

#### **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

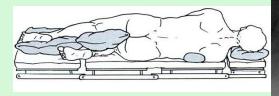
# The Challenge

Assessment of underlying medical conditions and associated injuries

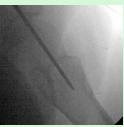
## **The Evidence**

- 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