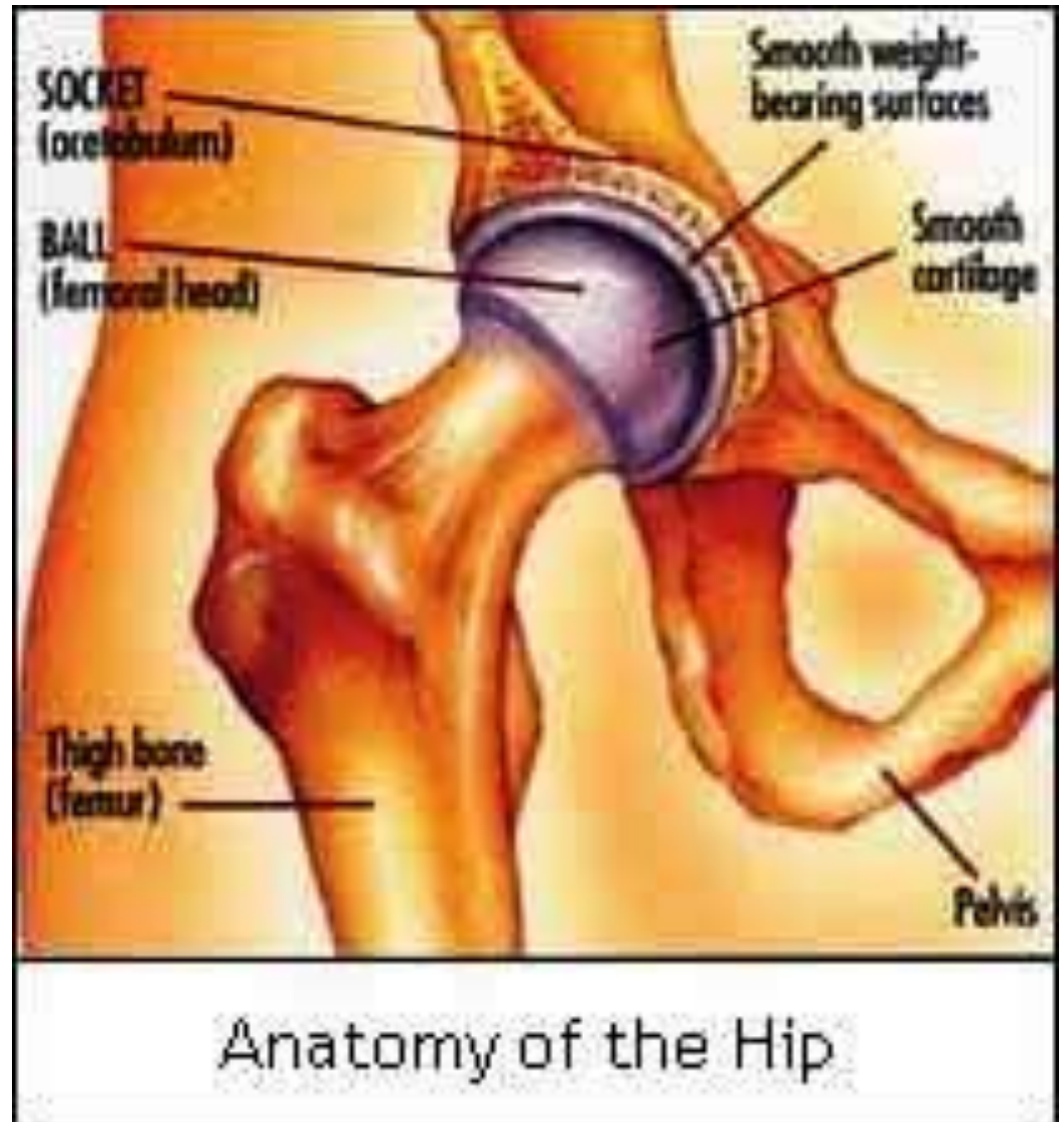
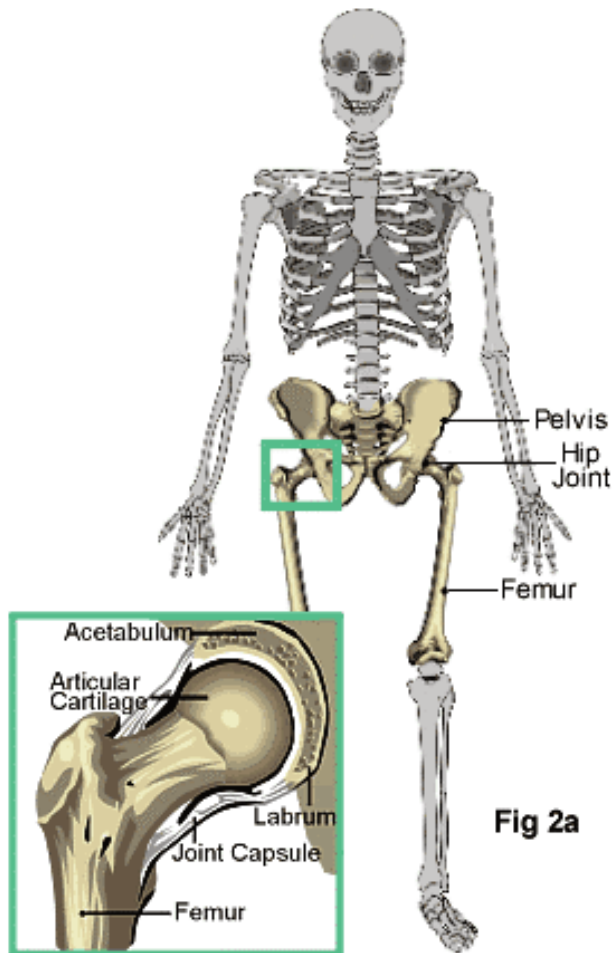


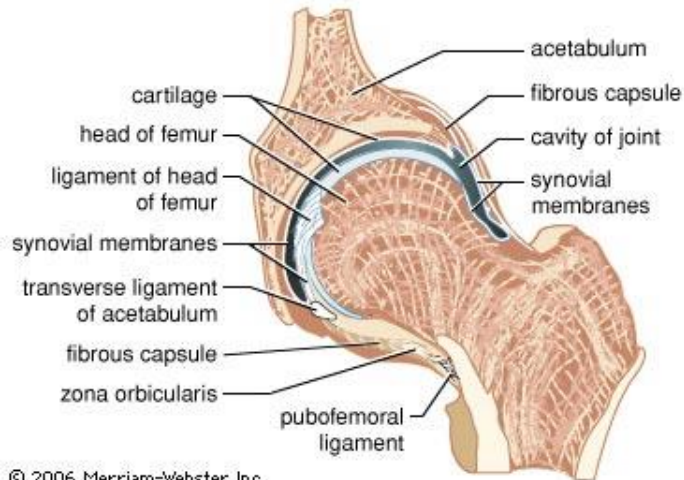
HIP JOINT

- **A multiaxial , Ball & socket variety of Synovial joint**

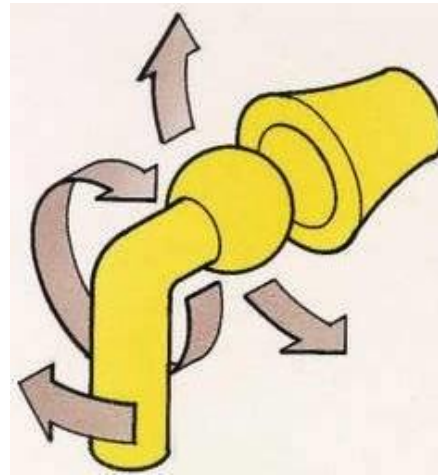
BONES FORMING HIP JOINT



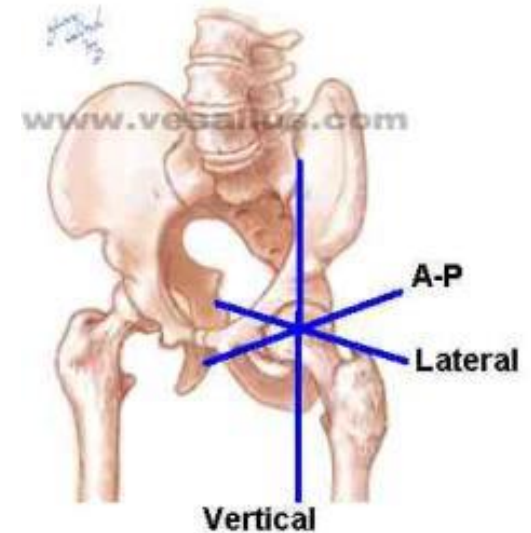
TYPE OF HIP JOINT



SYNOVIAL JOINT



BALL & SOCKET

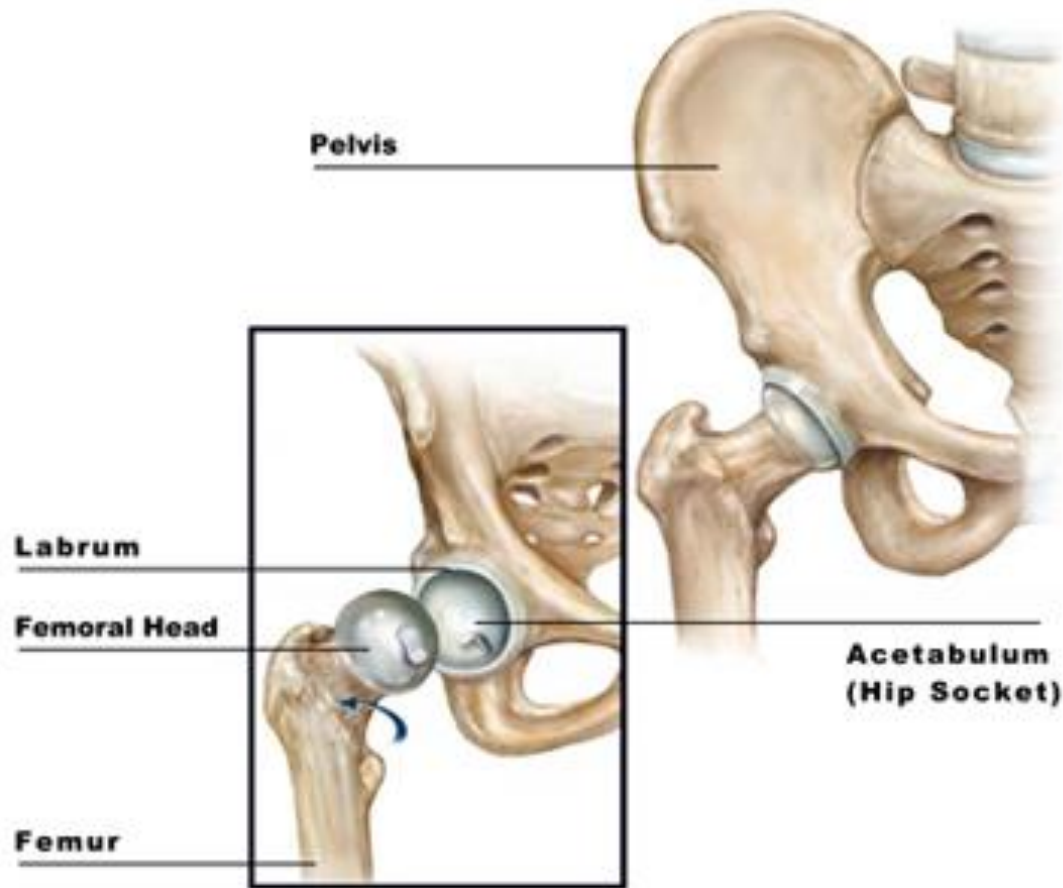


MULTI-AXIAL



3 DEGREE OF FREEDOM

ARTICULAR SURFACES OF HIP JOINT

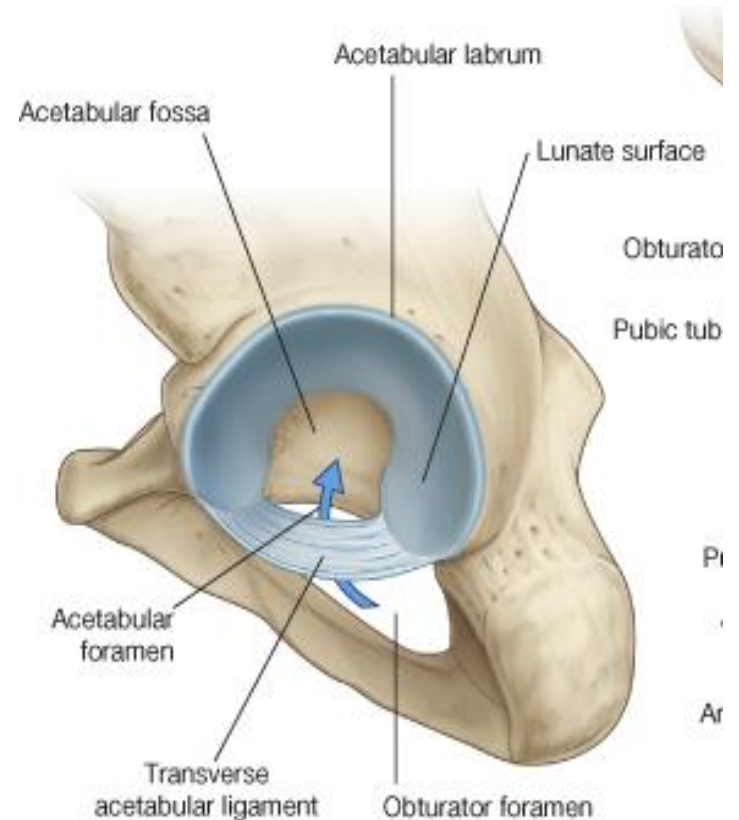
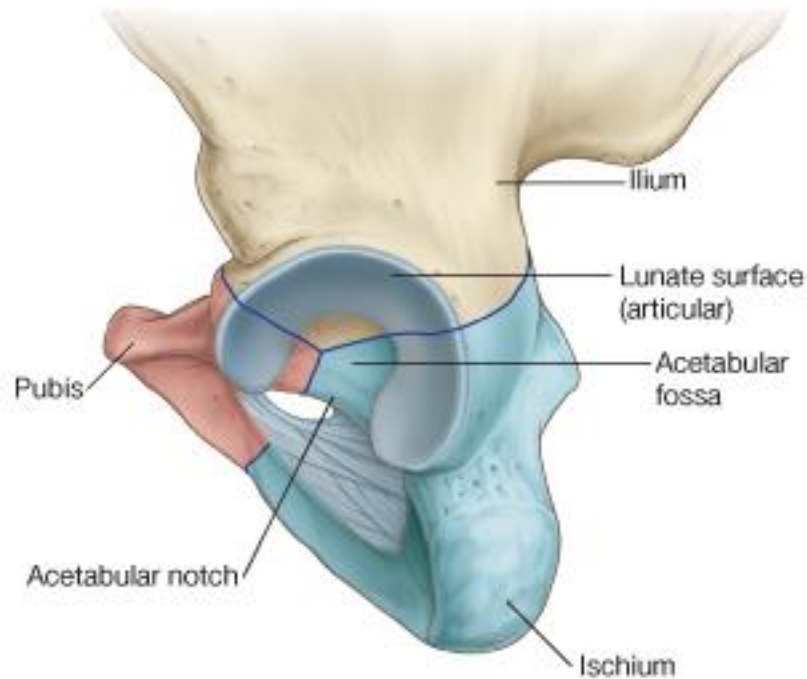


- **Spheroidal shape**
- **Hyaline cartilage**
(except fovea)



- **Neck shaft angle**
Adult-125
Child-160
- **Determine range of mobility**

ARTICULAR SURFACES OF HIP JOINT

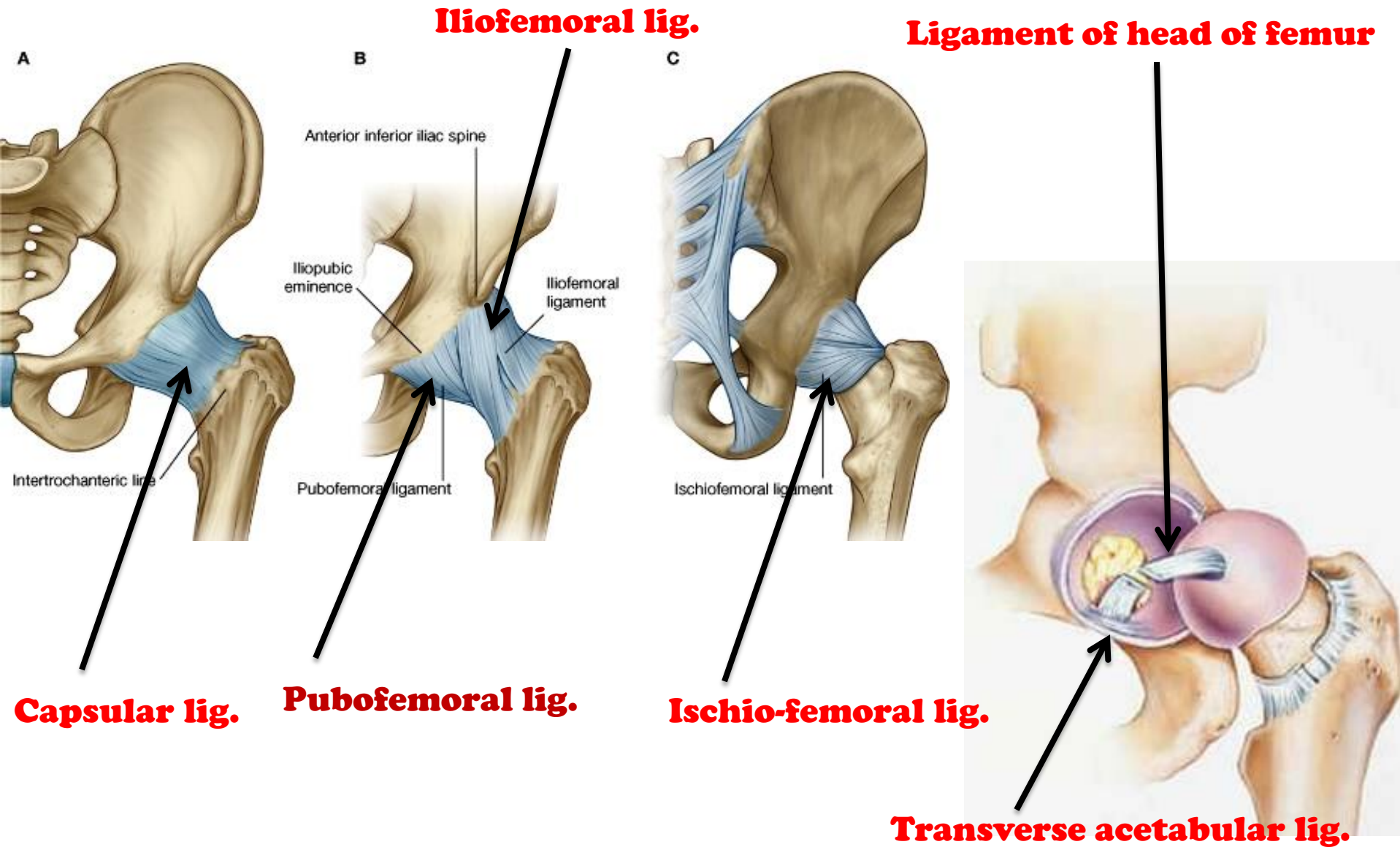


- **Triradiate -y shaped cartilage**
- **Acetabular labrum**
- **Fat- Intracapsular & extrasynovial**

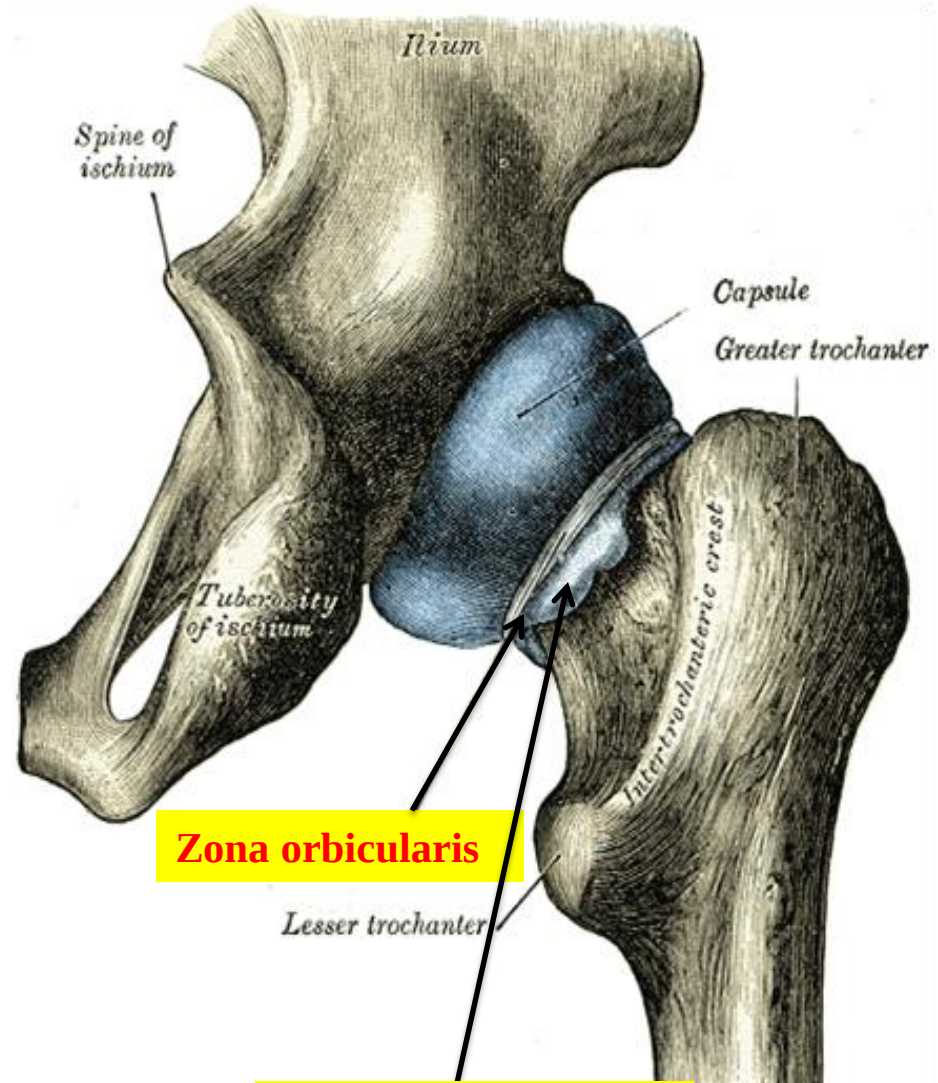
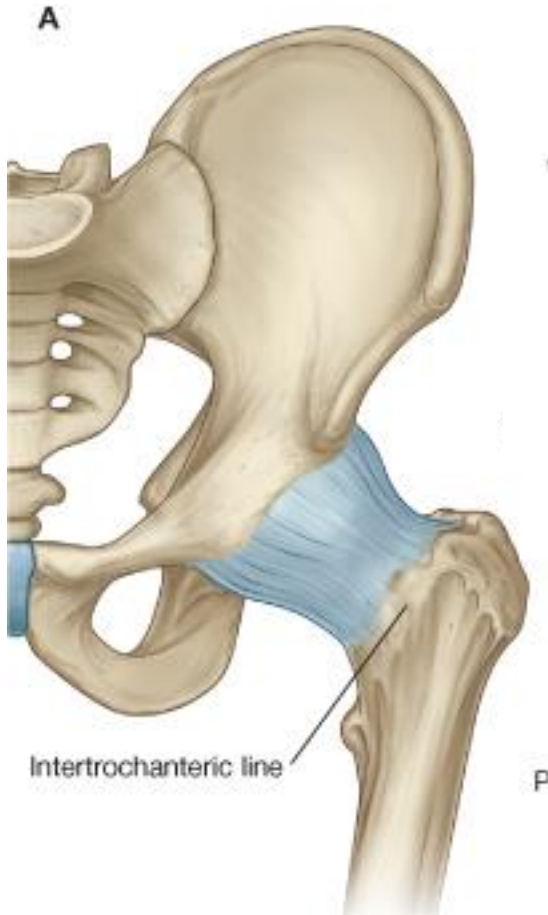
LIGAMENTS OF HIP JOINT

- **FIBROUS CAPSULE / CAPSULAR LIGAMENT**
- **LIGAMENT OF HEAD OF FEMUR**
- **ACETABULAR LABRUM**
- **TRANSVERSE ACETABULAR LIGAMENT**
- **ILIOFEMORAL LIGAMENT**
- **PUBOFEMORAL LIGAMENT**
- **ISCHIOFEMORAL LIGAMENT**

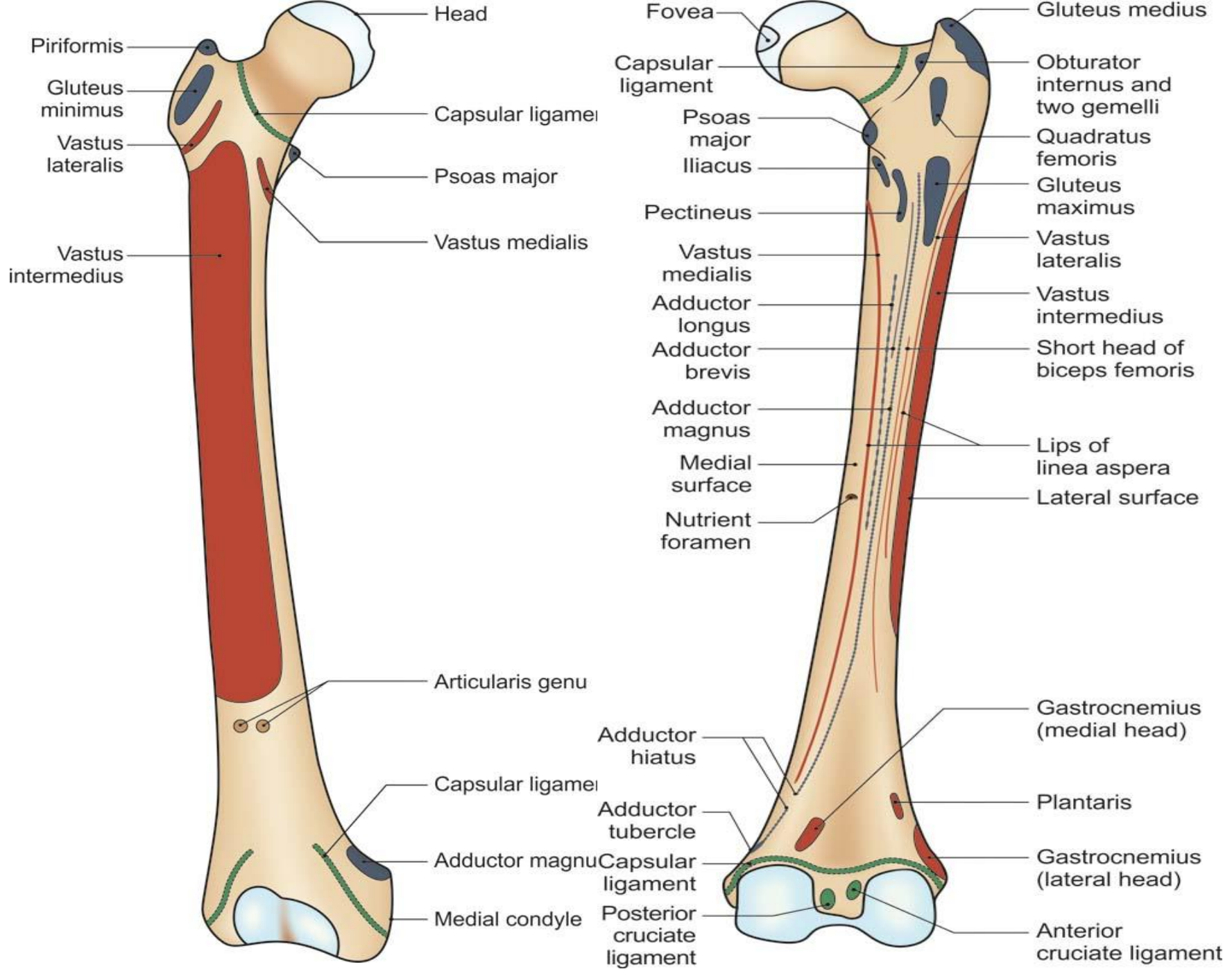
LIGAMENTS OF HIP JOINT



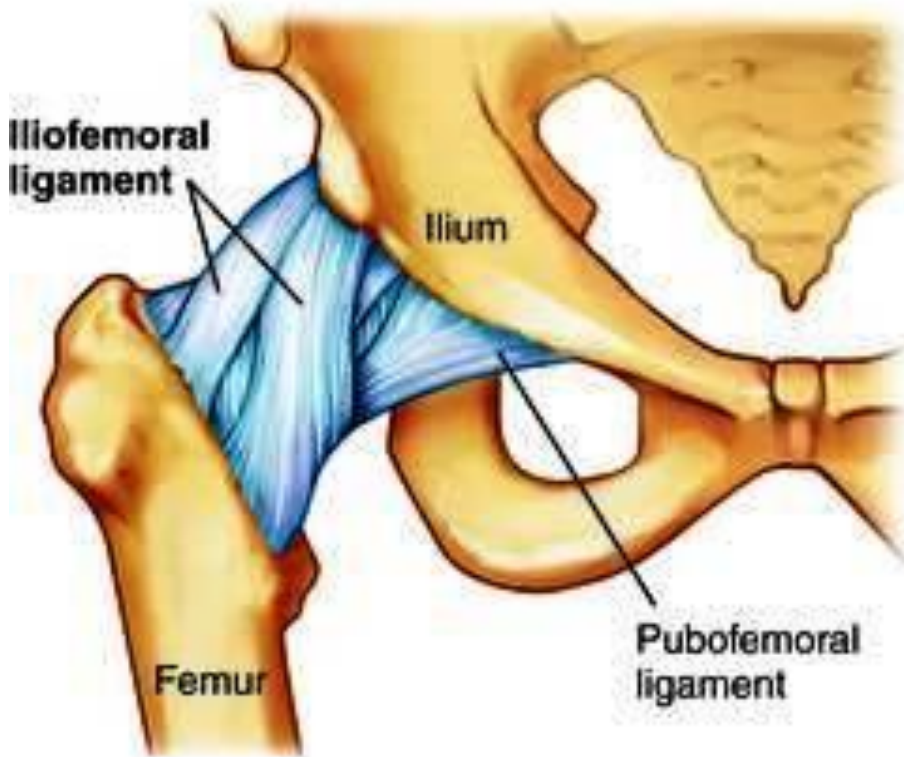
FIBROUS CAPSULE



- Longitudinal fibers-Retinacular fibers
- Inferomedial part-weak hyper abduction-head dislocated



ILIOFEMORAL LIGAMENT



Iliofemoral lig.

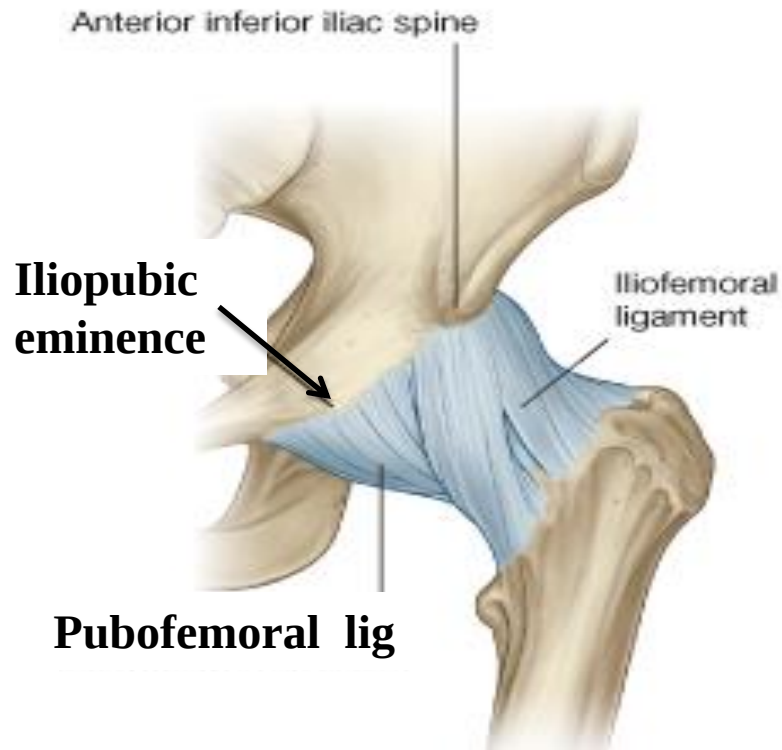
Lig. Of Bigelow (inverted Y shape)

STRONGEST LIG. IN THE BODY

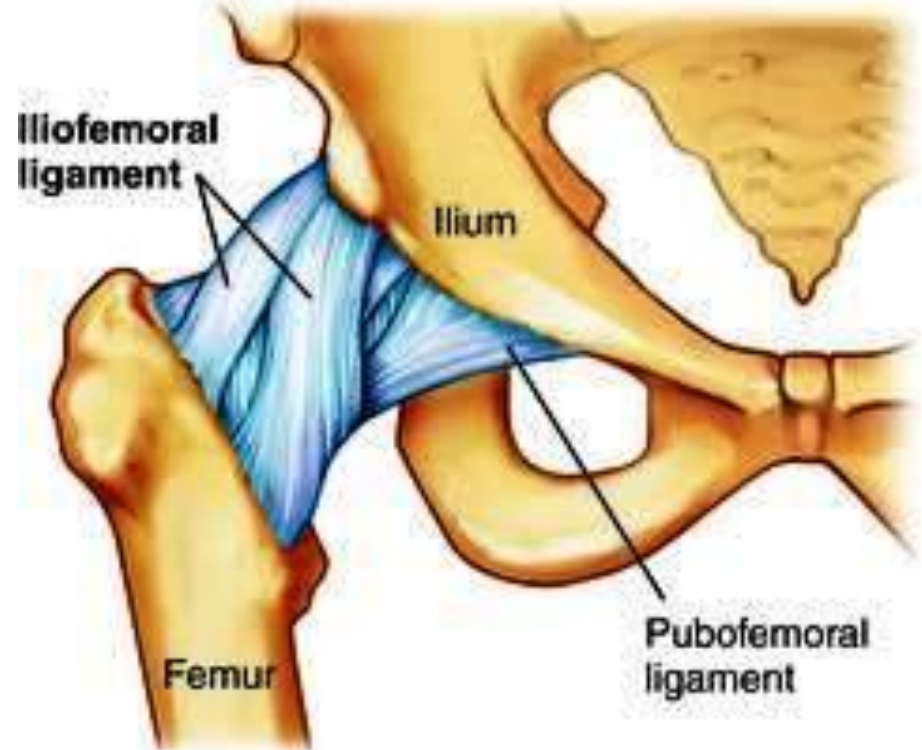
Function

Prevents hyperextension of hip joint

PUBOFEMORAL LIGAMENT



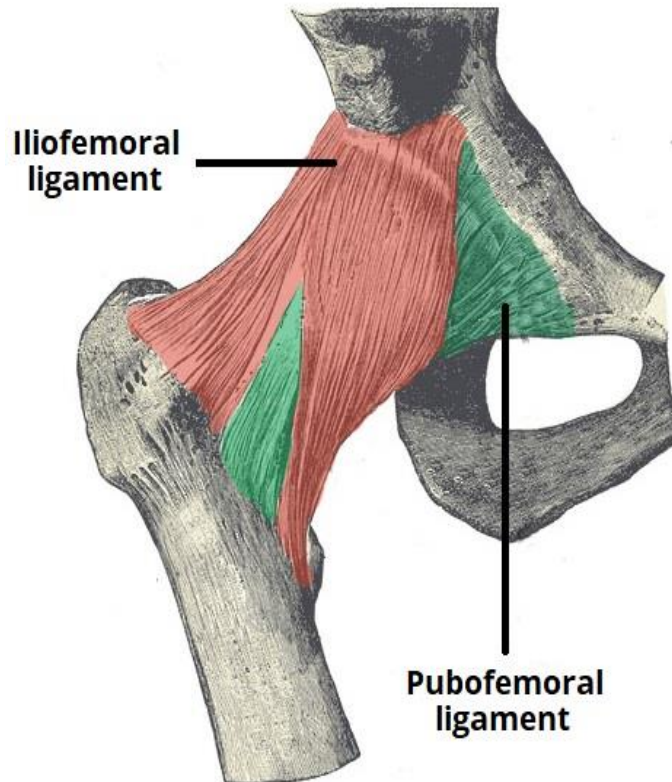
Psoas bursa



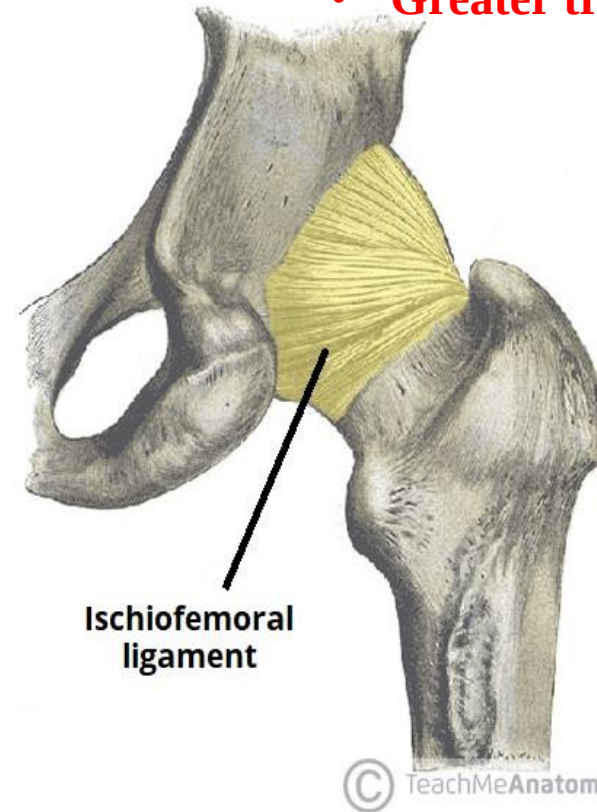
ISCHIOFEMORAL LIGAMENT

- Spirally
- Cont. with zona orbicularis
- Greater trochanter

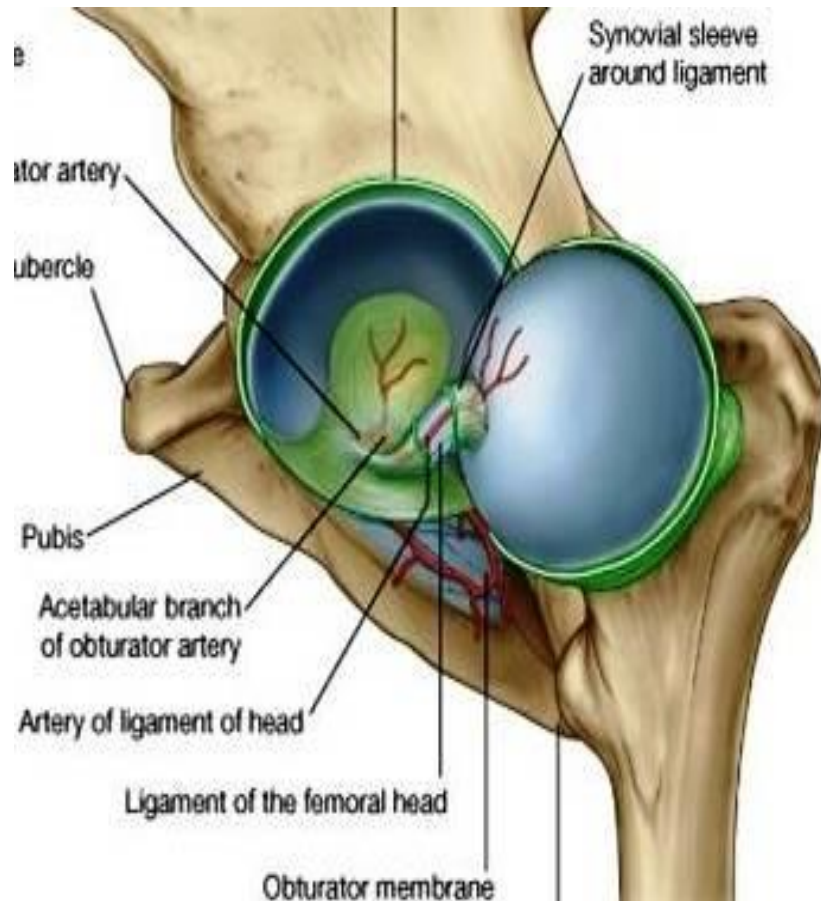
Anterior



Posterior



LIGAMENT OF HEAD OF FEMUR



Ligamentum teres OR Round lig.

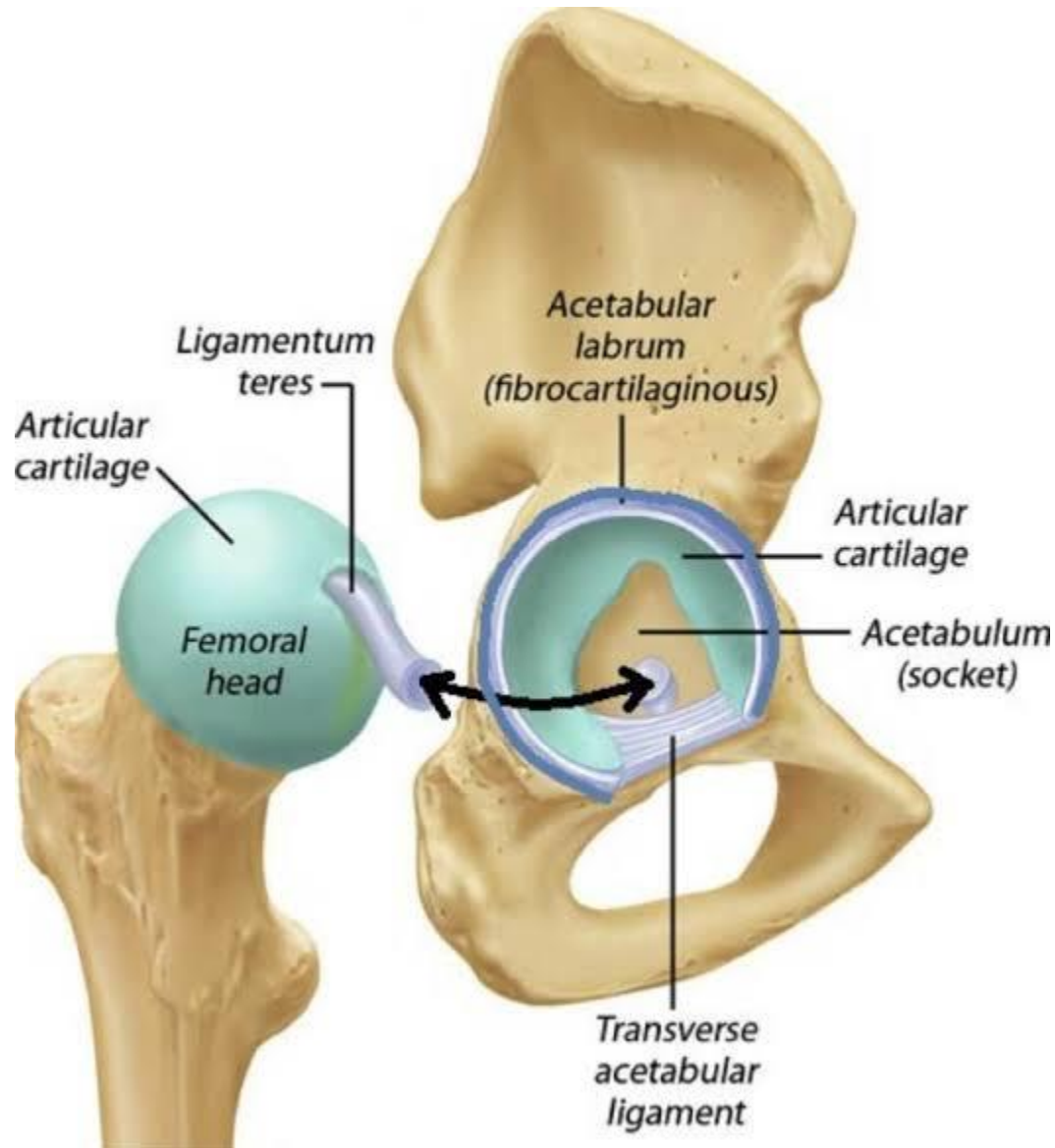
Triangular fibrous band covered by synovial membrane

Absent in Elephants & rhinoceros

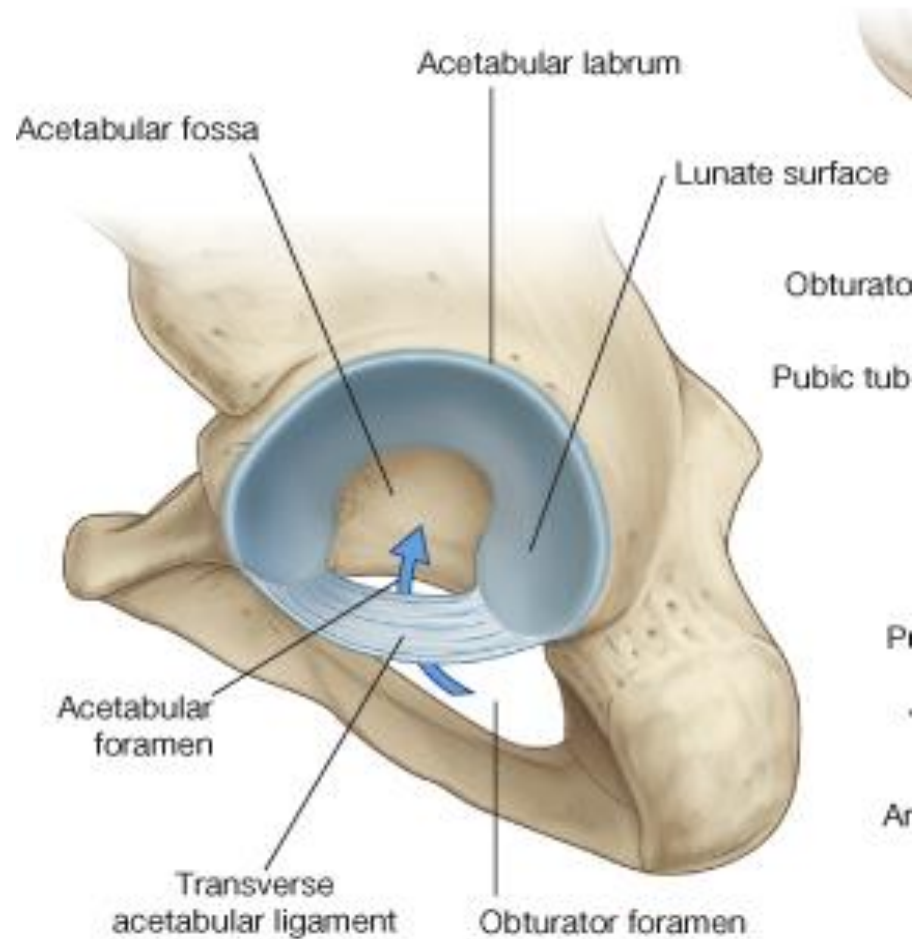
Function

Transmits arteries to the head of femur

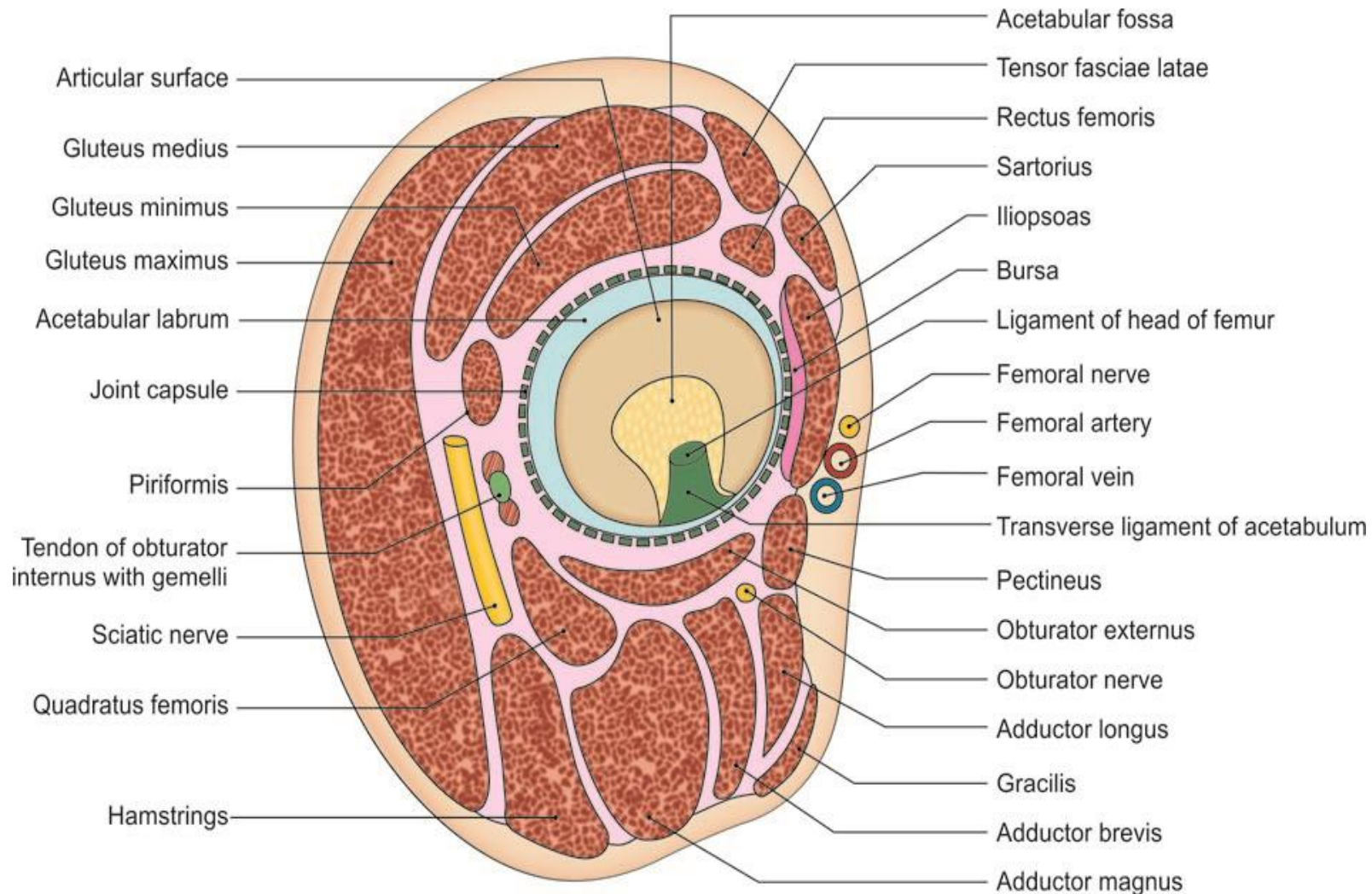
ACETABULAR LABRUM



TRANSVERSE LIGAMENT OF ACETABULUM

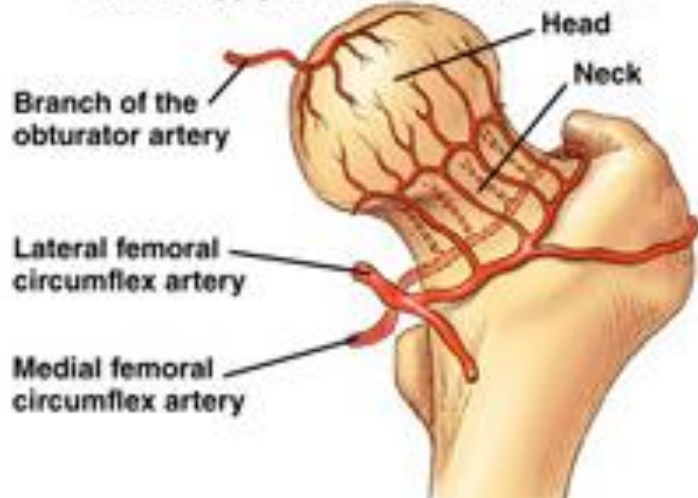


RELATIONS OF THE HIP JOINT

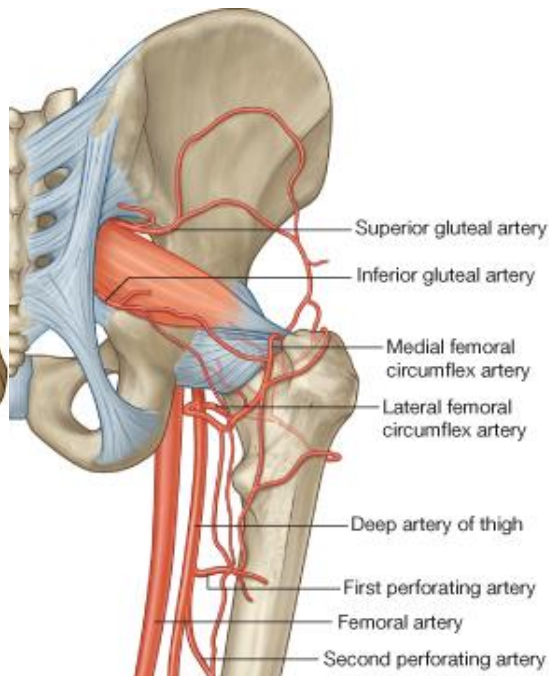
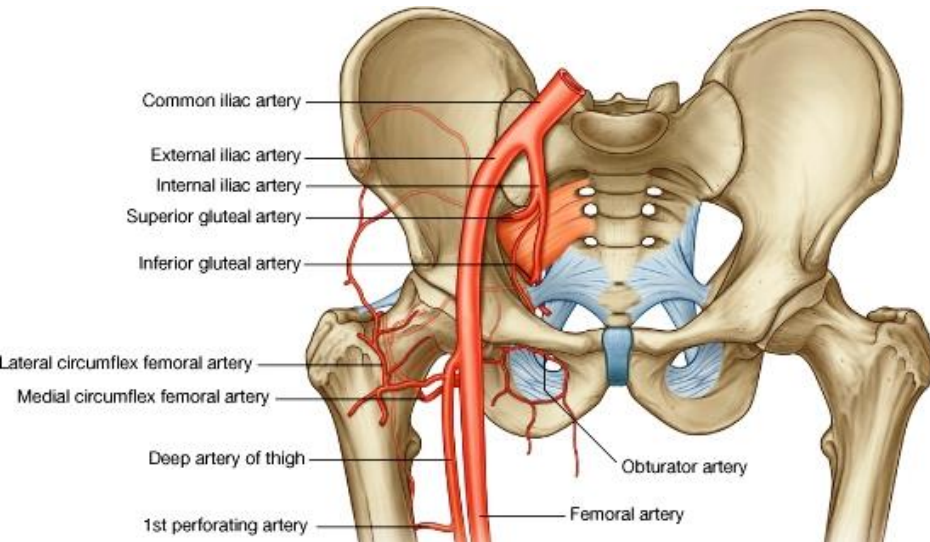
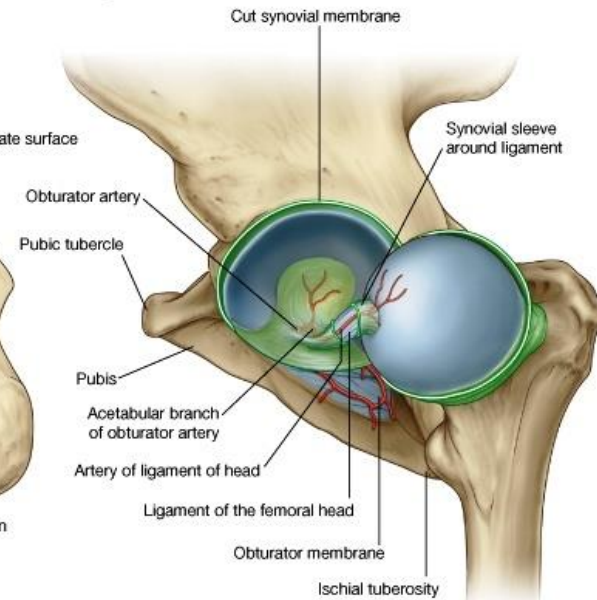
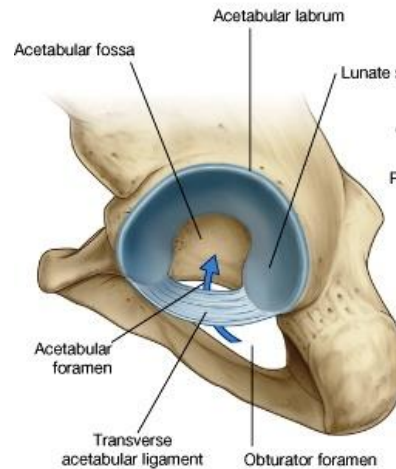


BLOOD SUPPLY

Blood Supply to Head and Neck of Femur



A B



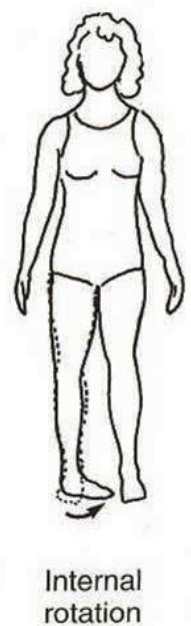
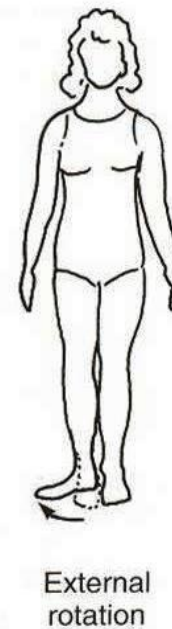
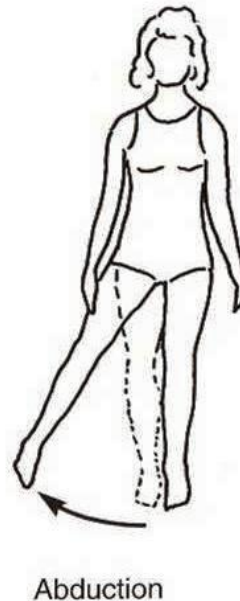
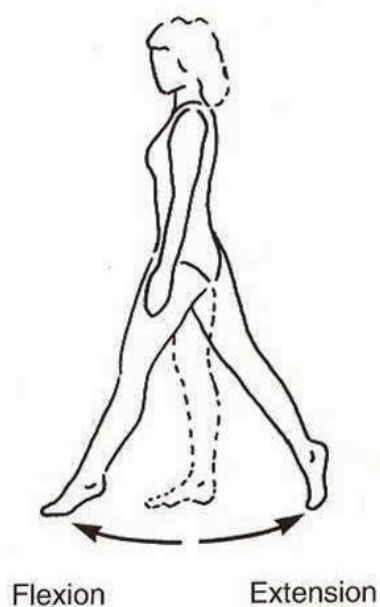
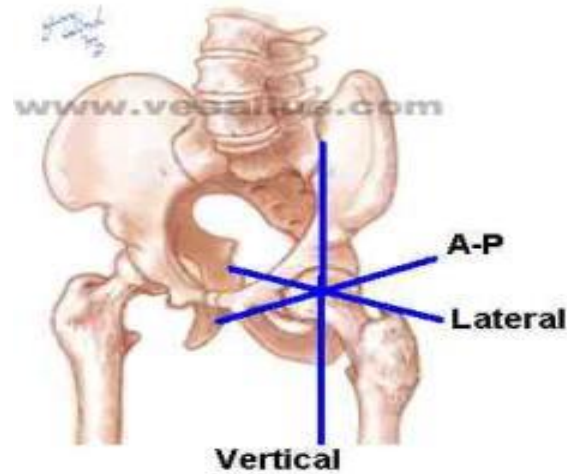
- Obturator a.
- Two circumflex femoral a.
- Two gluteal a.

NERVE SUPPLY

- 1) Femoral n. through- n. to rectus femoris**
- 2) Obturator n. –anterior division**
- 3) Accessory obturator n.**
- 4) Superior gluteal n.**
- 5) N. to Quadratus femoris**
- 6) Sciatic n. (occasionally)**

Thank you

MOVEMENTS OF THE HIP JOINT



B

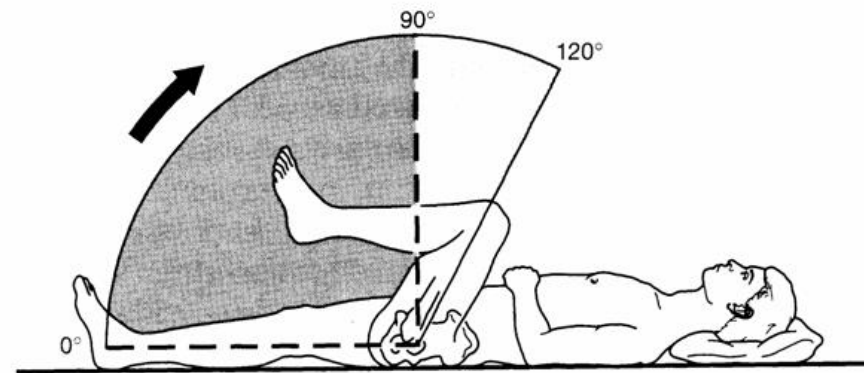
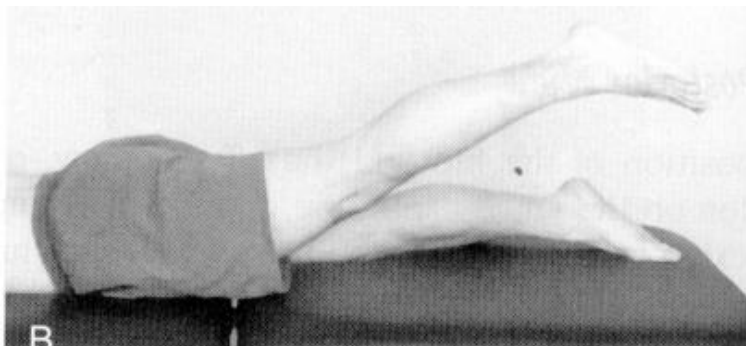
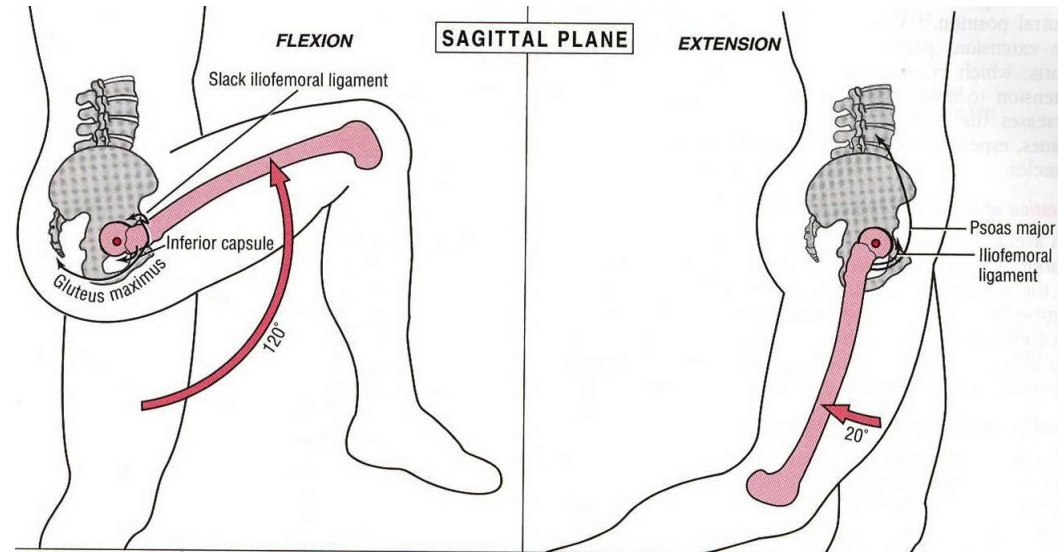
C

D

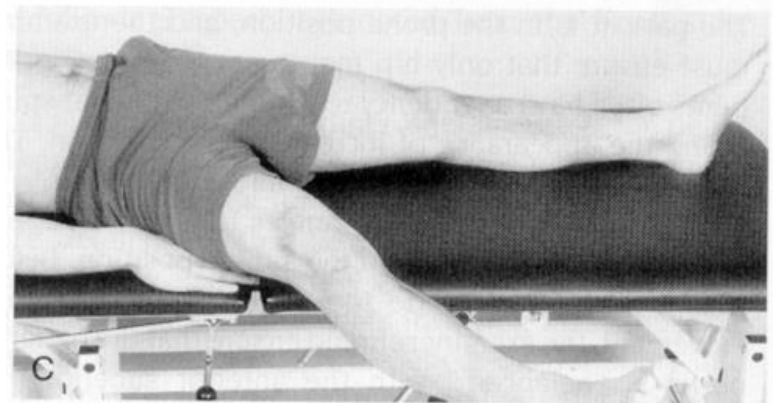
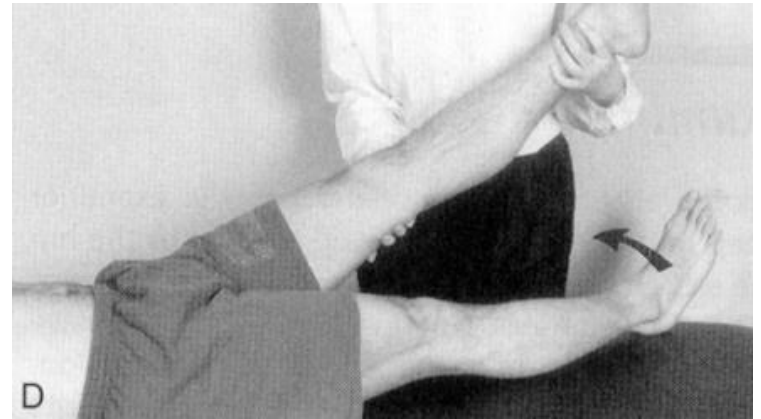
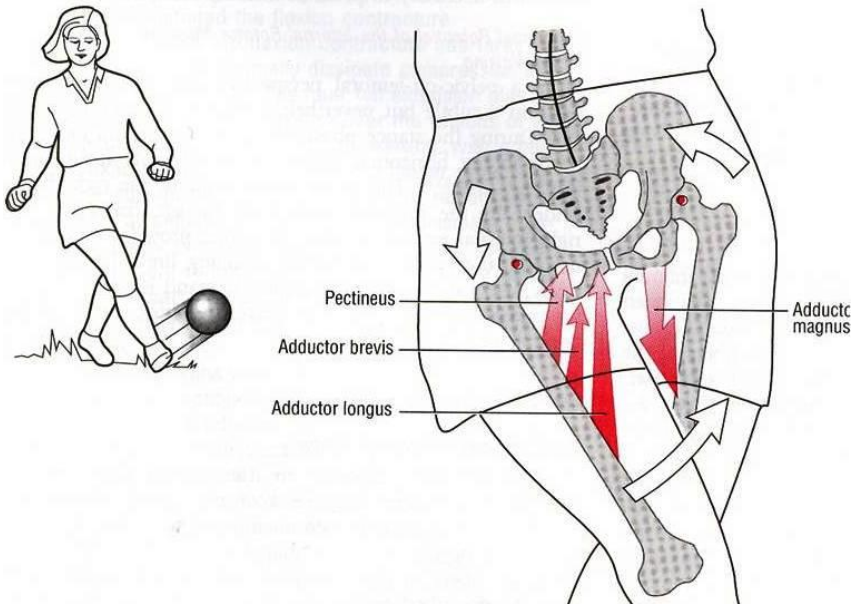
E

Flexion & Extension

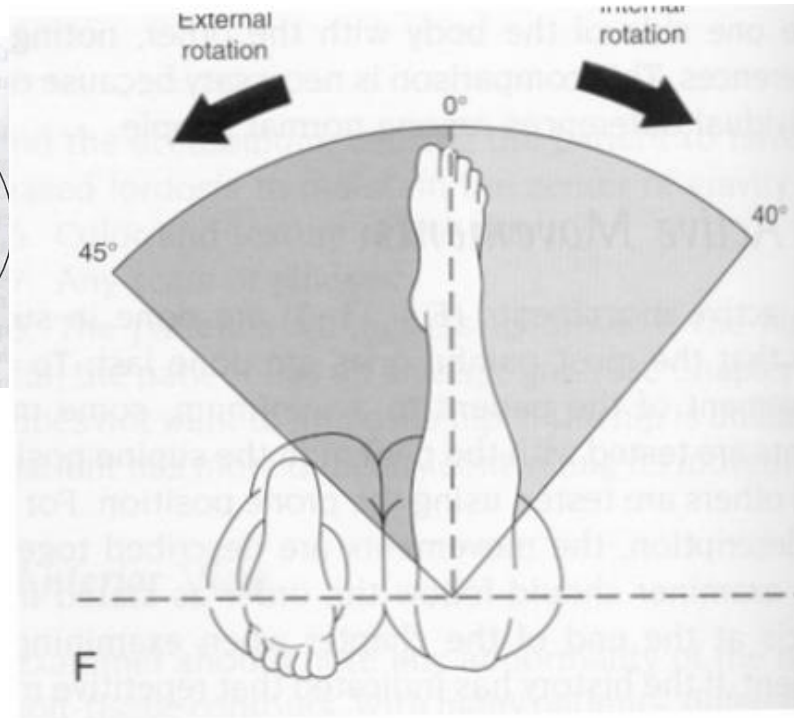
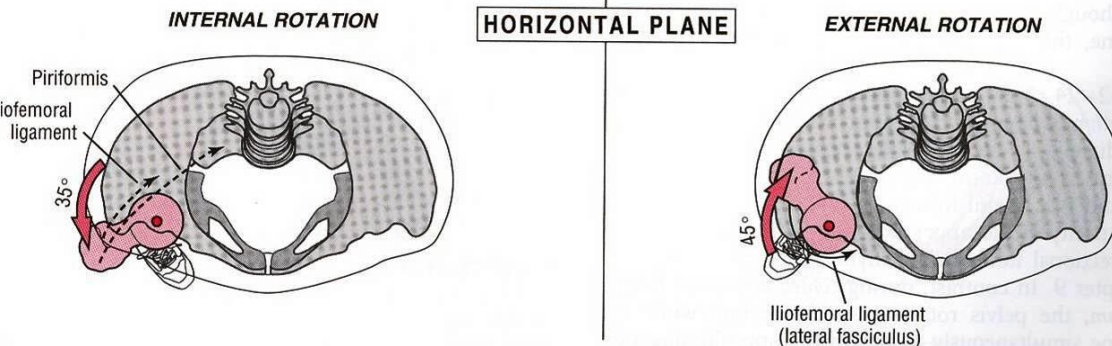
- Extension



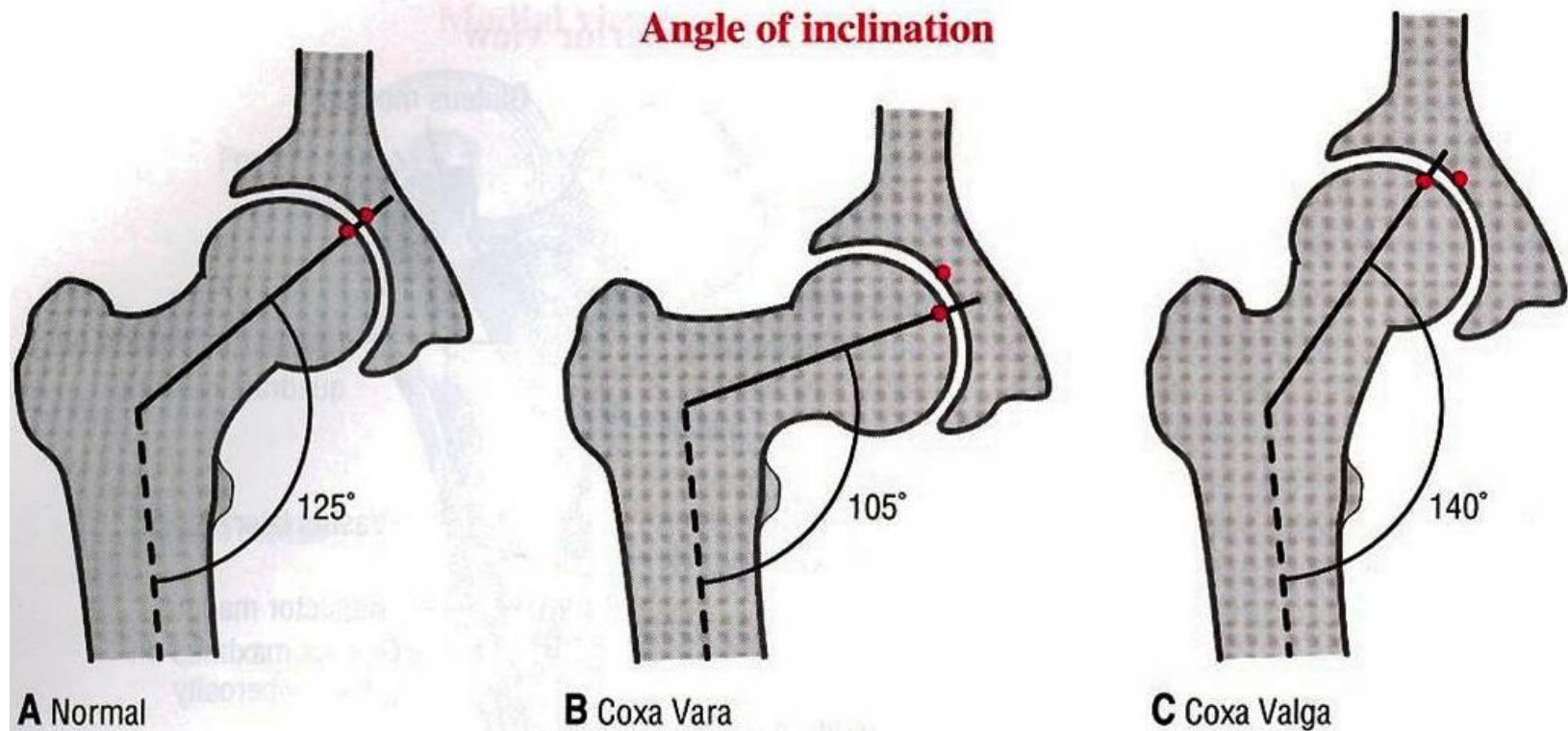
Adduction & Abduction



Medial & Lateral rotation



Neck- shaft angle

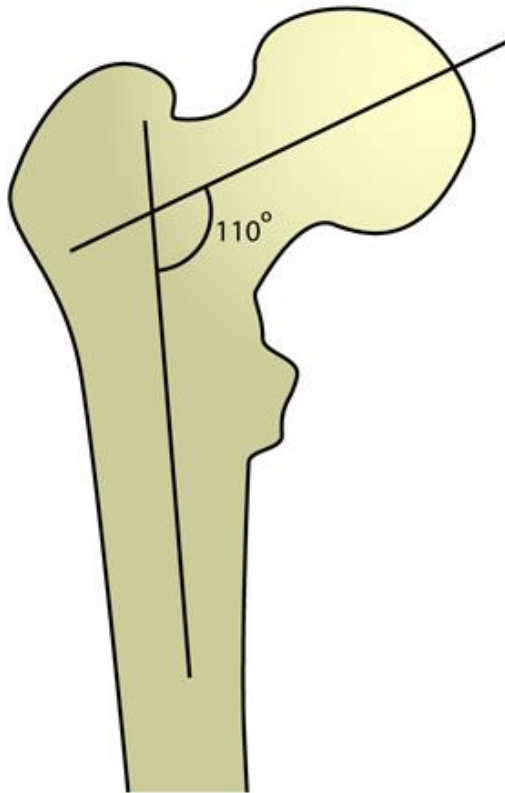


Coxa vara (<120)
(abnormally **decreased** angle of inclination, it occurs in **fractures of the neck of the femur** and slipping of the femoral epiphysis)

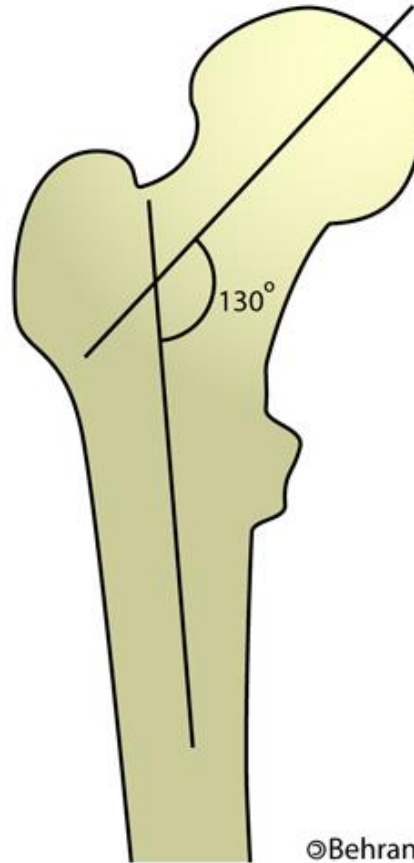
Coxa valga (>135)
(abnormally **increased** angle of inclination, in cases of **congenital dislocation of the hip**)

COXA VARA & COXA VALGA

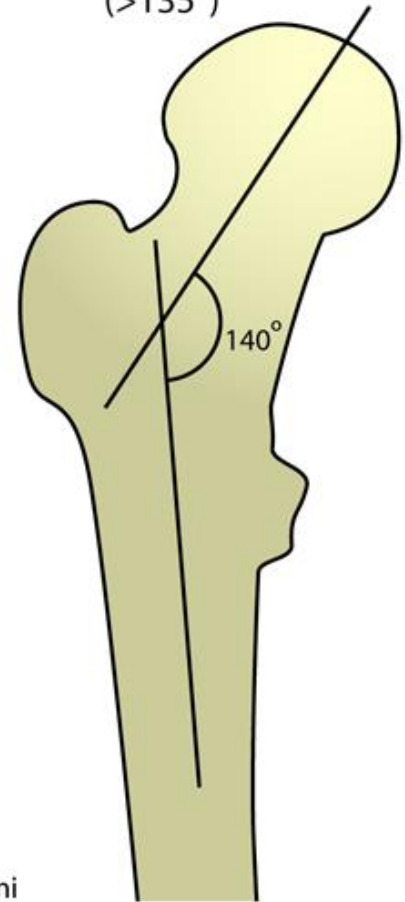
Coxa vara
($<120^\circ$)



Normal
(120° - 135°)

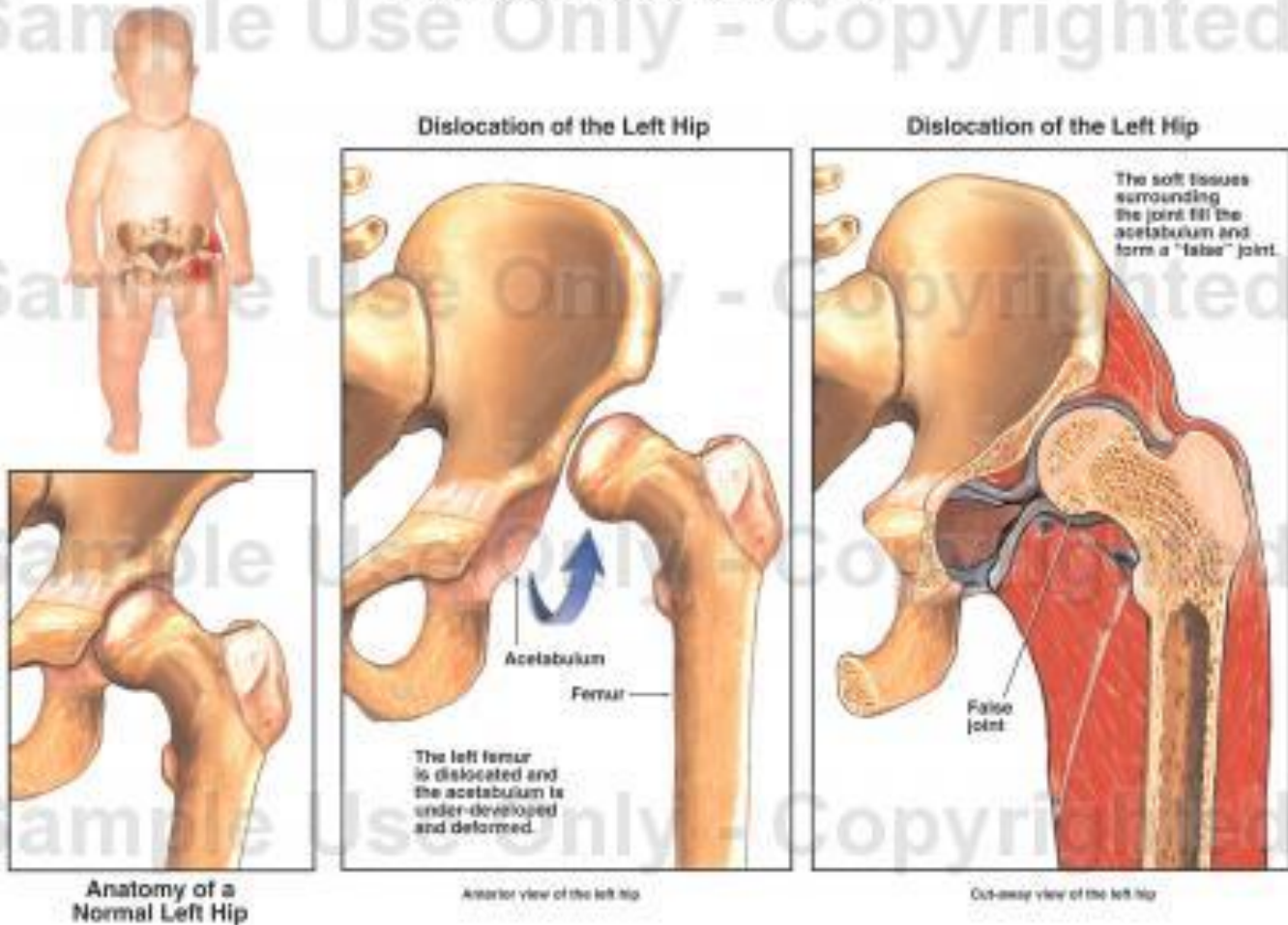


Coxa valga
($>135^\circ$)

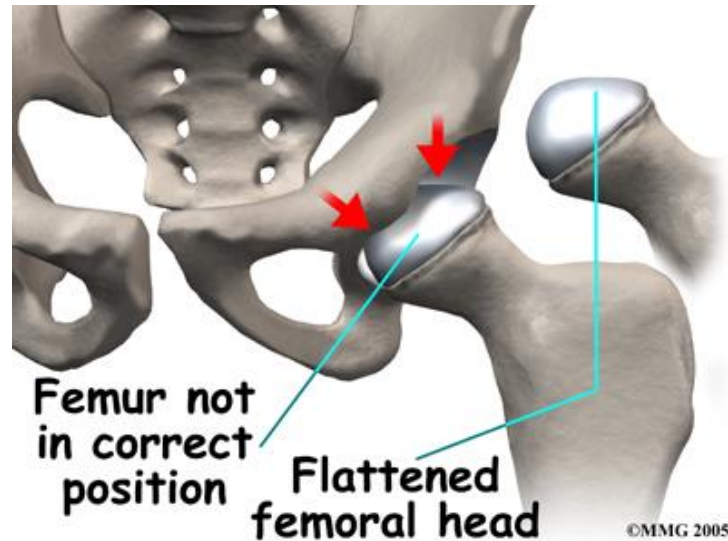


CONGENITAL DISLOCATION OF HIP JOINT

Congenital Dislocation (Dysplasia) of the Hip in an Infant

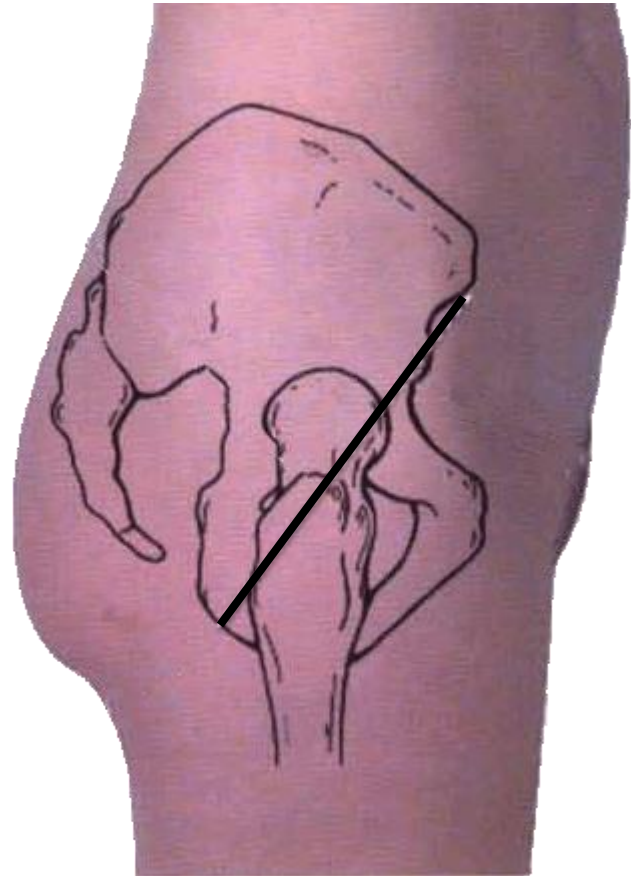


LEG G-CALVE PERTHES'S DISEASE [PSUDOCOXALGIA]



Nelaton's line

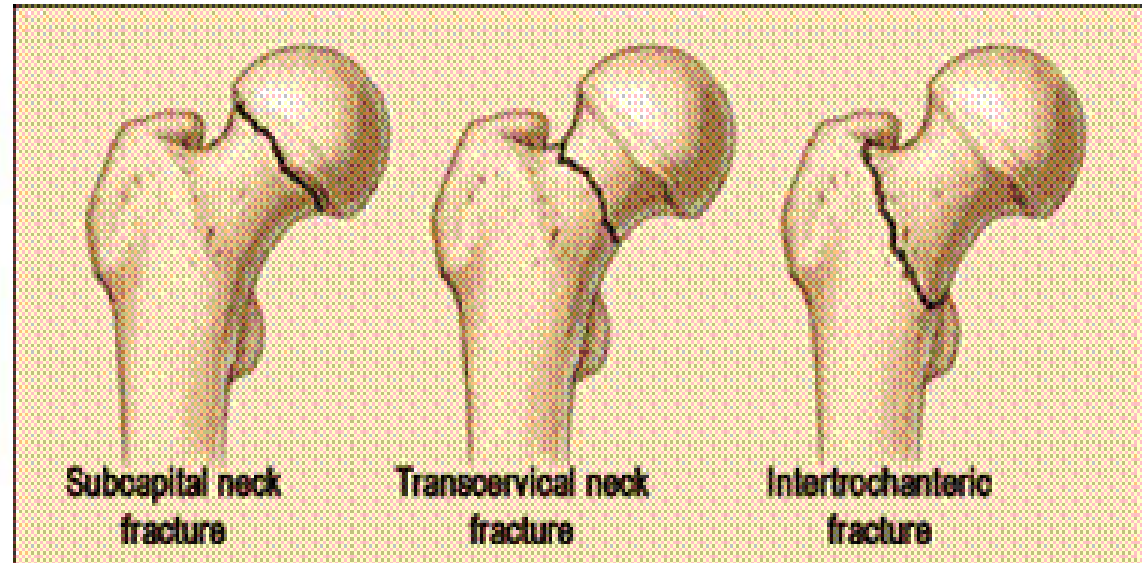
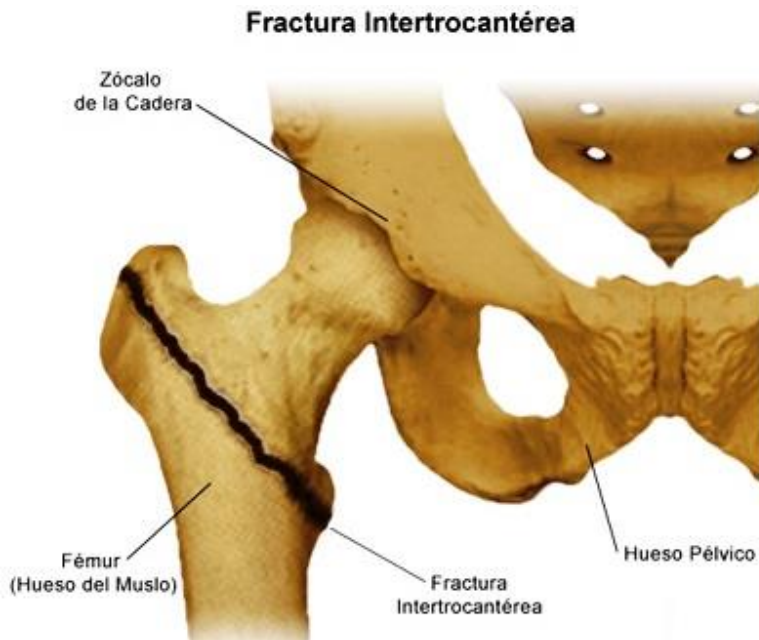
- A line drawn from the anterior superior iliac spine to the ischial tuberosity, passing over or near the top of the greater trochanter.
- The trochanter can be felt superior to this line in a person with a **dislocated hip** or a **fractured femoral neck**.



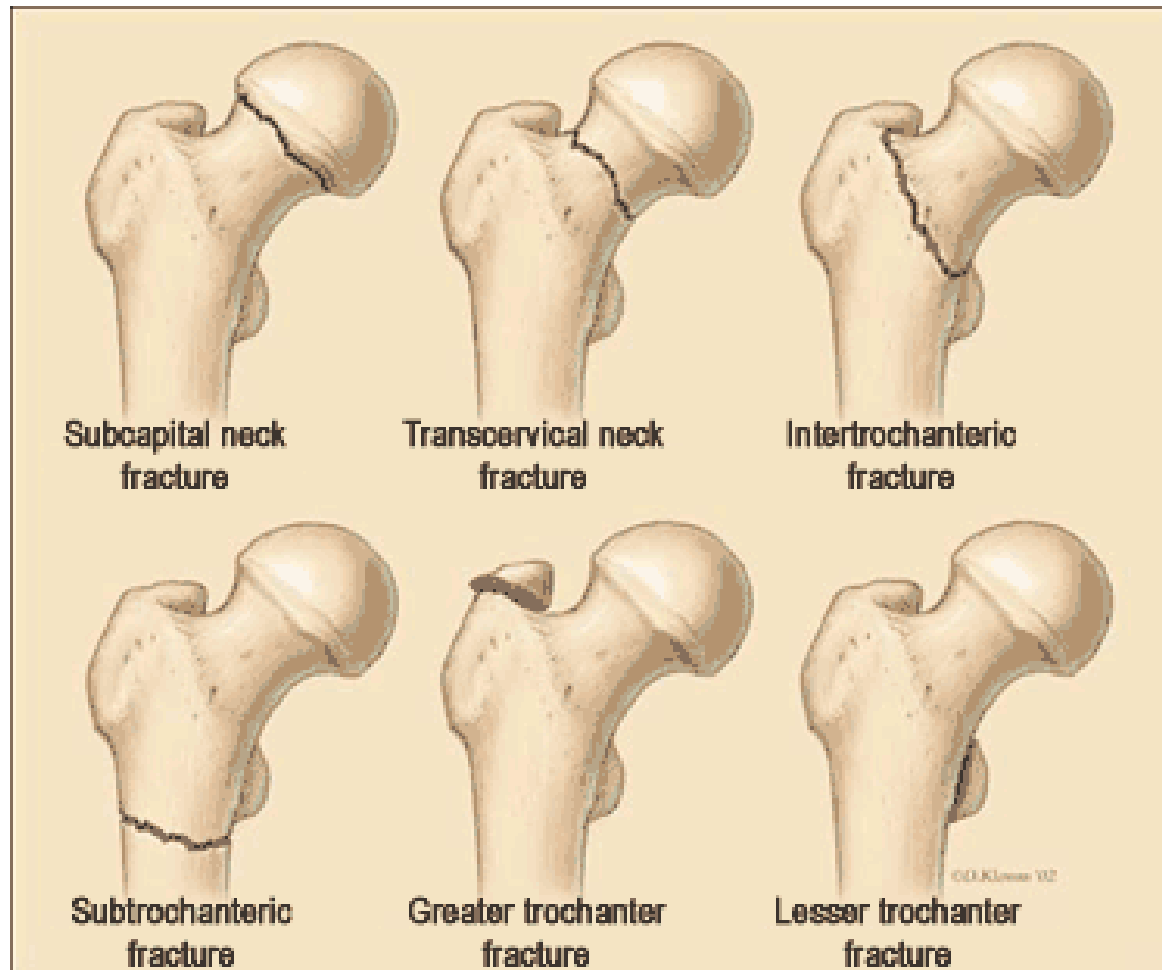
Shenton's line



Fracture : of neck of femur



Fracture : of neck of femur



Osteoarthritis of the Hip joint

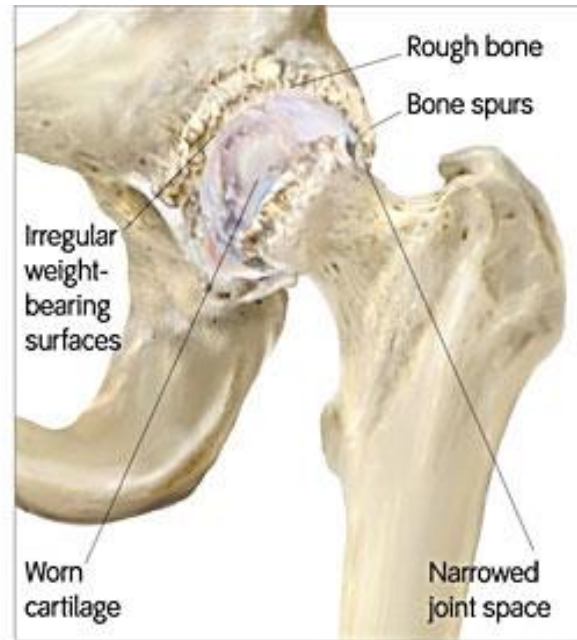
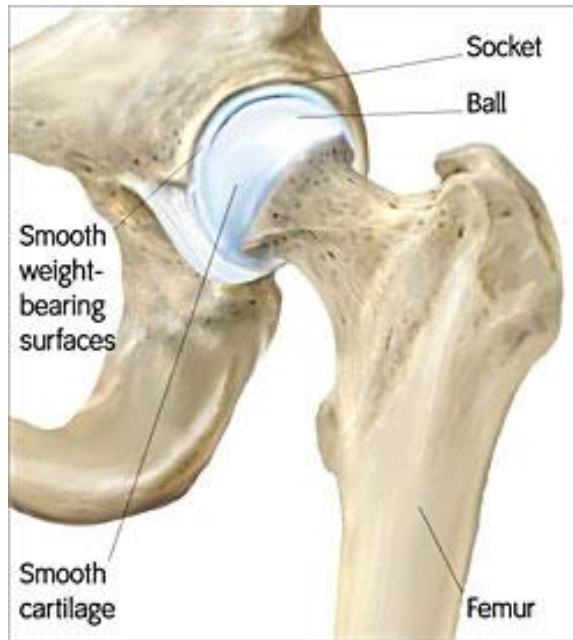
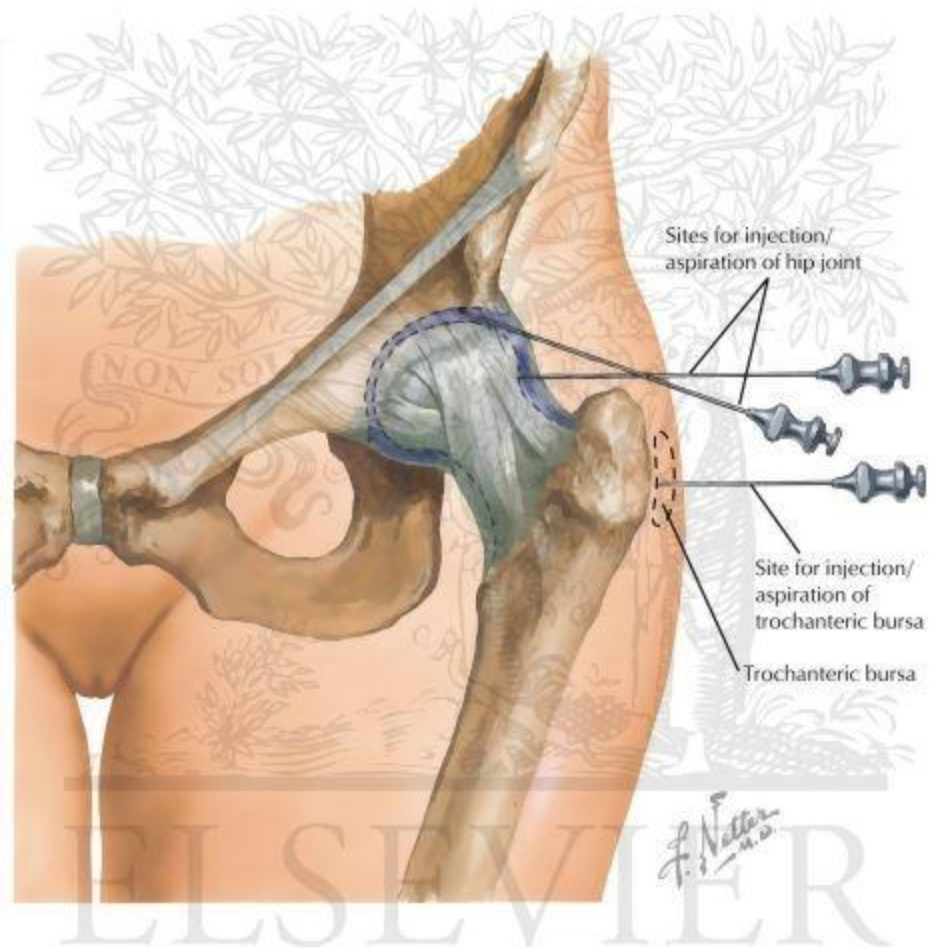


Figure 1



Figure 2

ASPIRATION OF HIP JOINT



Thank you