

Thumb MPJ Ulnar + Radial Collateral Ligament Injuries

Mechanism of Injury: Thumb MPJ being pulled into radial or ulnar deviation (i.e falling on thumb)

Associated injuries: Thumb MPJ volar plate injury, Proximal phalanx fracture, Stener Lesion

Role of the UCL:

- Stability of the thumb MPJ, specifically against MPJ radial deviation
- The UCL is under stress during many ADLs, especially writing and pinching

Role of the RCL:

- Stability of the thumb MPJ, specifically against MPJ ulnar deviation.

Bony Avulsion UCL/RCL Injury

- Small bony fracture (usually the base of the thumb PP) where the UCL/RCL inserts on to the bone
- Bony fragment can be seen x-ray

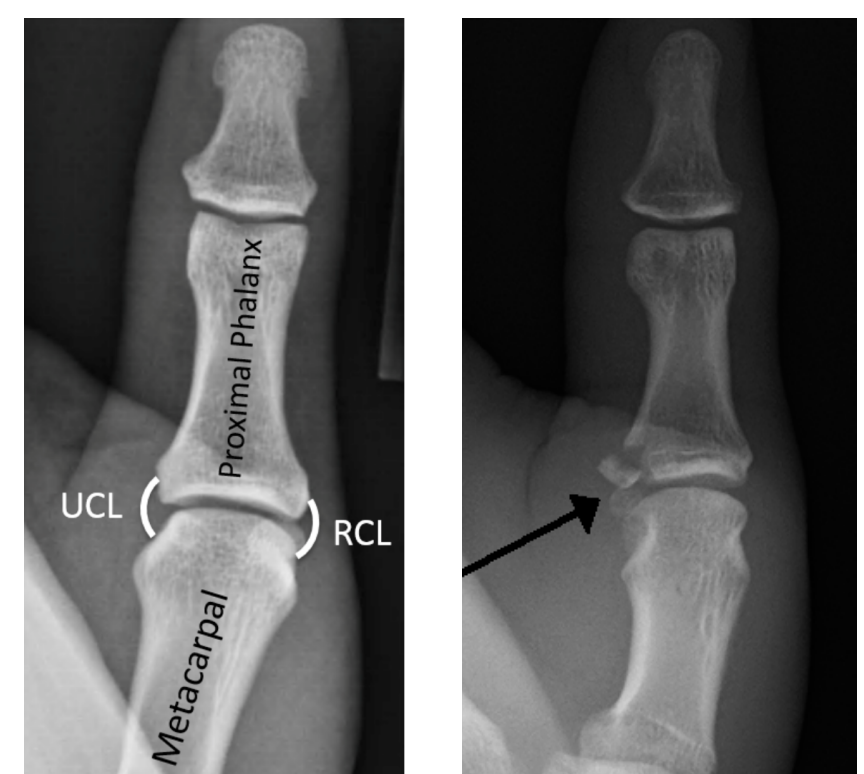
A ULQ specialist can assess the fracture and advise likelihood of fracture healing

Soft Tissue UCL/RCL Injury

- Ligament injury with no bony involvement
- Unable to detect with x-ray
- Assess with UCL/RCL stress test (see below) +/- MRI (see below)

Assessment in Primary Care:

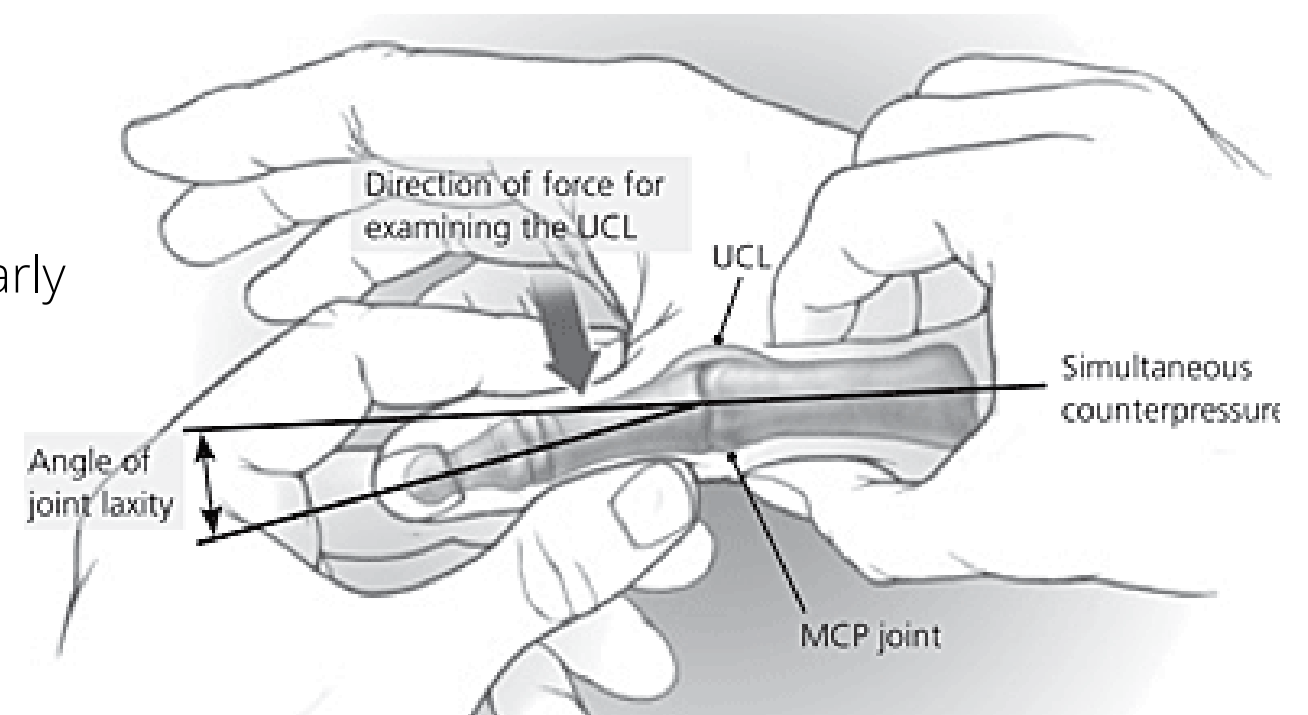
- Stress Test - *DO NOT PERFORM ON FRACTURES/BONY AVULSIONS*
 - UCL Stress Test: Stabilise the 1st metacarpal and radially deviate the MPJ. Assess unaffected side as well
 - RCL Stress Test: Similar to UCL stress test except you ulnarly deviate the MPJ
- X-ray Imaging (will detect bony avulsion not soft tissue)
- Reduced pinch strength
- Oedema localised to the ulnar MPJ or radial MPJ
- Pain with palpation of the ulnar MPJ or radial MPJ

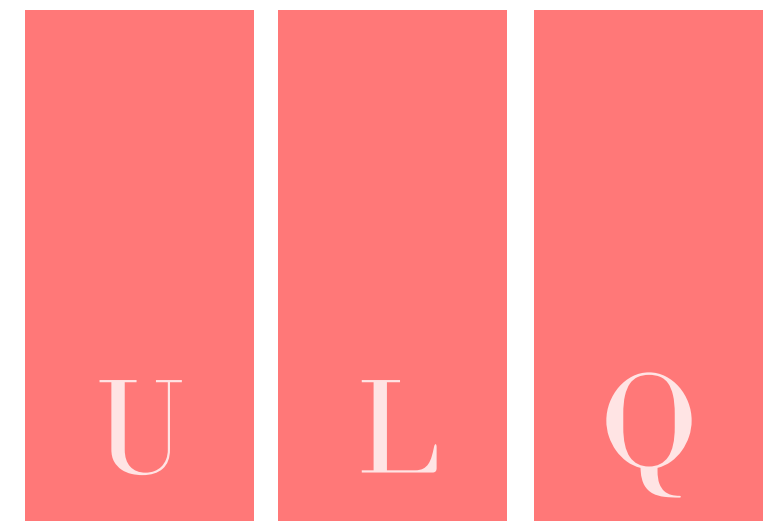


UCL Bony Avulsion



Stress Test (soft tissue injury only)





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Indication for Operative Management

Ulnar Collateral Ligament Injuries

- Compound injuries
- Displaced bony avulsion
 - the more displaced, the higher the chance of non-union
- Larger fractures involving the joint surface
- Physeal fractures in children
- Stenar Lesion (see below)

Radial Collateral Ligament Injuries

- Compound Injuries
- Injuries that extend and involve the volar plate or dorsal capsule that result in static joint subluxation



Displaced UCL Avulsion



Static Joint Subluxation

	Grade 1 Ligament sprain with no joint instability +/- fracture	Grade 2 Assymmetric joint stability but joint has an end feel +/- fracture	Grade 3: Joint instability with no joint end point +/- fracture
Bony Injury	Able to assess the location of the ligament avulsion via x-ray A ULQ specialist is able to advise likelihood of fracture healing		
Soft Tissue Injury	Thumb + /- Wrist Immobilisation	Thumb + Wrist Immobilisation	Refer to ULQ Specialist

Stener Lesion (UCL Injury)

- A complete tear of the UCL (avulsion or soft tissue)
- The distal end of the UCL slips out of the adductor aponeurosis
 - UCL normally sits under the adductor aponeurosis
- UCL is unable to heal to its anatomical position
 - Avulsion: the bony fragment can be seen on x-ray. Therefore able to assess as to whether the fracture will heal in its current position
 - Soft Tissue: assess with UCL stress test (see above) + MRI

