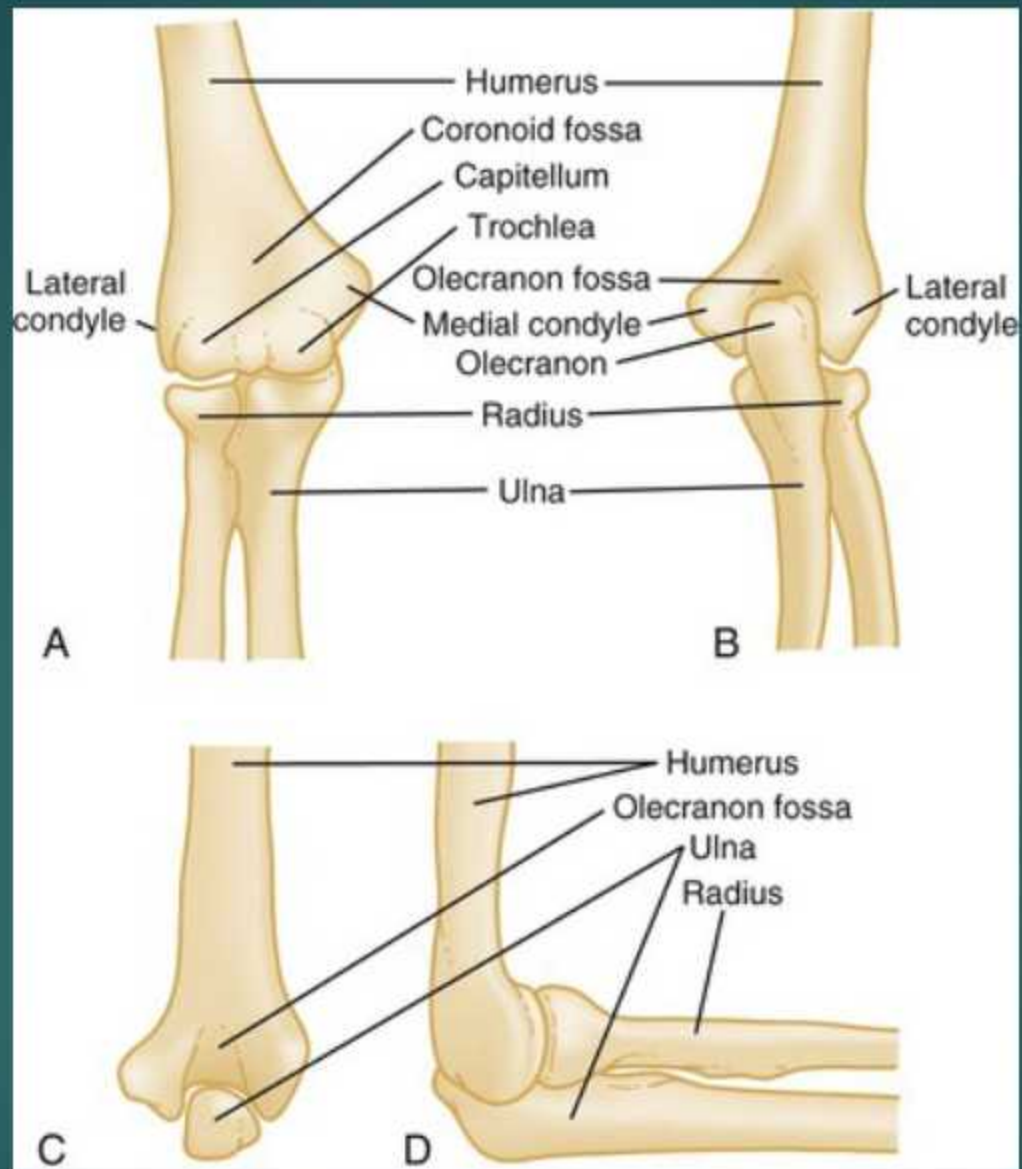
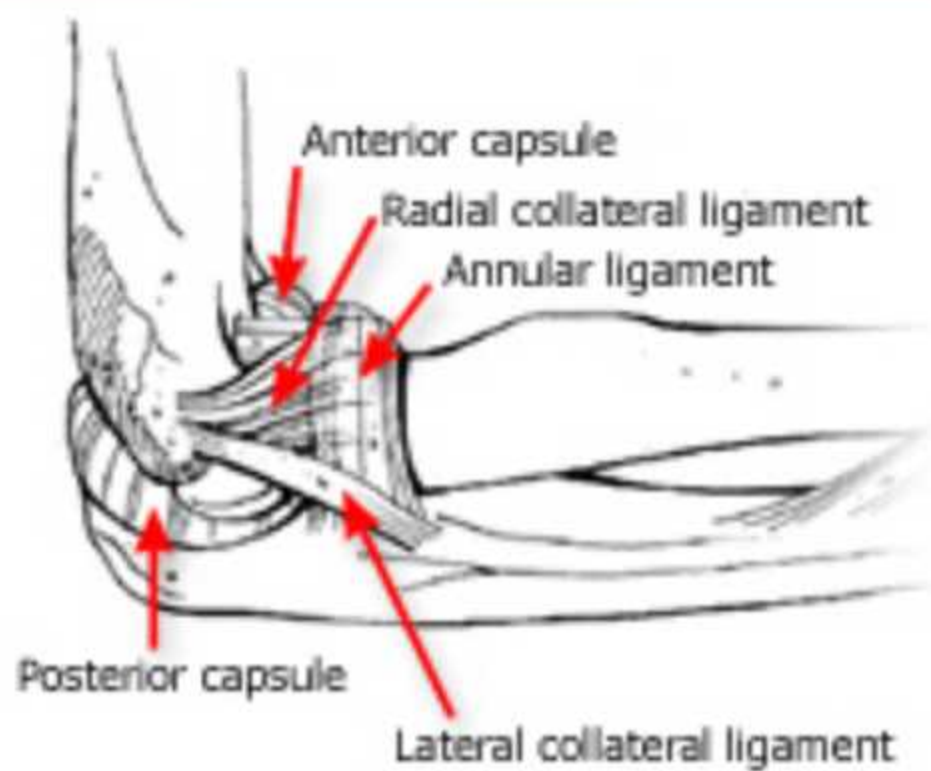
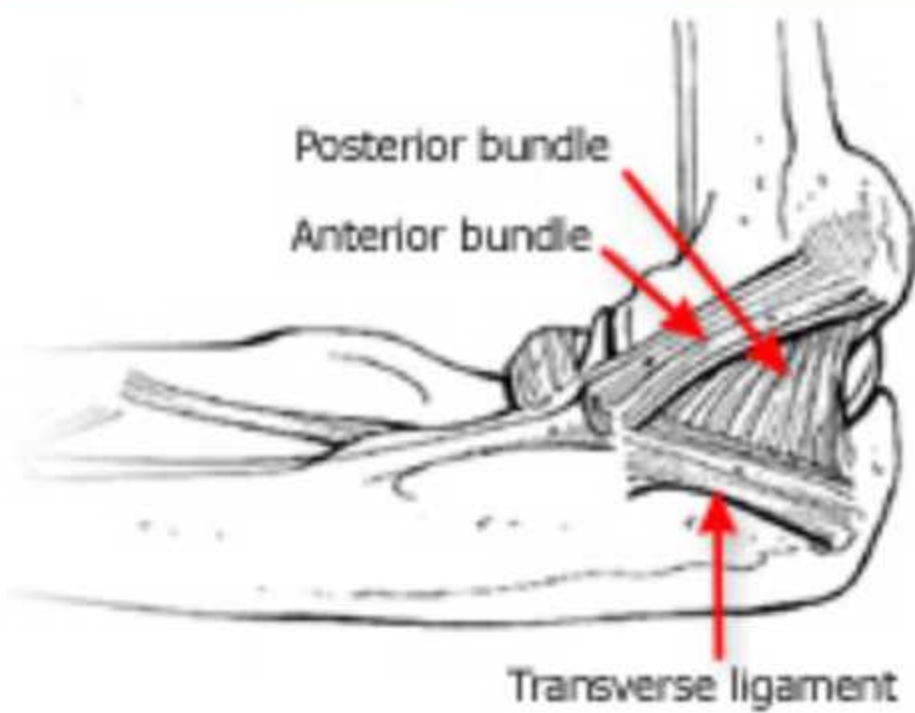


Elbow fracture and dislocation



Dr.Amir Salary
associate professor of gums
Fellowship of Hand





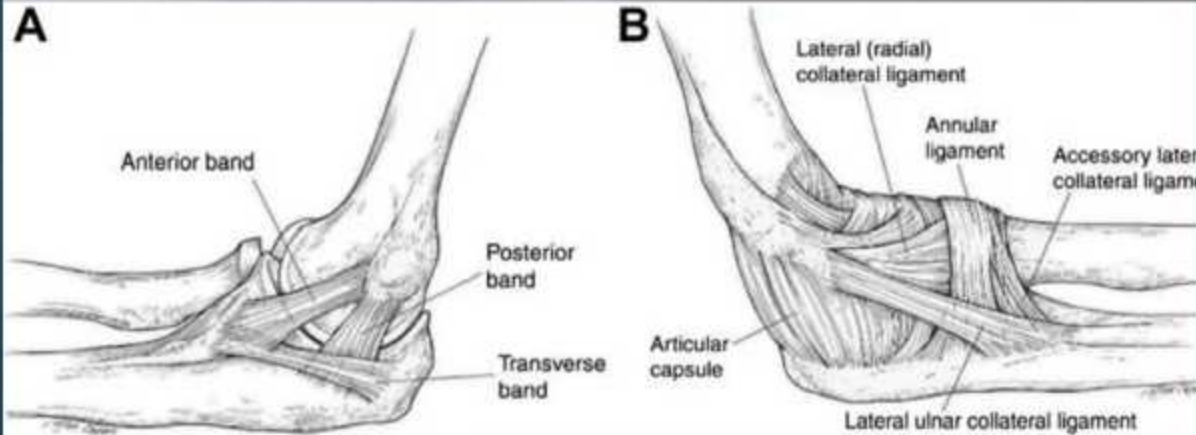
Anatomy

□ MCL

- Anterior band
- Sublime tubercle

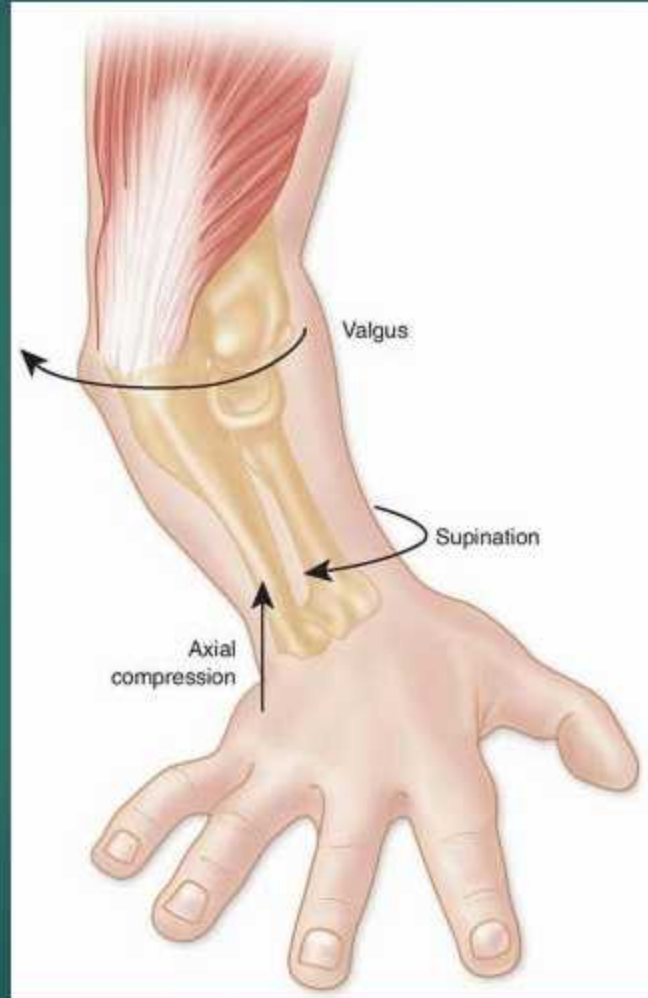
□ LUCL

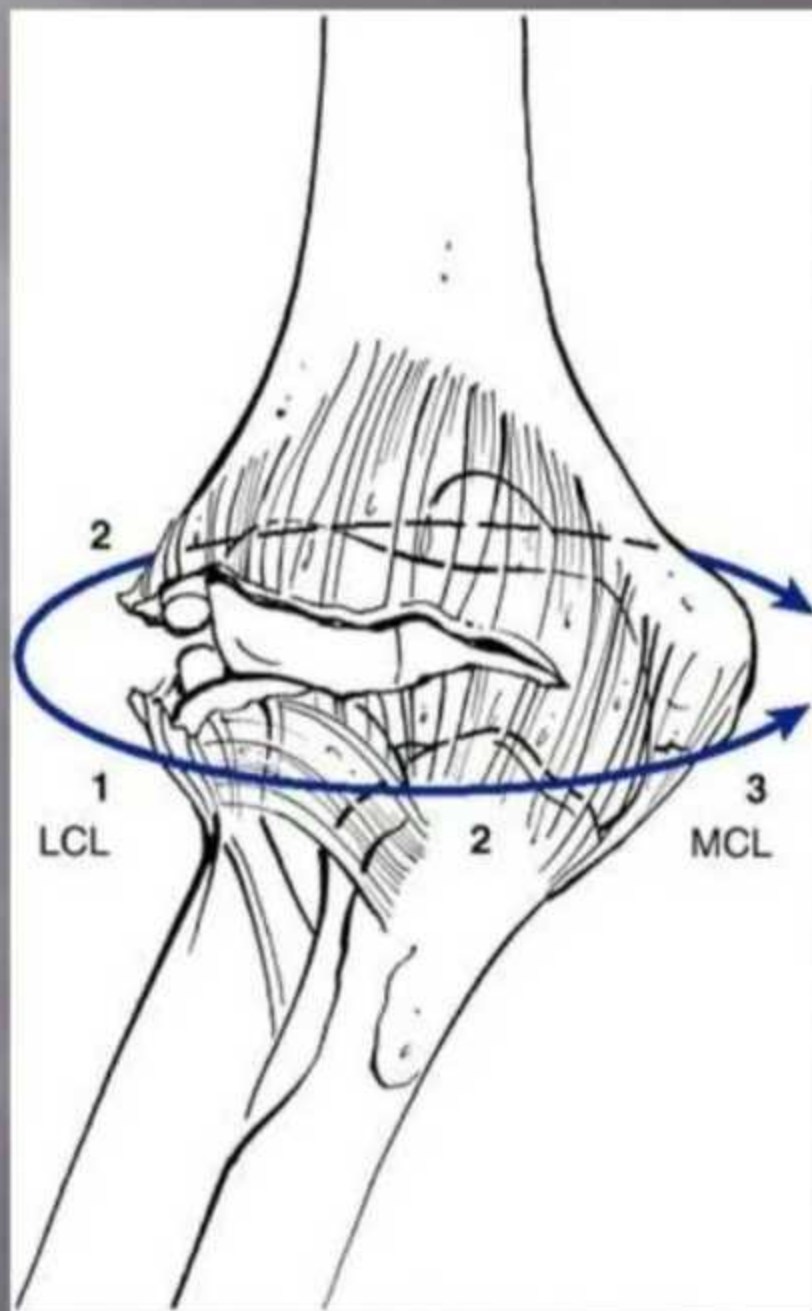
- Supinator crest

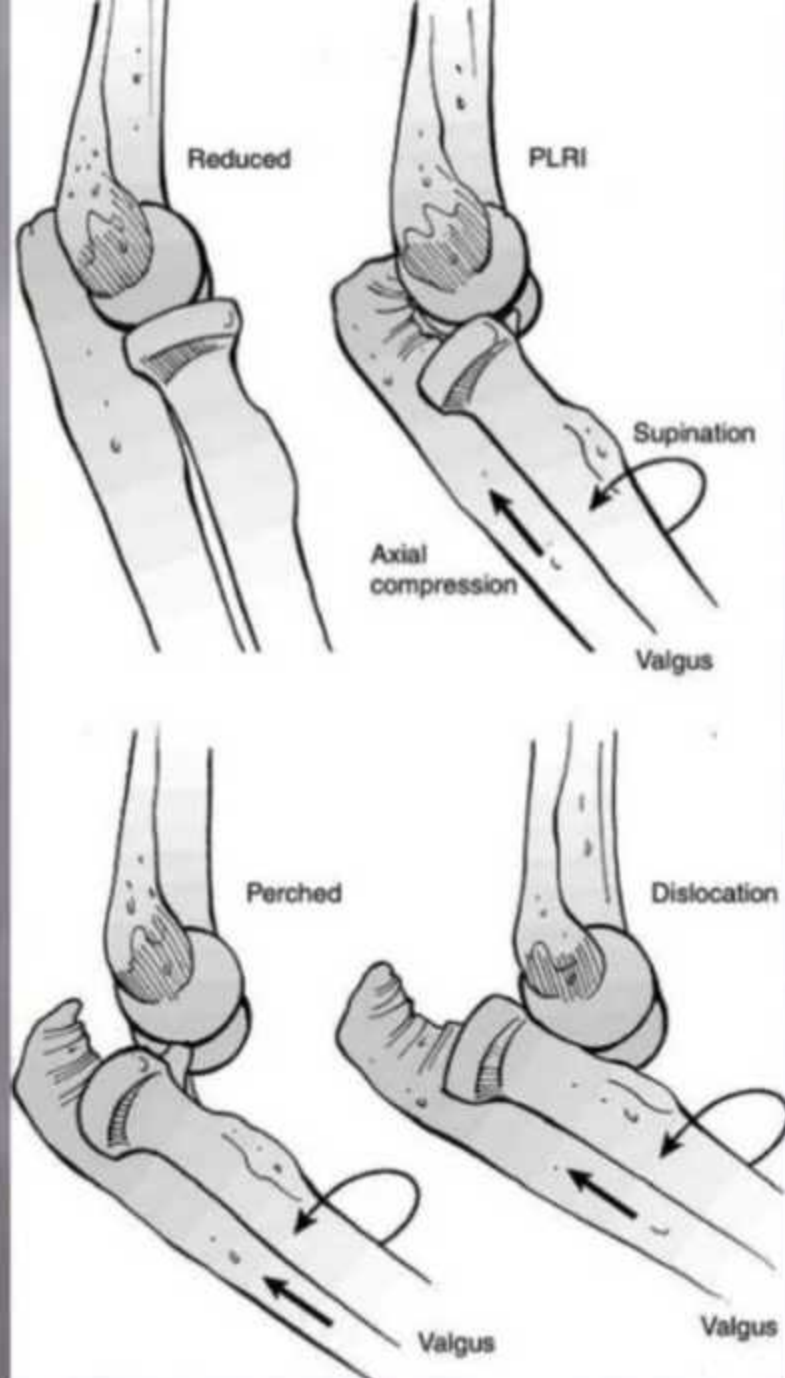


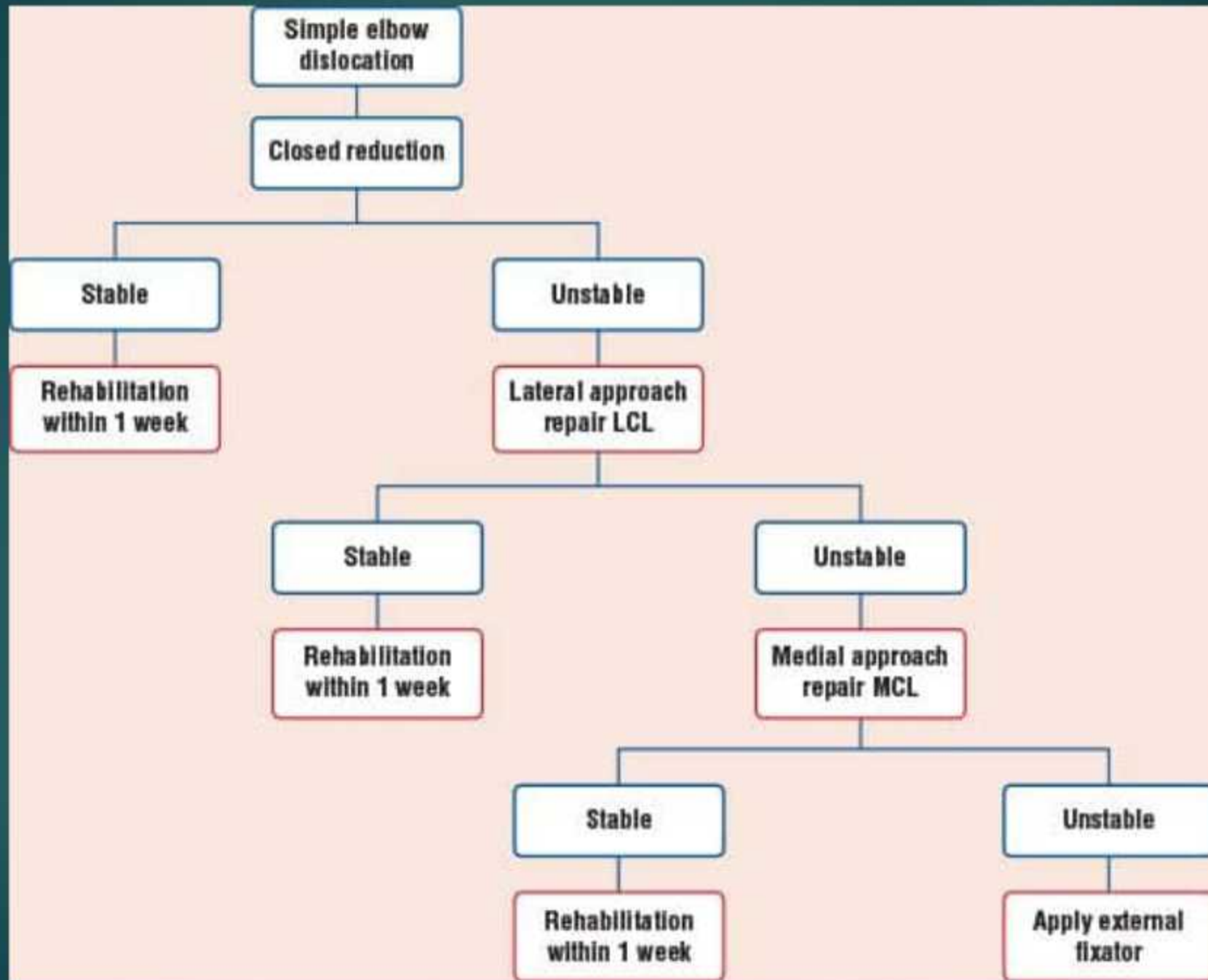
In extension, the anterior capsule provides approximately 70% of soft-tissue restraint to distraction. Valgus stress in extension is divided equally among the medial collateral ligament, capsule, and joint surface. Varus stress in extension is limited equally by the joint articulation, lateral ulnar collateral ligament, and capsule. In flexion, the medial collateral ligament complex provides a soft-tissue restraint to distraction and is the prime stabilizing structure resisting valgus stress, with the radial head providing a secondary restraint. The joint articulation provides about 75% of the stability and resistance to varus stressing with the elbow flexed.

Mechanism









Simple Elbow dislocation



Definition

- ▣ Terrible triad
 - Radial head fx
 - Postero-lateral dislocation
 - Coronoid fx

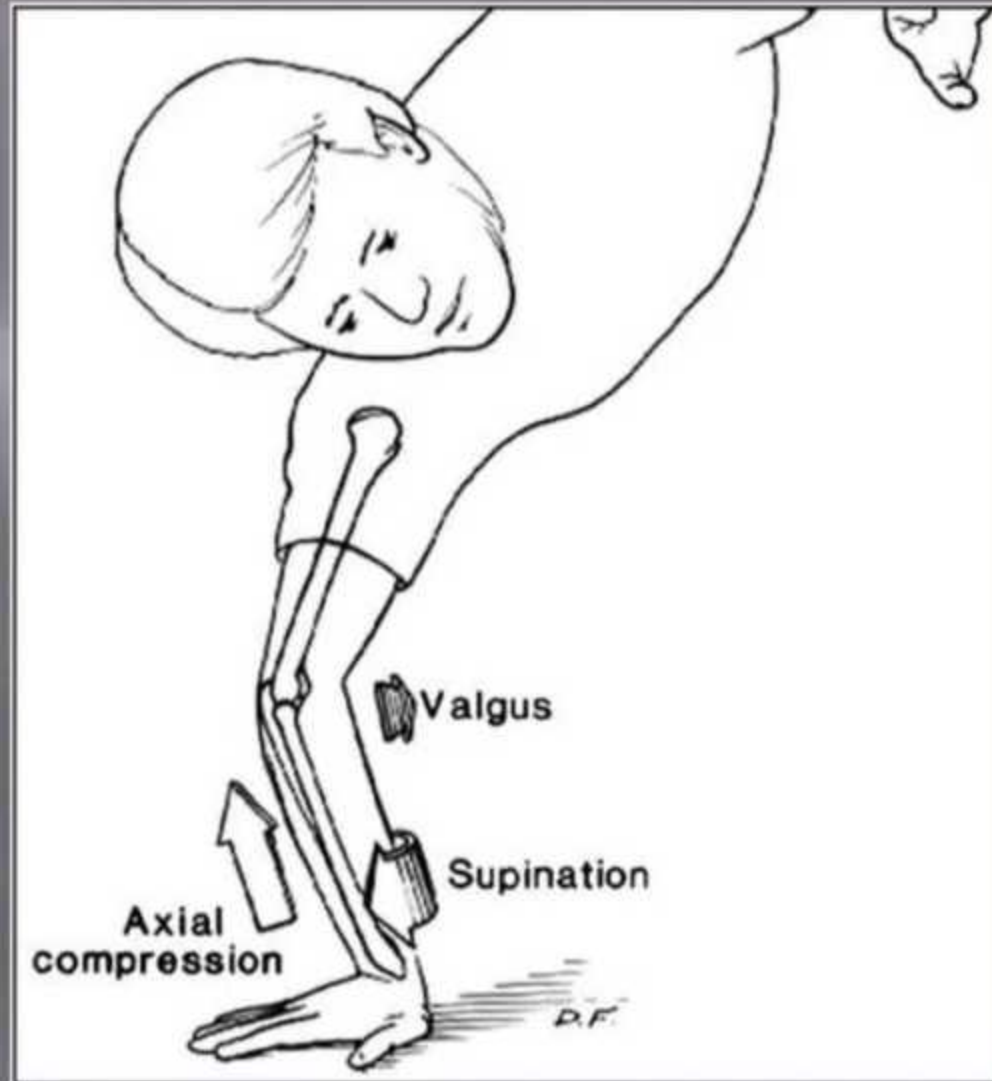


Historical

- ▣ Poor outcomes
- ▣ Elbow stiffness
- ▣ Instability
- ▣ Hardware failure
 - Pre-locking plates

Mechanism

- ▣ FOOSH
- ▣ Extended elbow
- ▣ Valgus load
- ▣ Postero-lateral rotation (relative supination)
- ▣ Body usually rotates around fixed hand



What happens?

- ▣ LUCL fails
- ▣ Anterior and/or posterior capsule fails
- ▣ Radio-capitellar dislocation
 - Radial head shear, fracture
- ▣ Ulna-humeral dislocation
 - Coronoid fracture
- ▣ MCL – last to fail, if it fails

Teaching point

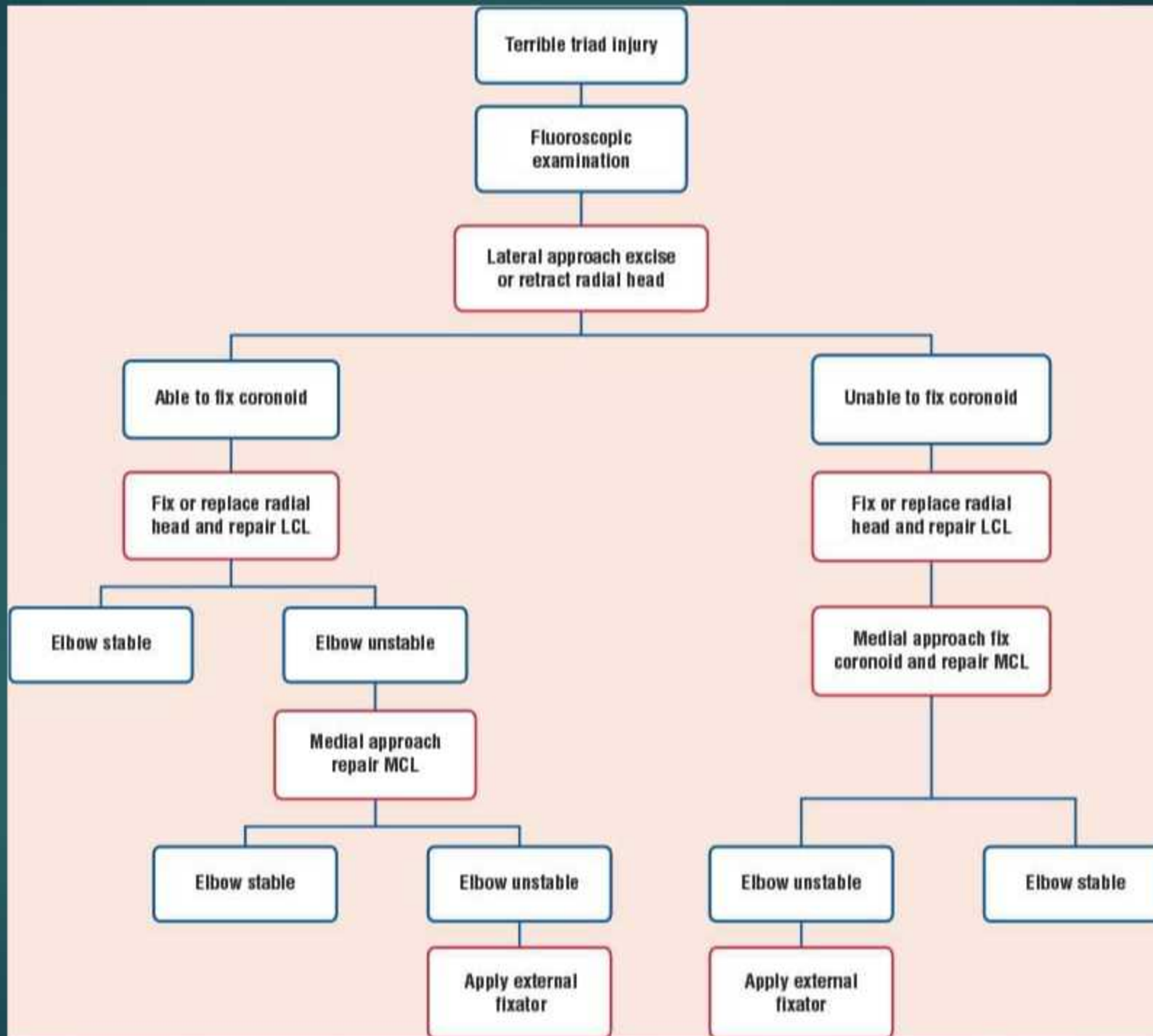
- ▣ Distinct from anteromedial facet fracture
 - Varus load



Imaging

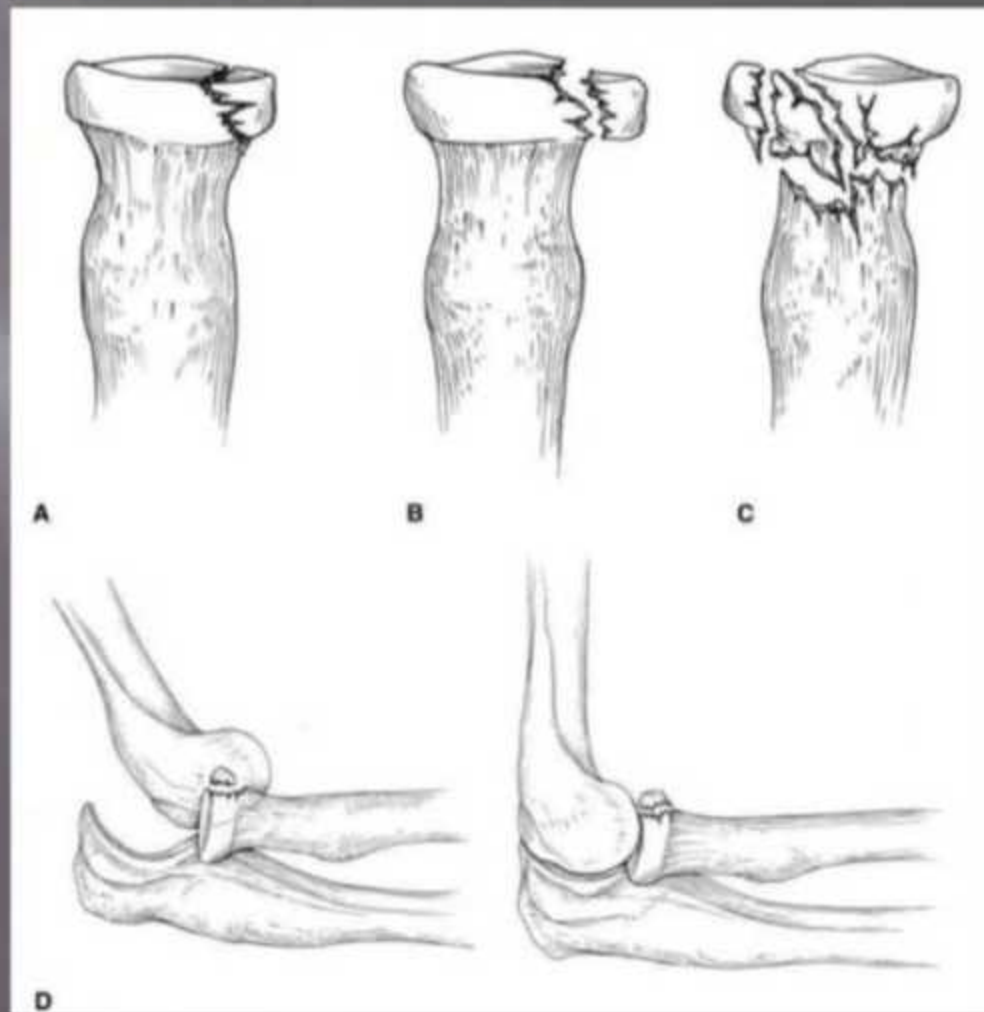
- ▣ AP
- ▣ Lateral
- ▣ Greenspan (radiocapitellar) view
- ▣ CT scan





Radial Head/Neck Fracture Classification

- ▣ Mason
 - I: <2mm
 - II: >2mm, possible block to motion
 - III: comminuted
- ▣ Must aspirate and examine sup/pron for Mason II



Treatment of Isolated Radial Head/Neck Fractures

- ▣ Observation
 - Mason I
 - Mason II if no bony block
- ▣ Radial head resection
 - Contra-indicated in setting of instability!
- ▣ ORIF
 - Mason III
 - Mason II with bony block
- ▣ Radial head replacement
 - >3 fragments
 - Dislocation
 - Essex-Lopresti

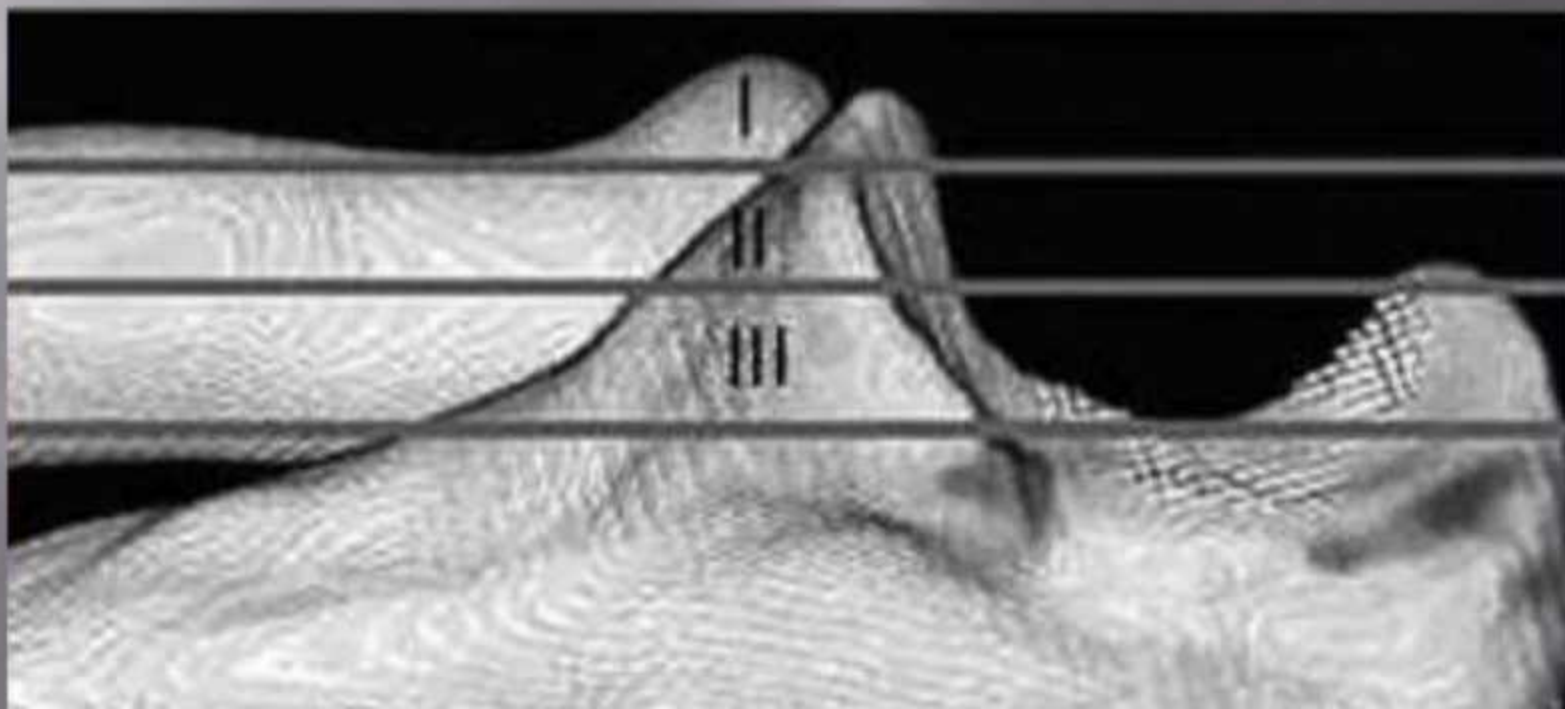


Radial Head Replacement

Coronoid classification

- ▣ Regan Morrey
 - I: just the tip
 - II: < 50%
 - III: >50%

- ▣ Descriptive classification



خانم ۶۰ ساله



اقای ۴۵ ساله







Essex–Lopresti

In high-energy trauma, dislocations of the elbow and/or forearm can also occur. Disruption of the interosseous membrane and distal radial ulnar joint ligaments may result in axial instability of the forearm, termed the Essex–Lopresti lesion.





با تشکر