

Radiographic Evaluation 2

(mostly)

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Blue = MRTY2105

Femur and Hip

Fovea: depression of the articular surface of the femoral head

- Attachment site of ligament from the head of femur into the acetabulum
- Common variation

Articular hyaline cartilage

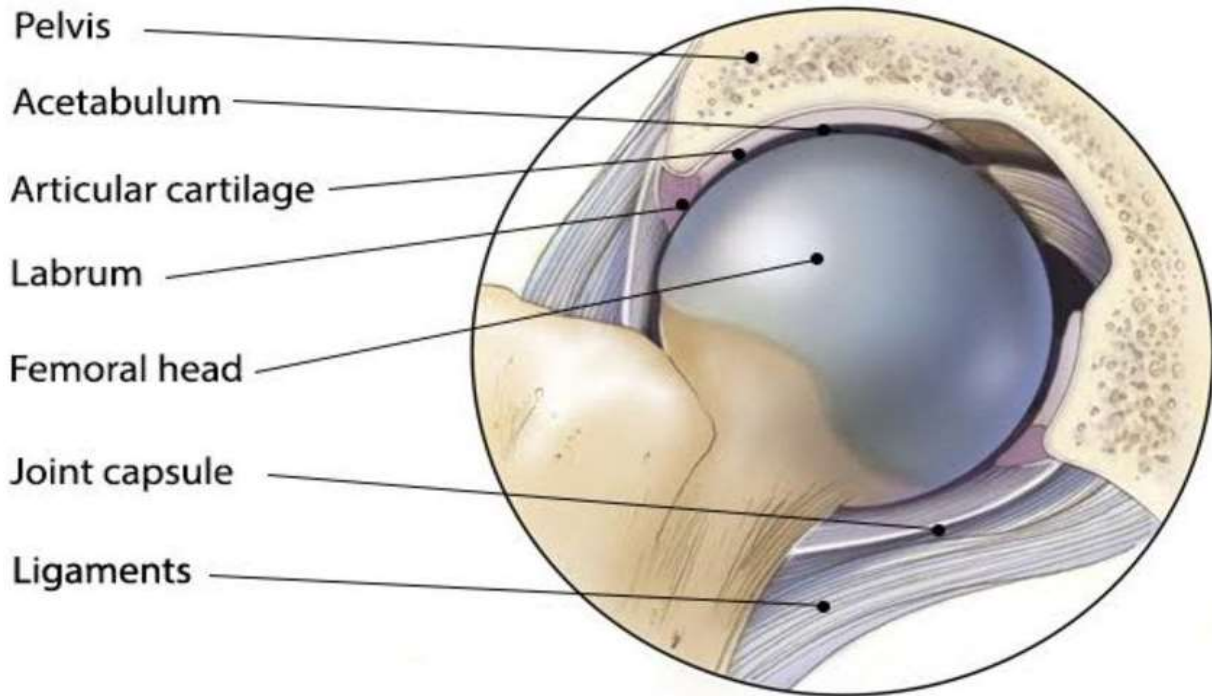
- Covers head of femur and acetabulum
- Excluding fovea

Labrum

- Circular layer of cartilage surrounds the outer part of the acetabulum
 - Extending the socket walls

Fibrous Capsule: surrounds the joint attaching the acetabulum to the anterior labrum and transverse acetabular ligament medially

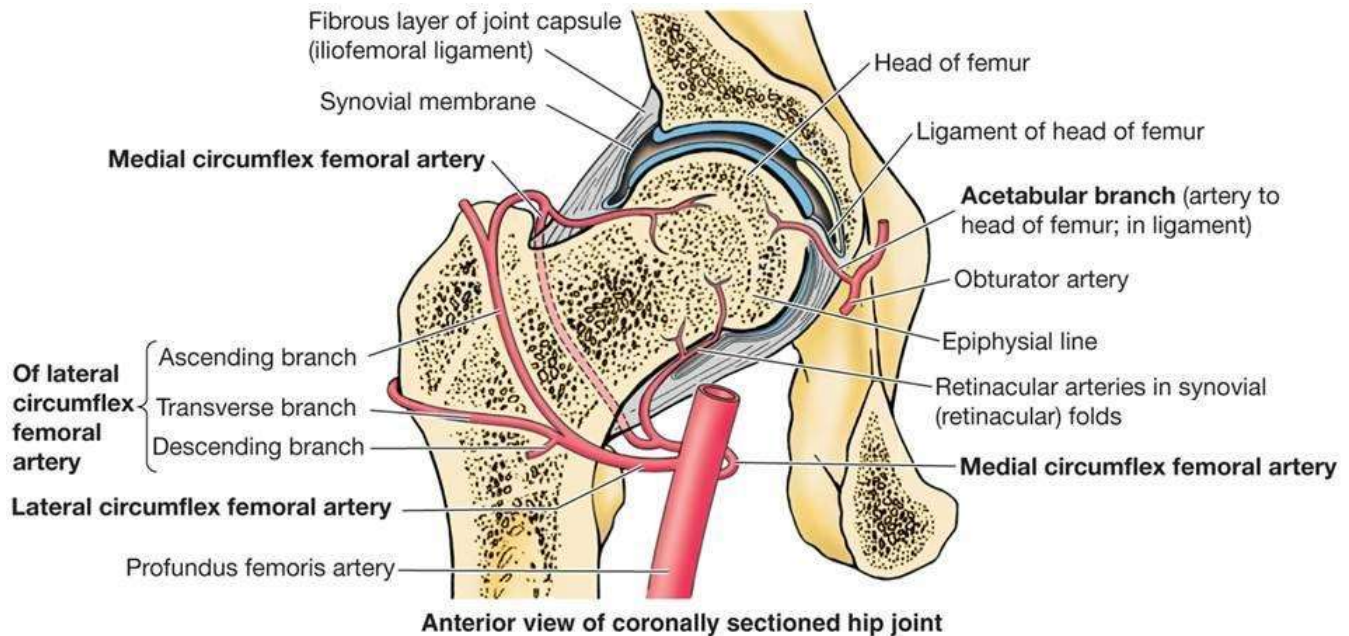
- Lies between ligaments and synovial membrane
- Gives support to joint but loosely attach to allow unrestricted movement



Blood Supply: fractures can disrupt blood supply causing avascular necrosis

- Early prosthetic replacement is often required
- Descending aorta
 - Right common iliac
 - External iliac → femoral artery medial to femur
 - Profunda femoris artery (deep femoral artery): between femur and femoral artery
 - Lateral femoral Circumflex (LFC) artery: anterior
 - Ascending branch of LFC: joins with MFC (anastomosis)
 - Ascending Cervical Arteries → subsynovial (intracapsular arterial ring)
- Transverse branch of LFC: joins medial femoral circumflex artery on posterior side
- Descending branch of LFC

- Medial Femoral Circumflex artery (Lateral epiphyseal artery): posterior of femur
 - Ascending Cervical Arteries: posterosuperior area of NOF
 - Perforating arteries: posterior
- Internal iliac artery
 - Obturator artery
 - Acetabular branch (ligamentum Teres Artery/ fovea arter)
 - Epiphyseal Arteries: anastomosis with MFC
- Left common iliac



- Extracapsular: less likely to disrupt blood supply
- Intracapsular: disruption to intraosseous cervical vessels increasing chance of avascular necrosis
 - Neck of femur unable to repair through callus formation
 - Healing is dependent on endosteal union
 - Endosteal is healed but trabecular bone is not joined
 - Patient cannot weightbear

Bursae: Thin tissue sac containing fluid to lubricate area that lies between muscles or tendons and bones

- Reduces friction
- Causes problems when sandwiched between the greater trochanter and muscles and tendons
- Trochanteric bursitis: inflamed greater trochanteric bursa due to tight iliotibial band
 - Pain at the hip
 - Redness of greater trochanter
- Ischial bursa: lies under iliotibial band
- Greater trochanteric bursa
- Iliopectineal bursa

Intracapsular Ligaments

- Ligamentum teres: attached inside the acetabulum to the fovea
 - Allows flexion of the hip and lateral rotation