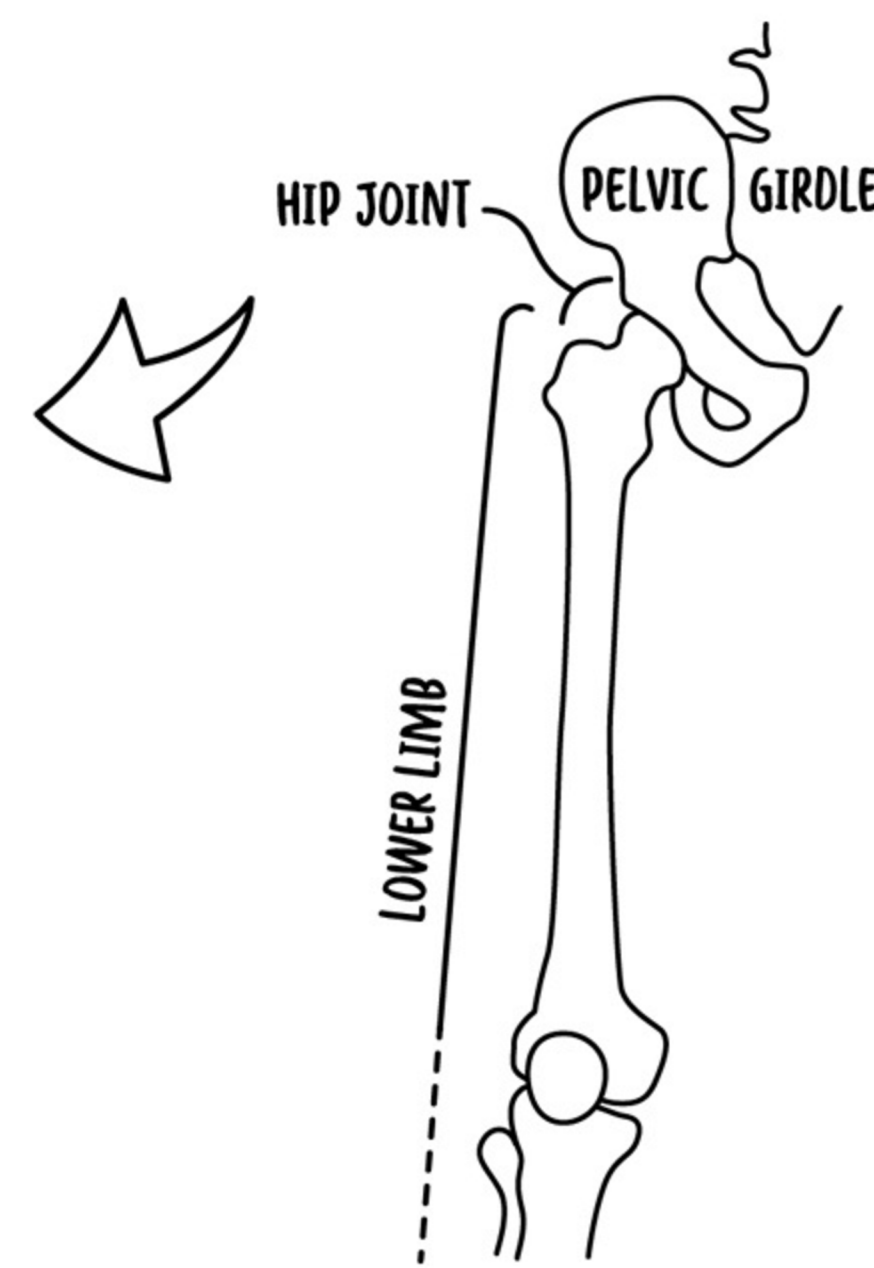
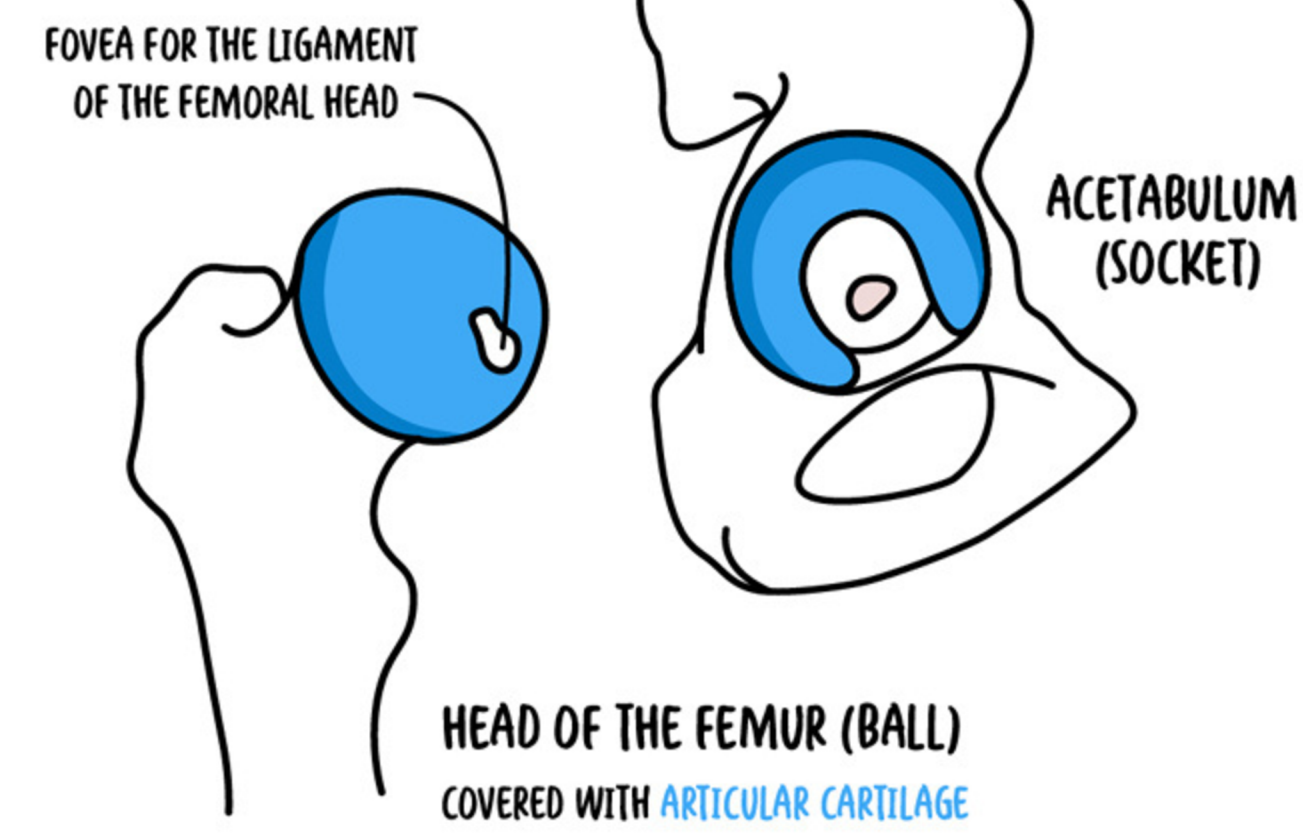
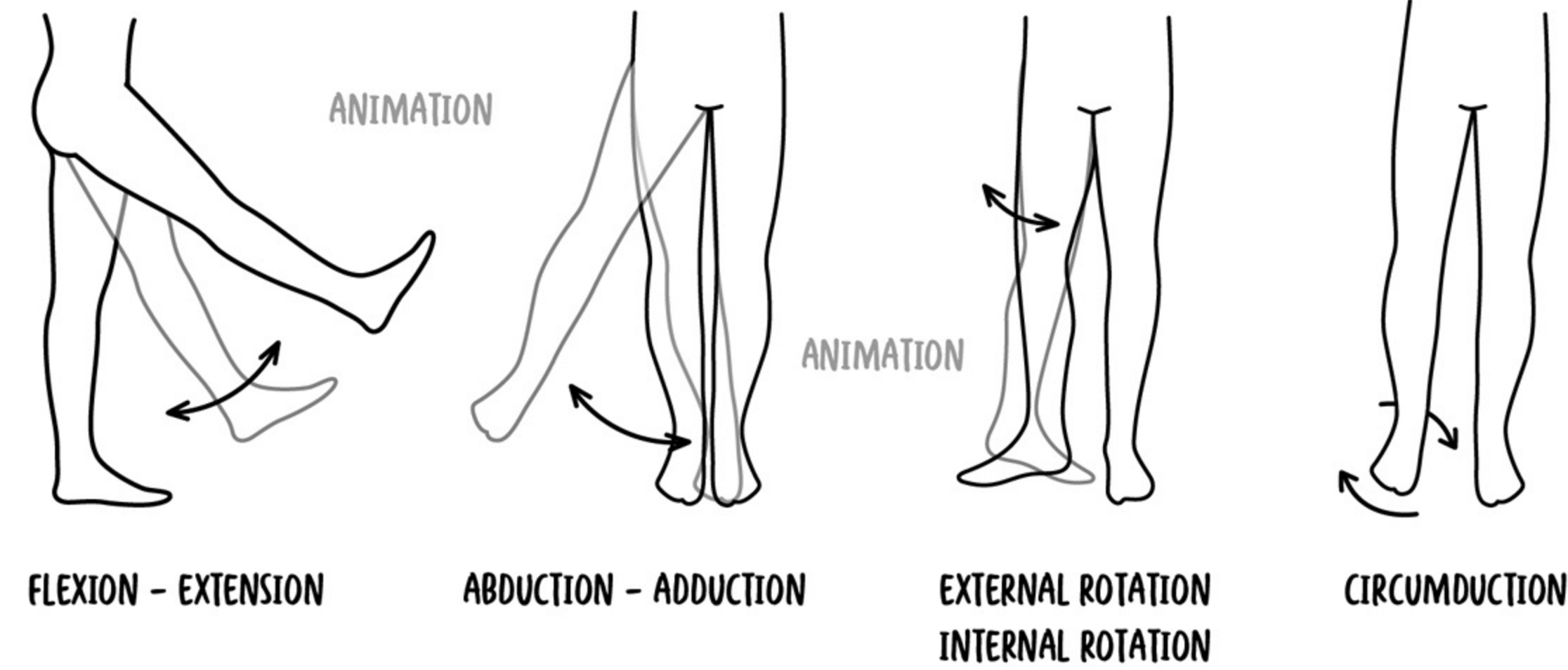


HIP JOINT

- BALL AND SOCKET JOINT



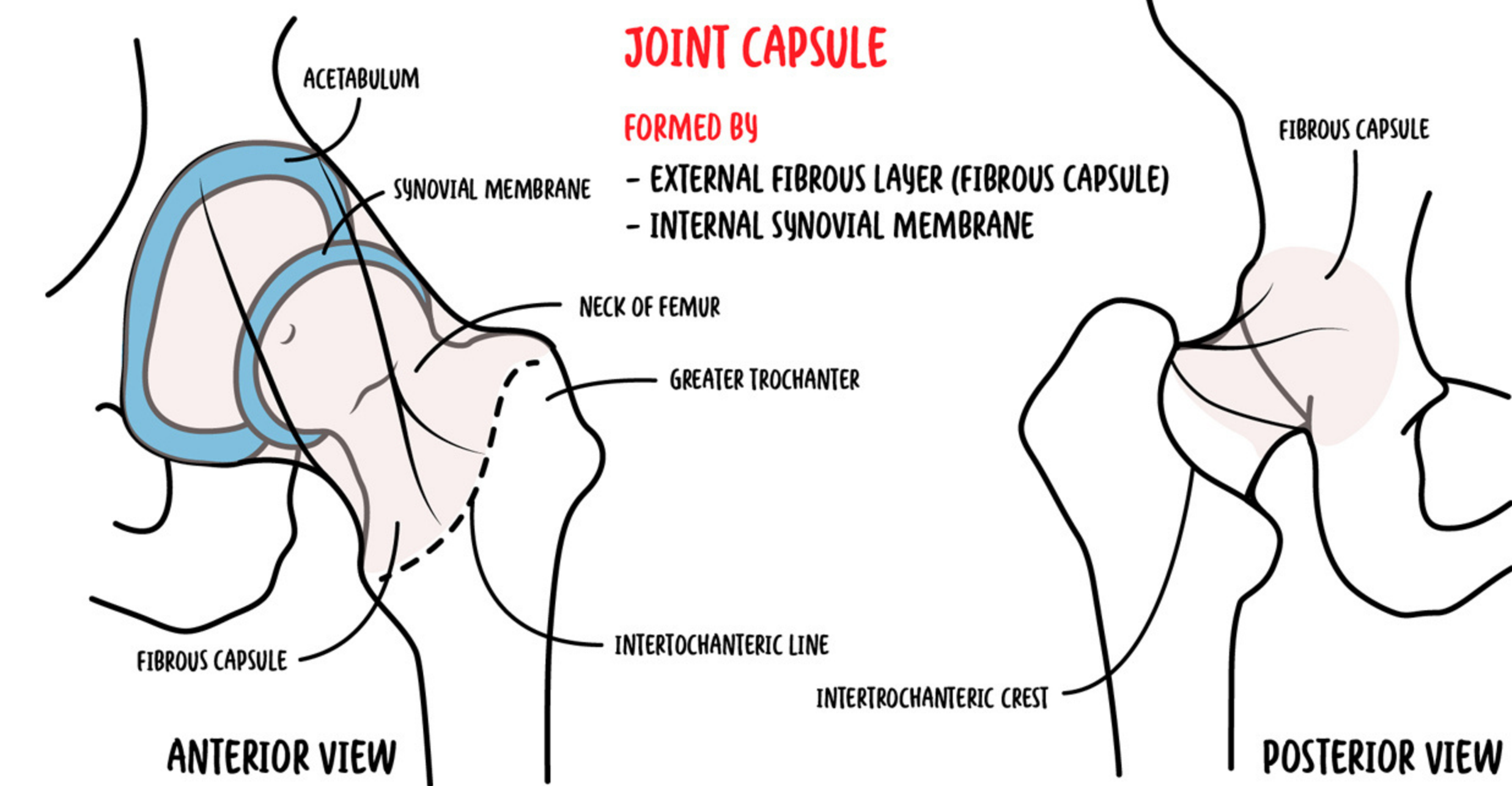
MOVEMENT OF HIP JOINT



JOINT CAPSULE

FORMED BY

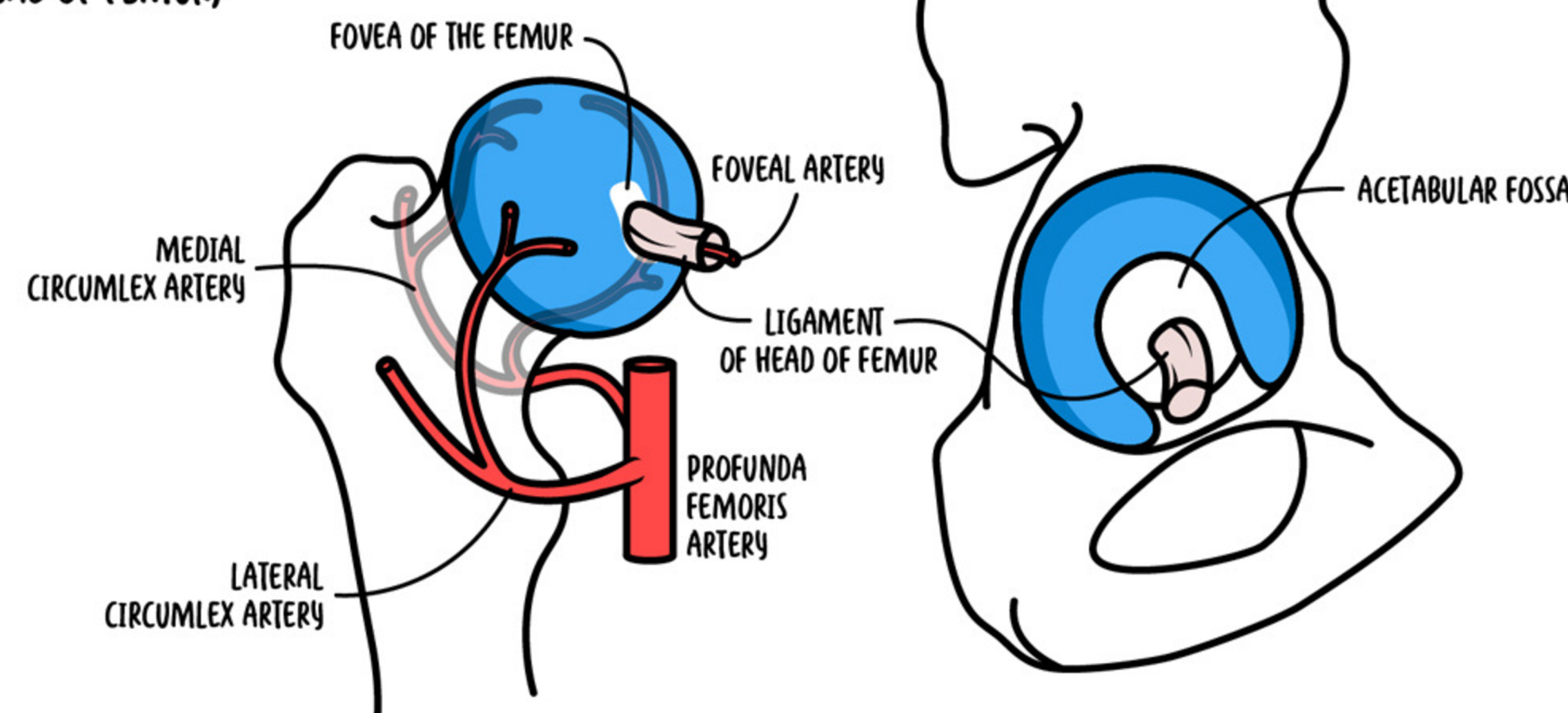
- EXTERNAL FIBROUS LAYER (FIBROUS CAPSULE)
- INTERNAL SYNOVIAL MEMBRANE



INTRACAPSULAR LIGAMENTS

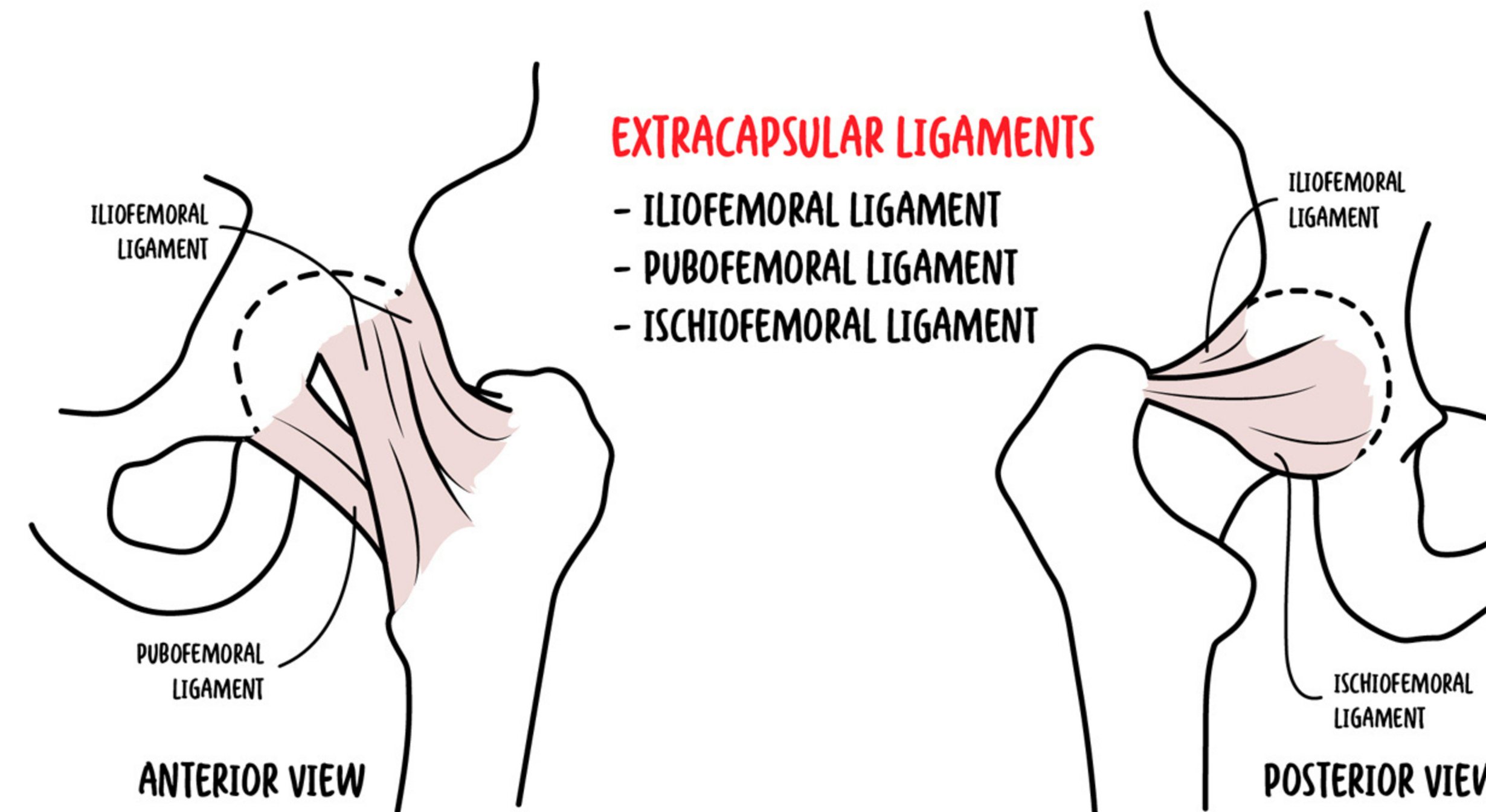
- LIGAMENT OF HEAD OF FEMUR

ENCLOSES A BRANCH OF THE OBTURATOR ARTERY (ARTERY TO HEAD OF FEMUR)



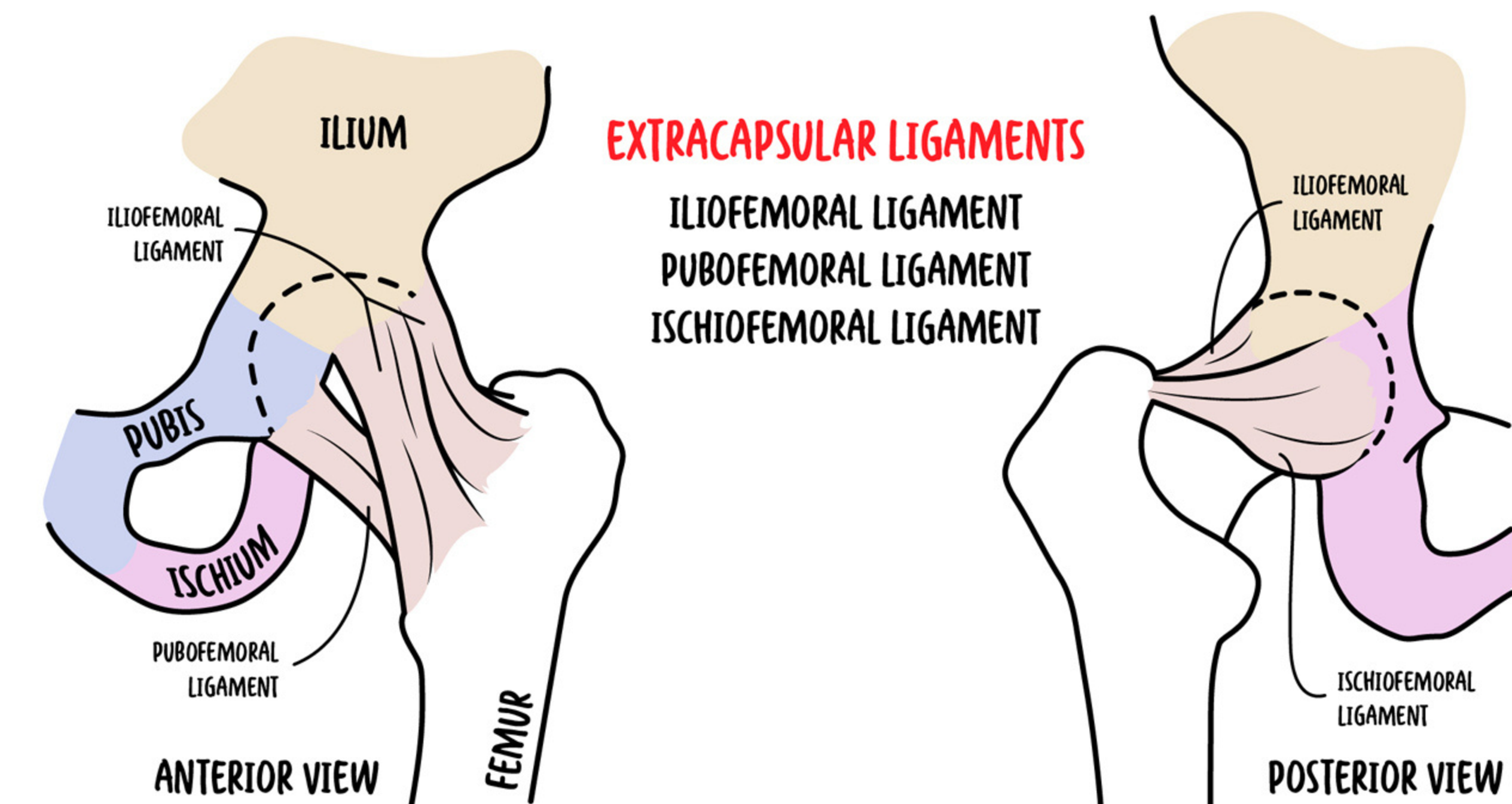
EXTRACAPSULAR LIGAMENTS

- ILIOFEMORAL LIGAMENT
- PUBOFEMORAL LIGAMENT
- ISCHIOFEMORAL LIGAMENT

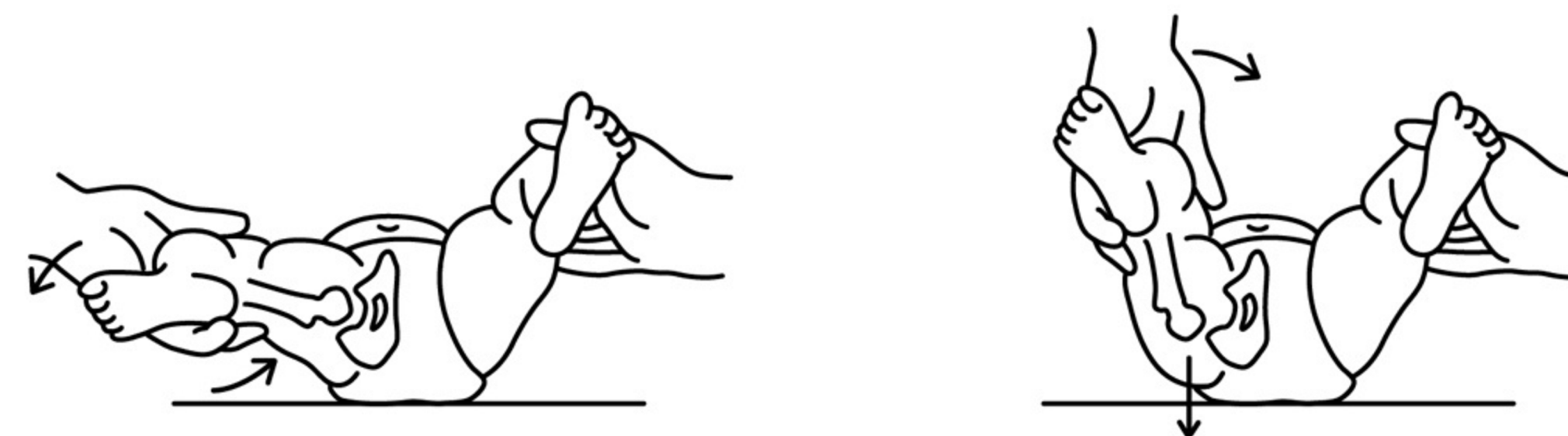


EXTRACAPSULAR LIGAMENTS

- ILIOFEMORAL LIGAMENT
- PUBOFEMORAL LIGAMENT
- ISCHIOFEMORAL LIGAMENT



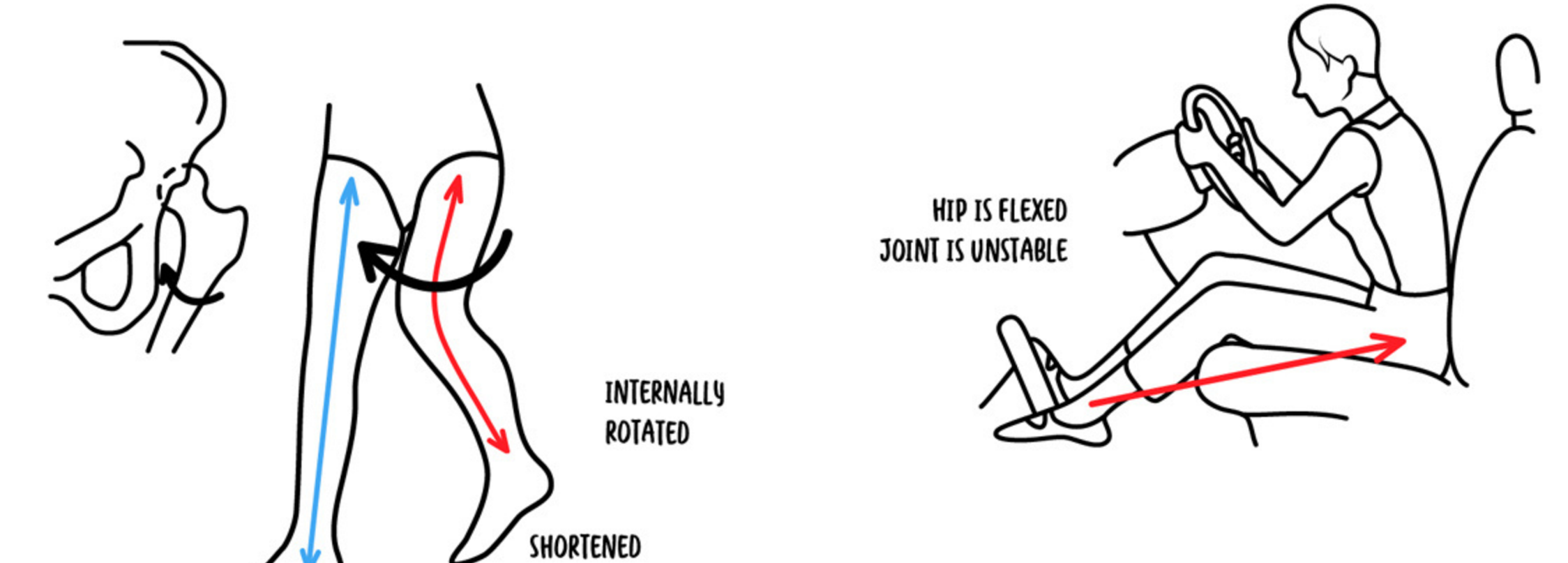
CLINICAL ANATOMY - DISLOCATION OF THE HIP JOINT



CONGENITAL DISLOCATION

1. THE JOINT CAPSULE IS LOOSE AT BIRTH
2. HYPOPLASIA OF THE ACETABULUM AND FEMORAL HEAD

CLINICAL ANATOMY - DISLOCATION OF THE HIP JOINT



ACQUIRED DISLOCATION

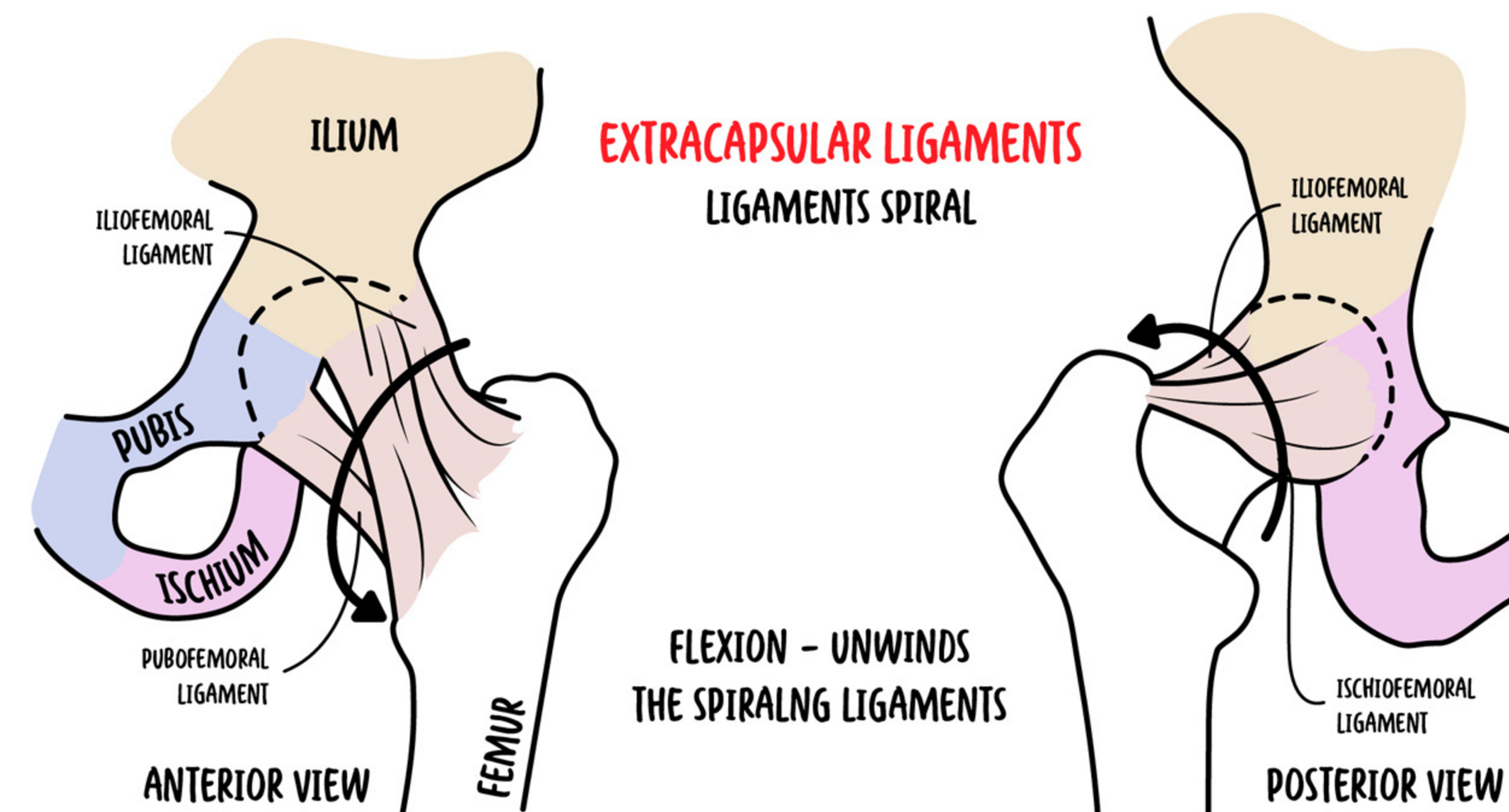
POSTERIOR DISLOCATION - OCCURS IN CAR ACCIDENTS

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EXTRACAPSULAR LIGAMENTS

LIGAMENTS SPIRAL

FLEXION - UNWINDS THE SPIRALING LIGAMENTS



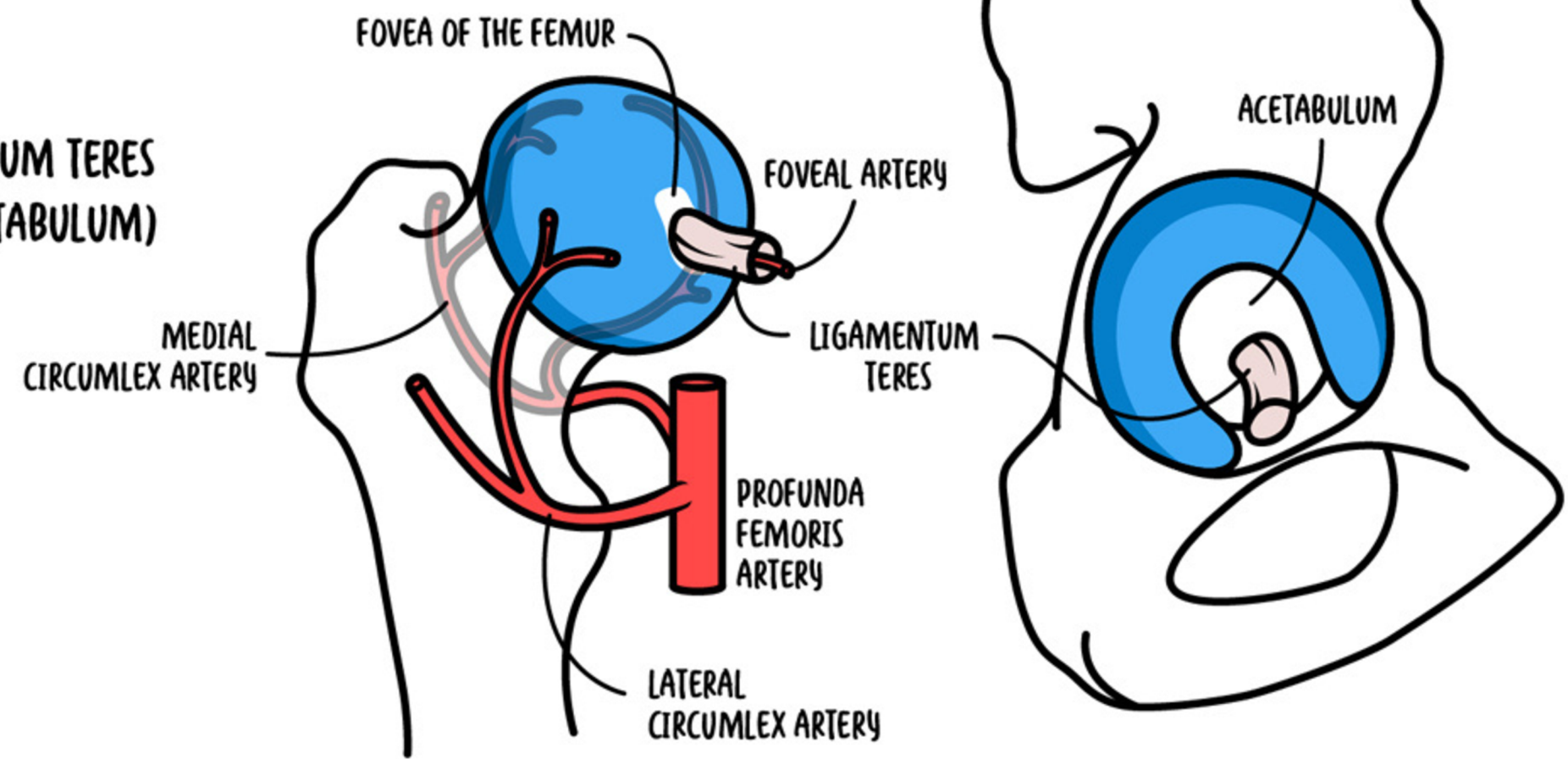
BLOOD SUPPLY

MEDIAL AND LATERAL FEMORAL CIRCUMFLEX ARTERIES

↳ EXTRACAPSULAR RING -> CERVICAL ARTERIES

FOVEAL ARTERY

REPLACED BY THE LIGAMENTUM TERES
(HEAD OF THE FEMUR - ACETABULUM)



BLOOD SUPPLY

MEDIAL AND LATERAL FEMORAL CIRCUMFLEX ARTERIES

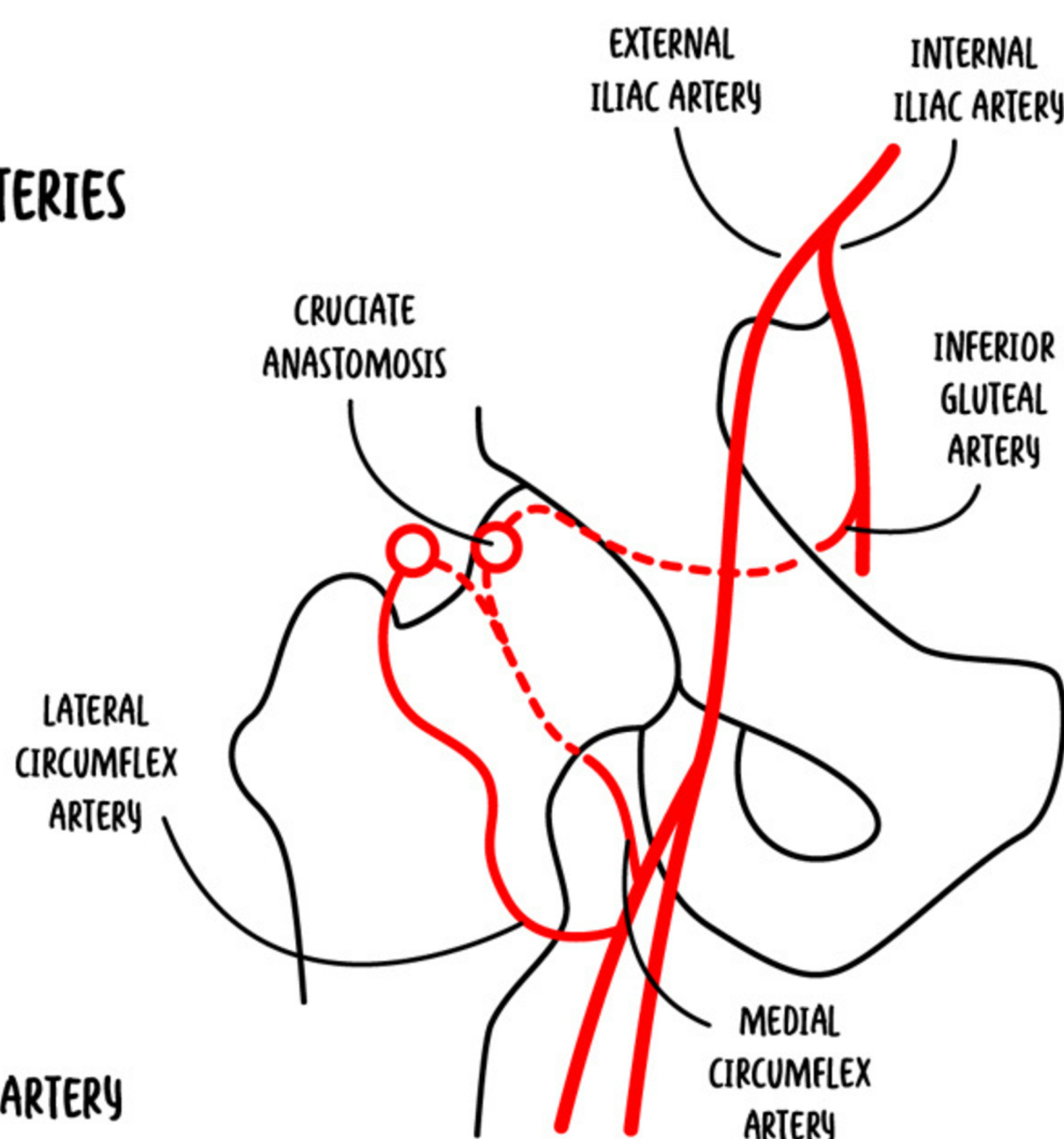
↳ EXTRACAPSULAR RING -> CERVICAL ARTERIES

FOVEAL ARTERY

REPLACED BY THE LIGAMENTUM TERES
(HEAD OF THE FEMUR - ACETABULUM)

CRUCIATE ANASTOMOSIS

INFERIOR GLUTEAL ARTERY - MEDIAL CIRCUMFLEX FEMORAL ARTERY



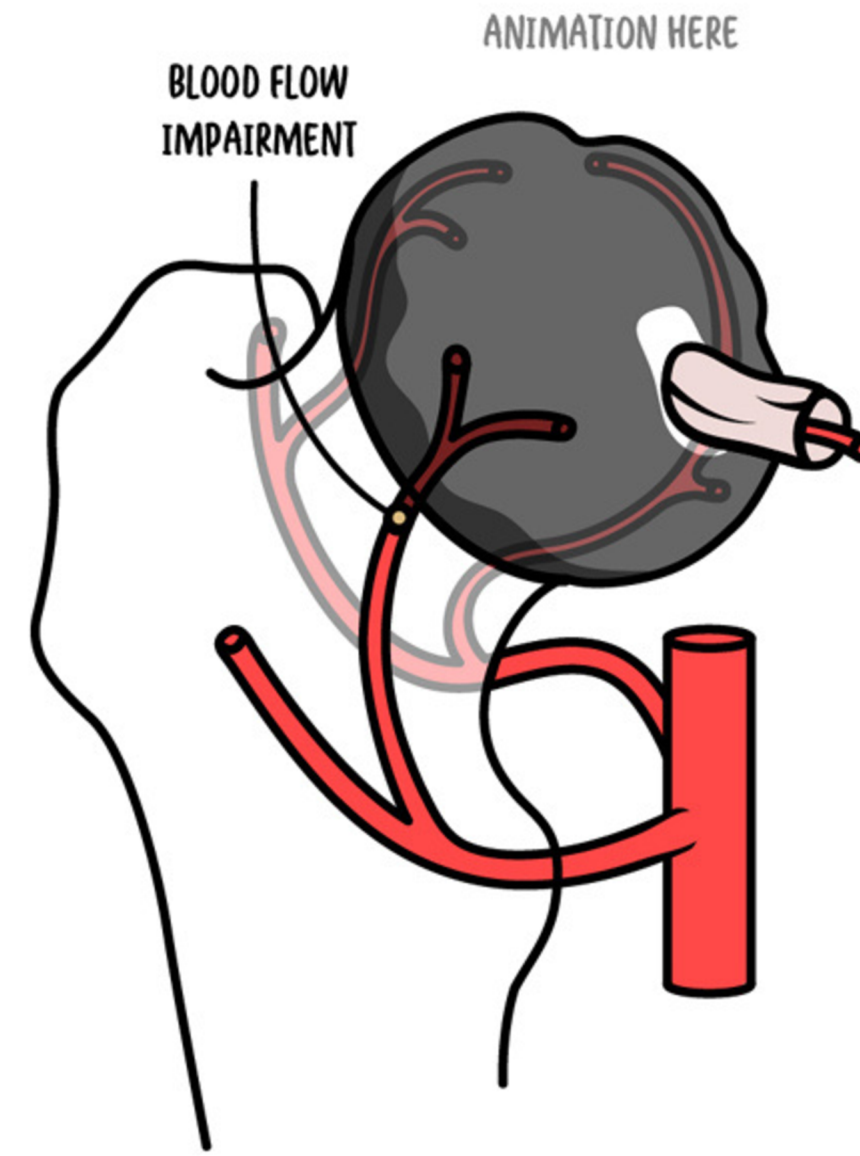
CLINICAL ANATOMY

AVASCULAR NECROSIS OF FEMORAL HEAD

BONE CELL DEATH
TRAUMATIC OR NON-TRAUMATIC ORIGIN

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! BLOOD VESSELS SUPPLYING THE FEMORAL HEAD
RELY ON SMALL ARTERIES WITH
LIMITED COLLATERAL BLOOD SUPPLY

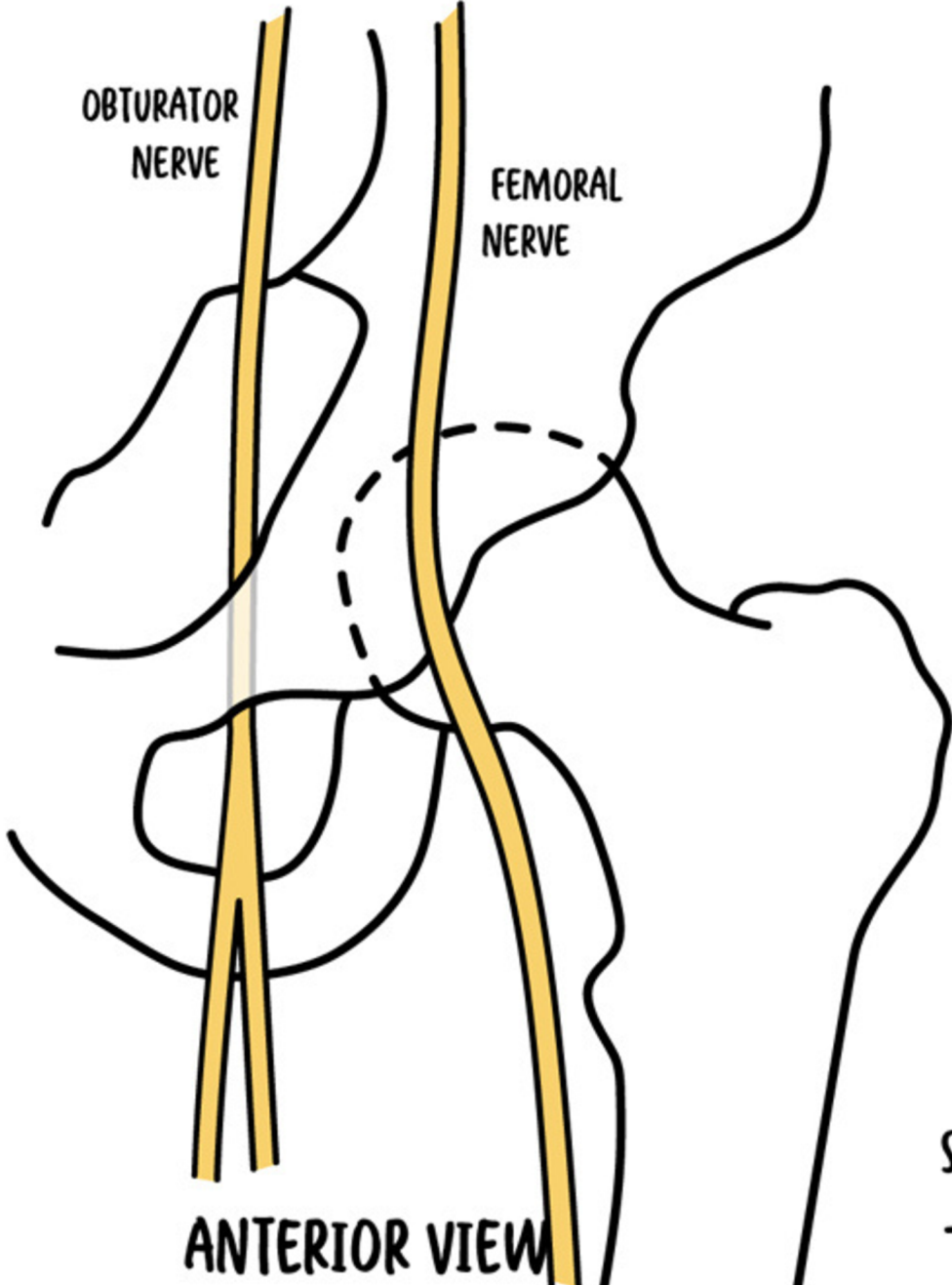
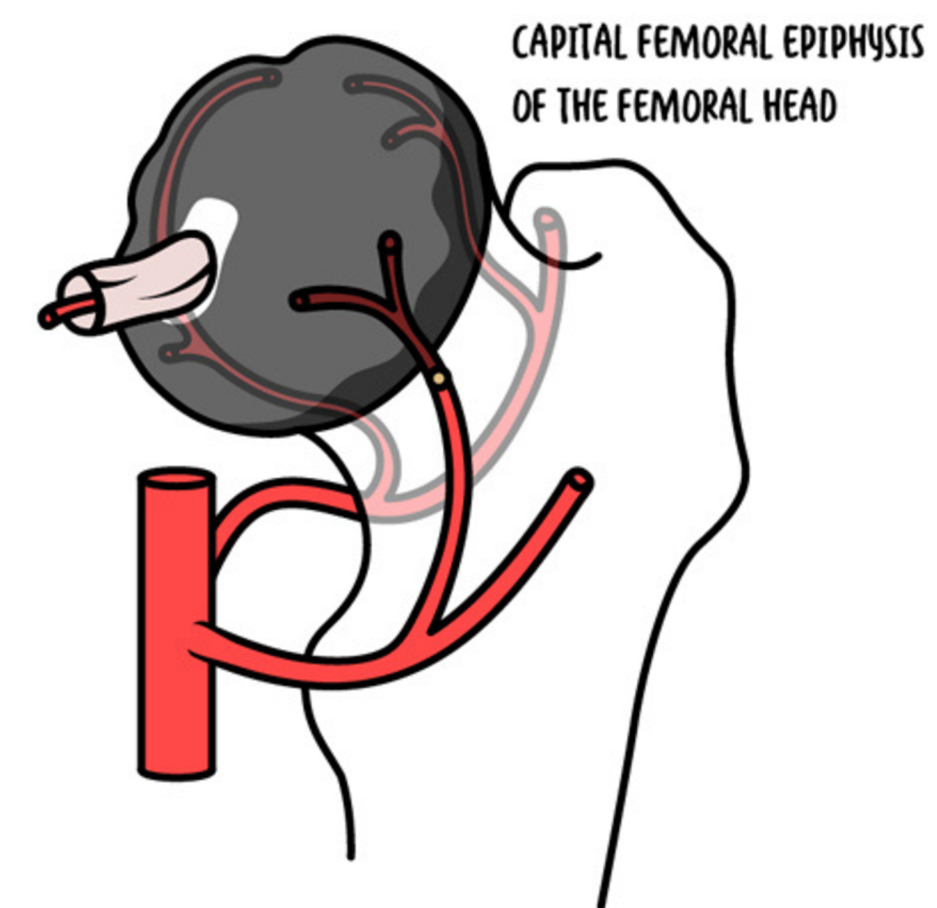


CLINICAL ANATOMY - PERTHES DISEASE

- IDIOPATHIC AVASCULAR NECROSIS
- AFFECTING CHILDREN (4-12 YEARS)
- MORE COMMON IN MALES AND IN CHILDREN EXPOSED TO MATERNAL SMOKING DURING PREGNANCY



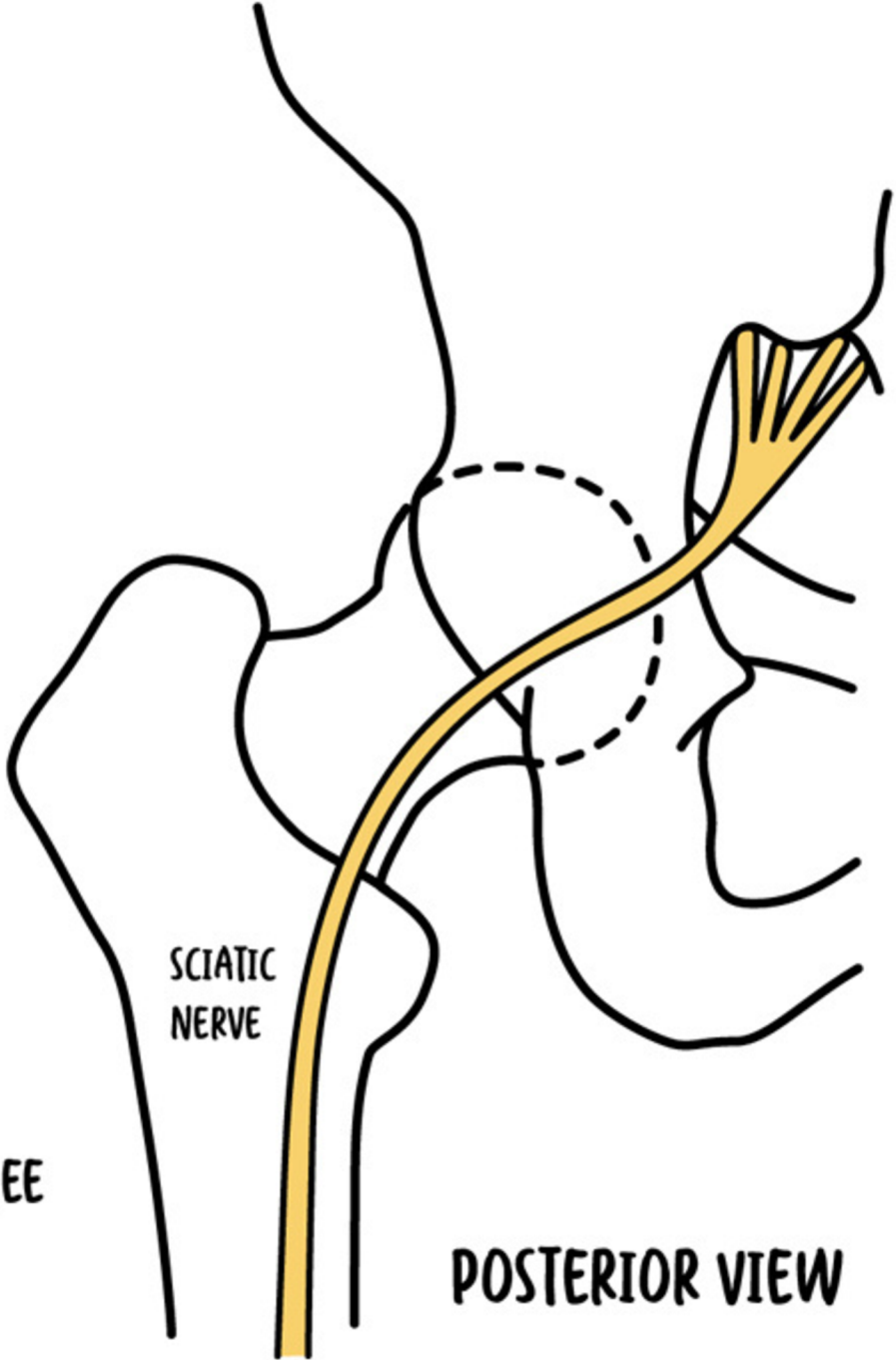
CLINICALLY
DESTRUCTION AND FLATTENING OF THE HEAD OF THE FEMUR
INCREASED JOINT SPACE IN THE RADIOGRAPH



NERVE SUPPLY

SCIATIC NERVE
FEMORAL NERVE
OBTURATOR NERVE

SAME NERVES INNERVATE THE KNEE
-> PAIN CAN BE REFERRED



FLEXORS

ILIOPSOAS:
PSOAS MAJOR
ILIACUS

PECTINEUS
SARTORIUS
RECTUS FEMORIS

ANTERIOR VIEW

MUSCLES

GLUTEUS MAXIMUS
ADDUCTOR MAGNUS

HAMSTRING MUSCLES:
BICEPS FEMORIS
SEMITENDINOSUS
SEMIMEMBRANOSUS

POSTERIOR VIEW

EXTENSORS

GLUTEUS MAXIMUS
ADDUCTOR MAGNUS

HAMSTRING MUSCLES:
BICEPS FEMORIS
SEMITENDINOSUS
SEMIMEMBRANOSUS

POSTERIOR VIEW

FLEXION - EXTENSION

ADDUCTORS

ADDUCTOR BREVIS
ADDUCTOR LONGUS
ADDUCTOR MAGNUS
GRACILIS MUSCLE

ANTERIOR VIEW

MUSCLES

ABDUCTION - ADDUCTION

ABDUCTORS

GLUTEUS MEDIUS (CUT)
GLUTEUS MINIMUS

POSTERIOR VIEW

EXTERNAL ROTATION

GLUTEUS MAXIMUS (CUT)
LATERAL ROTATORS:
PIRIFORMIS
SUPERIOR GEMELLI
OBTURATOR INTERNUS
INFERIOR GEMELLI
OBTURATOR EXTERNUS
QUADRATUS FEMORIS (CUT)

MUSCLES

POSTERIOR VIEW

INTERNAL ROTATION

GLUTEUS MEDIUS (CUT)
GLUTEUS MINIMUS



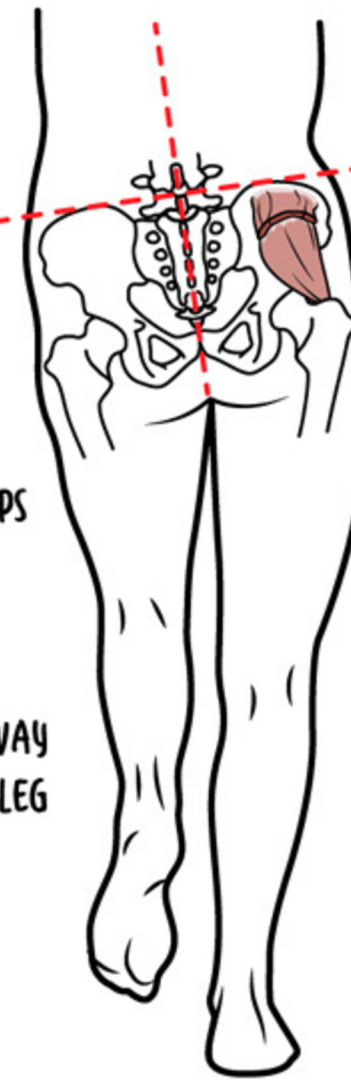
EXTERNAL ROTATION
INTERNAL ROTATION

NORMAL



STAND ON ONE LEG

POSITIVE TEST



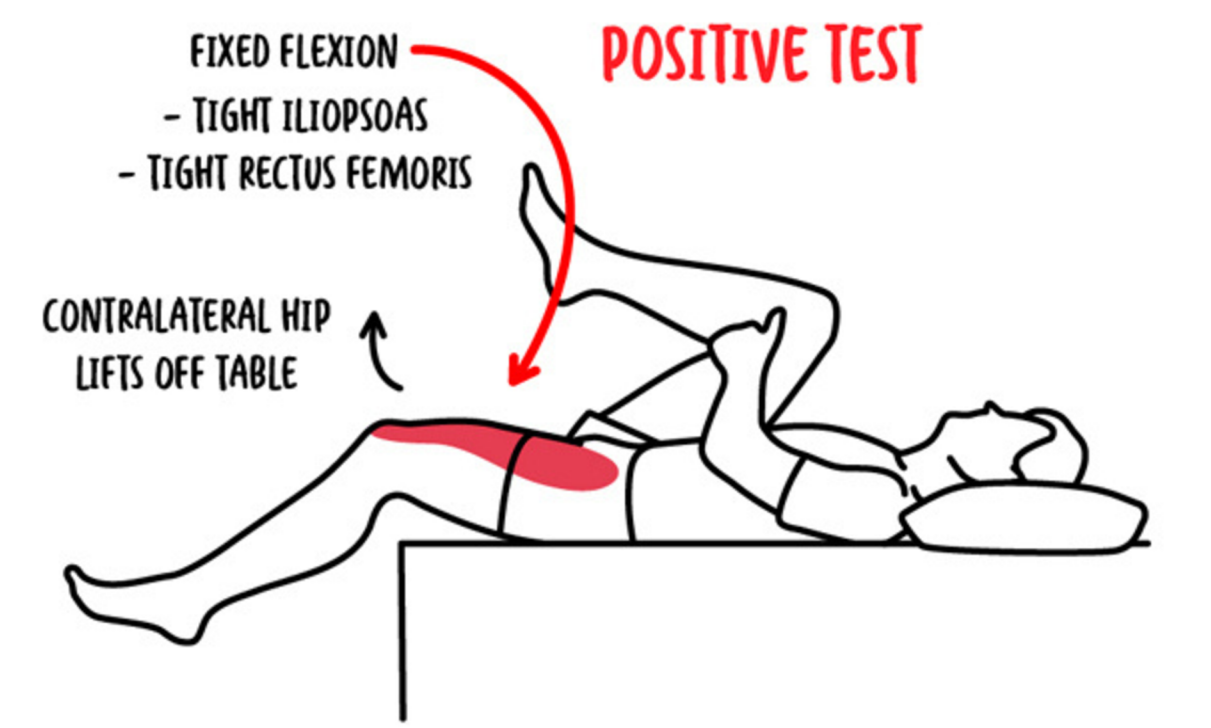
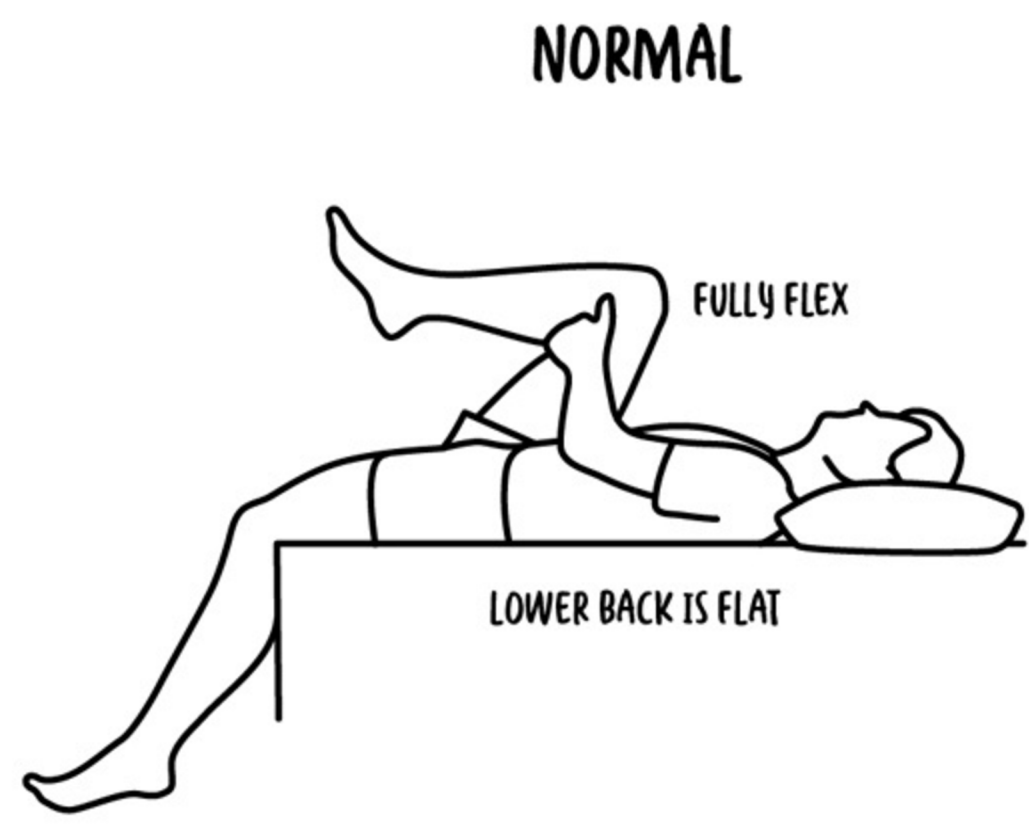
WEAKNESS OF HIP ABDUCTORS
GLUTEUS MEDIUS (CUT)
GLUTEUS MINIMUS

PELVIS DROPS
PATIENTS SWAY TO THE LOADED LEG

EXAMINATION

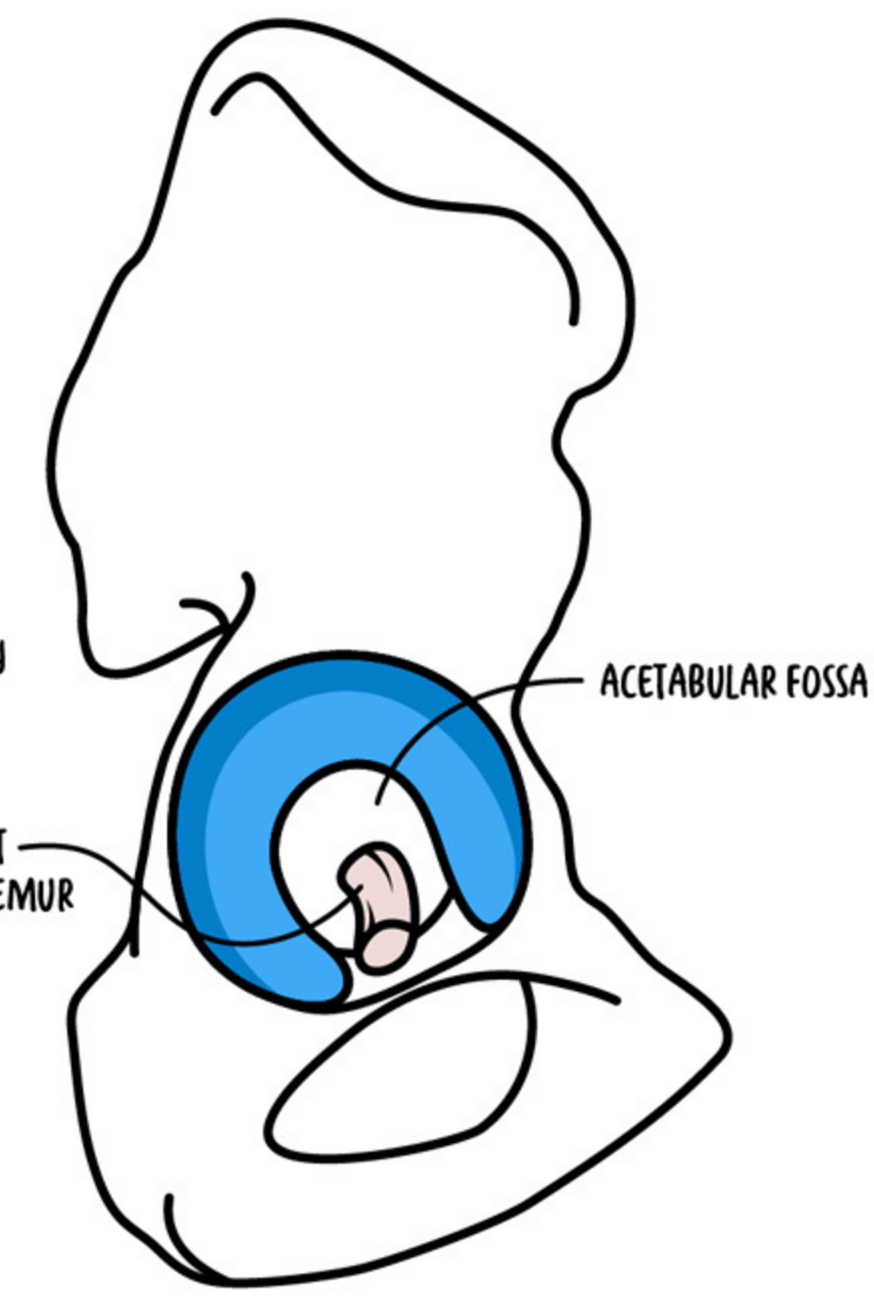
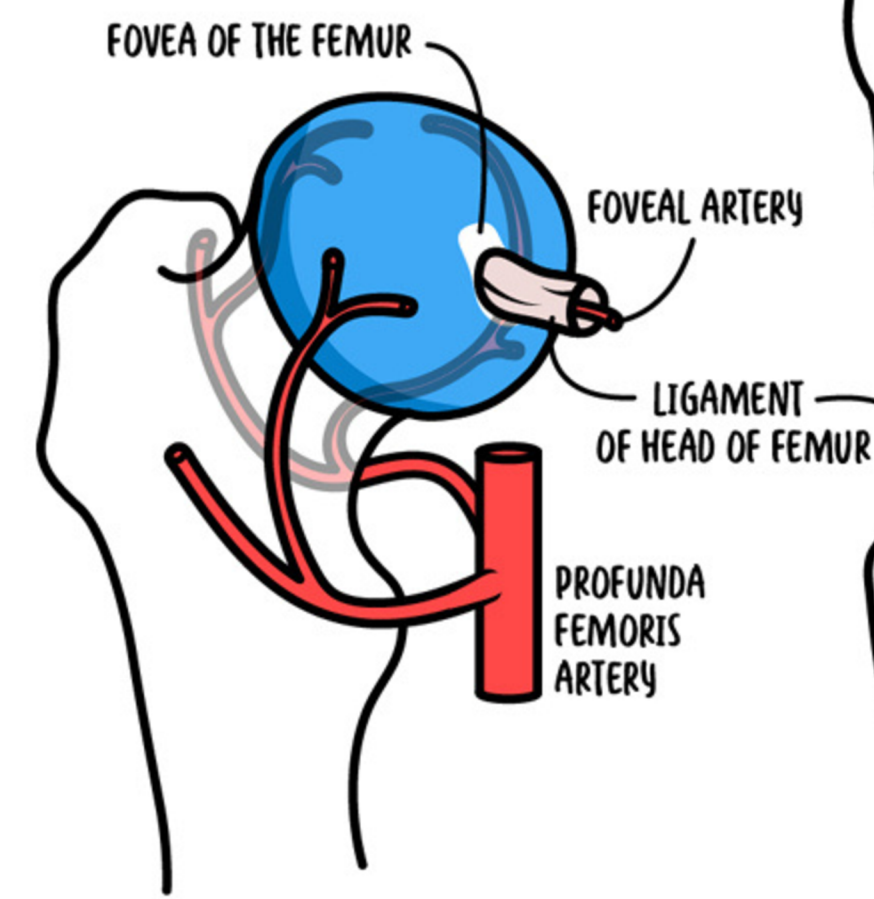
TRENDELENBURG TEST

PHYSICAL EXAMINATION FINDING
ANY DYSFUNCTION OF THE HIP



EXAMINATION
THOMAS' TEST

UNMASK THE FIXED FLEXION DEFORMITY OF THE HIP
MEASURE THE TRUE RANGE OF HIP FLEXION



Armando H. Faigl