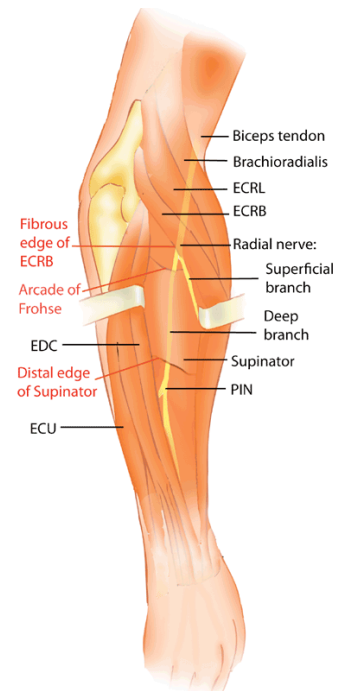


## Peripheral nerve compression - Radial Nerve

### Posterior Interosseous Nerve Syndrome

- Compression of PIN that affects extensor compartment, more common in manual labourers
- Caused by repetitive forearm rotation, trauma, space occupying lesions such as ganglion, inflammation or intra-operatively
- 5 potential sites of compression include fibrous tissue anterior to radiocapitellar joint, “leash of Henry”, edge of ECRB, arcade of Frohse (proximal edge of superficial portion of supinator), supinator muscle edge
- No cutaneous innervation
- Presents with **pain in forearm & wrist**, *weakness in* finger, wrist & thumb extension, **pain on resisted supination**
- Conservative treatment includes splinting, activity modification, stretching



References: Hazani et al. (2008), Anatomic Landmarks for the Radial Tunnel, [www.eplasty.com](http://www.eplasty.com); Watts E, (2014), PIN Compression Syndrome, [www.orthobullets.com](http://www.orthobullets.com); Woon C (2014) Radial Tunnel Syndrome, [www.orthobullets.com](http://www.orthobullets.com); Woon C (2014) Wartenburg's Syndrome, [www.orthobullets.com](http://www.orthobullets.com)

### Radial Tunnel Syndrome

- Compression of the PIN with pain only (no motor or sensory symptoms)
- Presents with deep aching pain in dorsoradial proximal forearm , increases during rotation and lifting
- Tender over extensors distal to lateral epicondyle, pain at radial tunnel with resisted middle finger extension, resisted supination with elbow extended, passive pronation with wrist flexion

### Wartenburg's Syndrome

- Compression of superficial radial nerve by scissoring action of brachioradialis & ECRL during forearm rotation

### Saturday Night Palsy

- Compression radial nerve in spiral groove of humerus, with loss of wrist, finger and thumb extension
- May take many weeks to resolve, passive motion and splint to help function whilst awaiting recovery

References: Hazani et al.(2008), Anatomic Landmarks for the Radial Tunnel,[www.eplasty.com](http://www.eplasty.com); Watts E, (2014), PIN Compression Syndrome, [www.orthobullets.com](http://www.orthobullets.com); Woon C (2014) Radial Tunnel Syndrome, [www.orthobullets.com](http://www.orthobullets.com); Woon C (2014) Wartenburg's Syndrome, [www.orthobullets.com](http://www.orthobullets.com)