car, or getting a good night's sleep
 - and/or the 'things that you love to do' in life such as fishing, riding a bicycle, or holding a book to read.
- If there is constant change in sensation in the hand that does not return to normal, or if muscles in the hand start to waste away, it may mean that permanent damage may be occurring to the nerve.
- If you would prefer a definitive cure for the problem.

How does surgery work?

- This kind of surgery is usually done under general anaesthetic.
- It is done as day case surgery in a hospital,
 - but you cannot drive after the procedure and
 - you should not be home alone on the night of the surgery.
- Antibiotics is usually not necessary at the time of surgery.

What do we do in surgery?

- An incision is made on the back, inside of the elbow.
- The nerve is carefully mobilised and released from mid upper arm to mid forearm.
- If there is irregularity in the bed of the nerve, or if the nerve is unstable, the nerve is moved (transposed) to the front of the elbow.

After the Surgery

In Hospital

- A large bandage is applied to the elbow.
- It is important that the arm remains elevated 'higher than your heart' as much as possible to help limit swelling.
- Do not hesitate to ask for pain killers. It is much better to 'stay on top of pain', than 'to catch' up when it is severe.
- If the bandage feels too tight, do not hesitate to remove it.
- It is usual to leave hospital 2-3 hrs after surgery

At Home

- Continue to elevate your arm for about 3 days until swelling in your arm subsides.
- If the nerve has been simply released: avoid bending the elbow past 90 deg for the first week.
- If the nerve has been moved (transposed), it is safe to bend and extend the elbow as tolerated. Movement is important to avoid stiffness in the elbow.
- Keep the wound dry covered and clean.
- Remove the bulky bandage 2 days after surgery
- Blood thinning medication (if you are on any) can be started 2 days after surgery
- An appointment usually arranged with my practice nurse at about 1-2 weeks after surgery.

The recovery

- The wound usually heals over 1-2 weeks and any sutures are then removed
- Self care (washing, dressing, eating) with the operated hand – usually around 5 days
- Driving: when you are able to control a steering wheel with your operated hand and you are not taking strong pain relief anymore (usually 5-10 days post surgery)
- Most moderate activities (equivalent to lifting a pot of the stove or pouring a full kettle) can usually be achieved by 4-6 weeks,
- Scarring where the ligament in the elbow has been divided can be quite thick and tender for months (3-6).
- But heavy manual activities may take 3-6 months to be comfortable

What can go wrong?

- Infection occurs rarely(1% of the time). It is rarely severe.
- There may be ongoing pain. This may occur due to scarring, or other worn out joints in the area that were not obviously a problem at the time of doing the surgery.
- It is common to have a bit of numbness next to the scar. Significant sensitivity can occasionally develop due to inadvertent injury to small skin nerves
- Rarely, releasing and moving the nerve can lead to further damage to the nerve, causing increased discomfort, numbness and weakness.
- Very rarely (around one in a thousand)a severe pain reaction , (CRPS) can develop, which can be disabling for years.
- Rarely, the release can be unsuccessful and need to be done again.
- If the nerve has been released and not transposed, it can become unstable and slip(sublux) back and forth over the inside of the elbow
- An anaesthetic can have complications, such as nausea, heart and lung problems. Please discuss it with your anaesthetist before the operation.

What can you expect the final outcome to be?

- Pins and needles recover almost immediately
- Numbness usually takes many months (occasionally up to 2 years) to recover. It may not recover completely.
- Loss of muscle and strength rarely recovers.