

Femoral head fractures: Which ones I fix and how

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Operative treatment decision factors

- Size and Location
- Displacement
- Intra-articular debris
- Nonconcentric reduction
- Unstable reduction

Fragment usually anteromedial

Approach must allow appropriate screw trajectory

Infrafoveal fractures

- Most can be treated nonoperatively
- Indications for surgical treatment
 - Displaced fractures that would block motion
- ORIF vs. Excision

Suprafoveal fractures

- All require ORIF
- Excision will create instability

Surgical approach

Anterior approach

- Distal limb of Smith-Petersen approach
- Surgical interval:
 - Tensor fascia lata
 - Sartorius
 - Release of rectus femoris

Lateral approach

- Trochanteric osteotomy
- Surgical hip dislocation
- Allows fixation of posterior wall

Posterior approach

- Some Pipkin IV when fixing acetabular fracture posteriorly

Summary

- Fracture is usually anteromedial in location
- Impaction and debris common
- Commonly approach anteriorly
- Fix with countersunk headless compression screws or mini-fragment screws
- HO common, AVN uncommon
- Fragments heal despite avascularity
- Cartilage damage leads to post-traumatic arthritis