

## Femoral Nailing Lab

### **Positioning**

#### -Antegrade

- Supine, hip bump, ipsilateral arm across chest
- Lateral
- Fracture table

#### -Retrograde

- Supine

### **Obtain a Surgical Template**

- Radiographic ruler of contralateral side.
- Rotational profile of contralateral side (Patella forward/lesser trochanter sign, etc)
- If fx's are bilateral, match length and rotation using population norms(10-15 degrees of anteversion) or match rotation based on implant design(company specific)

### **Starting Points**

#### -Trochanteric start

- Medial tip of greater trochanter on AP view
- In line with anatomic axis of femur on lateral
- 4-6 degrees of valgus offset depending on implant choice

#### -Piriformis start

- Seated in piriformis fossa on AP view
- In line with the anatomic axis of femur on lateral view

#### -Retrograde

- Center of the intercondylar notch on AP view
- Apex of Blumensaat's line on the lateral view

### **Entrance Angle**

- Must be in line with the medullary canal on orthogonal views.

### **Guidewire Placement**

- Must be centered in the distant segment, particularly important in metaphyseal nailing

### **Reaming**

- Must ream with fracture reduced
- Overream by 1-2 mm of planned nail size

### **Nail Insertion**

- Over guidewire

### **Interlocking**

- Interlocking screws through jig
- Confirm length rotation, then interlocking screws (free-hand, vs guided screws)

### **After locking nail**

- Flouro femoral neck to check for occult fracture
- Check knee ligaments

