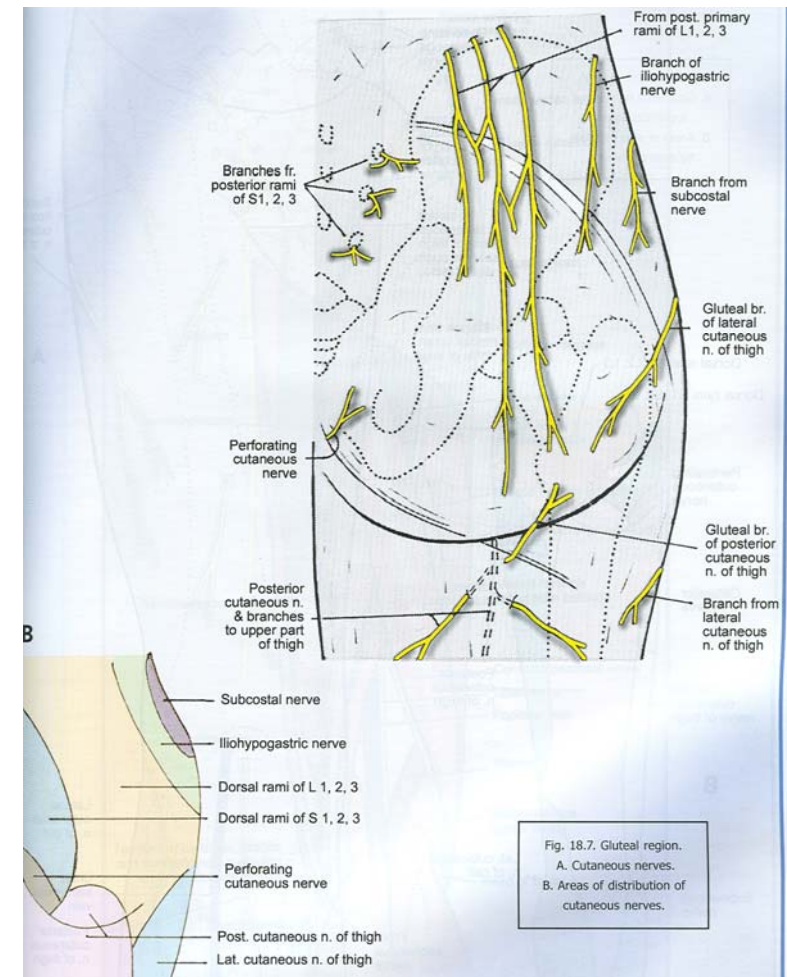


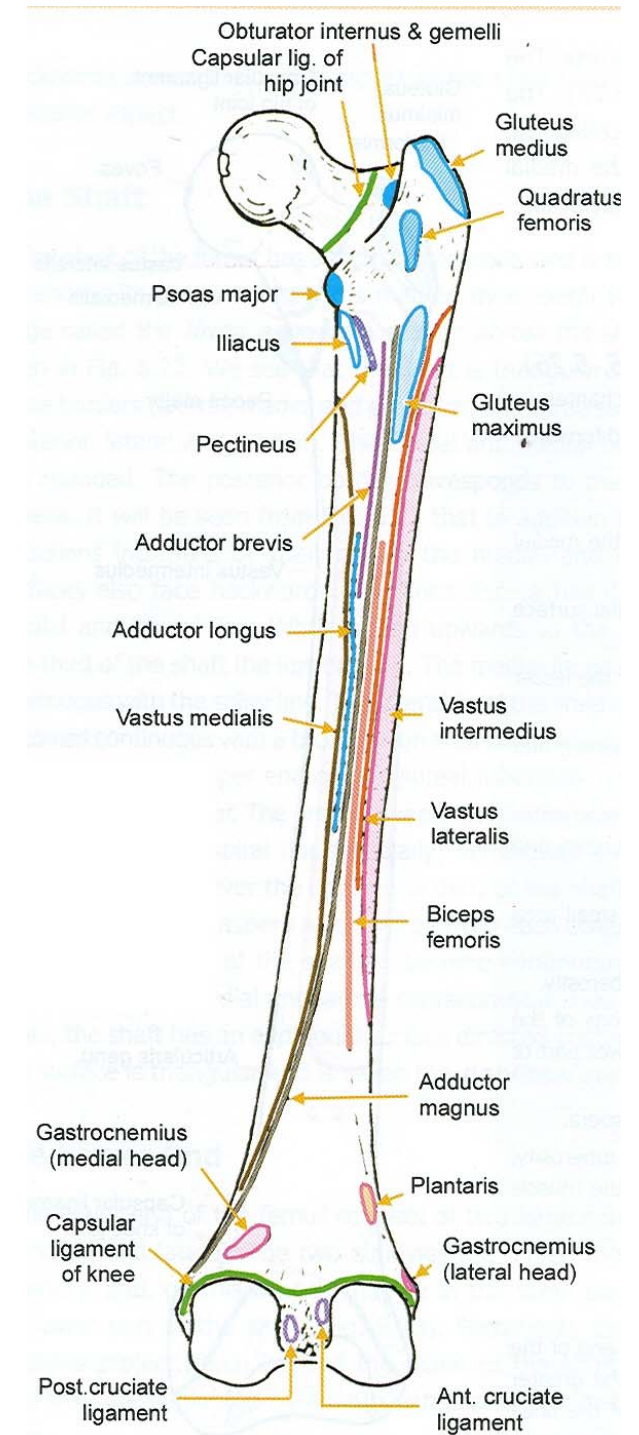
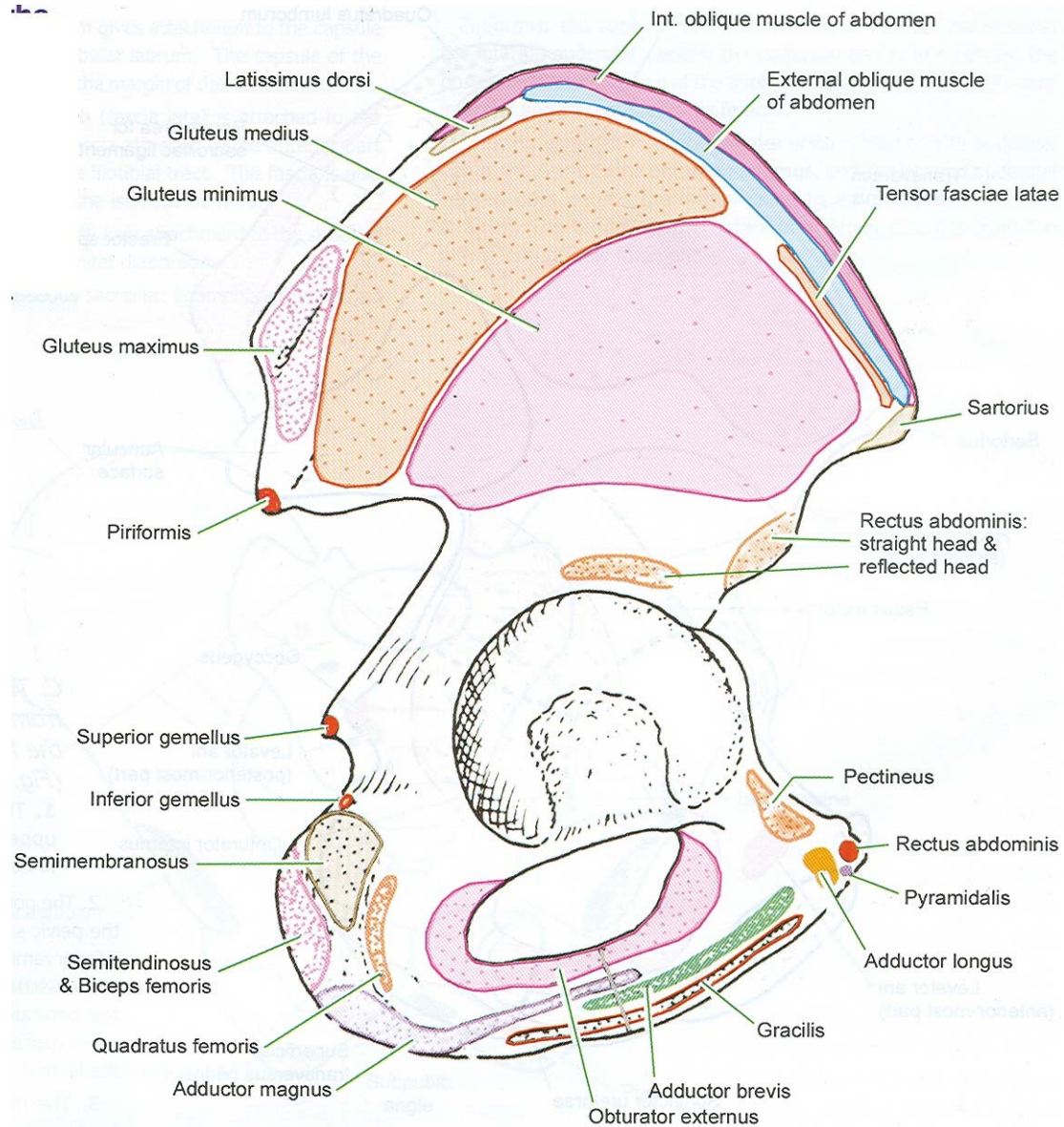
Gluteal region

- Cutaneous nerves-
- Upper ant. part from sub costal & iliohypogastric nerves
- Upper postr. part from postr pri rami of L1,2,3 & S1,2,3
- Lower ant. Part from post. Div. of lateral cutaneous nerve of thigh
- Lower & post. Part from post. Cut. nerve of thigh & Perforating cut nerves(S2,3)

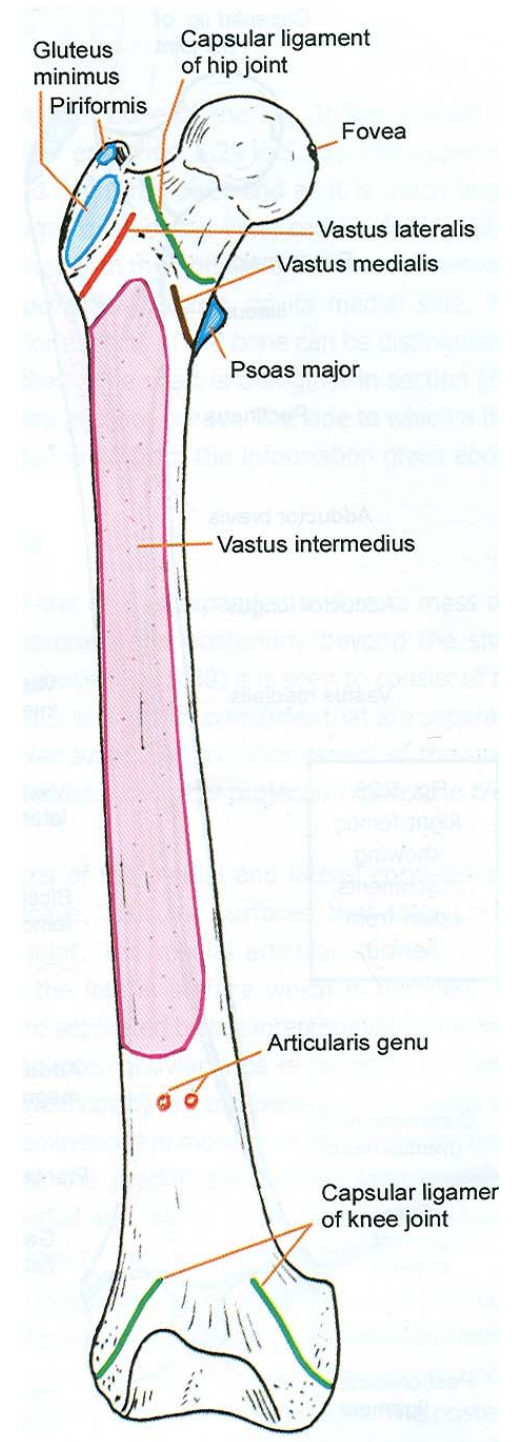
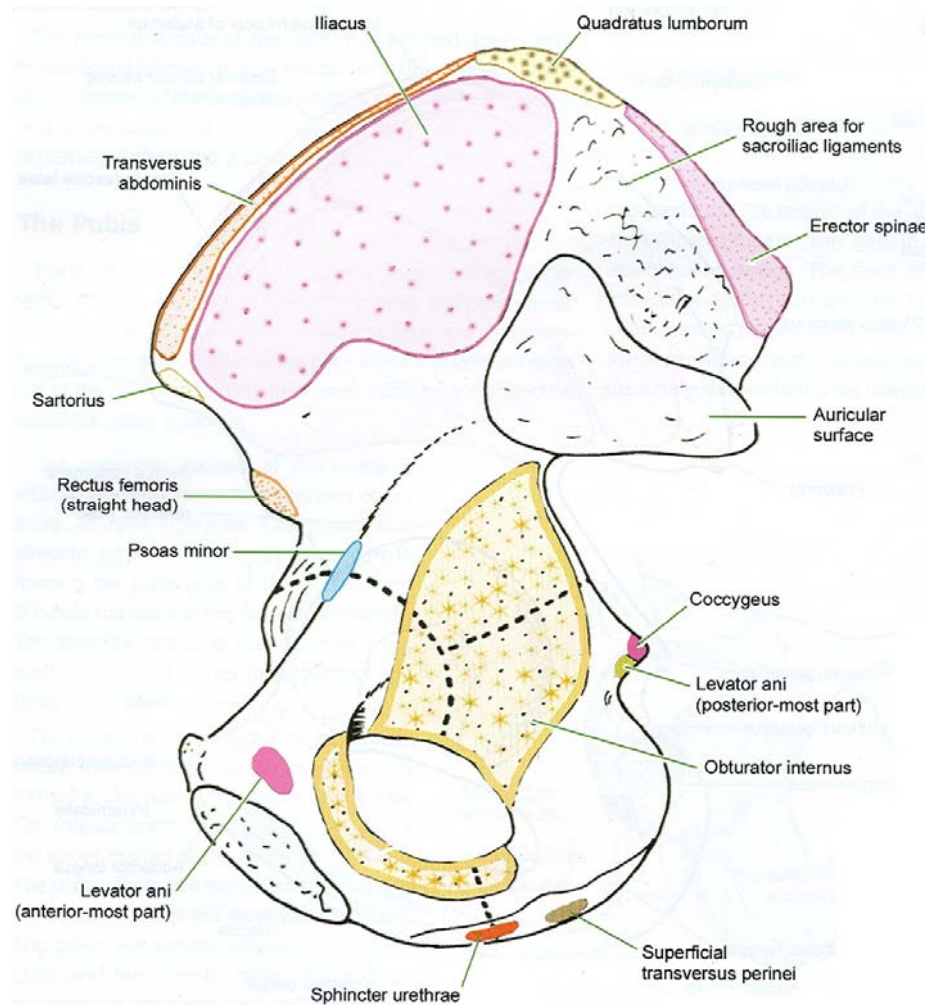


- Cutaneous arterial supply- branches from sup. & inf. Gluteal arteries
- Cutaneous lymphatic drainage- lateral group of superficial inguinal lymph nodes
- Deep fascia- above & in front of gluteus medius is thick but over gluteus maximus it is thin. The deep fascia splits & encloses gluteus maximus

Muscles of gluteal region



Muscles of gluteal region



Gluteus maximus

Gluteus maximus

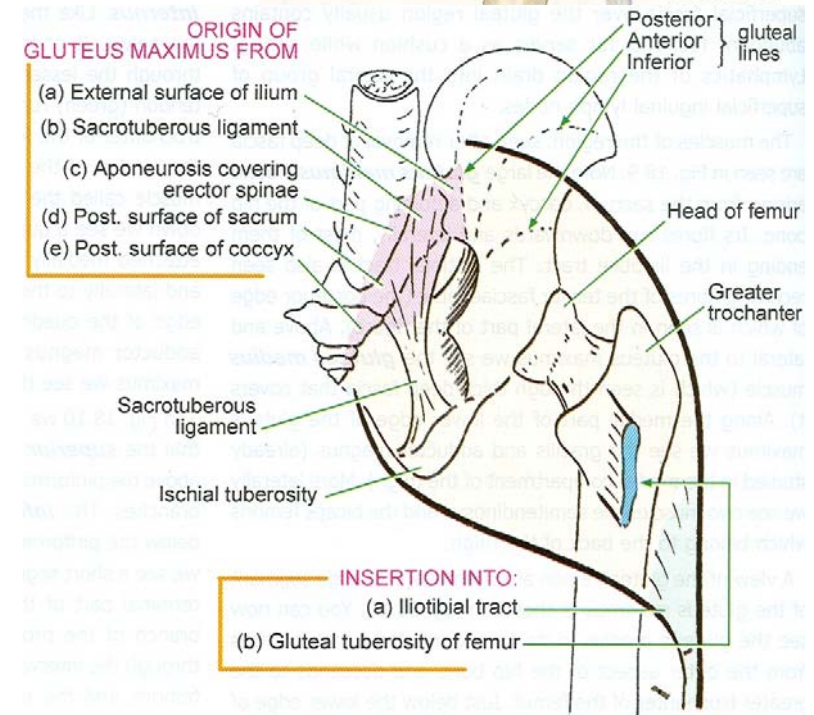
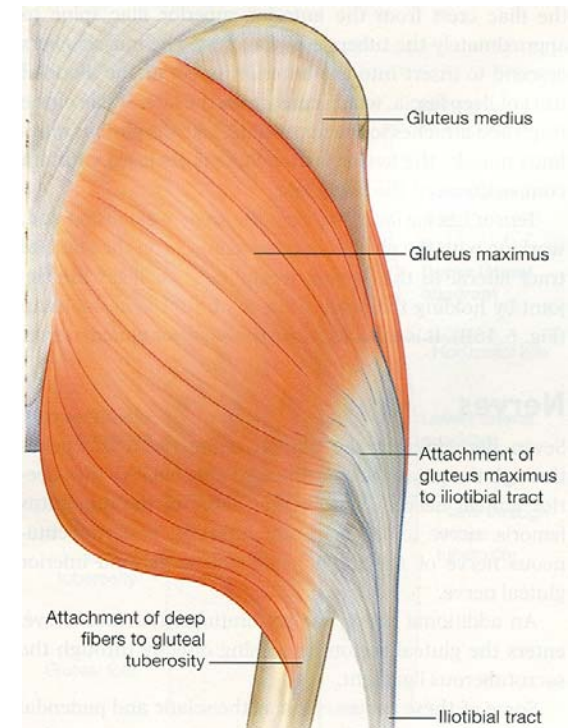
Nerve supply- inferior gluteal nerve

Action- Extension of hip joint, also causes lateral rotation & abduction at this joint

Acting from its insertion- straighten the trunk

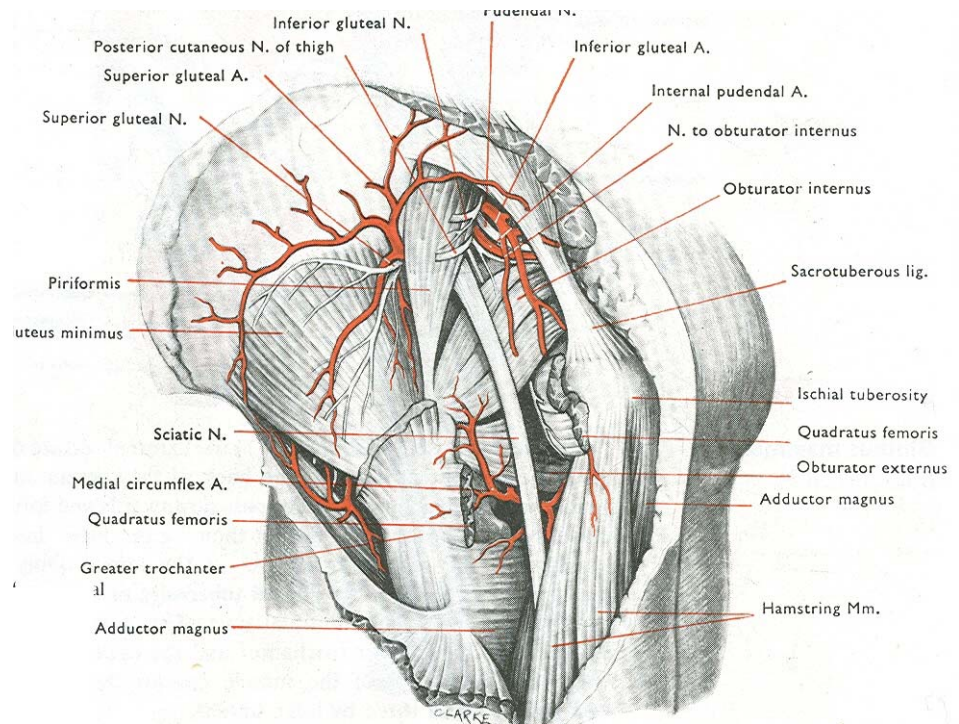
Prevents the pelvis from rotating forward on the head of femur

Thru the iliotibial tract steadies the femur on tibia while standing



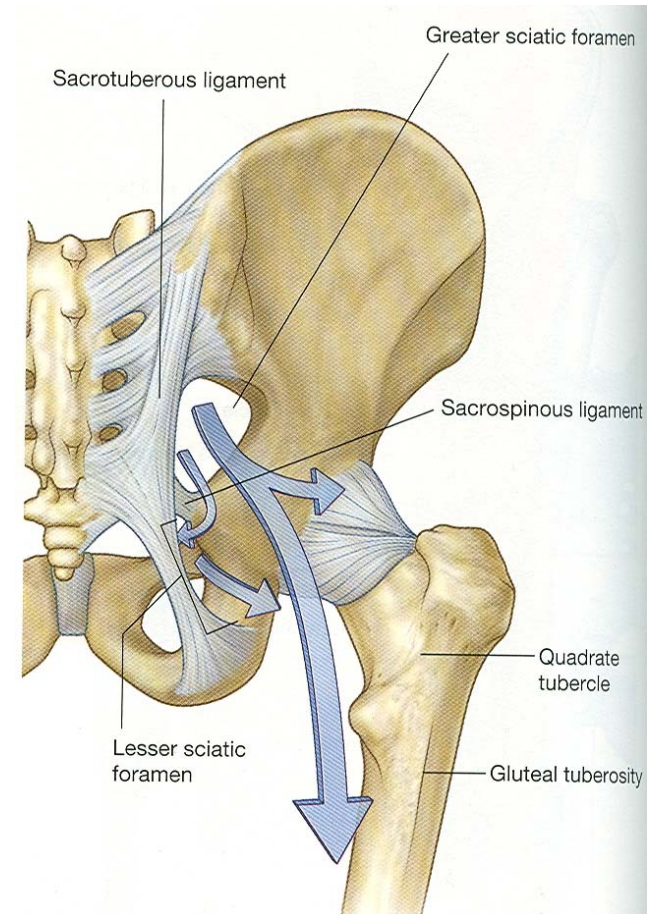
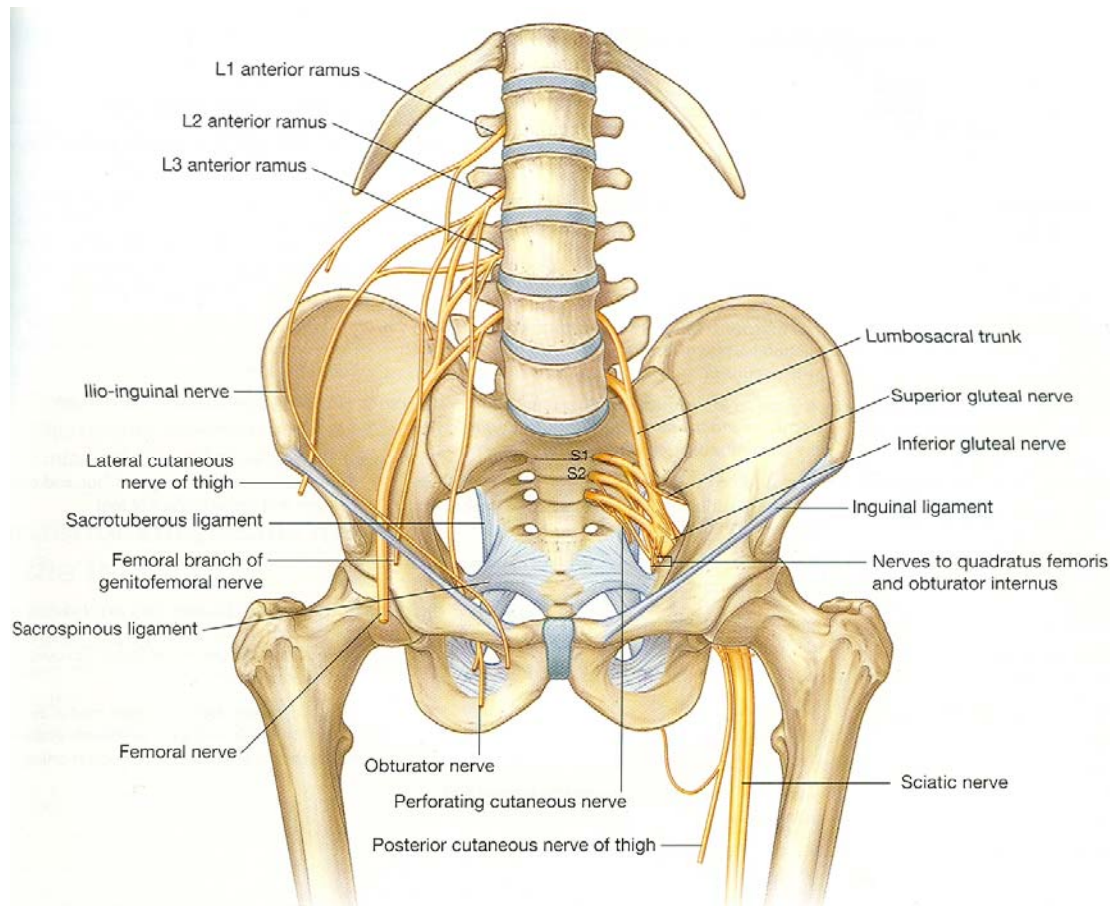
Structures undercover gluteus maximus

- Muscles- glut. Medius & minimus, rectus femoris ,(reflected head), Piriformis, obturator internus with two gemelli, Quadratus femoris, obturator externus, Origin of four hamstring from ischial tuberosity, Insertion of pubic fibers of ad. magnus



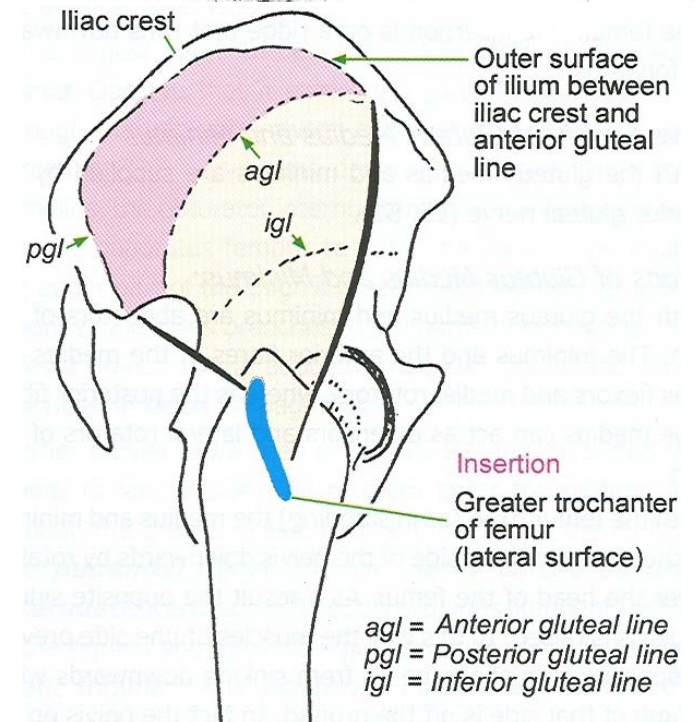
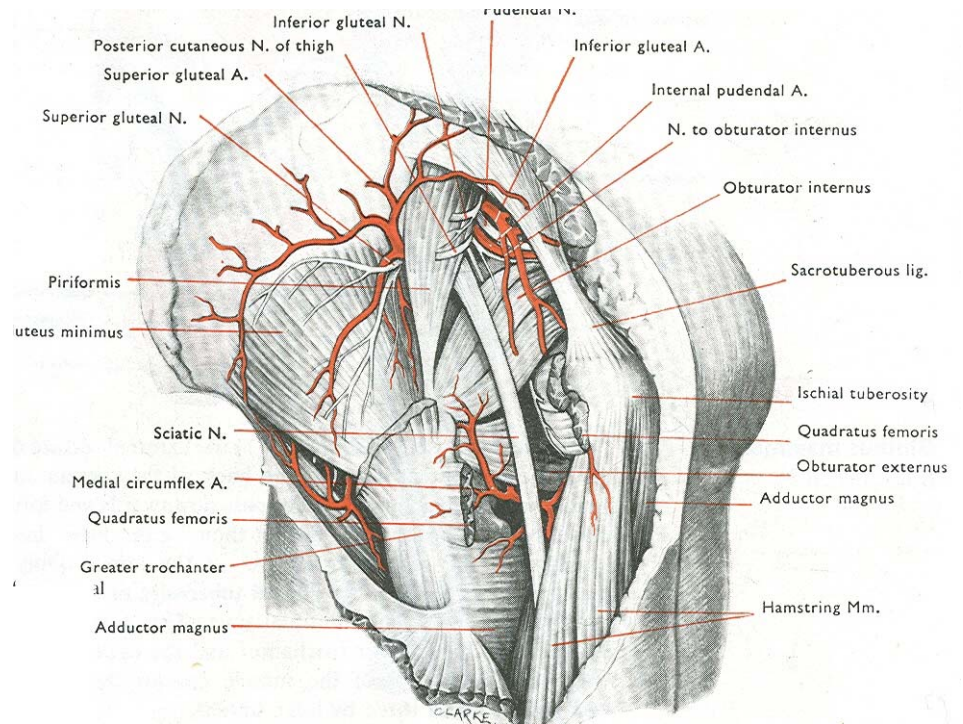
- Vessels-Superior, inferior gluteal vessels, internal pudendal, ascending br. Of medial cir. Femoral vessels, trochanteric & cruciate anastomosis
- Nerves-Superior gluteal, inferior gluteal, sciatic, Post. cut. Nerve of thigh, nerve to quadratus femoris, pudendal nerve, nerve to obturator internus & perforating cutaneous nerves
- Bones & joints- ilium, ischial tuberosity, upper end of femur with greater trochanter, sacrum, coccyx, hip joint & sacroiliac joint
- Ligaments- sacrotuberous, sacrospinous & ischiofemoral
- Bursa- trochanteric bursa of glut. maximus, of ischial tuberosity, & bet. glut. max, & vastus lateralis

Sacrospinous and sacrotuberous ligaments



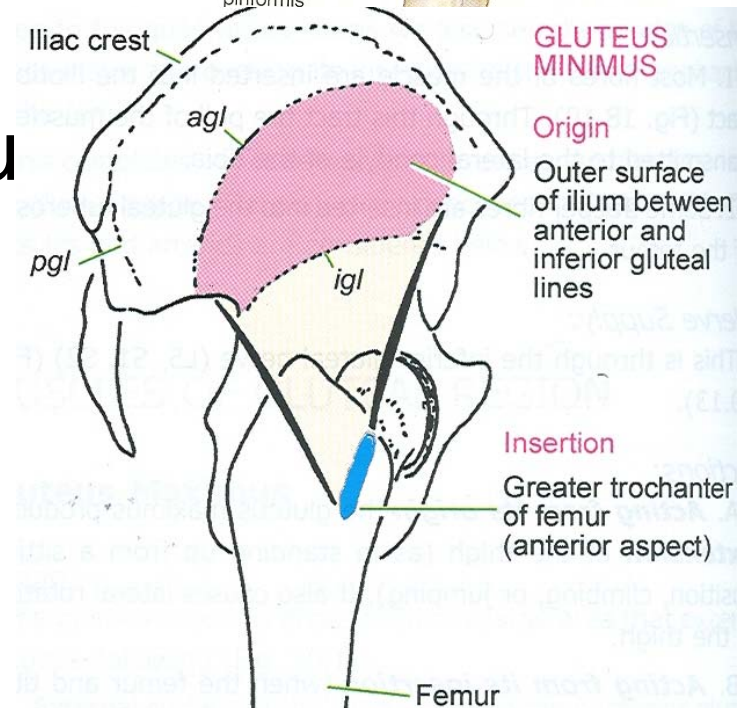
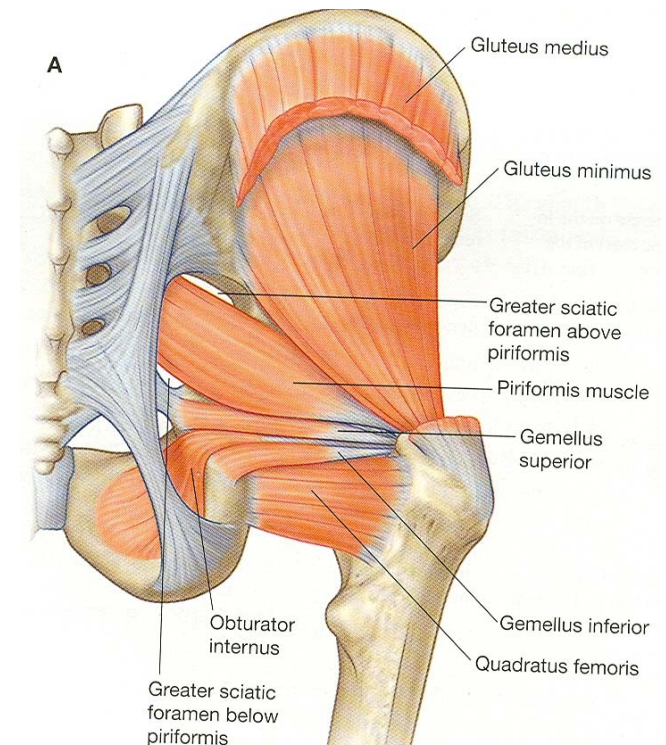
Gluteus Medius

- Nerve supply-
Superior gluteal nerve
- Action-Abduction
of thigh
- Anterior fibers of
g. medius can act
as flexor &
medial rotator
- posterior fibers
can act as
extensor

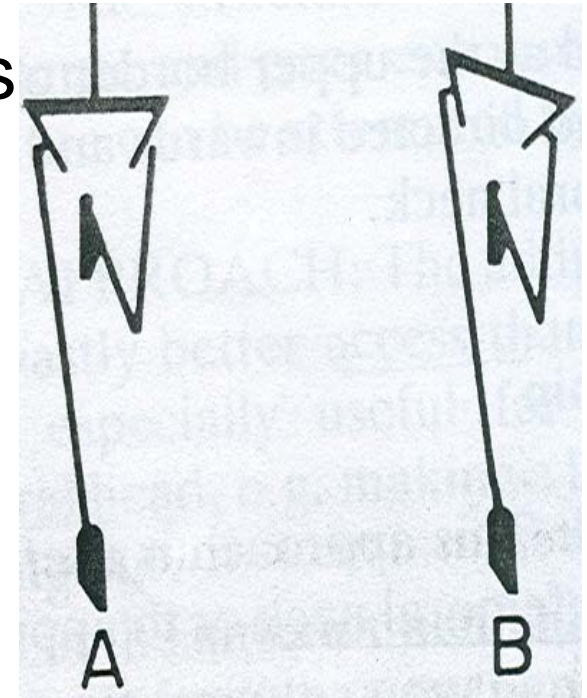


Gluteus minimus

- Nerve supply- superior gluteal nerve
- Action- abductor of thigh
- Medius & minimus pull the corresponding side of the pelvis downward by rotating over head of femur. As a result opposite side of pelvis is raised

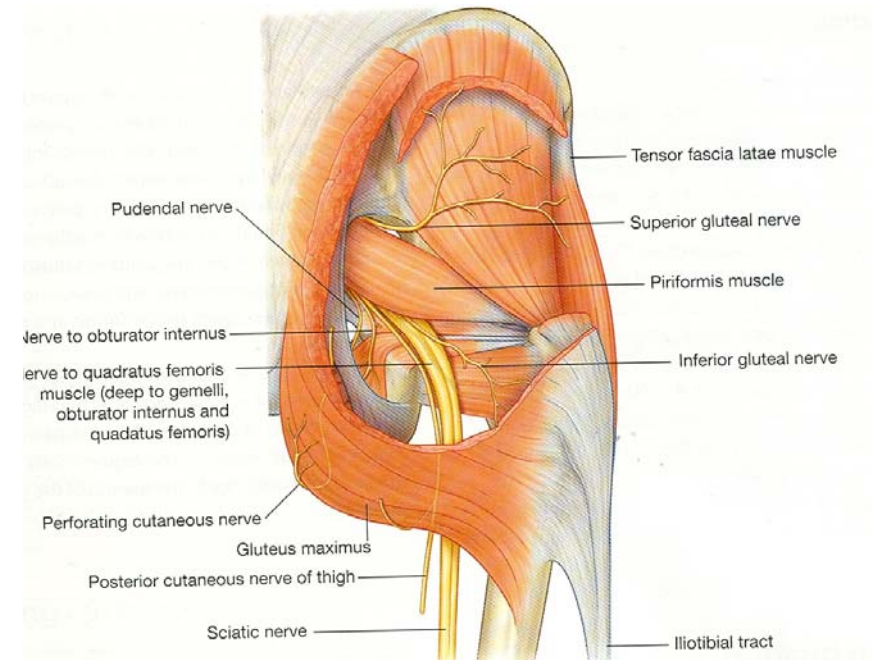
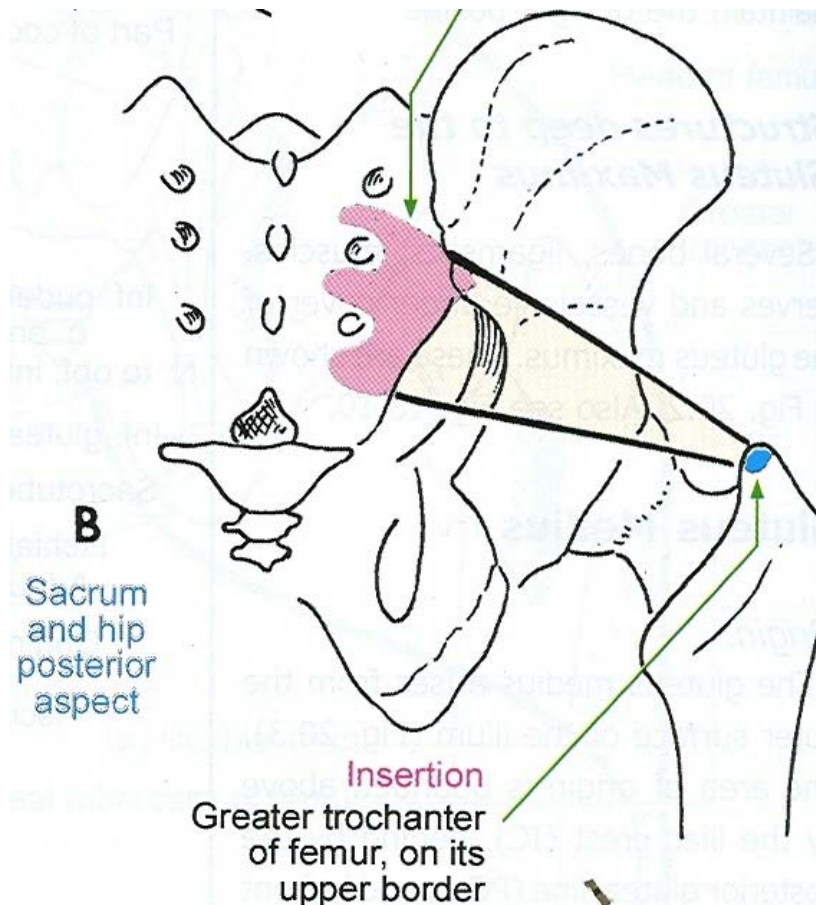


- When the glut. Medius & minimus is paralysed, patient sways on the paralysed side to clear the opposite foot off the ground. This is known as lurching gait. When bilateral the gait is called as waddling gait
- Trendelenburg test- normally when the body weight is supported on one limb, the glutei of the supported side raise the opposite (unsupported) side of the pelvis. However if abductor mechanism is defective, the unsupported side of the pelvis drops and this is known as positive trendelenburg test. The test is positive in defects of muscle, congenital dislocation of hip & ununited fracture of femur



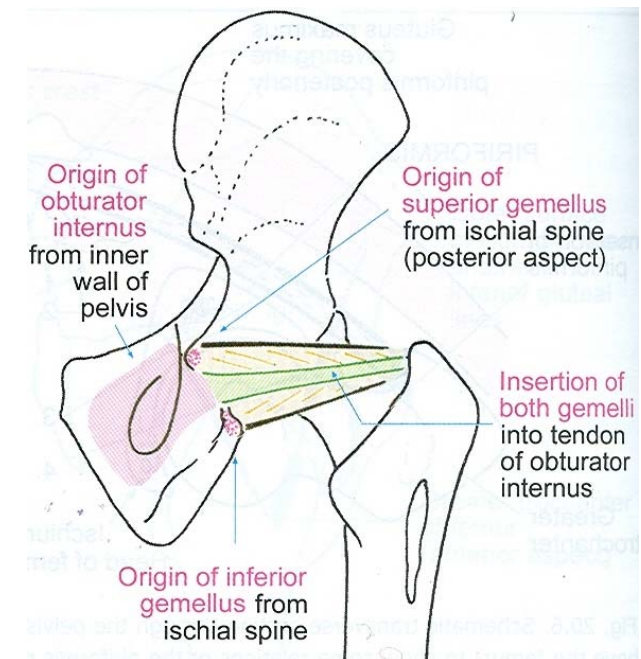
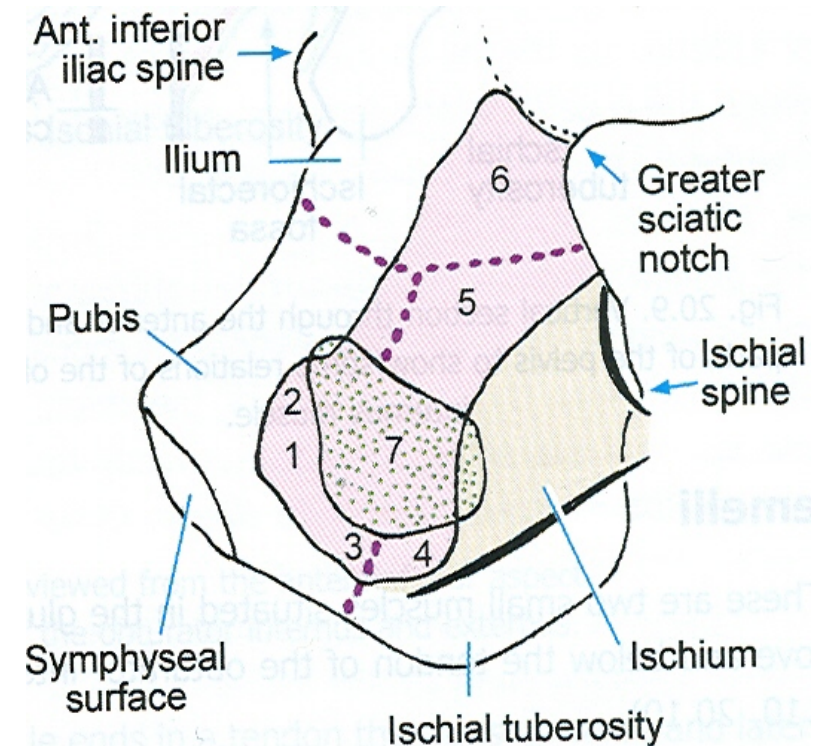
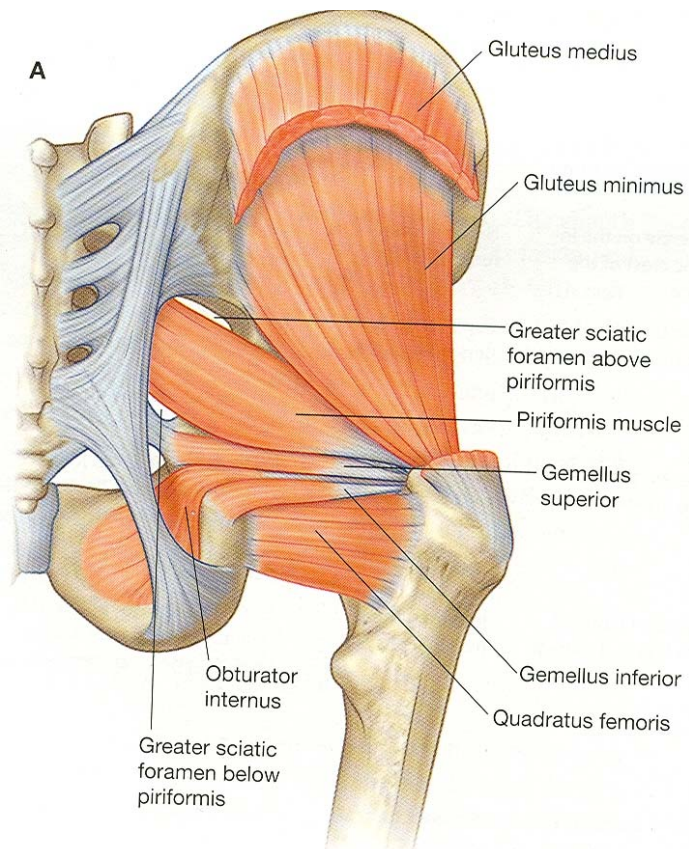
piriformis

- Nerve supply- direct branch from L5, S1&S2
- Action- lateral rotator of femur



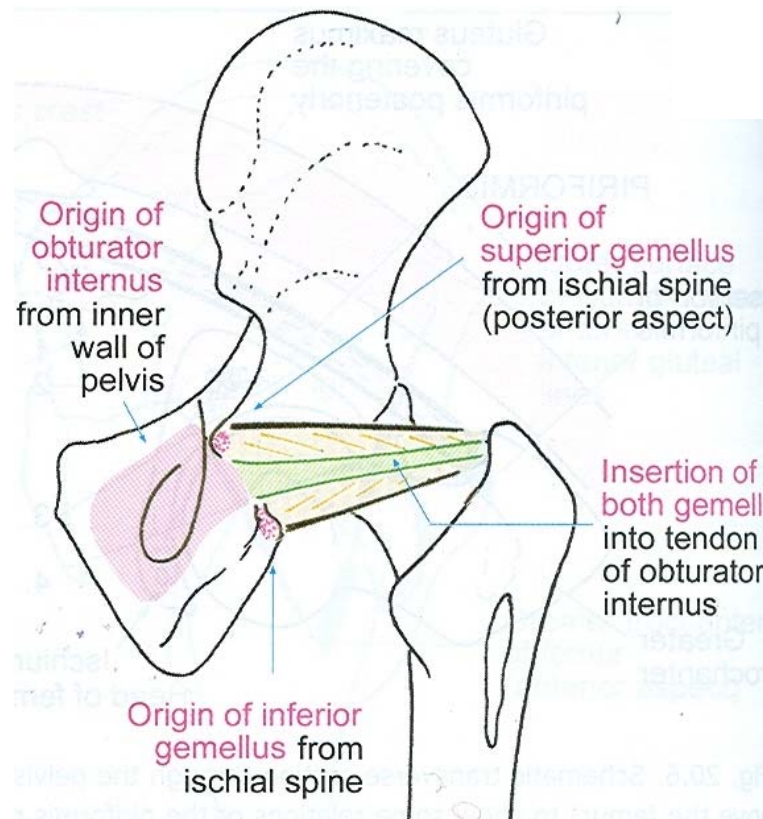
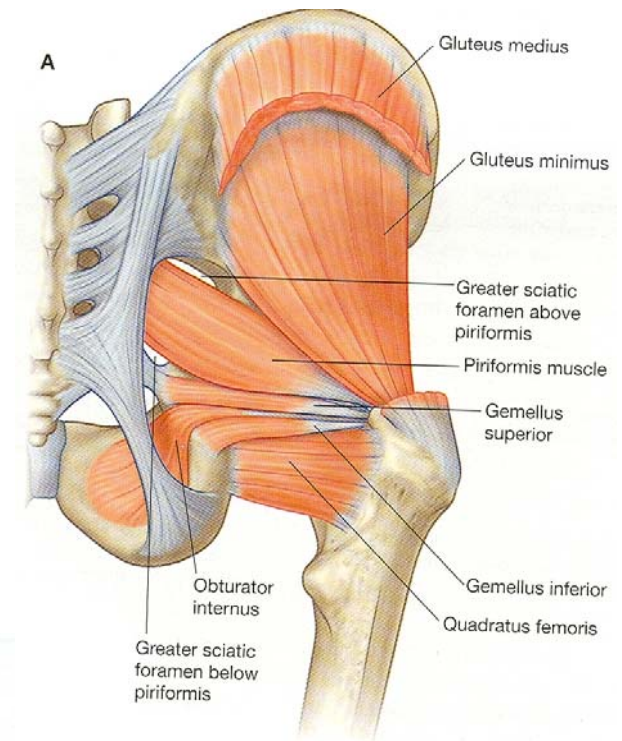
Obturator internus

- Nerve supply-nerve to obturator internus
- Action- Lateral rotator of femur



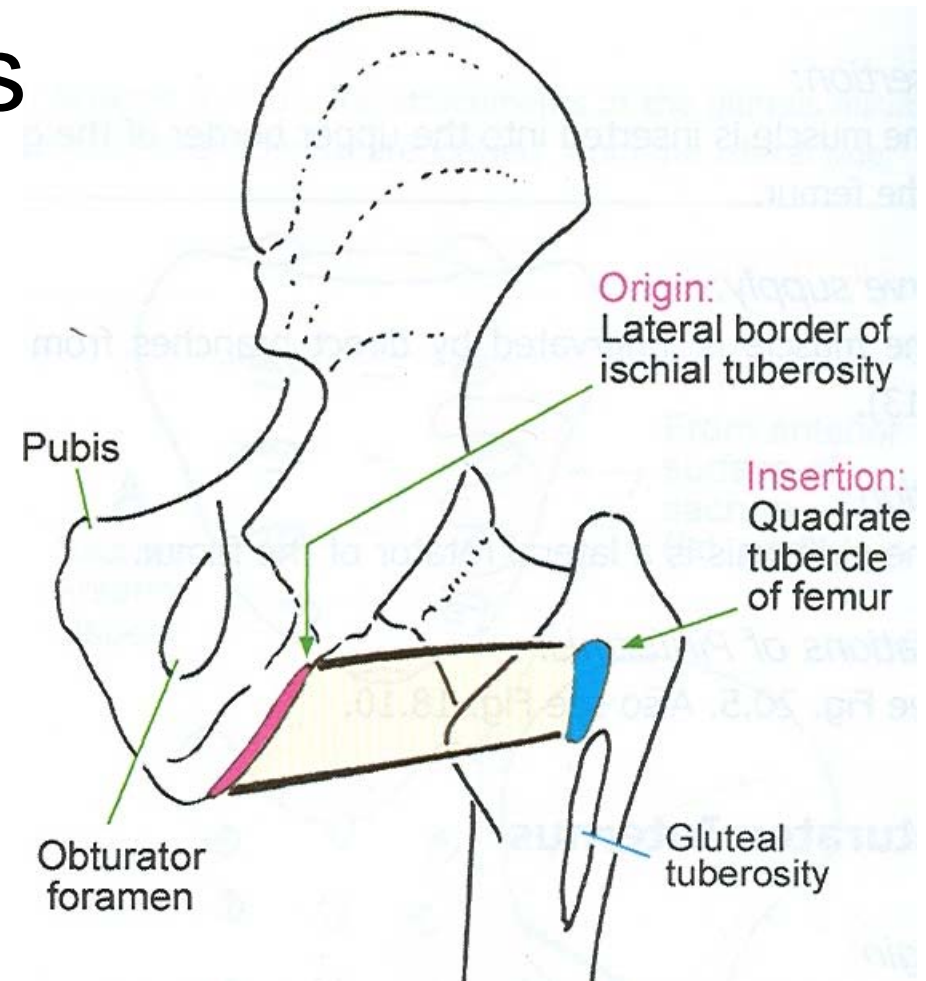
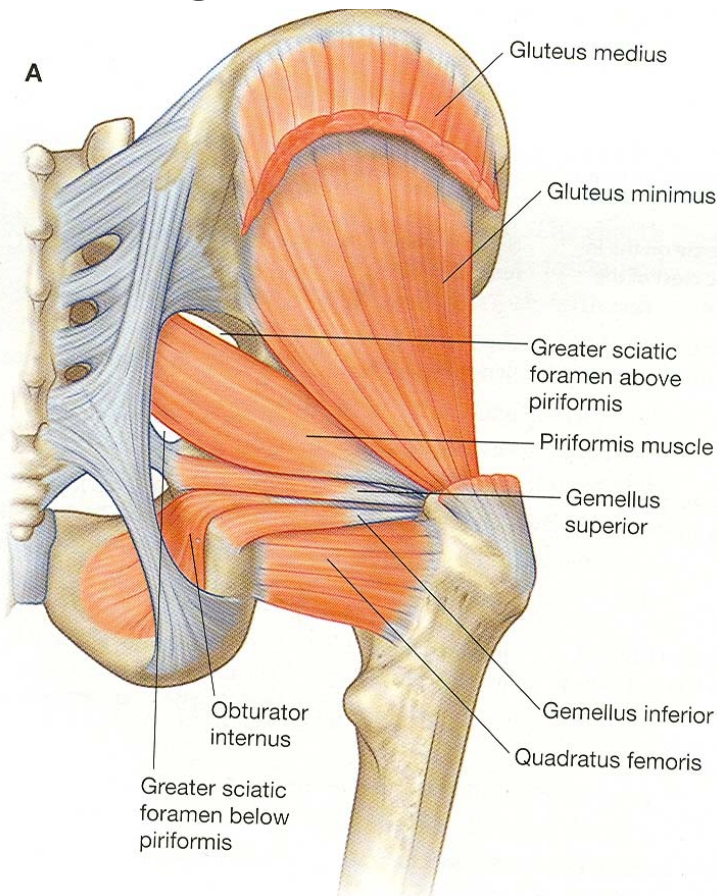
Gemelli

- Nerve supply- superior gemelli by nerve to obturator internus, inferior gemelli by nerve to quadratus femoris
- Action- help in lateral rotation



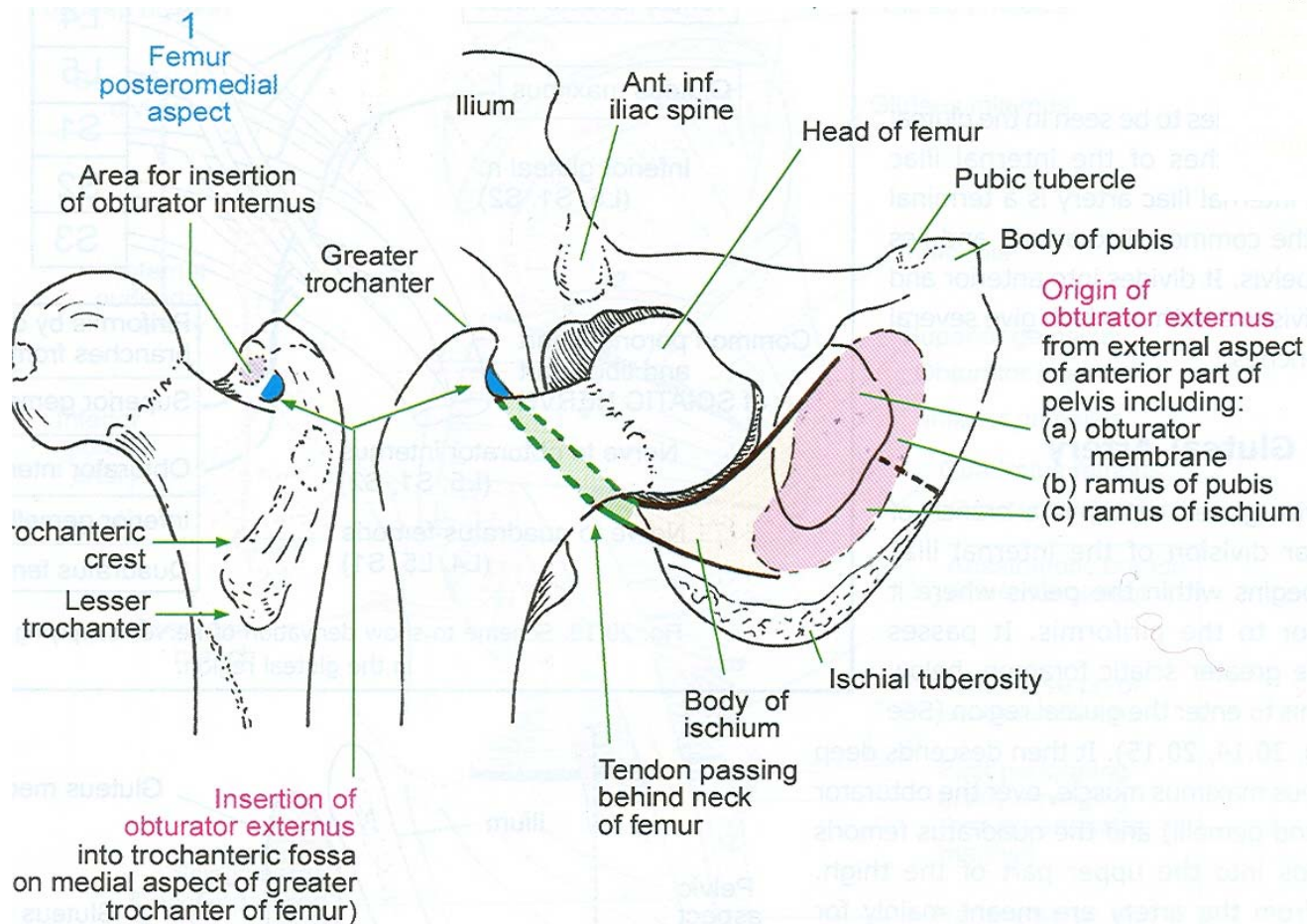
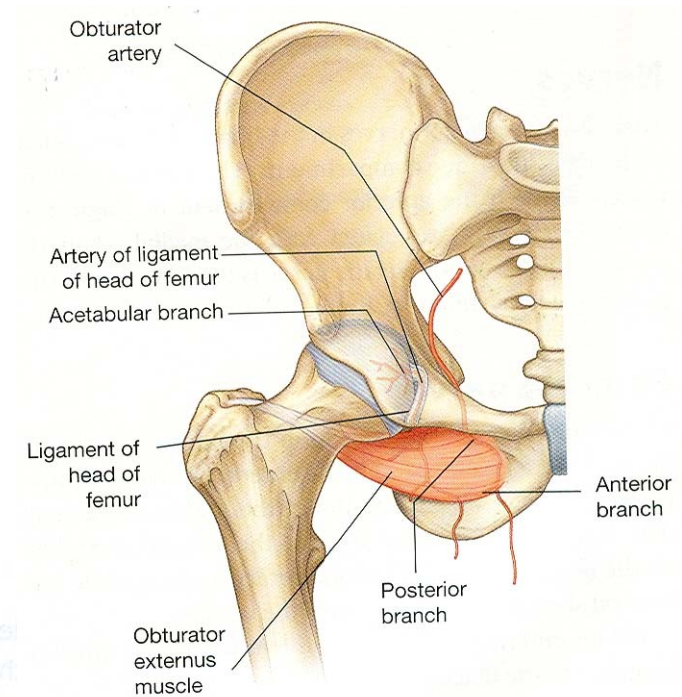
Quadratus femoris

- Nerve supply- nerve to quadratus femoris
- Action- lateral rotator of thigh



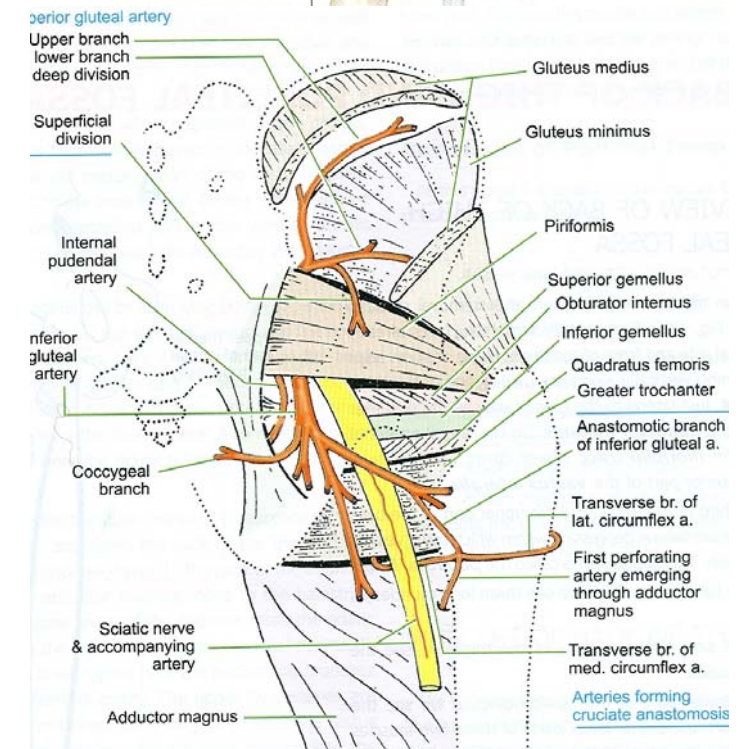
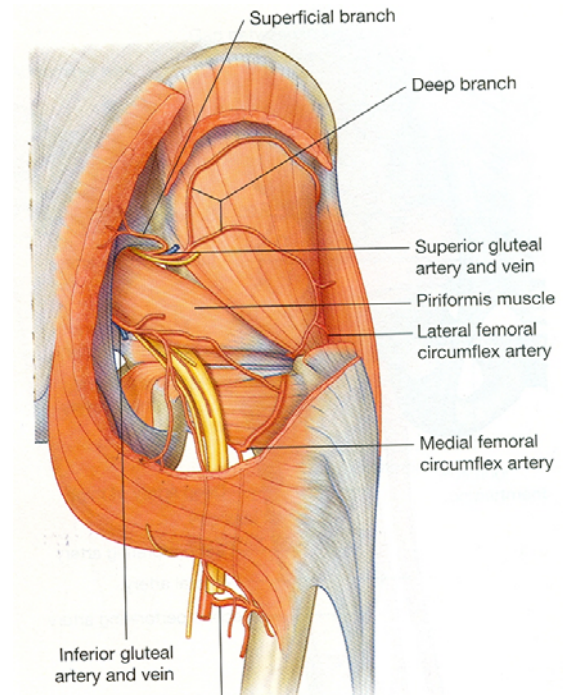
Obturator externus

- Obturator nerve
- Action- Lateral rotator of femur



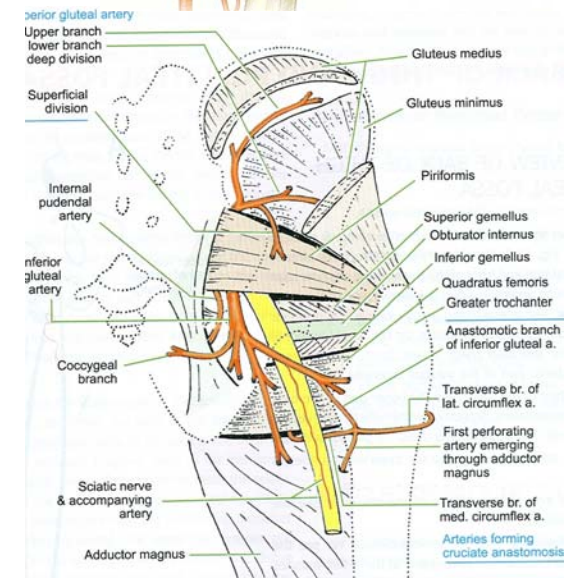
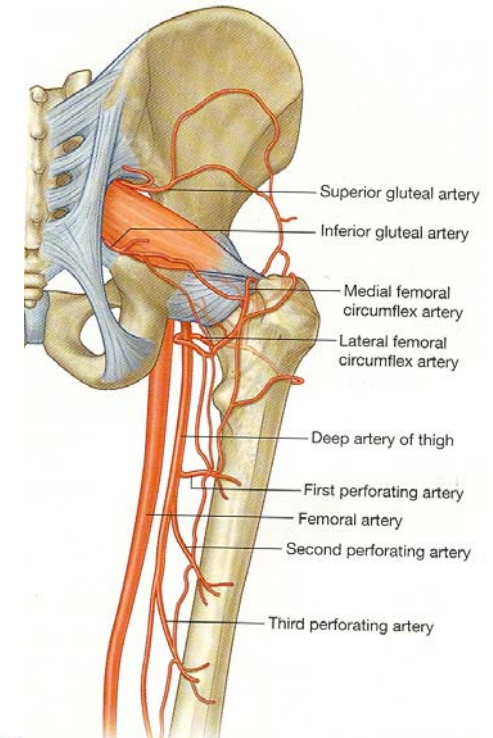
Arteries

- Inferior gluteal artery-
Artery of sciatic nerve
Anastomotic br.
Coccygeal artery
- Superior gluteal artery-
Superficial branch
Deep branch
- Internal pudendal artery
- Various anastomosis

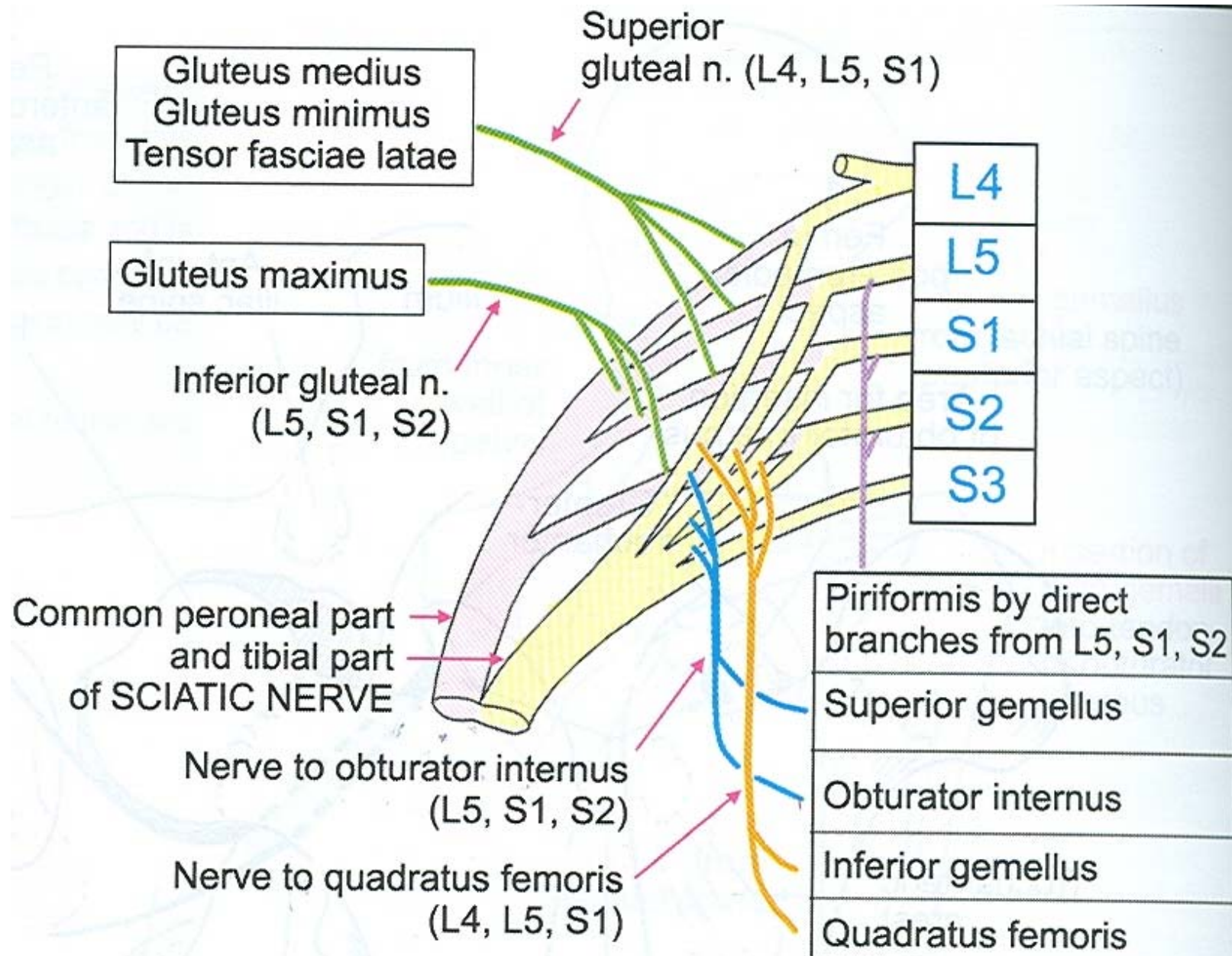


Arterial anastomosis in gluteal region

- Cruciate anastomosis- present in the lower part of the gluteal region. Arteries taking part are anastomotic branches of inferior gluteal artery, first perforating artery & transverse branches of lat.& med. Cir. Femoral artery
- Trochanteric artery- seen in relation to greater trochanter. Art. Taking part in anastomosis are descending branches of superior gluteal artery, ascending branch of medial & lateral cir. Femoral arteries



Nerves in gluteal region



- Structures passing thru greater sciatic foramen- Piriformis fills the foramen
- structures passing above the piriformis are- superior gluteal nerve and superior gluteal vessels
- Structures passing below the piriformis are-Inferior gluteal nerve , inferior gluteal vessels, sciatic nerve, posterior cutaneous nerve of thigh, nerve to quadratus femoris, pudendal nerve, internal pudendal vessels, nerve to obturator internus
- Structures passing thru lesser sciatic foramen- pudendal nerve, Internal pudendal vessels, nerve to obturator internus, tendon of obturator internus

Applied

- I/m injection is given in superolateral quadrant of gluteal region to avoid injury to nerves