

EFFECT OF MUSTARD PACK , ICE  
APPLICATION  
AND  
PARTIAL MASSAGE ON CUBITAL  
TUNNEL SYNDROME

Presented by:

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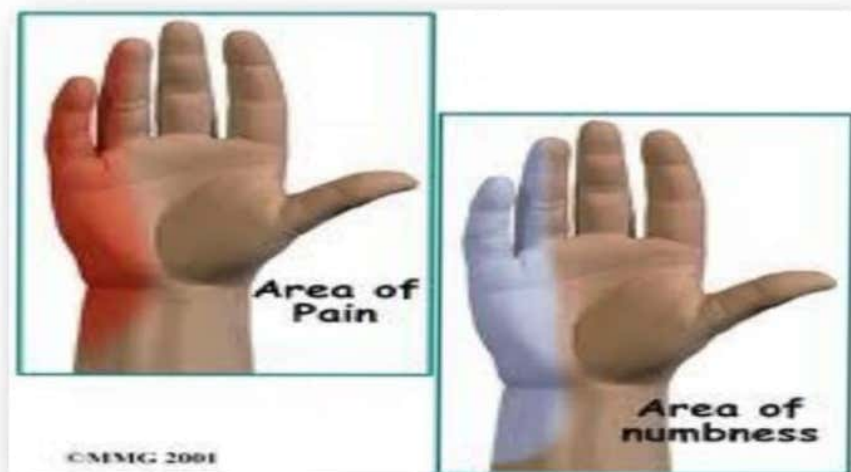
# CLASSIFICATION

- According to McGowan and Dellon
- **Type 1:** subjective sensory symptoms without objective loss of two-point sensibility or muscular atrophy.
- **Type 2A:** sensory symptoms + weakness on pinch and grip without atrophy
- **Type 2B:** Sensory symptoms + atrophy and intrinsic muscle strength  $< 3$
- **Type 3:** Profound muscular atrophy and sensory disturbance.

# **ANATOMY OF CUBITAL TUNNEL**

- The cubital tunnel is formed by the cubital tunnel retinaculum which straddles a gap of about 4 mm between the medial epicondyle and the olecranon. In turn, the floor of the tunnel is formed by the capsule and the posterior band of the elbow joint. It contains several structures, the most important of which is the ulnar nerve.
- The ulnar nerve is the terminal branch of the medial cord of the brachial plexus, and contains fibers from the C8 and T1 spinal nerve roots. It descends the arm just anterior to the medial intramuscular septum and later pierces this septum in the final third of its length. Progressing underneath the septum and adjacent to the triceps muscle, it traverses the cubital tunnel to enter the forearm where it passes between the two heads of flexor Carpi Ulnaris muscle. It encases the ulnar nerve, one of nerve that supplies feeling and movement to the arm and hand.

- Cubital tunnel syndrome can manifest as numbness, tingling, or pain in the ring/small fingers and dorsoulnar hand.
- Repetitive pressure, stretching, flexion, or trauma of the elbow joint are known causes of CuTS.
- Chronic ulnar nerve compression and CuTS, when left untreated, can lead to atrophy of the first dorsal interosseus muscle and affect one's quality of life to the point that they are no longer able to participate in daily activities involving fine motor function.

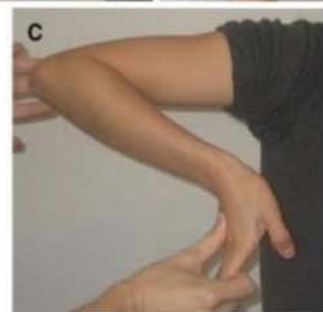
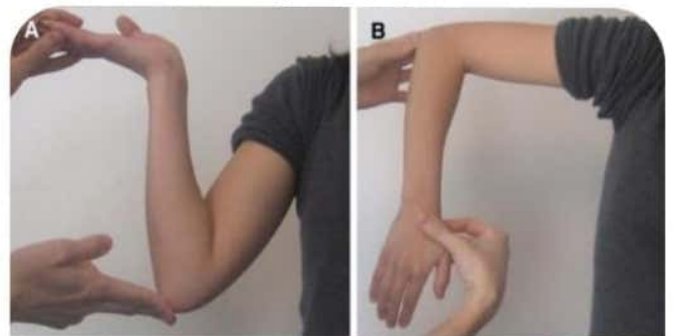


# PHYSICAL EXAMINATION

## FOMENT SIGN

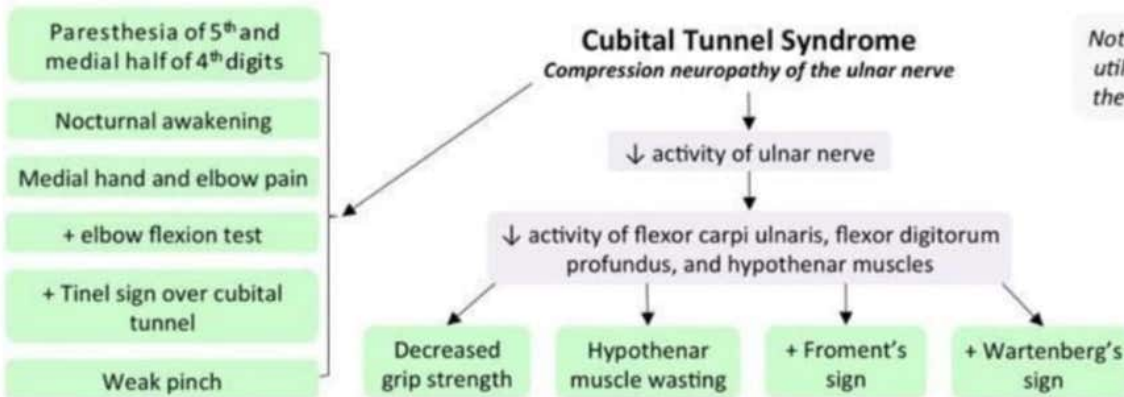
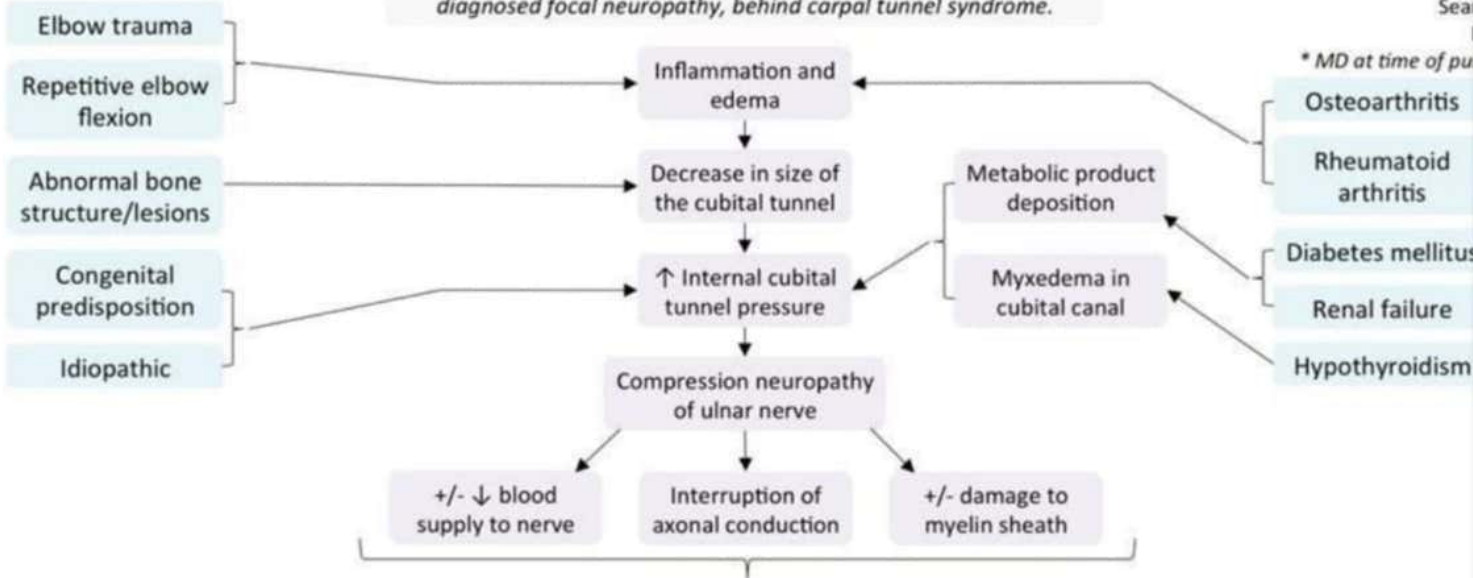


## SHOULDER INTERNAL ROTATION TEST



# Cubital Tunnel Syndrome: Pathogenesis and clinical findings (aka ulnar neuropathy)

Note: cubital tunnel syndrome is the second most commonly diagnosed focal neuropathy, behind carpal tunnel syndrome.



# NATUROPATHY UNDERSTANDING



- The anatomical arrangement has two implications for the nerve. Firstly, the ulnar nerve follows a relatively constrained path, and secondly, it lies some distance from the axis of rotation of the elbow joint. Movement of the elbow therefore requires the nerve to both stretch and slide through the cubital tunnel. Sliding has the greatest role in this process, although the nerve itself can stretch by up to 5 mm.



# ABOUT THE DISEASE

- Cubital tunnel syndrome is a peripheral nerve compression syndrome.
- Cubital Tunnel Syndrome (CuTS) is the compression of the ulnar nerve in cubital tunnel at the elbow.
- This is also termed as ulnar nerve entrapment.
- It is the second most compression neuropathy in upper limb after carpal tunnel syndrome.



# SIGNS & SYMPTOMS

- Depending on the duration and progression of the disorder, patients will present with similar, but a specific set of symptoms.
- Primary symptoms are intermittent pain and tenderness in the elbow joint at medial epicondyle.
- Numbness, tingling or decreased sensation in the palm or last two fingers, especially when the elbow is bent. This may be worse at night while sleeping.
- Weakening of the grip due to muscle weakness and difficulty with finger coordination.
- If the nerve is very compressed or has been compressed for a long time, muscle wasting in the hand can occur.
- Pain in the elbow, palm, and/or last two fingers. Activities that use the arm may increase the pain.

# PHYSICAL EXAMINATION

## TINEL SIGN



## ELBOW FLEXION TEST



# TREATMENT PLAN:

S. NO	TIME	TREATMENT	DURATION
1	09:00 am	Partial massage to neck, shoulder & hand with IRR	20 to 25 minutes
2	11:00 am	Ice bag application	10 to 15 minutes
3	03:00 pm	Mustard pack	15 to 20 minutes

**NOTE:**

This treatment is given to the patient continuously for 10 days.

Treatment	Mechanism	Duration
<b>Mustard pack</b>	Mustard is a counter irritant. When it is applied externally to cubital area, it causes the blood vessels to dilate. The resulting increased blood supply to the area carries away the toxic product that produced the original inflammation. And also it helps to reduce the swelling and pain.	15 minutes
<b>Ice application</b>	Ice bag application to cubital area helps to reduce the pain and swelling. It can combine with the exercises helps to increase the range of motion.	15 minutes
<b>PM to hand , shoulder and neck</b>	<p>Massage therapy is used to manage a health condition or enhance wellness. It involves manipulating the soft tissues of the body. Primary uses of massage are to promote relaxation, treat painful muscular conditions, and reduce anxiety. It helps to close the pain gate by stimulating competing nerve fibers and impeding pain message to and from the pain and reduce pain. It aids to release the endorphin. So, stress level can reduce. It improves the blood circulation, thereby reduce the swelling.</p> <p>Massage with hot oil in cubital area helps to relieve the pain and swelling. It helps to soothes the nerves.</p>	20 minutes

# DISCUSSION

- The purpose of this presentation is to describe the treatment of CuTS with ice bag application, mustard pack and partial massage with IRR.
- Partial massage aids to release endorphin and also improves blood circulation thereby it reduces swelling and the hot oil helps to soothen the nerves.
- Ice bag application helps to reduce the pain and increases the range of motion.
- Mustard pack causes blood vessels to dilate and increases the blood supply and also reduces the swelling and pain.
- Thus, this has shown that there is a significant improvement in the CuTS subject by reduction in the pain, numbness and the motion after the 10 days of naturopathy treatments.

# CONCLUSION

- This suggests that the naturopathy treatments should be considered for first-line interventions for CuTS with or without medical interventions, especially in young patients. Early identification, patient's education and sensitization for naturopathy could play an important role in the alleviation of CuTS.