

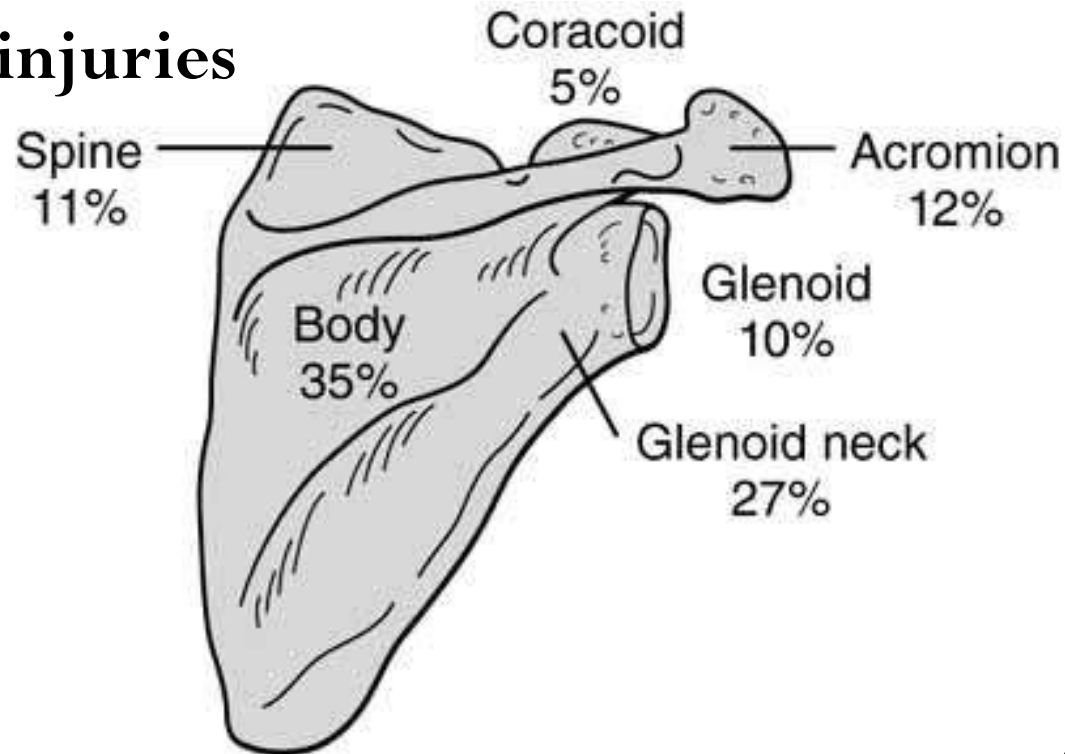
Glenoid fractures

M N. Naderi , MD

prevalence

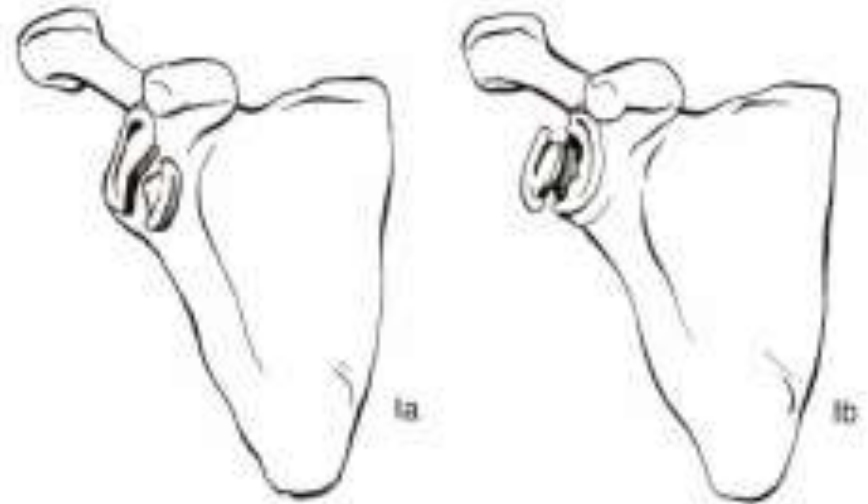
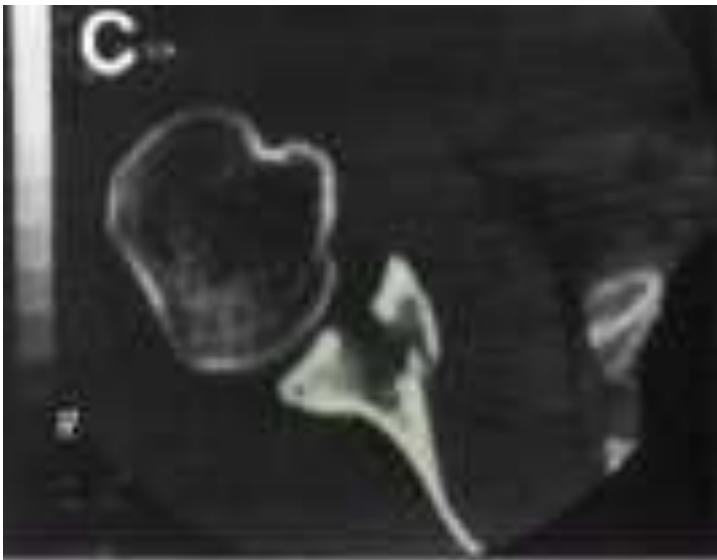
Scapular fx: 1% of all fracture
(5% of all shoulder fractures)
Glenoid fx : 10% of scapular fx

- High energy trauma
- High incidence of associated osseous and soft tissue injuries



Goss-Ideberg classification for fractures of the glenoid cavity

- **Type I** → fractures involve the glenoid rim



Goss-Ideberg classification for fractures of the glenoid cavity

- types II → Inf. segment



Goss-Ideberg classification for fractures of the glenoid cavity

- types III → Sup. segment



Goss-Ideberg classification for fractures of the glenoid cavity

- **types IV → fracture courses transversely across the entire scapula**



Goss-Ideberg classification for fractures of the glenoid cavity

- **Type V** → combinations of the types II, III, and IV injuries



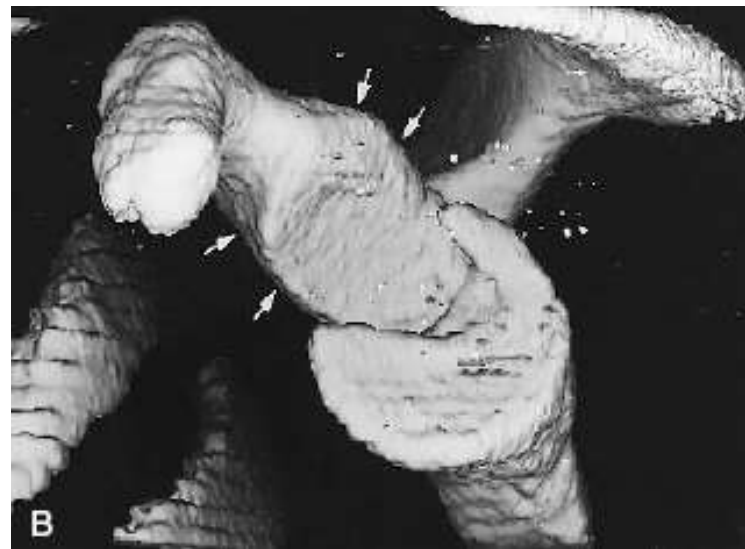
Goss-Ideberg classification for fractures of the glenoid cavity

- **Type VI** → comminuted fx of fossa



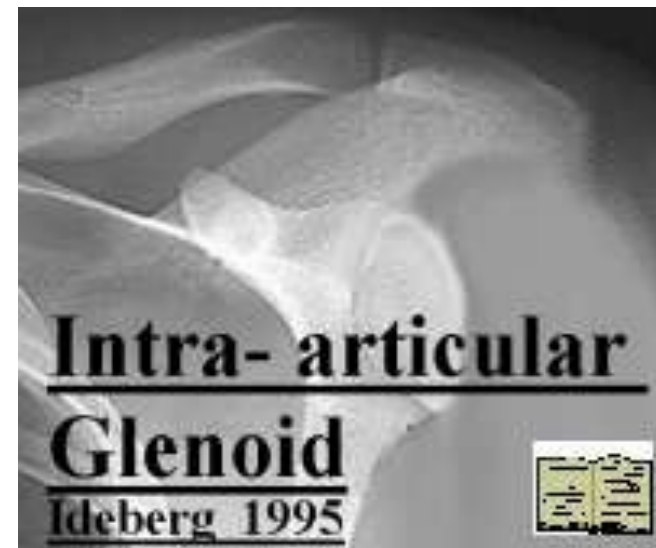
Diagnosis

- X-ray
- CT



Indications for surgery

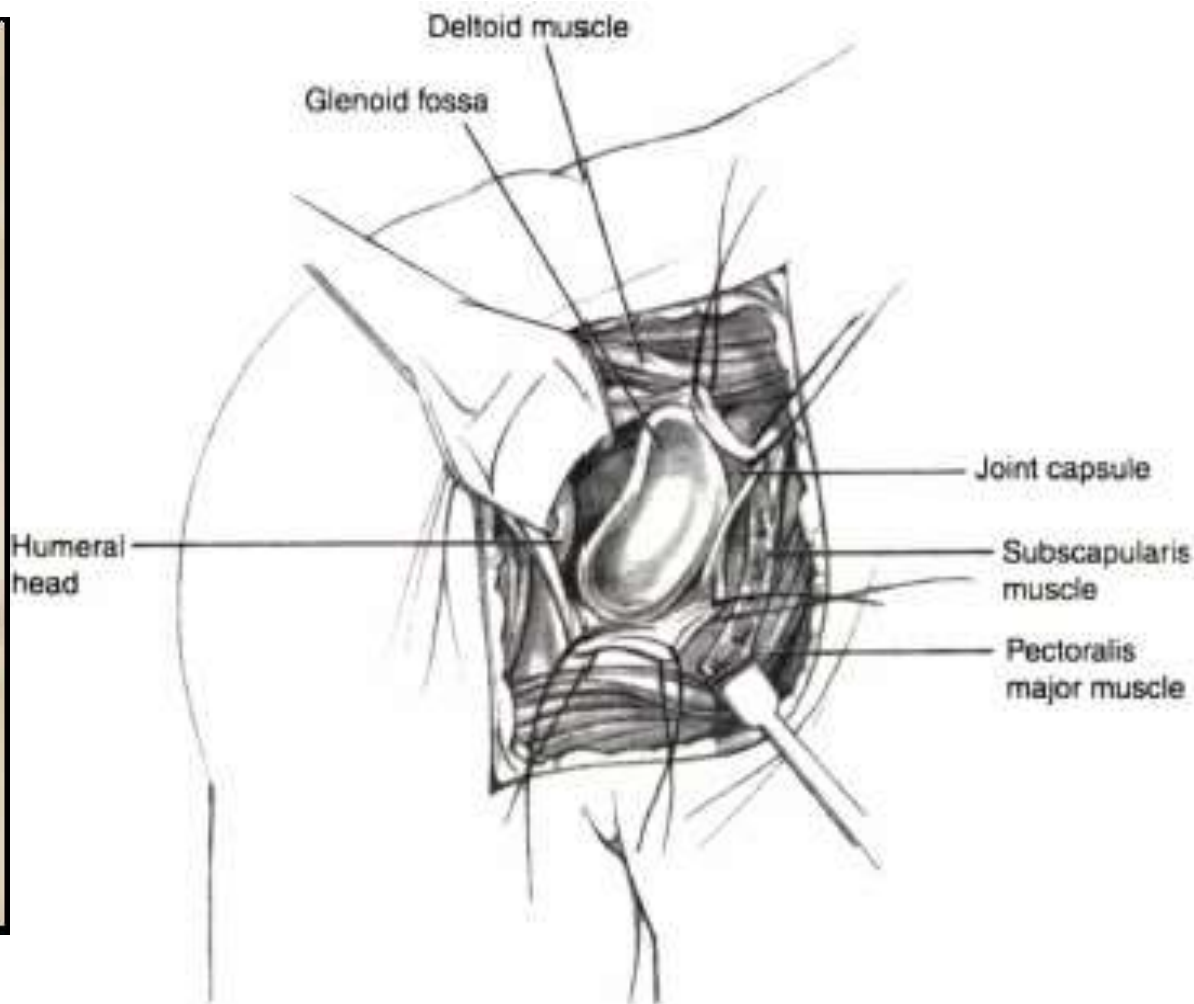
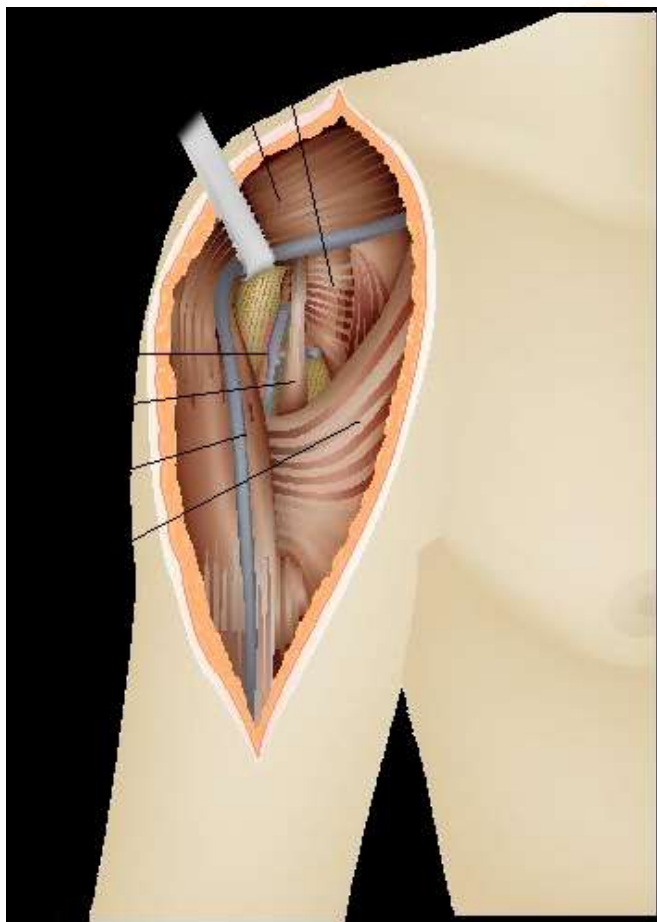
- Glenoid rim
 - $> 1/4$ anterior glenoid cavity
 - $> 1/3$ posterior glenoid cavity
- Glenoid cavity
 - Articular step-off $> 5-10$ mm
 - Significant separation of fragments
 - Failure of humeral head to remain centered



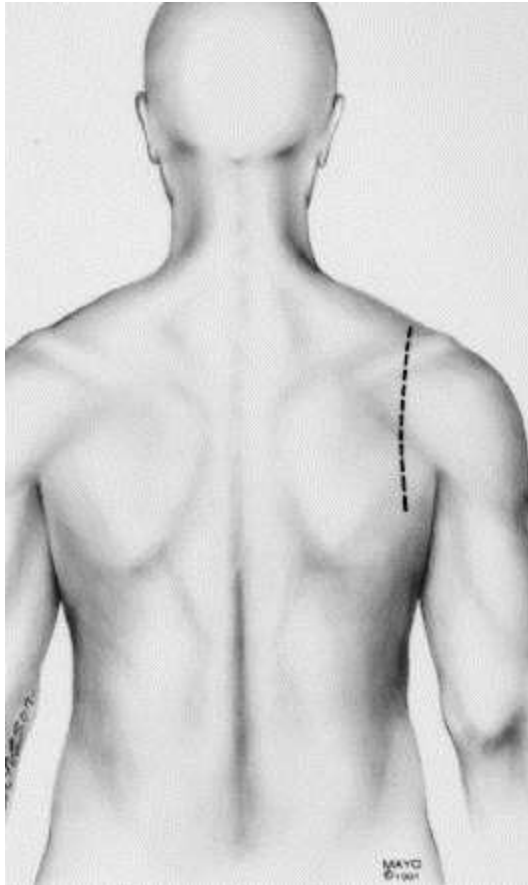
Surgical Approaches

- **Anterior** - Type Ia
- **Posterior** - Types Ib, II, Va
- **Posterosuperior** - Types III, IV, Vb, Vc

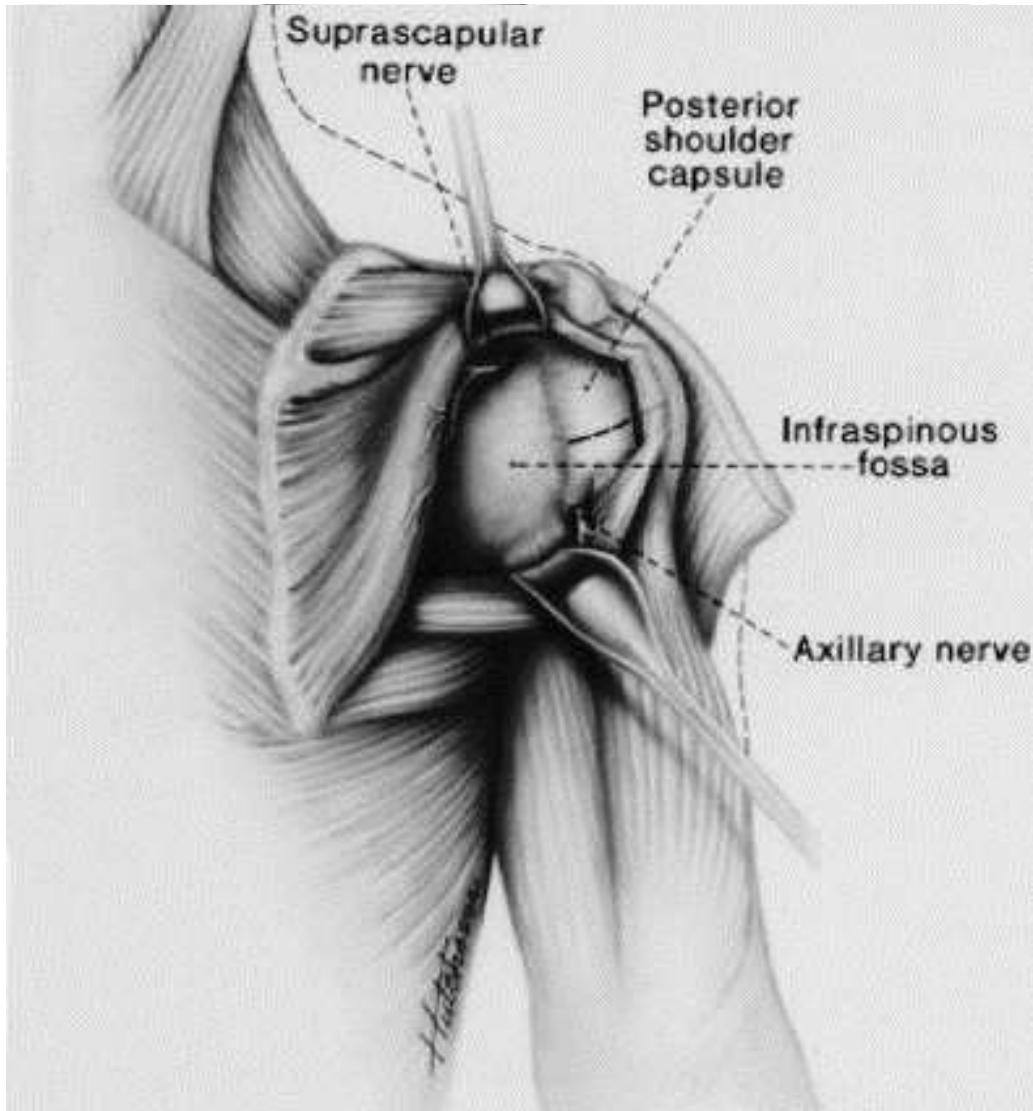
Anterior surgical approach to the glenoid cavity



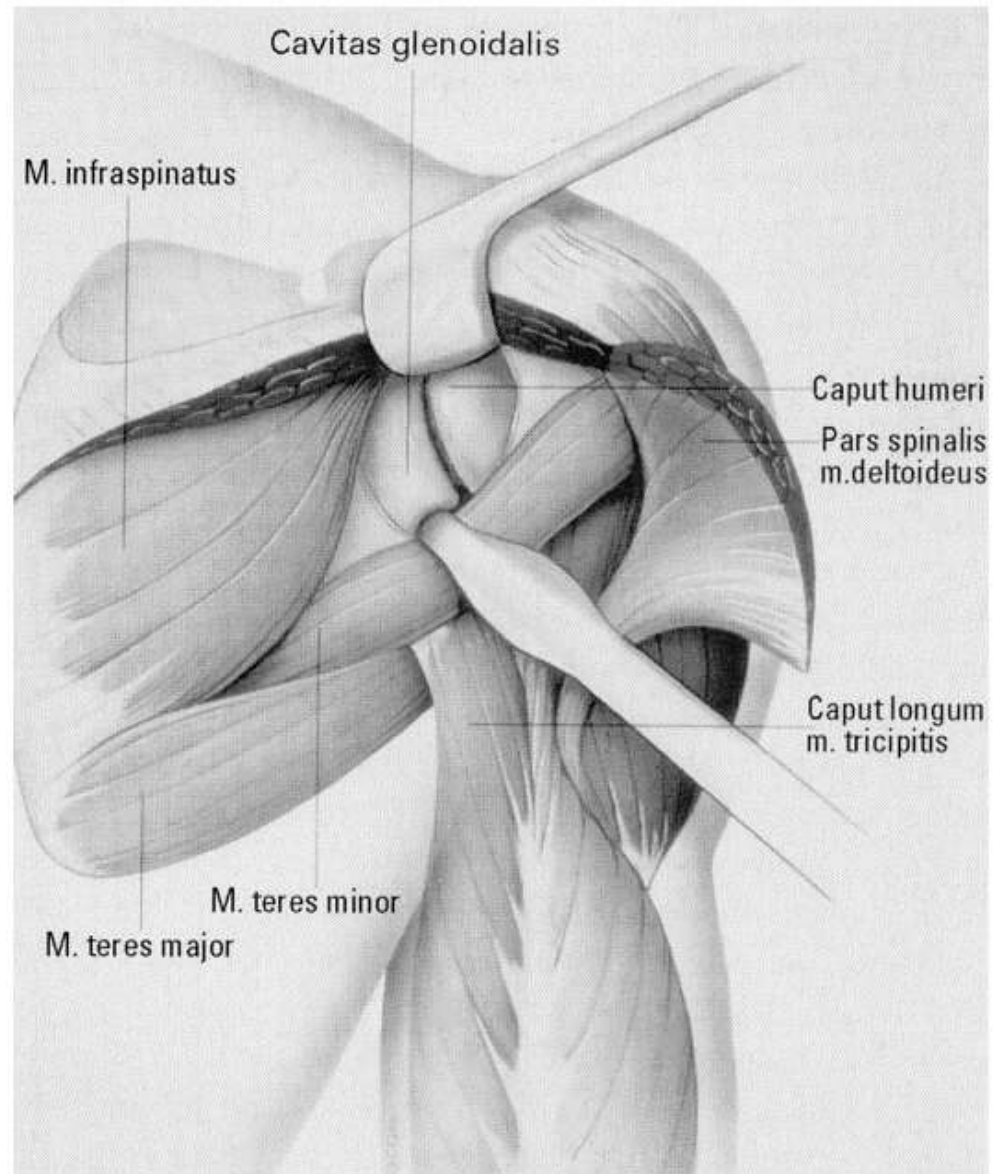
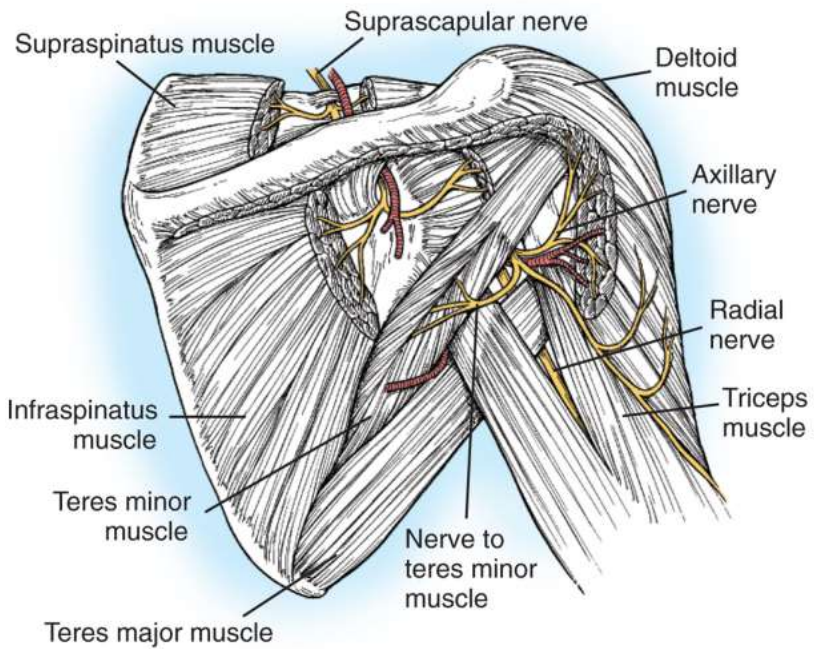
Posterior approach



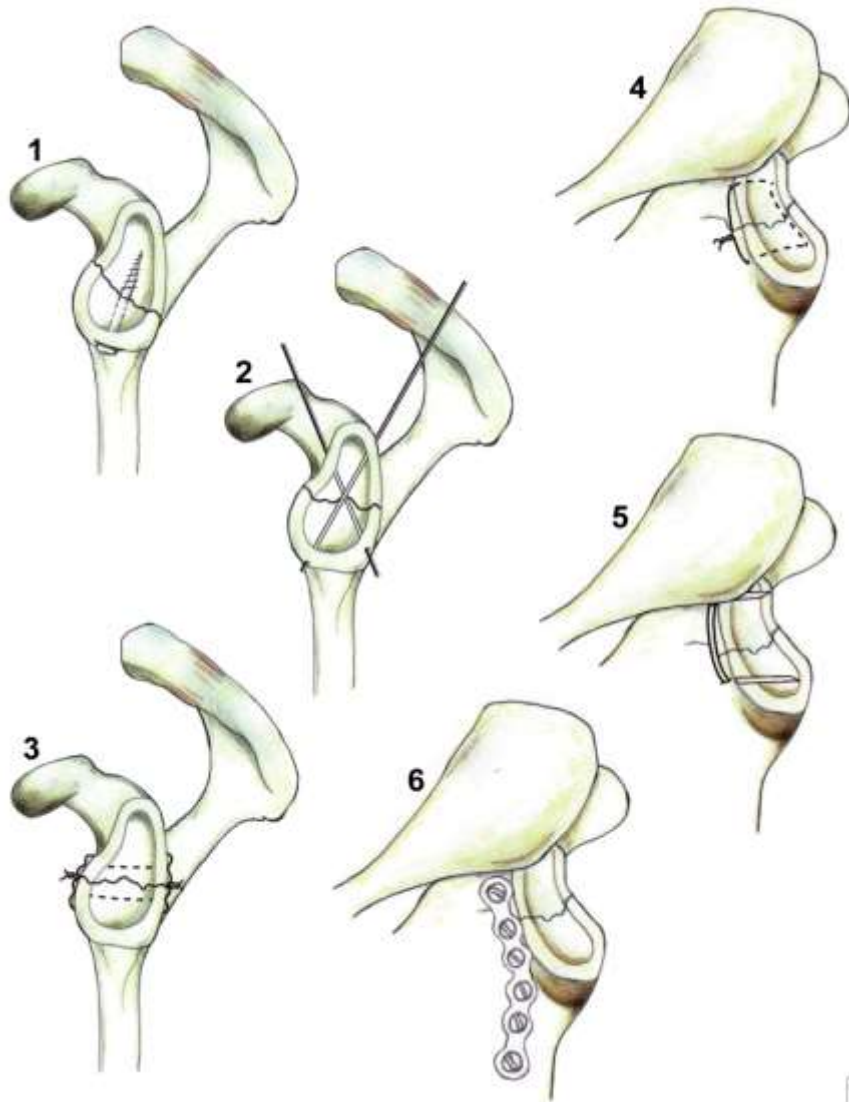
Posterior approach



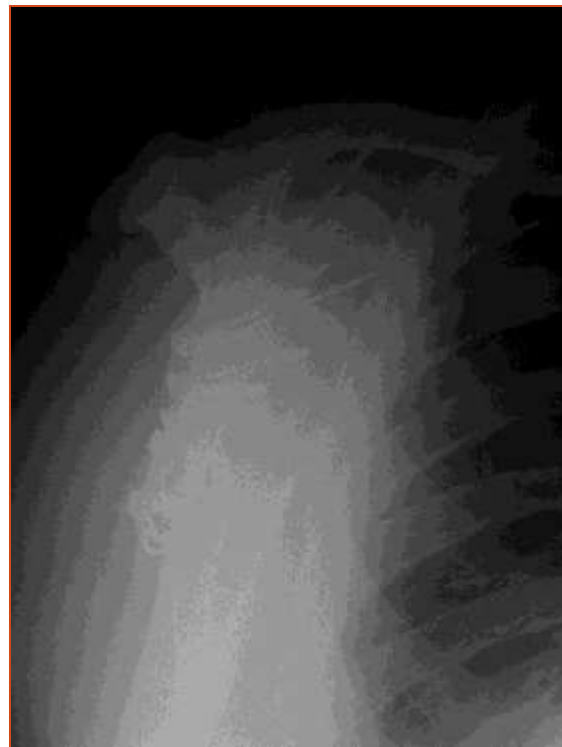
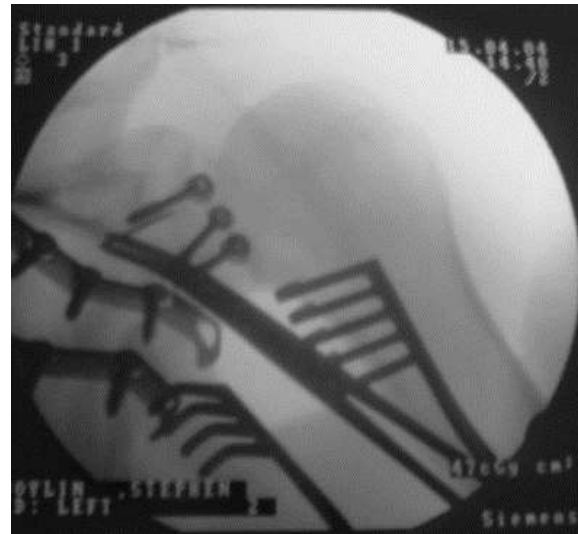
Posterior approach



Methods for fixation





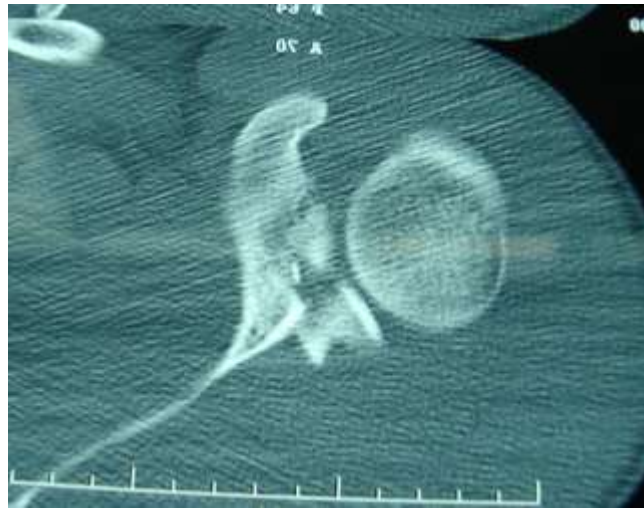
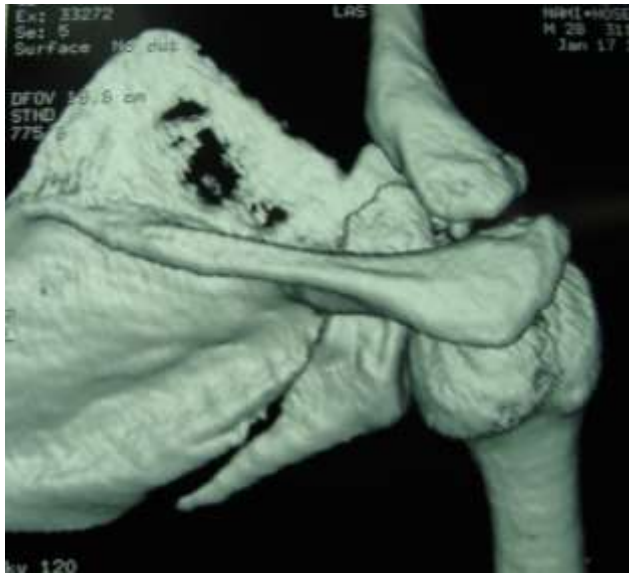


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26 y. male with old glenoid fx

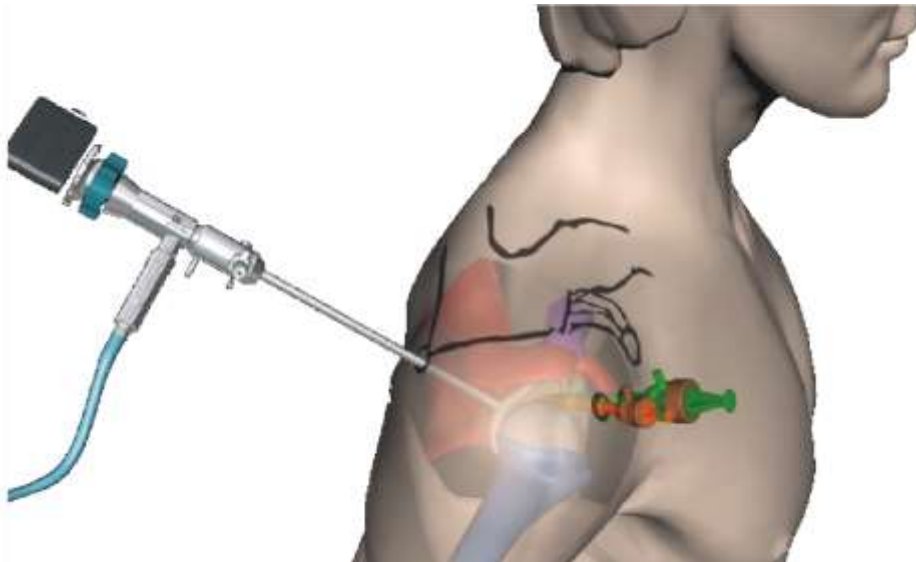


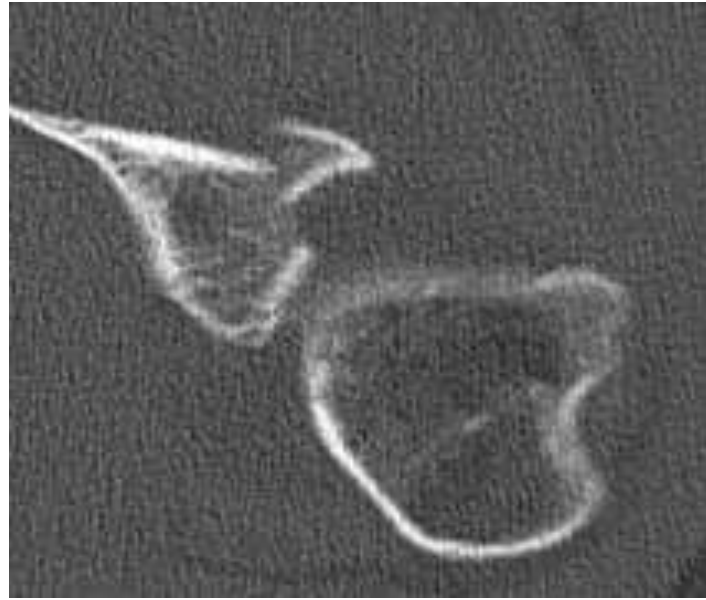
24 y. old male



Arthroscopic –assisted surgery for Glenoid fx

- Arthroscopy-assisted reduction and percutaneous fixation of a multiple glenoid fracture. Gigante A. et al , Knee Surgery, Sports Traumatology, Arthroscopy. 11(2):112-5, 2003 Mar.





38 y. old man with glenoid fx



Summary

- **Uncommon fracture**
- **Challenging and complex fractures**
- **Needs good judgment and experience**
- **Arthroscopy-assisted a future era for fixation**



Thank you for attention