Hand / wrist Injections. MATS. June 2018.

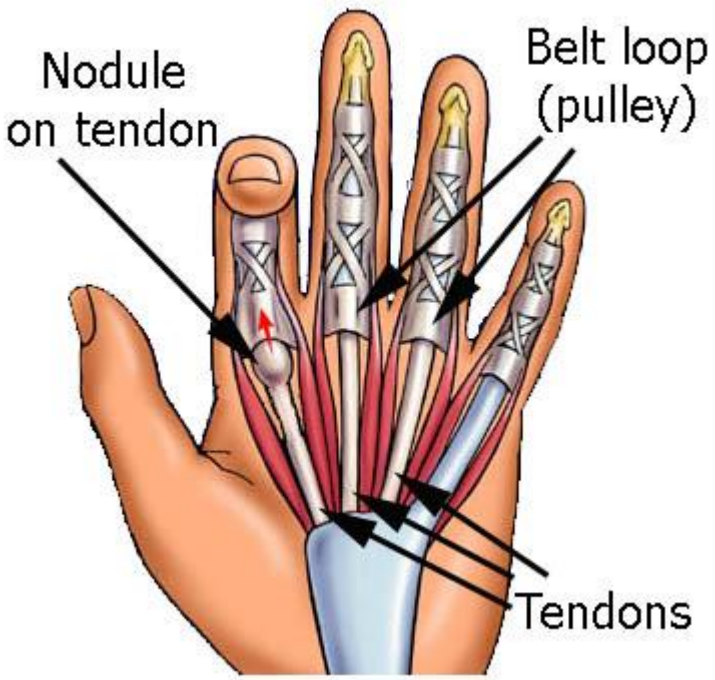
Condition	Symptoms	Conservative Treatments	Location of injection	CBA for surgery
Carpal Tunnel	Tingling / numbness in median nerve distribution (lateral 3 fingers) Typically wakes them at night – hand dead. Alleviated by shaking hand Typical activities during day aggs: reading / using the phone / driving / blow drying hair. **Clinical examination:** Tinels over carpal tunnel Phalens Arm elevation Sensory assessment Appearance of thenar muscle bulk Strength APB	Splints at night Modification of any provocative activities / postural advice Neural gliding exercises (if proximal element felt to be contributing) Injection Surgery (CBA) **Investigations** NCS if diagnosis uncertain or presenting with slightly atypical / mixed symptoms. NB NCS can be normal in CTS (if no nerve compression). Injections can then be useful for Differential diagnosis – if suspicions remain high.	Ulnar side palmaris longus. Most common proximal wrist crease Blue needle 23G 1” 20mg (0.5ml) kenalog **CAUTION** Not to hit the median nerve – anatomy varies Always stay ulnar side to stay away from radial artery	YES **Moderate Symptoms** (occ P&N and interrupted sleep 2-3 nights/week) Sensory blunting, muscle wasting or weakness thenar muscles / abd. 6 mths conservative Rx tried (splinting / injection **AND** suffering from significant functional impairment. **Severe symptoms** Permanent sensory deficit, frequent P&N, numbness, permanent pain during the day, muscle wasting and frequent nocturnal Symptoms > 3 nights/wk)

Trigger Finger	Locking / clicking / sticking of any digit Often occurs at night **Clinical Examination** can be normal: or patient may demonstrate triggering. Diagnosis can be made from the history. Sometimes they may report pain / clicking occurs more distally. Often tender over MCPJ anteriorly – A1 pulley. Can sometimes feel nodule / thickening with active – passive flexion / extension	Rest / modify any relevant provocative activities May settle in time Injection. Successful in 70-80% without recurrence **Investigations** Not normally needed, Unless unusual lump / not typical presentation.	Palpate over the flexor tendon In proximal palm over the relevant MCPJ. Get the patient to actively flex/extend finger to palpate the nodule. Insert needle distal to the nodule and angle 30 degrees towards the tendon. Resistance should be minimal (ensure not in tendon) Orange needle 25G 1” Depo/lidocaine mix (0.25ml) CAUTION: If heavy resistance, move the needle to ensure you aren’t in the tendon	**YES** Failure to respond to conservative treatment >6months including at least 1 injection (except where contraindicated). **OR** Patient has fixed flexion deformity that cannot be corrected by conservative measures **OR** Patient has significant functional impairment
De Quervains tenosynovitis	Radial sided wrist pain Usually related to some form of repetitive job/activity / lifting etc. Not always Pain over the APL/EPB tendons just distal to radial styloid. May have associated swelling Common in new parents Differentiate between 1st CMCJ pathology (age of patient – area of symptoms) **Clinical examination:** Palpation distal to radial styloid tender over APL/EPB tendons	Splints – thumb spica or can refer to hand unit physiotherapy for a more custom made splint especially if very acute. Use of local topical NSAID creams Local icing Avoidance of aggravating activities wherever possible.	Palpate APL/EPB tendons. Sometimes in slim patients can see the gap between the tendons when thumb is abducted. Orange needle 23G 1”. Depo/lidocaine mix (0.25ml) Insert and slide needle proximally and deposit injection in one. Sometimes see a sausage like bubble form (injection in the	**Condition not subject to CBA.** Appropriate for surgery (rarely needed) only if all conservative management fails – splint – specialist splint via hand unit and injection and impacting significantly on function)

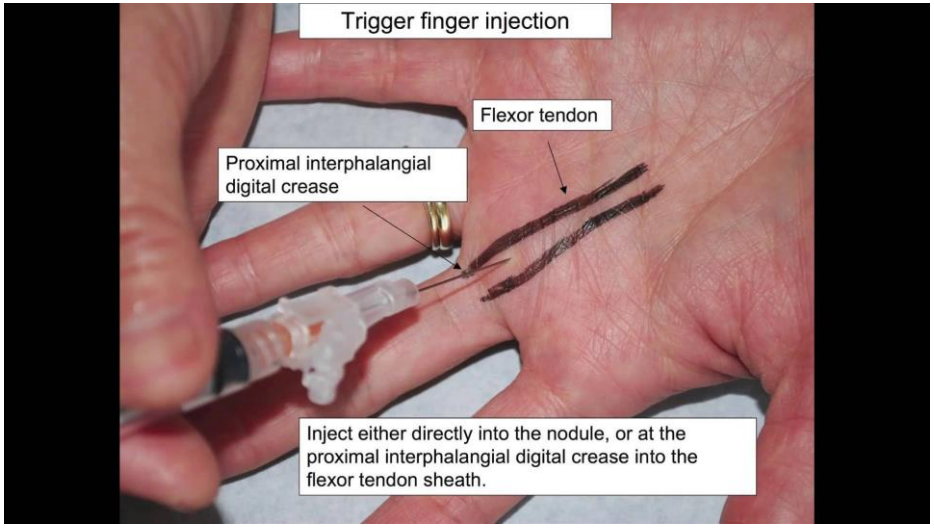
	Can sometimes observe a thickening over this area Resisted thumb abd painful Finklesteins test +ve Differentiate between 1st CMCJ especially in older patients	**Investigations** Not usually required. Diagnosis made clinically. USS can help to confirm if unsure.	tendon sheath). Encourage wearing of a splint if they have one for relative rest post injection. **CAUTION:** Warning about **depigmentation** especially in darker skinned patients / **fat atrophy.** Close proximity to radial nerve.	
1st CMCJ OA	Radial base of thumb pain Gripping activities painful, especially pincer grip – jars/lids /taps/keys etc **Clinical examination** May have associated changes to the appearance of the thumb "squaring / shouldering" appearance. May have subsequent hyperextension of MCPJ Possible thenar muscle wasting through reduced use. ROM thumb may be reduced XR confirmation of OA if unsure. Can have STT joint OA- difficult to differentiate but less common. Injections better done under USS guidance if this is identified on XR as can be difficult palpation guided with accuracy. Grind test +ve and palpation of CMCJ locally painful	Joint protection advice. Equipment adaptations at home: Assisted tap turners/ electric tin opens, aids to assist tight jars. Use of thumb spica during particularly provocative activities **Investigations** XRAY	1st CMCJ within the anatomical snuffbox. The boundaries of the three-sided snuffbox are easily palpable by placing the thumb in a fully abducted position. It is bounded on the palmar side by the tendons of the **abductor pollicis longus (APL**) and **extensor pollicis brevis (EPB**), and dorsally by the tendon of the extensor pollicis longus (EPL). The distal edge of the radial styloid forms the proximal border **CAUTION** Close proximity to the radial artery and the superfical branch of the radial nerve	**Condition not subject to CBA.** If conservative measures fail and functional impairment significant despite conservative treatment (splinting / modification of activities / injection) would be suitable for surgical opinion for ?trapeziectomy.

			Placement of a needle immediately dorsal to the EPB tendon while applying longitudinal traction on the thumb is less likely to cause damage to the radial artery and the superficial branch of the radial nerve.	

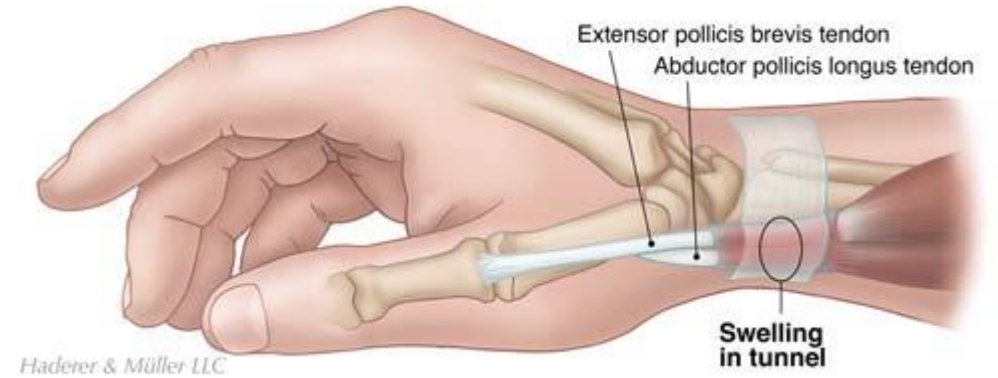
Trigger finger



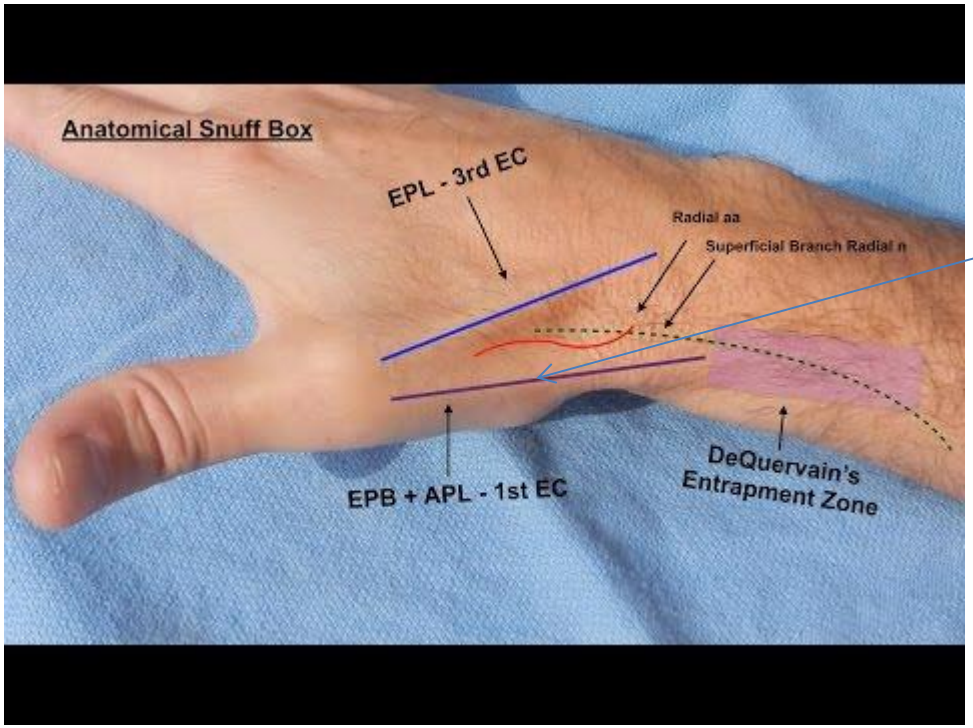
Orange Needle 25G 1 inch.
0.25ml depomedrone and lidocaine mix



DeQuervains Tenosynovitis

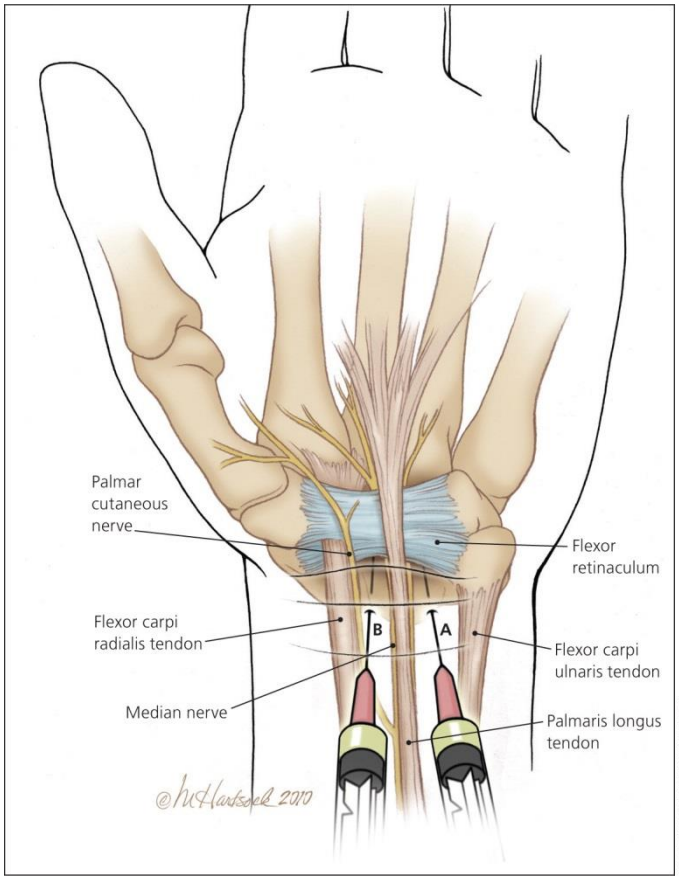


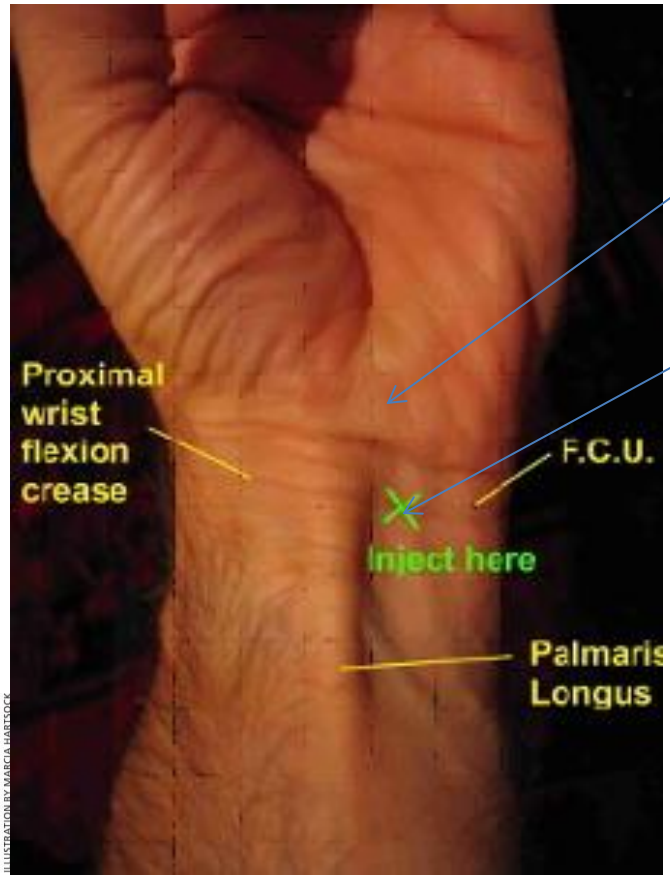
Orange needle. 25G 1 inch. 0.25ml depomedrone and lidocaine mix



Inject here. Try and palpate the gap between the 2 tendons by asking the patient to abduct the thumb. Slide the needle proximally towards the radial styloid and deposit injection.

Carpal Tunnel



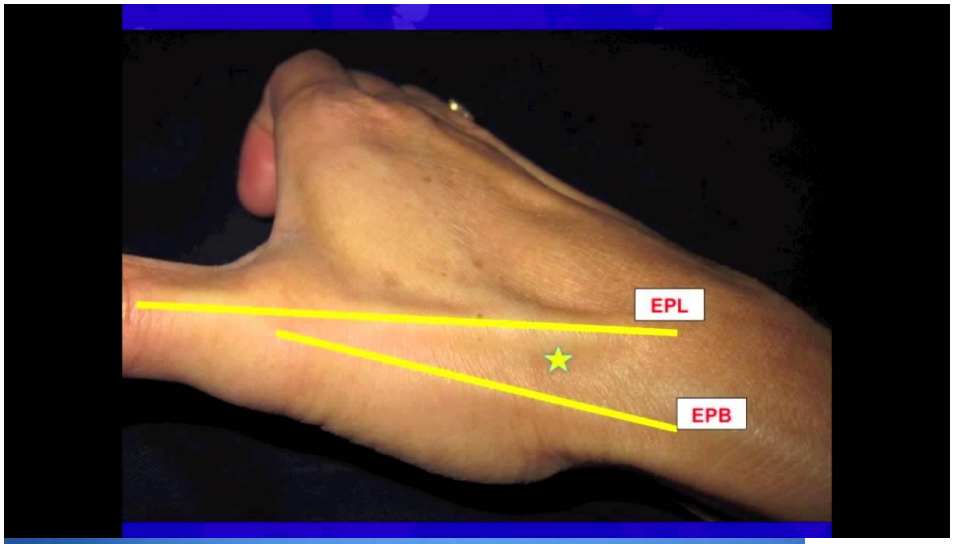


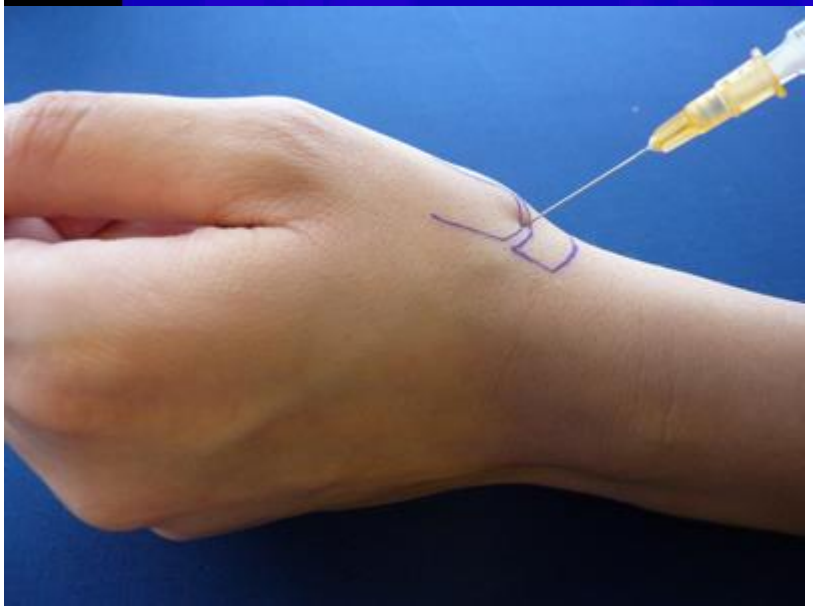
Tip of the needle aimed here

Ulnar side of palmaris longus, at the level of the proximal wrist crease. Slide needle proximally so the tip enters the carpal tunnel.

Blue needle 23G.
0.5ml Kenalog.

1st CMCJ





Orange Needle 25G 1 inch, 0.25ml depomedrone and lidocaine mix

Locate the anatomical snuffbox – EPL / APL/EPB tendons. Palpate the 1st CMCJ here. Patient can distract the thumb to help identify the joint and do this during the injection.