

The Literature

vitkovic J, Kummer FJ, Koval KJ. Mismatch of current intramedullary nails with the anterior bow of the femur. J Orthop Trauma.

4 Aug;18(7):410-5.

Trauma. 2012; 26(10): e177-82.

Pape HC, Aufm Kolk M, Paffrath T, et al. Primary intra medullary femur fixation in multiple trauma patients with associated lung contusion — a cause of posttrauma tic ARDS2 | Trauma 1993:34:540–547

Femur shaft fracture

Tips & Tricks from ESTES Education in collaboration with the Skeletal trauma section

The Problem

Femoral shaft fractures are seldom isolated injuries

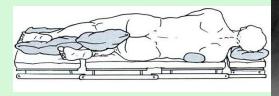
The Challenge

Assessment of underlying medical conditions and associated injuries

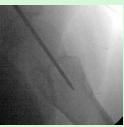
The Evidence

- Bimodal distribution: young patients after high energy trauma versus elderly patients with underlying medical conditions
- Anterior bow with radius of curvature approx. 120°
- Dislocation pattern dependent on attached musculature
- Fracture pattern and the individual anatomy of the femur dictates fixation strategy

Tips & Tricks









Evaluate a lateral decubitus position as this facilitates approach, reduction and reduces risk for rotational errors Entry point collinear trajectory with long axis of femoral shaft in ap and lat view – beware of the femoral bow If possible prepare the medullary canal with reamer (aim to +1.5 to +2mm diameter reaming) but be aware of pulmonary contusions

Conclusion

Be certain to rule out associated injuries, especially injuries to the thorax, the proximal femur, and the knee