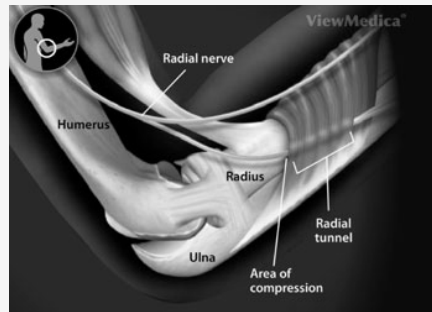


RTS



- Radial tunnel = space, made up of posterior forearm, radiocapitellar joint and supinator, surrounding radial nerve
- Irritation or compression of the radial nerve within the tunnel
- Compression of PIN = motor weakness of finger, hand and wrist extensors
- Compression more common at Arcade of Frohse (thickened proximal edge of supinator)
- Overuse - handgrip, wrist ext, pronation, supination vibration
- Other areas - distal border of supinator and beneath origin of ECRB

Hx

- Depends on mixed, sensory or motor branches affected
- Superficial sensory = pain paresthesia/diminished sensitivity along dorsal aspect of forearm
- Can radiate into hand (1st web space, back of the thumb and index finger)
- Deep, aching and diffuse - mimicks lateral epicondylitis (difference being RTS tenderness is at 4 finger breadths below lateral epicondyle, LE has tenderness further up and RTS more likely to wake the patient up at night)
- Compression of PIN - weakness of MCP joint extension and thumb extension

PE

- +ve radial tunnel compression (4 fingerbreadths from lateral epicondyle)
- Symptoms increased with resisted wrist ext, supination (arcade of Frohse), resisted middle finger ext (PIN beneath ECRB) and pronation
- Tinel's sign not always present
- +ve NTT Radial
- May have Cx and Tx findings (limited flex and ext)
- Occurs less frequent than other entrapments
- Assess for comorbidities - pronator syndrome, Guyon's syndrome, medial epicondylitis, deQuervain's tenosynovitis, trigger finger, lateral epicondylitis

DDx

- Wartenberg's syndrome/cheiralgia paraesthica (distal radial nerve)
- Brachial plexus injury
- Cx radiculopathy
- DeQuervains tenosynovitis
- Bone pathology
- Elbow bursitis
- Elbow strain/sprain/tendinopathy
- Peripheral neuropathy
- TOS

Imaging

- Usually not needed unless bony pathology/SOL
- X-ray, MRI, US, EMG/NCS

Management

- NSAIDs
- Rest
- Ice and Ice massage
- Electrotherapy
- US (1MHz, 1 watt, 25% duty cycle)
- Limit excess/repetitive wrist ext, forearm pronation, supination
- Splinting
- **tennis elbow counterforce brace aggravates RTS**
- STW and nerve flossing
- Stretching and myofascial release of supinator, brachioradialis, wrist extensors (ECRB)
- Cx and upper Tx manipulation/mobilisation
- Surgery if failure to respond within 12 weeks or significant motor deficit

