

# Musculoskeletal – Wrist and Hand – Physical Exam Checklist

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## EXAMINATION

## OSCE ITEMS

### SITTING

#### Inspection

##### Posture

- Fingers rested in flexion normally
- Wartenburg's sign (5<sup>th</sup> digit abducted in ulnar injury)
- Clawing (flexion contracture – late ulnar injury)
- Dupuytren's contracture (nodule in palm)
- Rotational deformities** – better with fingers flexed (metacarpal and phalangeal deformities)

##### Other

- Inflammation
- Skin and nails (paronychia, psoriatic pitting, clubbing, splinter hemorrhage, vasculitis in RA)

#### Palpation

##### Skin nodules (as in Dupuytren's disease)

##### Bone tenderness (fractures or wrist ligament injuries)

- Ulnar and radial styloid (fractures)
- Lister's (dorsal tubercle of radius) and scaphoid tubercle
- Distal radioulnar joint (tenderness in radial head [Elex-Lopresti lesion]/shaft [Galeazzi] fractures)
- Lunate, pisiform, hook of hamate (fractures)
- Metacarpals and phalanges (fractures)
- MP, PIP, and DIP joints (RA, OA, injuries)
- Anatomical snuff box (scaphoid + trapezium)

#### Active ROM (if normal passive ROM not done)

##### Wrist

- Flexion (80°) and extension (70°)
- Pronation (90°) and supination (90°)
- Radial deviation (20°) and ulnar deviation (30°)

##### Fingers

- Flex each finger (triggering)
- Tip to palm distance, and finger tuck into palm
- Thumb opposition (bring thumb parallel to palm)

##### Functional Grips

- Power grips (cylinder, sphere, hook)
- Precision grips (pinch, 3 jaw chuck, lateral key grip)

#### Neurological – Upper Extremity

- Sensory (two-point discrimination may be required)
- Strength
- Reflexes (biceps, triceps, brachioradialis)

#### Vascular Assessment

- Radial pulse
- Ulnar pulse
- Allen's test (occlude both arteries, let go of one)

#### Muscle Bulk

- Thenar eminence
- Hypothenar eminence
- Interossei muscles (DAB and PAD!)

#### Deformities

- Swan neck (RA – hyperext PIP, flexed DIP) and Boutonniere deformities (RA – flexed PIP, hyperext DIP)
- Ulnar drift (as in RA)
- Mallet finger (flexed DIP b/c of traumatic avulsion of extensor digitorum tendon)
- Heberden's nodes (DIP – as in OA) and Bouchard's nodes (PIP – more as in RA)

#### Tendons

- Extensor pollicis longus (ruptures in RA), abductor pollicis longus and extensor pollicis brevis (DeQuervain's tenosynovitis)
- Extensor tendons on dorsum of hand (commonly lacerated or ruptured in RA)
- Flexor carpi radialis (often lacerated) and palmaris longus (landmark for median nerve)
- Finger and thumb flexor tendons (trigger finger, lacerations, etc)

#### Tendon Assessment

- Flexor digitorum superficialis (extend DIP's of 3 fingers, flex free finger)
- Flexor digitorum profundus (PIP's should be extended while DIP's are flexed)
- Extensor pollicis longus
- Extensor digitorum

#### Special Tests

- Phalen's test (hold wrists flexed together for 1 min)
- Tinel's test (tap median nerve in carpal tunnel)
- Finkelstein's test (make fist with thumb abducted and ulnar drift – look for DeQuervain's tenosynovitis)
- Thumb MP joint stability\* (stabilize 1<sup>st</sup> metacarpal, apply knee-like stress with thumb +/- flexed = ulnar collateral ligament tear +/- volar plate tear)
- Rotational deformities (with fingers flexed, look for crossing of fingers indicating rotational deformities)

\* Looking for skier's thumb