Musculoskeletal Pathways **Wrist / Hand**

Conditions to refer to OTS first: Trigger finger; mild CTS; OA CMC Joint; de Quervain's until they need surgery

WRIST AND HAND	Signs & Symptoms	Risk factors	Treatment	Consider onward referral	Diagnostic tests/ investigation prior to referral	Indication for surgery/ secondary care referral
Carpal Tunnel	Median nerve compression in the carpal tunnel causing Paraesthia/numbness in median nerve distribution Apparent weakness / clumsiness in hand. Symptoms wake patient at night. Reduced fine dexterity. **NB** If typical symptoms of CT together with + ve provocation tests - NO need for NCS	30 – 60 year olds Women > men RA +ve FH Pregnancy Dominant hand Strong gripping Diabetes Hypothyroism	Explanation & advice Splints Activity modification **Steroid injection Indicated for** Early symptoms younger patients identifiable cause (ie pregnancy, unaccustomed activity) Severe Symptoms	<u>Onward referral</u> Not responding to treatment and 1-2x injection If symptoms severe, disturbing sleep hrly; Refer + inject for pain relief prior to surgery	Combined Carpal Compression Test & Phalens test (onset of symptoms in 30 secs) Tinnel's sign Nerve conduction tests for typical symptoms to identify severity and when symptoms recurrence Check for DM, hypothyroism especially if bilateral at younger patients	<u>Direct referral NO need for NCS !!</u> Any suggestion of a muscle wasting. Permanent sensory loss Symptoms 24 hrs Neurological deficit Progression of symptoms

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Secondary Carpal Tunnel (RA)	Due to flexor tenosynovitis Unable to actively fully flex fingers		Steroid injection 1x Surgery	If no better post steroid injection refer to Rheumatology if not already seen		Surgery as above for CTS Open tenosynectomy
De Quervain's tenosynovitis	Thickening of the tendon sheath of APL & EPB due to repetitive excessive friction.[Pain & Swelling on dorsal radial aspect of the wrist adjacent to anatomical snuffbox. Swelling, redness, warmth along tendon. Weak pinch grip. 1st dorsal compartment crepitus	Unaccustomed activity Post child birth 6-9/12 or middle age women Work related	Explanation &advice Physiotherapy Splinting Steroid injection Activity modification	Not responding to treatment and 1-2x injection	Pain on resisted extension and abduction of the thumb Finkelstein's test	Injection and conservative treatment ineffective Progressive limiting symptoms

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Mallet Finger	Rupture of extensor tendon of finger Inability to extend distal phalanx			A & E for Mallet finger Splint and follow Mallet Finger Pathway		
Tensoynovitis	Localised pain over affected tendon with dull ache at rest, exacerbated by movement & resisted movement. Sausage like thickening along the tendon Crepitus	Repetitive gripping, twisting movements Extreme sustained positions of the hands and arms	Explanation & advice Physiotherapy Splints Injection Surgery		Pain on resisted tests	In extreme cases

Trigger/ Finger/Thumb	Catching of finger or thumb on extension due to tendon being locked within swollen flexor tendon sheath. Stiffness or triggering, snapping on extension. Pain at base of finger or thumb on movement. Tenderness anterior to the MC of the affected digit. Finger may get locked in flexion if finger or flexion & extension if thumb Triggering particularly in the morning.	Diabetic RA Unaccustomed repetitive gripping	Steroid injection All trigger fingers should have initially steroid injection with separate LA + Corticosteroid Explanation & Advice on stretching, passive movements splints at night	<u>Onward referral</u> Not responding to treatment and 1-2x steroid injection	Watch for extensor tendon slippage (Pseudotriggering)	<u>Direct referrals</u> Locking digits If unable to unlock or needing to release finger manually These should be injected and referred to hand surgeon
Osteoarthritis	Swelling and reduced ROM Short lived early morning stiffness Pain on palpation & movement of affected joint Heberden's nodes (DIP jt) Bouchards nodes (PIP jt		Explanation & advice Joint Protection Injection Splints		Xray of involved joints	Surgery for significant pain and disability Joint fusion or replacement

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OA base of thumb	Pain base of 1st MC J Worse @ activities involving joint compression eg writing/gripping/jars opening etc. ↓ROM extension of thumb Thumb adducted, MCP hyperextended	Middle age females Male manual workers	<u>Early Symptoms</u> Explanation & advice Splint as joint protection Steroid injection Activity modification Surgery (trapeziectomy)	Not responding to treatment and injections If pain and deformity present	Xray wrist and 1st CMC Joint	<u>Direct Referral</u> If deformity of thumb adduction and hypertextension together with severe OA on Xray <u>do NOT inject</u>, refer for surgery consider injection 1x if enough joint space
Ganglion	Cystic swelling about wrist or finger joint due to excess fluid arising from joint, ligament or tendon sheath Most frequently dorsum of wrist (scaphoid) or volar aspect (near radial artery) Tense and firm or soft and fluctuant	Recurrence	Explanation & advice Aspiration Surgery	If accepting that 30% recurrence after surgery	<u>If at wrist together with:</u> Pain/clicking or clunking arrange **Plain xray – wrist** Transluminates brilliantly Volar – check for pulsation If in doubt re Dg (esp children) **do USS**	6/12 history of pain & reduction function, Aesthetic concerns (can spontaneously disappear) 50% will disappear in 5-10 yrs

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Dupuytren's Contracture	Thickening of the palmar fascia, little finger most frequently affected followed by the ring finger, middle finger, index finger then thumb Fixed flexion of finger(s) small nodule at the base of the finger at the level of the distal palmar crease. Occasionally painful palmar nodules	Hereditary or idiopathic (associated with epilepsy, alcoholic cirrhosis, diabetes)	Painful palmar nodes could be treated with Steroid injection (helps 50% of cases) Explanation & advice Surgery if unable to get hand flat on the table and is progressive	Fast progression of the deformity	Could be painful over palmar nodes	<u>Direct referral</u> Contracture of 30 ° or more in MCP /PIP joints Any fixed PIP contracture
Subluxation Extensor Tendon	Extensor tendon slides off MCP joint, finger snaps into flexion, requiring manual extension	Middle age After fall May mimic Trigger Finger	Splint if traumatic Leave if functional	If symptomatic	Visable subluxation of tendon usually to ulnar side.	Extensor tendon Rebalancing if affected ADL
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Ganglion Finger	1.Seed ganglion / pea ganglion Palmar aspect at base of finger 2.Mixoid cyst / mucoid cyst Dorsal aspect of DIP joint.		Explanation & advice Could aspirate if 5-6mm Explanation & advice Surgery	Surgery indicated if pressure symptoms in hand Surgery indicated if large or has recurrent discharge	Associated to OA DIP joint	Surgery Excision & debridement if pain reduced hand function Aesthetic concerns