

SHSS5062

WRIST AND HAND E&A

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Transforming Education; Transforming Lives



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Observations and Quick Touch

- Full body observations
- Note shoulder/elbow positions

Range of Movement

- AROM/PROM/RRROM

Wrist	MCP Joint	PIP and DIP Joints	Thumb
Flexion Extension Radial deviation Ulna deviation	Flexion Extension Abduction Adduction	Flexion Extension	Flexion Extension Abduction Adduction Opposition

MMT

- Flexor Carpi Radialis
- Flexor Carpi Ulnaris
- Palmaris Longus
- Flexor Digitorum Superficialis
- Flexor Digitorum Profundus
- Flexor Pollicis Longus
- Extensor Carpi Radialis
- Extensor Carpi Ulnaris
- Extensor Digitorum
- Extensor Indicis
- Extensor Digiti Minimi
- Extensor Pollicis Longus and Brevis
- Abductor Pollicis Longus
- Interossei (Palmar PAD and Dorsal DAB)
- Lumbricals (MCP Flexion, PIP extension)

Ligament Stress Tests (Radial Collateral Ligament)

Origin

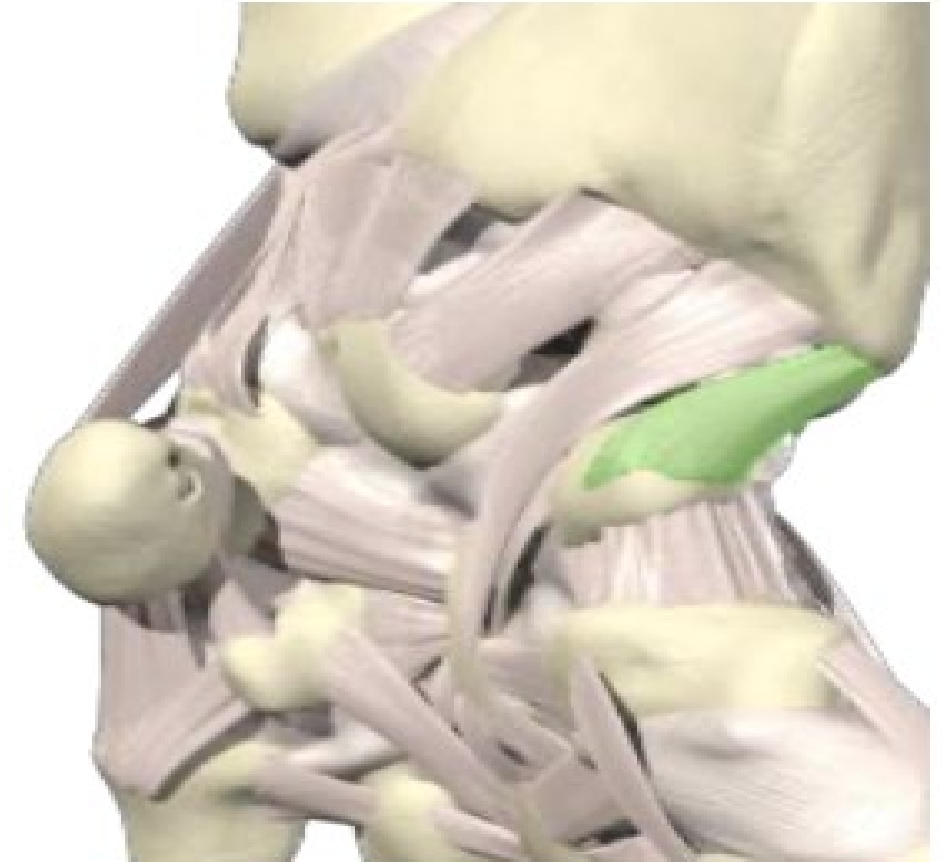
- Radial Styloid

Insertion

- Scaphoid

Action

- Resists ulna deviation (varus stress)



Ligament Stress Tests (Ulna Collateral Ligament)

Origin

- Ulnar styloid

Insertion

- Pisiform and Triquetrum

Action

- Resists radial deviation (valgus stress)



Joints Above and Below

Wrist E+A

Elbow AROM

- Flexion: P., S., M.P.
- Extension
- Pronation
- Supination

MCP Joint AROM

- Flexion
- Extension
- Abduction
- Adduction
- Opposition (thumb)

PIPS/DIPS AROM

- Flexion
- Extension

Thumb or finger E+A

Wrist AROM

- Flexion
- Extension
- Radial Deviation
- Ulnar deviation

Special Tests

- Prayer/reverse prayer (Phalen's)
- Scaphoid palpation (Anatomical snuff box)
- Grip Tests
 - Power
 - Hook
 - Key
 - Precision
- Finklestein's Test
- Tinel's (Radial, Median and Ulna nerves)
- Tinel's sign
- Compression
- Murphy's Sign

Prayer/Reverse Prayer (Phalens)



Carpal Tunnel Syndrome

- Ask patient to place back of hands together with wrists in full flexion
- Instruct to drop elbow below level of wrists and hold for position for one minute
- +ve: pins and needles/numbness/tingling thumb, index or middle finger (not p+ in wrist)
- Can also be used as prayer – palms together in wrist extension

Scaphoid Palpation (Anatomical snuff box)

Scaphoid

- Anatomical snuff box is located between EPL and EPB tendons
 - Scaphoid can be palpated in this groove
 - Important: Test bilaterally!
-
- P+ may indicate #



Grip Tests

Power

- Fist

Hook

- Cylinder

Precision

- Paper

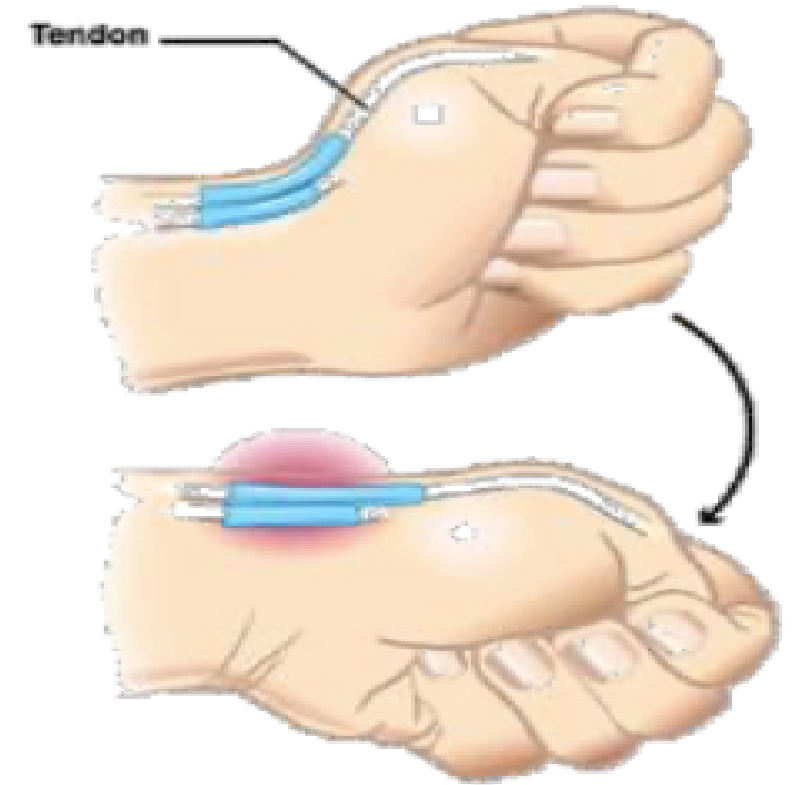
Key

- Paper

Finkelstein's

De Quervain's Tenosynovitis (EPB and APL)

- Flexed thumb within the fist + ulnar deviation
- Important: Test bilaterally
- +ve: P+ over the tendons



Tinel's Test

Median nerve (Carpal Tunnel)

- Tap over carpal tunnel at the wrist
- +ve: Tingling/numbness into thumb, index finger

Can also test:

Ulnar nerve (pisiform, triquetrium and hook of hamate)

Radial nerve (snuff box, proximal radial styloid)

Tinel's Sign

Ulna Nerve

Identifies nerve compressor transmission interference at the elbow

- Tap the ulnar nerve where it passes through the ulnar groove between the olecranon process and the medical epicondyle
- +ve: tingling or shooting sensation into the lateral forearm, hand and 5th finger

Compression

Fracture diagnosis

- Athlete is sitting or standing with finger extended
- Clinician holds the distal phalanx and applies compression along the axis of the bone of the finger being tested
- +ve: Pain at the site of injury

Murphy's Sign

Lunate Dislocation

- Patient makes a fist
- Clinician observes the position of the 3rd Metacarpal
- 3rd MC should be longer than 2nd and 4th MC
- If the MC is level it indicates that Lunate has dislocated and the MC has shortened