

Orthopaedic/Rheumatological Hand and Wrist Examination

Introduction

- **W**ash hands, **I**ntroduce self, ask **P**atient's name & DOB & what they like to be called, **E**xplain examination and get consent
- Expose arms above elbows, and place pillow on their lap to rest their hands on.
- **General inspection:** patient e.g. age, mobility, trauma, risk factors; around bed e.g. mobility aids.

Look

- **Tops**
 - General: posture, obvious deformity, scars
 - Bones: swelling and deformities
 - OA changes: Heberden's nodes (DIPJ), Bouchard's nodes (PIPJ)
 - RA changes: loss of knuckle guttering, swan neck deformity (PIP hyperextension + DIP flexion), boutonniere deformity (PIP flexion + DIP hyperextension), Z-shaped thumb (IP hyperextension + MCP flexion), ulnar deviation, palmar subluxation of MCPs
 - Skin: scars, thinning, bruising (**steroid use**), rashes
 - Muscles: wasting, guttering
 - Nails: psoriatic changes (e.g. pitting, onycholysis), nailfold vasculitis, clubbing
- **Palms**
 - Muscle wasting; palmar erythema (**RA**); carpal tunnel release scar; swellings e.g. ganglions
- **Extensor surface of arm**
 - Feel up border: psoriasis, rheumatoid nodules, gouty tophi (whitish nodules of crystallised uric acid under skin around fingers/ elbows)

Feel

Ask if any pain first.

- **Palms**
 - Bulk of thenar/ hypothenar eminences
 - Tendon thickening: palpate flexor tendon sheaths (**hypertrophy/contraction = Dupuytren's**) **and** fully flex fingers individually and feel tendon base as you release it back down (**triggering/tendon lump = trigger digit**)
- **Tops**
 - Temperature (forearm, wrist and MCP joints)
 - Squeeze joints for tenderness & feel for bony swellings, effusions, synovitis, deformities
 - Distal radio-ulnar joint
 - Radial and ulnar styloid
 - Anatomical snuffbox (**tenderness = scaphoid fracture**)
 - Carpals (bimanual palpation)
 - MCPs (squeeze along row then bimanual palpation if any pain elicited) & base of thumb (**squaring = OA**)
 - IP joints (bimanual palpation of each joint) (**Heberden's/Bouchard's nodes = OA**)
 - Tendon tenderness
 - Around radial styloid i.e. 1st extensor compartment (**tenderness = de Quervain's tenosynovitis**)
 - Around ulnar styloid (**tenderness = extensor carpi ulnaris tendinitis**)

Move

- **Wrist movements:** actively **and** passively (feel for crepitus): flexion 70° and extension 80° (prayer sign, reverse prayer sign); pronation 70° and supination 80°; radial deviation 20° and ulnar deviation 40°
- **Finger movements:** straighten fingers fully (against gravity) (**difficulty = joint disease, extensor tendon rupture, neurological damage**); make fist (**cant tuck fingers in = tendon/ small joint involvement**); move each MCP and IP joints passively (assess for limited movement and crepitus)
- **Thumb movements:** extension (stretch thumb to opposite side); resisted abduction (point thumb in air); opposition (touch thumb and little finger tip); adduction (thumb to palm)
- **SPECIAL TESTS**
 - **Phalen's test:** reverse prayer sign for 1min (**pain/paresthesia = carpal tunnel syndrome**)
 - **Tinel's test:** tap median nerve at its course in wrist (**paresthesia = carpal tunnel syndrome**)
 - **Finkelstein's test:** patient adducts thumb to palm and closes fist around it, then examiner tilts wrist into ulnar deviation (**pain = de Quervain's tenosynovitis**)

Function

- **Function:** test pincer grip; carry out everyday tasks e.g. undo buttons, write sentence, hold cup
- **Brief neurological hand exam:** quickly do the motor and sensory parts of the [neurological hand exam](#)

To complete exam

- “To complete my examination I would examine the joint above, and also do a full neurovascular exam – would you like me to do this now?”
- Summarise and suggest further investigations you would do after a full history



Heberden's nodes: Bony swellings of distal interphalangeal joints



Boutonniere deformity: flexed proximal interphalangeal joint and hyperextended distal interphalangeal joint



Rheumatoid arthritis: ulnar deviation, Z-thumb, palmar subluxation, Bouchard's nodes

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Carpal tunnel release scar



Ganglion



Gout tophi