



Radiographic positioning of Knee joint

Radiological and sonographic technologies department
2nd stage

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Antero-posterior (AP) position weight-bearing of knee joint - basic

- This projection is useful to demonstrate alignment of the femur and tibia in the investigation of valgus (bow-leg) or varus (knock-knee) deformity.
- **Position of patient and image receptor**
 - Film size 8 x 10 inches length-wise.
 - Image receptor placed in Bucky.
 - The patient stands with their back on the vertical Bucky (see Figure 1-a).
 - The patient's weight distributed equally.
 - The affected limb rotated to centralize the patella between the femoral condyles.
 - The central ray directed 1 cm below the apex of the patella through the joint space



Figure 1-a: Patient positioning for antero-posterior (AP) knee.



Figure 1-b: AP radiograph of the knee (weight-bearing) with osteoarthritis.

Antero-posterior (AP) position of knee joint - Supine

➤ Position of patient and image receptor

- Film size 8 x 10 inches length-wise.
- Image receptor placed out Bucky.
- The patient either supine or seat on the X-ray table or trolley, with both legs extended (see Figure 2-a).
- The affected limb rotated to centralize the patella between the femoral condyles.
- The central ray directed 1 cm below the apex of the patella through the joint space
- **Important Note:** The image should include the proximal 1/3 of the tibia and fibula and distal 1/3 of the femur.



Figure 2-a: Patient positioning for anteroposterior (AP) supine.



Figure 2-b: Normal radiograph of AP supine knee.



Figure 2-c: Supine AP radiograph showing depressed tibial plateau fracture.

Lateral position of knee joint - basic

➤ Position of patient and image receptor

- Film size 8 x 10 inches length-wise.
- Image receptor placed out Bucky.
- The patient lies on the side to be examined, with the knee flexed at 45° or 90° (see Figure 3-a).
- The other limb brought forward in front of the one being examined
- The central ray directed the middle of the superior border of the medial tibial condyle.



Figure 3-a: Patient positioning for lateral knee.



Figure 3-b: Radiograph of lateral knee with 90° of flexion.

An overhead view of a person's hand holding a fountain pen over an open notebook. The notebook is open to two blank, cream-colored pages. The left page has the words "Thank you" written in a black, cursive script. The right page is empty. The hand is holding a fountain pen with a dark, textured barrel and gold-colored accents. The notebook is placed on a dark brown wooden surface with a visible grain. In the background, there is a teal-colored decorative object with intricate carvings.

Thank
you