

HIP JOINT

- forms connection b/w pelvic girdle and lower limb.
- largest ball and socket joint.

① TYPE → Ball and socket variety of synovial joint, multiaxial

② Articular surface → head of femur & Acetabulum of hip bone

head of femur → forms more than half of sphere.

- covered by articular hyaline cartilage.
- Except for a small pit → fovea capitis femoris for ligamentum teres.

acetabulum → horse shoe shaped concave surface

• acetabular notch

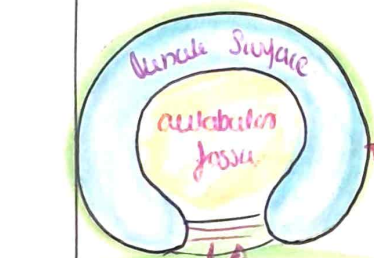
• acetabular fossa (non articulating part)

→ only concave surface is articular → covered by articular hyaline cartilage.

• depth of acetabulum is ↑ by

transverse acetabular ligament and acetabular labrum.

{ surrounds bony rim of acetabulum.



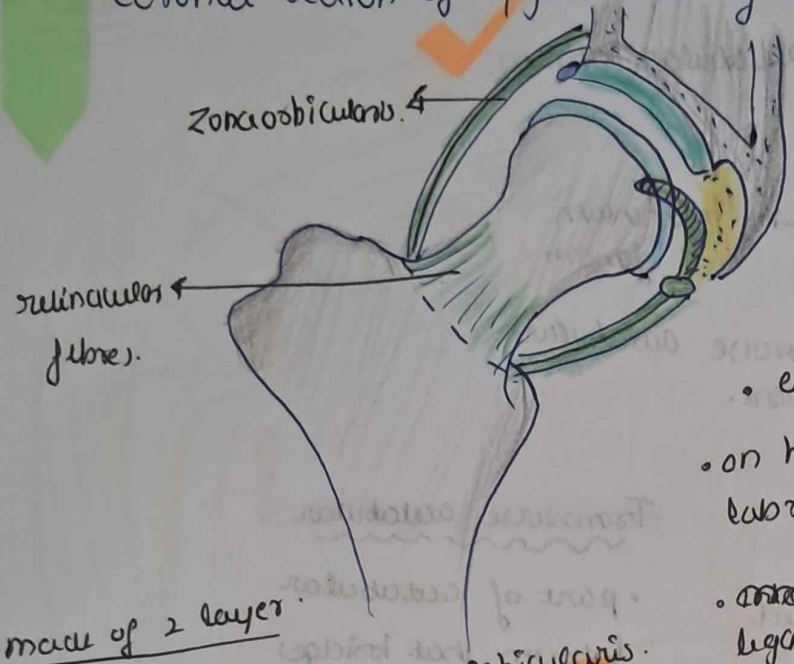
acetabular notch.

over

③ LIGAMENTS →

- ① Capsular ligament
- ② Iliofemoral ligament
- ③ Pubofemoral ligament
- ④ Ischiofemoral ligament
- ⑤ Transverse acetabular ligament
- ⑥ Acetabular labrum.
- ⑦ Ligamentum Teres femoris. / round ligament of head of femur.

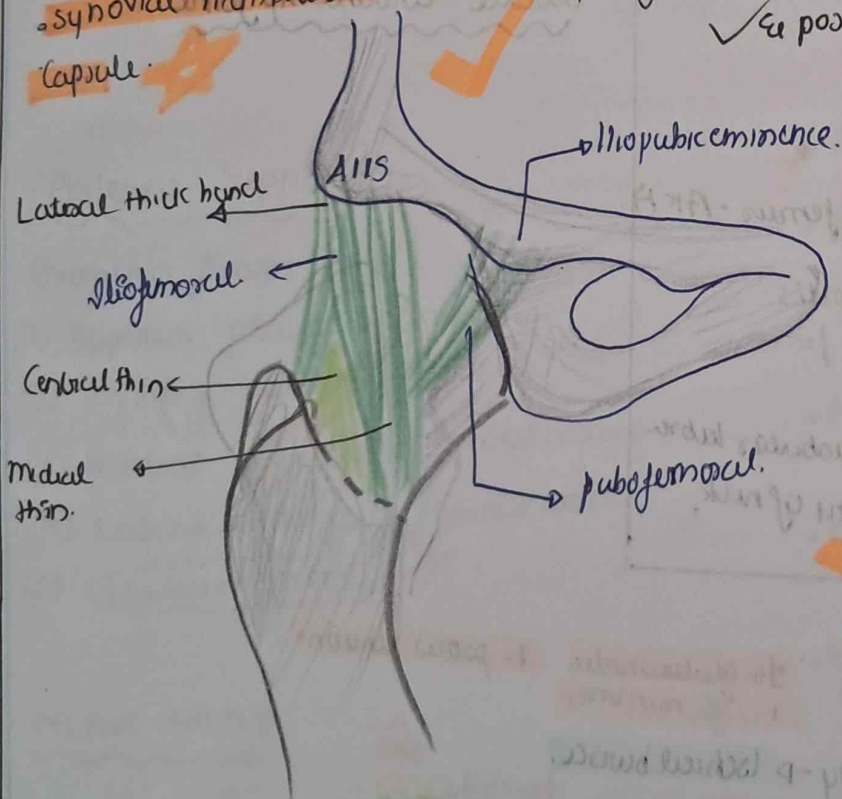
Coronal section of hip joint showing Joint capsule.



made of 2 layers.
 inner circular fibres → zona orbicularis.
 outer longitudinal → retinacular fibres.
 synovial membrane lines inner aspect of capsule.

Capsular Ligament:

- encloses the joint.
- on hip bone: attached to acetabular labrum, 5-6mm beyond acetabular margin.
- on femur: Intertrochanteric line.
- Thicker anterosuperiorly
- weaker posteriorly

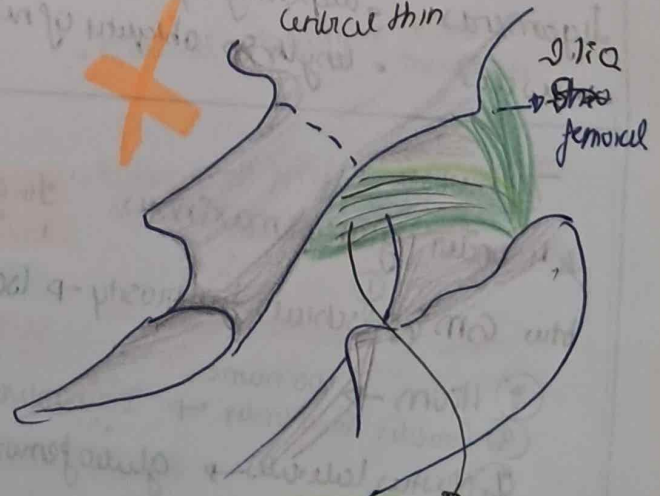


Ilio-femoral Ligament
 (Bigelow)

- Inverted Y shaped.
- apex → AIIS
- base → Intertrochanteric line.
- 3 parts: lateral oblique thick, medial vertical thin, central thin.

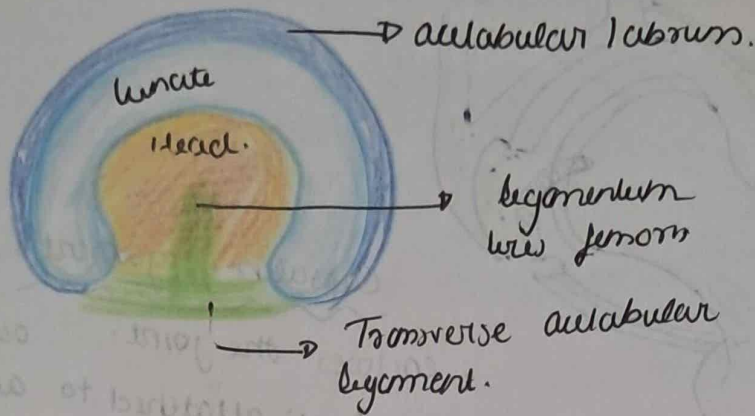
Pubofemoral Ligament

- base → Iliopubic eminence.
- apex → blends with capsule & Ilio-femoral Ligament.



Ischiofemoral Ligament

- supports posteriorly: weak.
- form labrum → spiral round neck of femur → attach to greater trochanter.



acetabular labrum

- fibrocartilagenous rim attached to acetabular margin.
- deepens acetabulum (socket)
- hold head of femur.

Transverse acetabular

- part of acetabular labrum that bridges acetabular notch.

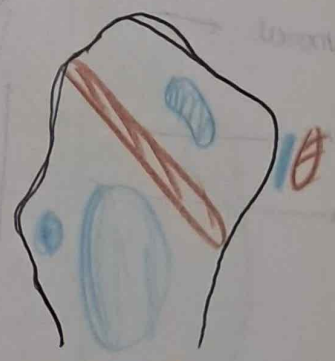
ligamentum teres hepatis

- round ligament of head of femur - AKA
- from T.ac. lig to foramen capitis
- transmits artery to head of femur.

Factors for stability

- ligaments
- muscles
- deepening by acetabular labrum
- length & obliquity of neck.

Bursae around hip joint



7 bursae.

- 4 under gluteus maximus:
 - 2 - gluteus medius
 - 1 - gl. minimus
 - 1 - psos tendon

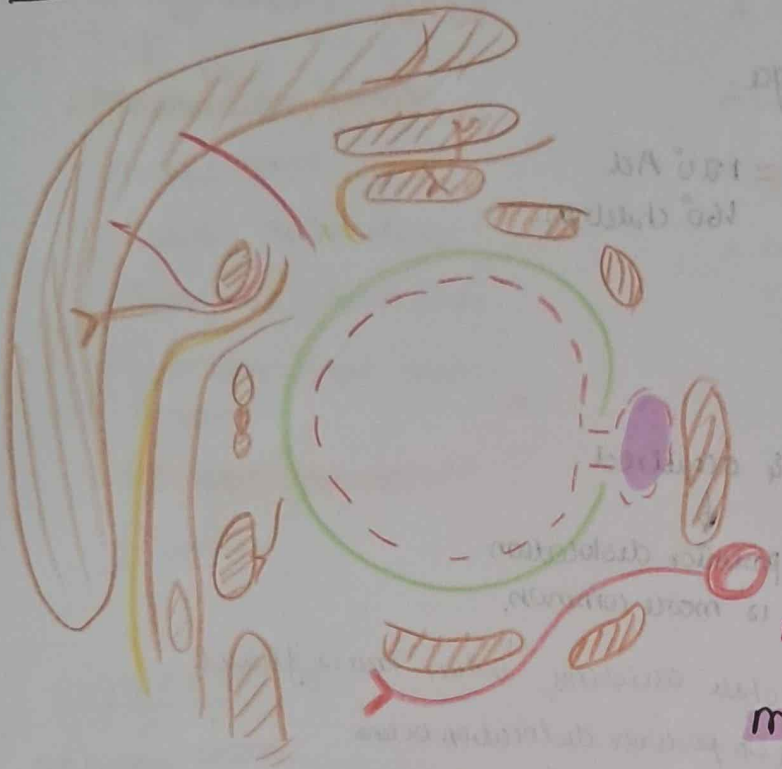
btw GM & Ischial tuberosity → Ischial bursa. **Weaver's bottom**

- ③ Ilium → no name.
- ③ Greater trochanter → Trochanteric bursa.
- ④ Vastus lateralis → Gluteo femoral bursa.

- 1 btw Gluteus medius & Greater trochanter.
- 1 btw gluteus minimus & greater trochanter.
- 1 btw Iliopubic eminence & psos tendon: Subpsos bursa.

{ communicate with synovial cavity }

Relation



mention - 10x10.
what type of m.v.p.l.

Movements & Muscles producing them

- Flexion → Psoas major, Iliacus.
- Extension → Gluteus maximus
- Abduction → G. medius & minimus.
- Adduction → Adductor, longus, brevis, magnus.
- Medial rotation → G. medius & minimus
- Lateral → piriformis, obturator internus, externus.

Arterial supply

Branches from.

- (1) Superior gluteal artery
- (2) Inferior gluteal artery
- (3) Medial circumflex femoral artery
- (4) Lateral circumflex femoral artery.
- (5) Obturator artery.

NERVE SUPPLY

- Femoral nerve via branch to rectus femoris branch of.
- Obturator nerve → anterior division
- nerve to quadratus femoris.
- Superior gluteal nerve
- Sciatic nerve

flexion - 110-120°
 Extension - 15°
 Abduction = 50°
 med rot - 25°
 lat rot = 60°

Applied Read further *

Read More ;

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* Coxa vara & coxa valga.

neck-shaft angle: Normal = 120° Ad.
 160° children.

↑ angle → Coxa valga

↓ angle → Coxa vara.

dislocation → Congenital & acquired

↓
posterior dislocation
is more common.

acquired → during automobile accidents, when knee is flexed

adducted & medially rotated → posterior dislocation occurs

→ Shenton's line * Shoemaker's line *

Thorax & abdomen - pelvis

① stomach. ② left lung. ③ pancreas. ④ kidney. ⑤ heart sinus,

~~⑥~~ ⑥ liver. ⑦ uterus. ⑧ male pelvis sagittal.

⑨ right lung. ⑩ larynx in air.

⑪ Abdominal aorta. ⑫ heart external feature.

⑬ Inferior v. of right atrium. ⑭ spleen. ⑮ testis.

⑯ heart - Blood supply.