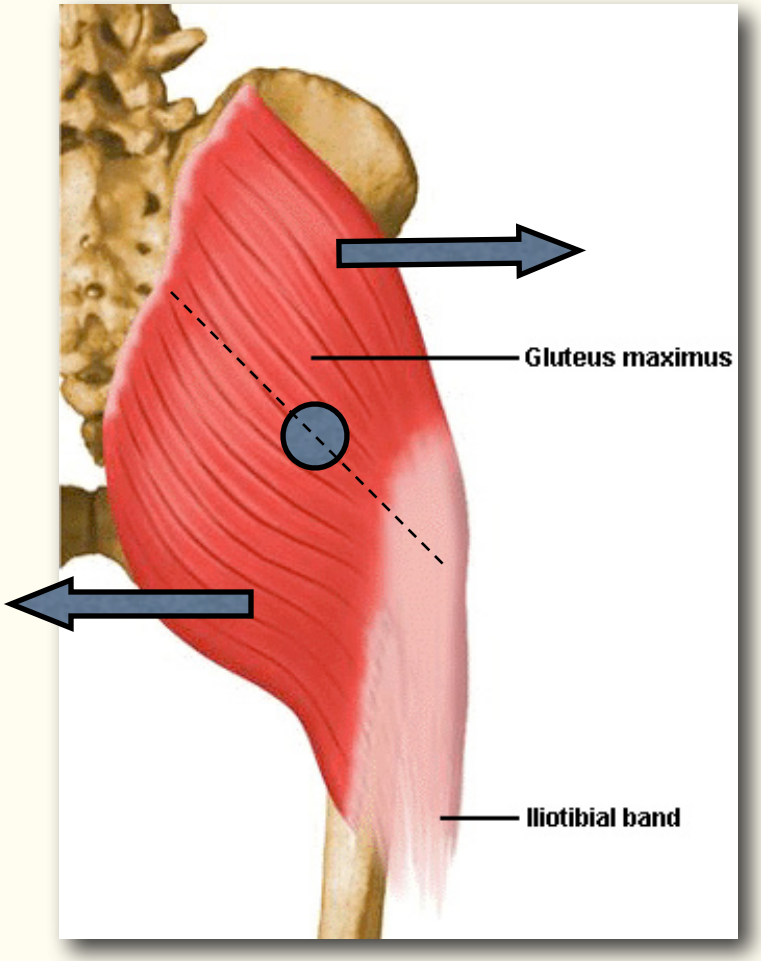
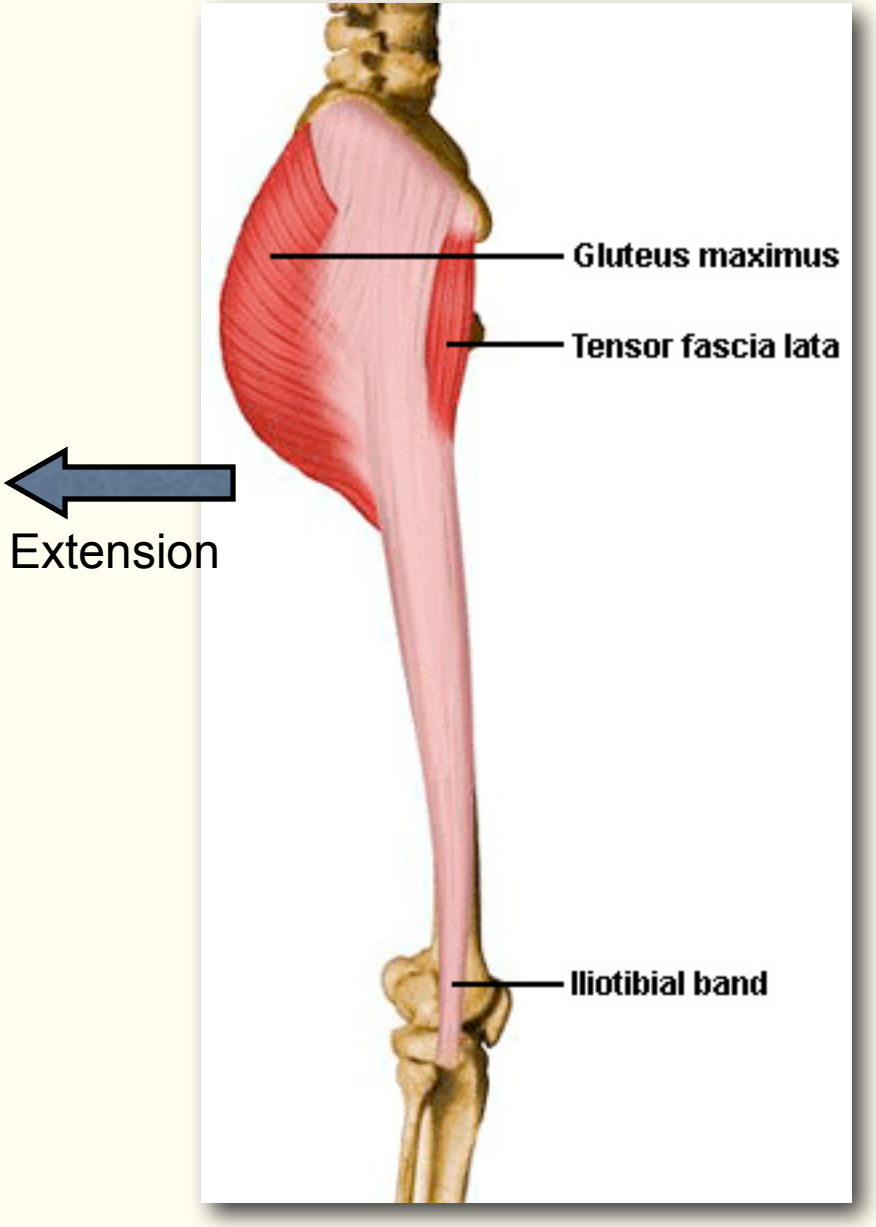
Muscles of the Hip Joint

Gluteus Maximus

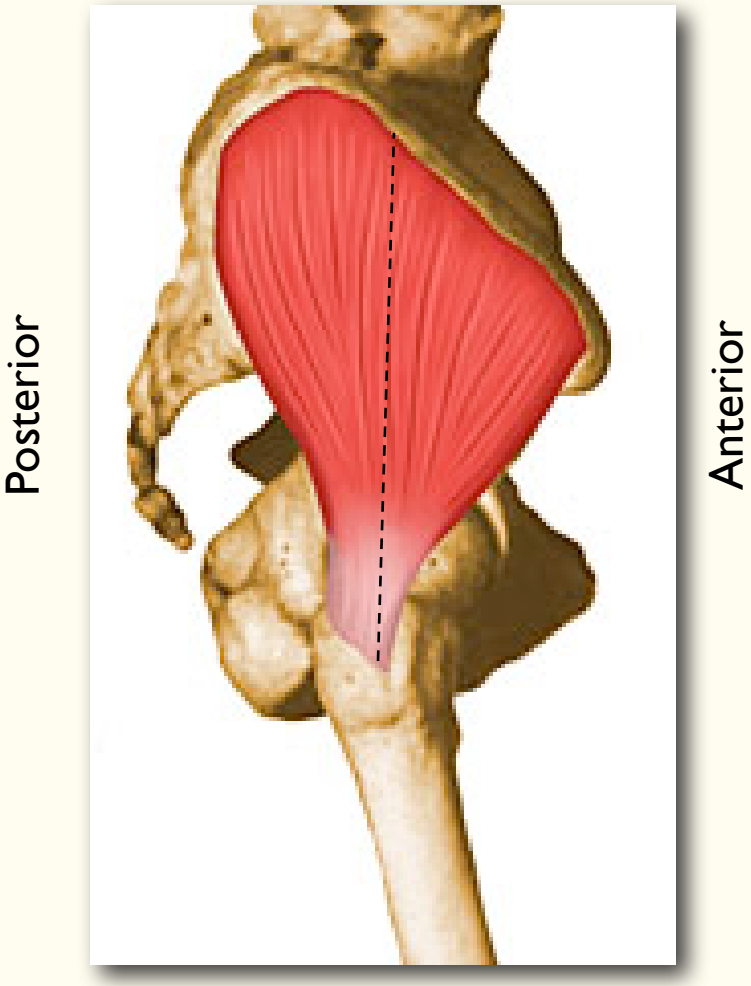
- O: lower posterior iliac crest and posterior surface of the sacrum
- I: gluteal tuberosity (upper, posterior aspect of the femur) & I.T. band
- Actions:
  - Extension of the hip
  - External rotation of the hip
  - Upper fibers - assist in abduction
  - Lower fibers - assist in adduction




Gluteus maximus
Tensor fascia lata
Extension
Iliotibial band

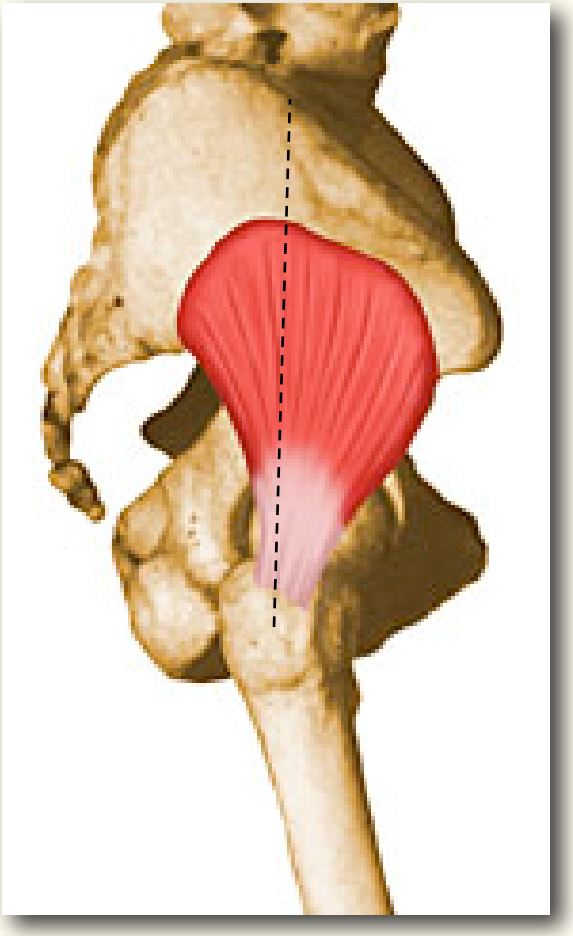
Gluteus Medius

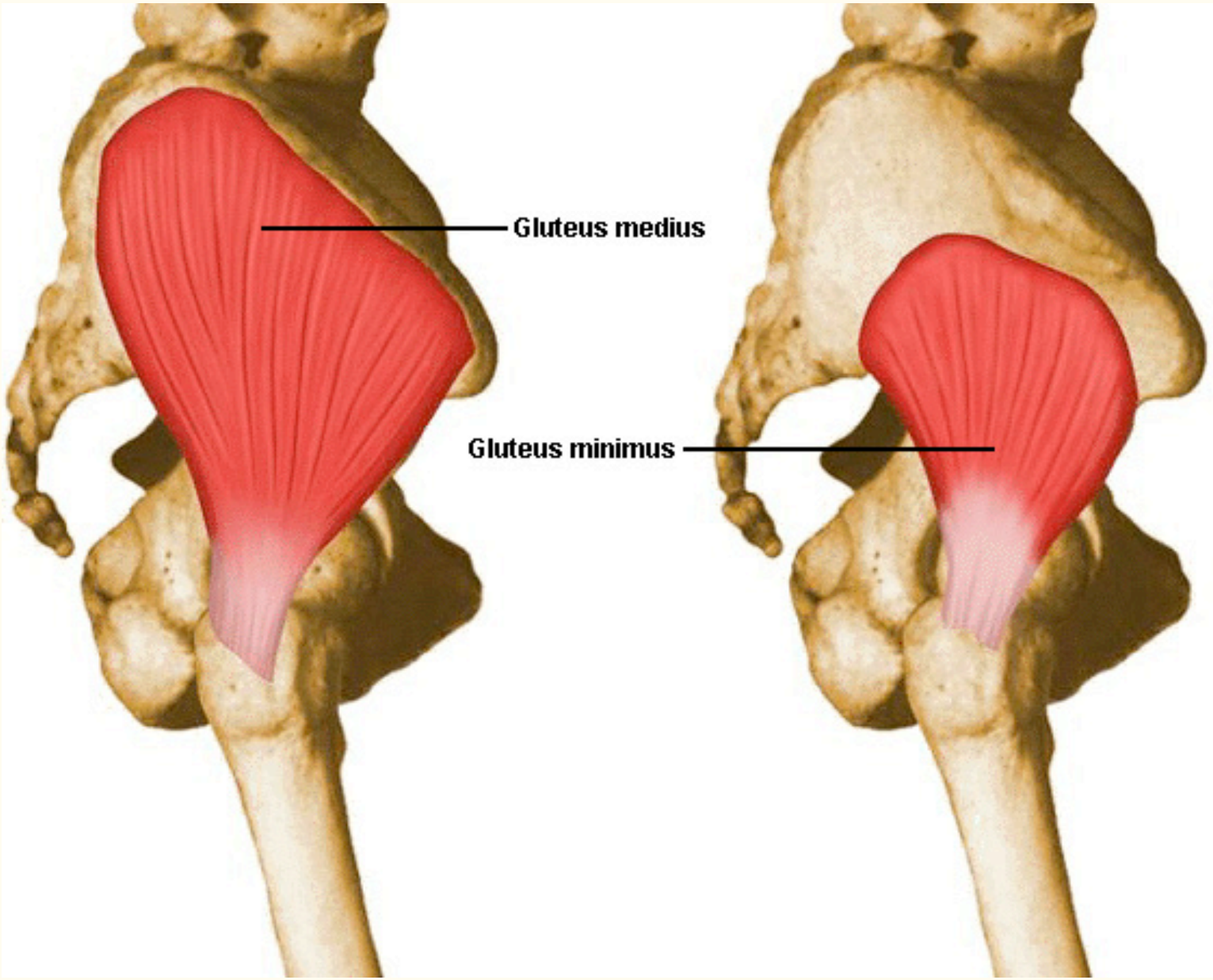
- O: outer surface of the ilium just below the crest
- I: greater trochanter
- Actions:
  - Abduction of the hip
  - Anterior fibers: Internal rotation and flexion
  - Posterior fibers: External rotation and extension

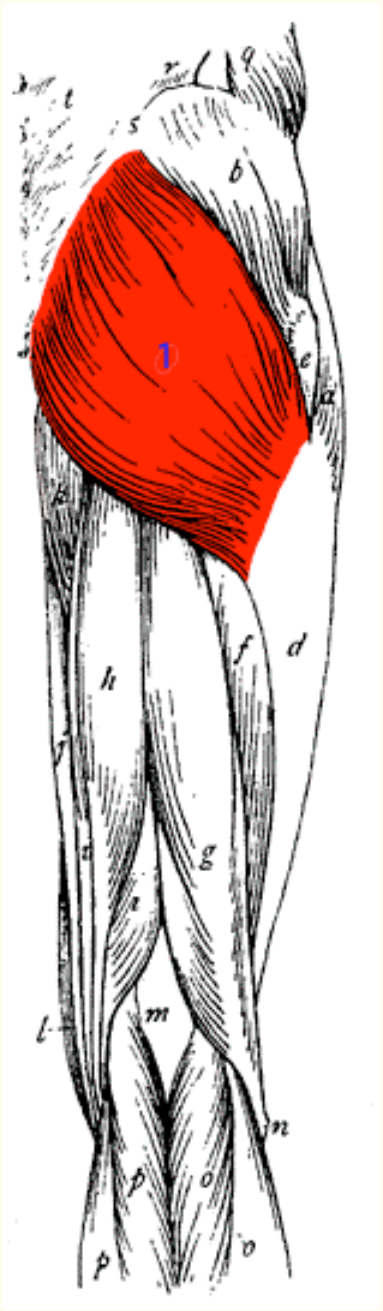


Gluteus Minimus

- O: outer surface of the ilium beneath the gluteus medius
- I: greater trochanter of the femur
- Actions
  - Abduction of the hip
  - Internal rotation
  - Flexion of the hip




Gluteus medius
Gluteus minimus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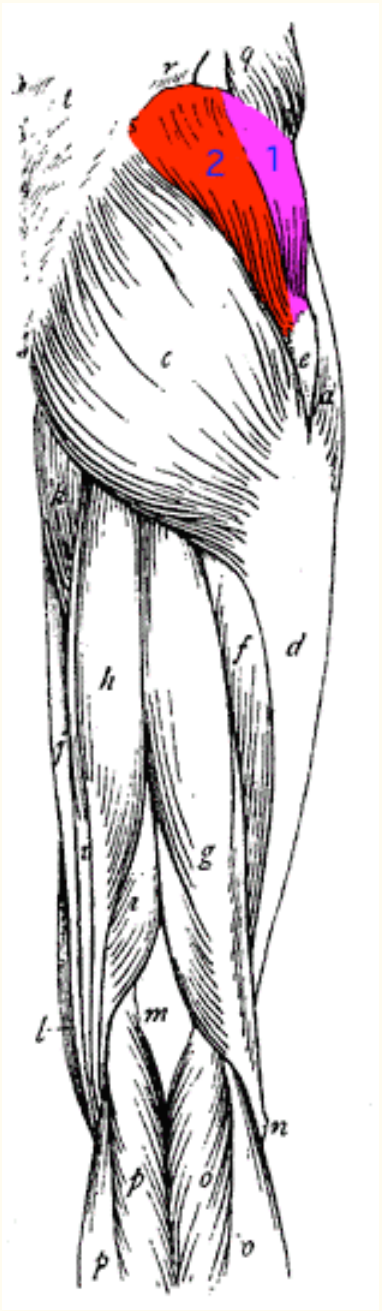
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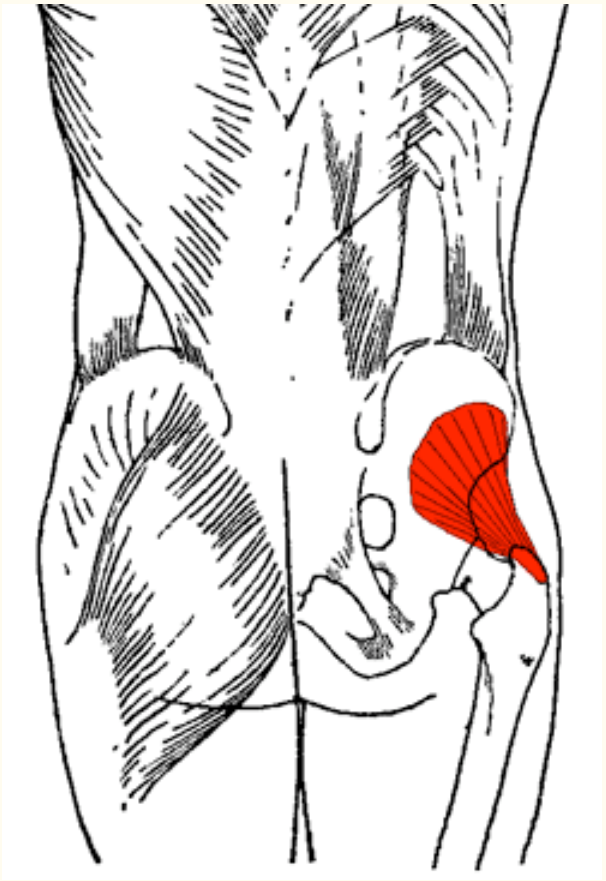
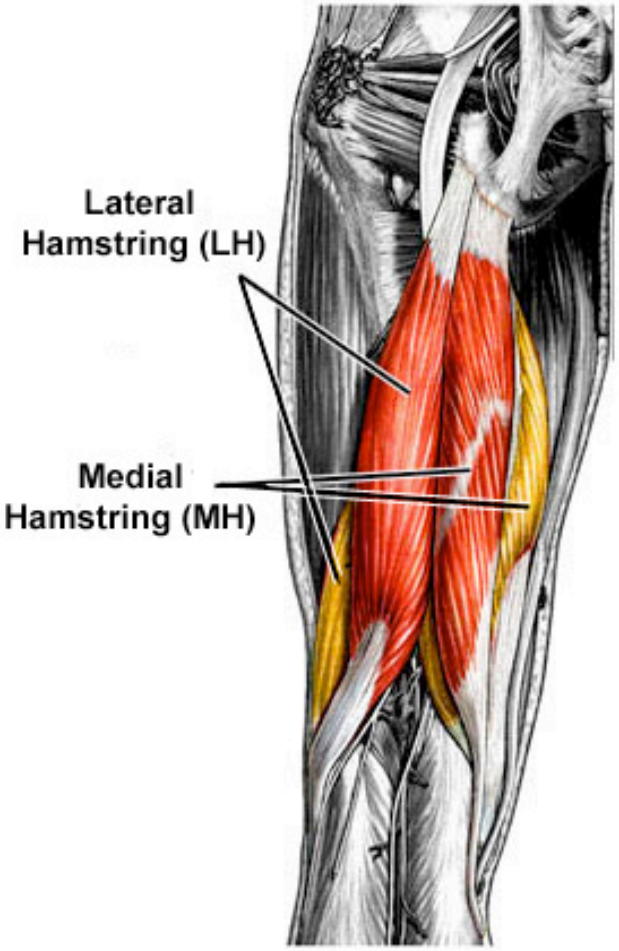


"Hamstrings"
(posterior thigh)

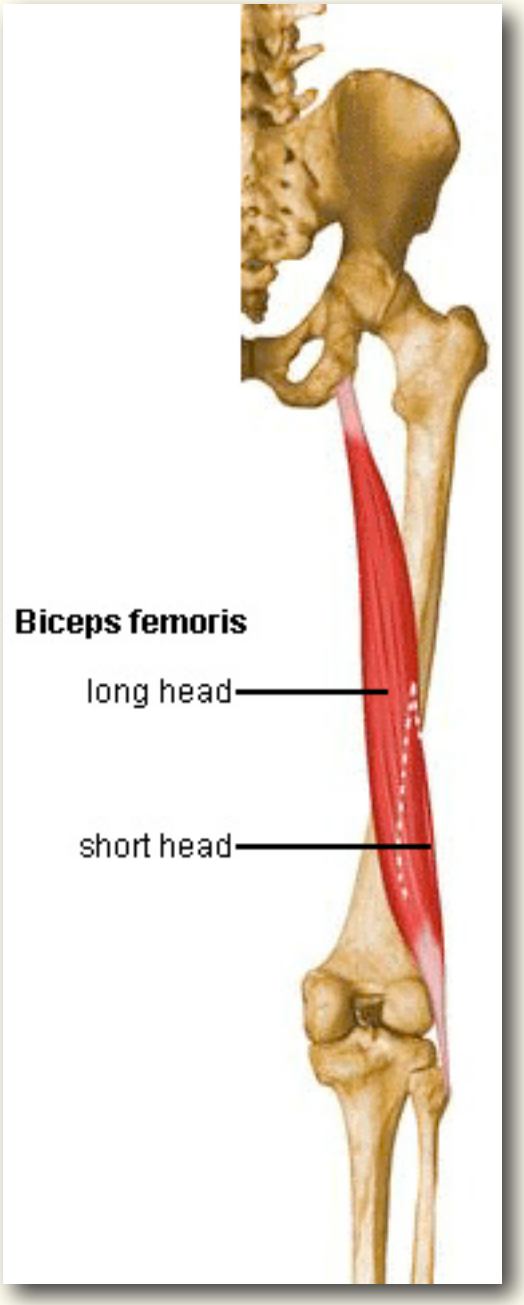
9.5



more
superficial

Biceps Femoris

- Lateral side
- Origin:
  - 1.) Long head - ischial tuberosity;
  - 2.) Short head - lower half of the linea aspera
- Insertion: Head of the fibula
- Action:
  - Extension of hip
  - External rotation of the hip

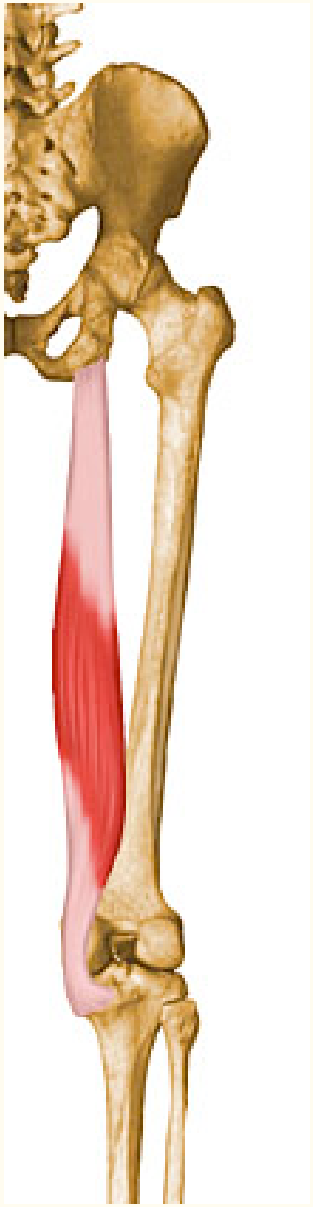


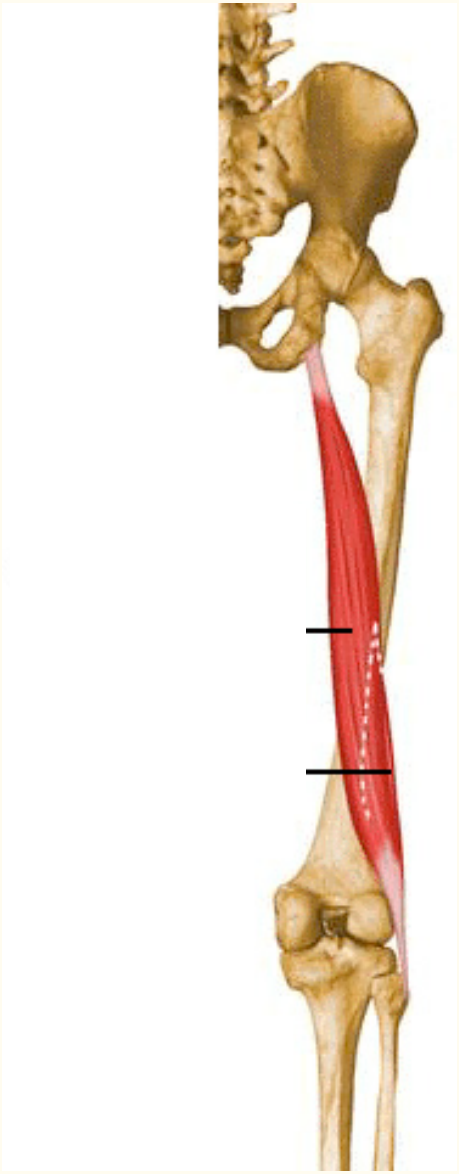
Semitendinosus

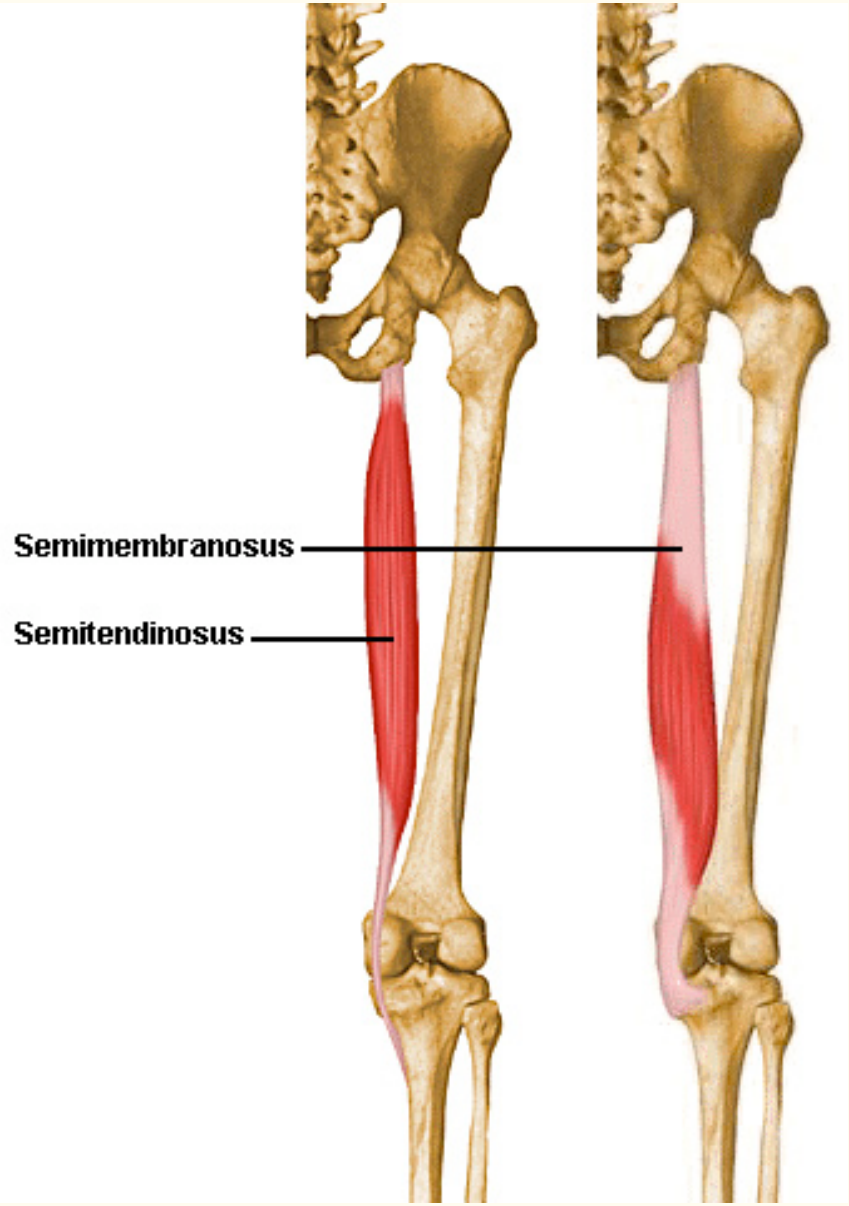
- Medial side; superficial
- Origin: Ischial tuberosity
- Insertion: Medial surface of proximal end of the tibia
- Action:
  - Extension of the hip
  - Internal rotation of the hip

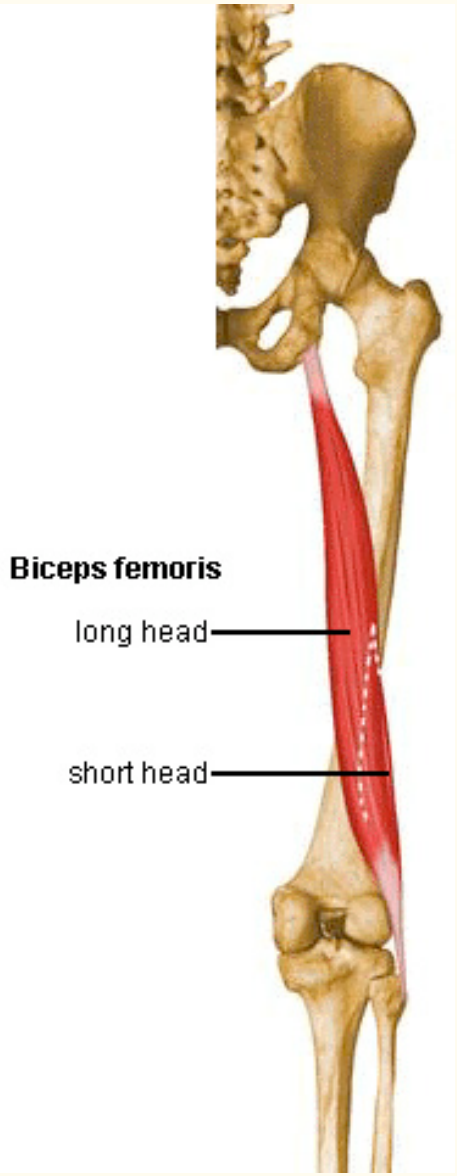
Semimembranosus

- Medial side, deeper than semitendonosus
- Origin: Ischial tuberosity
- Insertion: Medial surface of the tibia
- Action:
  - Extension of the hip
  - Internal rotation of the hip



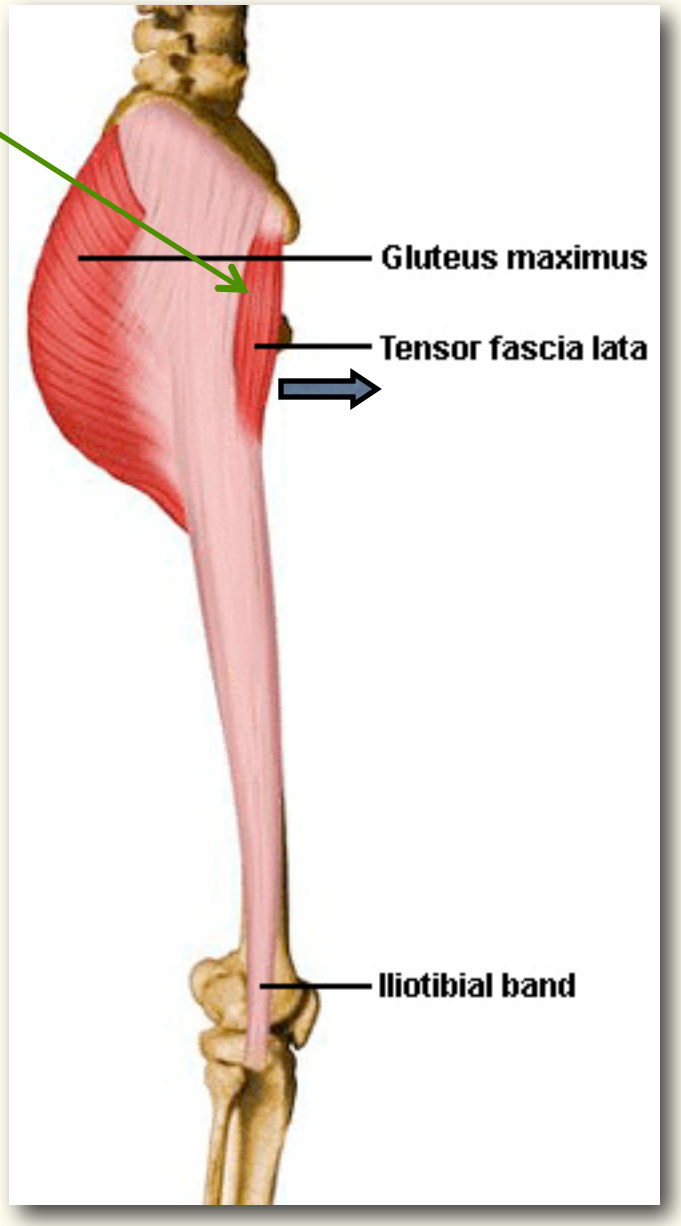



Semimembranosus
Semitendinosus

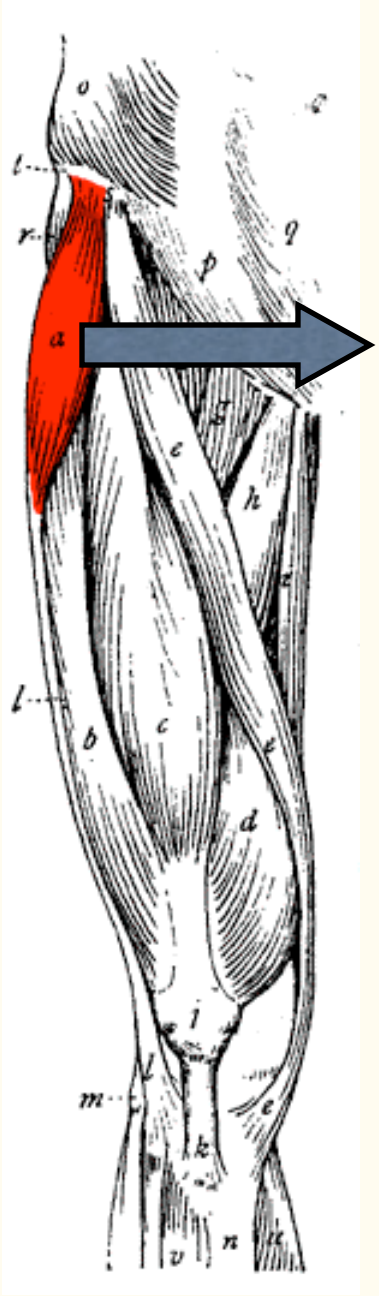

Biceps femoris
long head
short head

Tensor Fasciae Latae

- O: iliac crest
- I: iliotibial (I.T.) band
- Actions:
  - Flexion of the hip
  - Internal rotation
  - Abduction of the hip

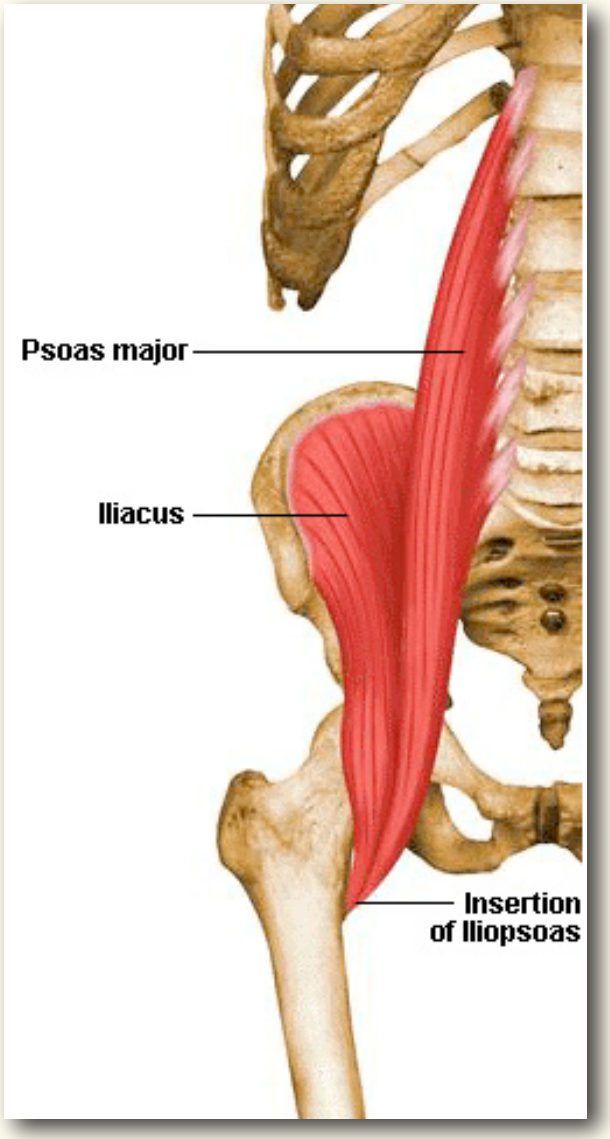


Tensor Fascia Latae (Anterior View)



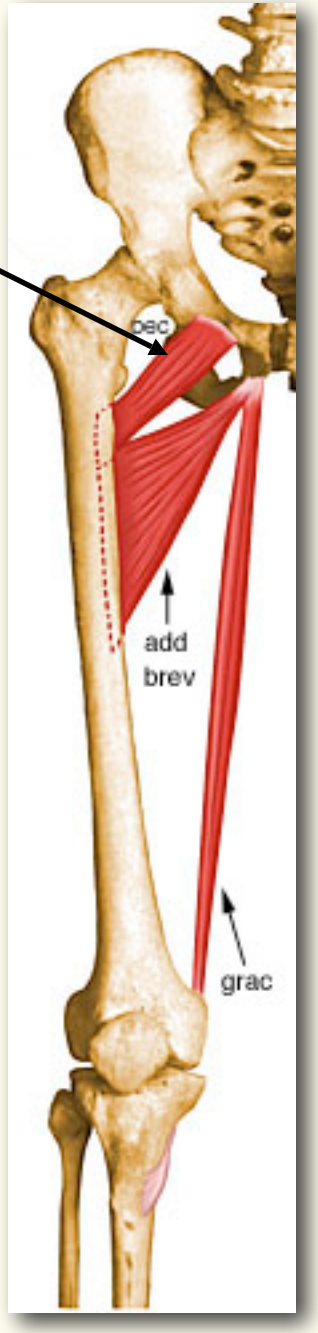
Iliopsoas

- Origins:
  - iliac fossa
  - vertebral bodies of the last thorasic and lumbar vertebrae
- I: lesser trochanter of the femur
- Actions:
  - Flexion of the hip
  - External rotation

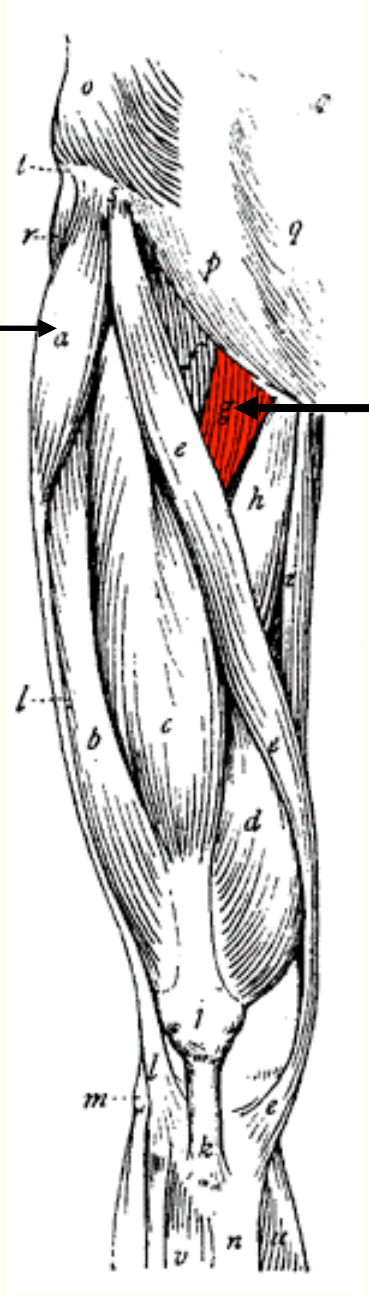


Pectineous

- O: pubic crest or ramus
- I: below the linea aspera
- Actions
  - Flexion
  - Adduction
  - External rotation



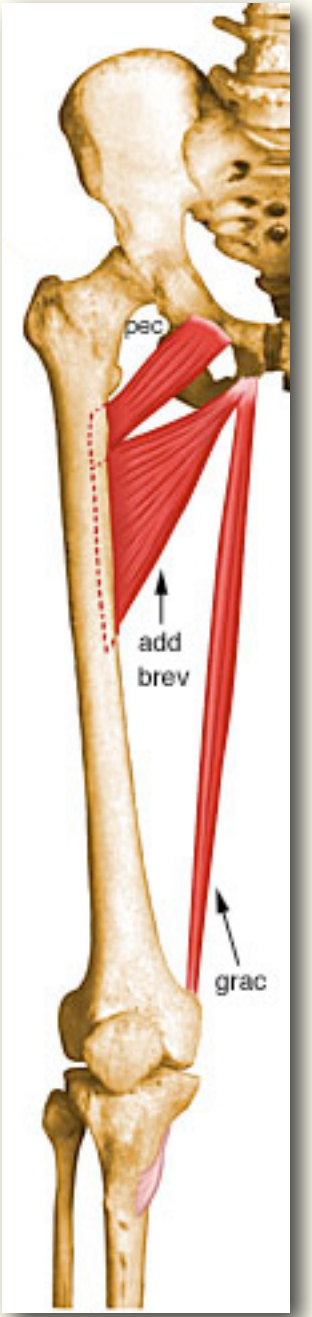
Tensor Fasciae Latae

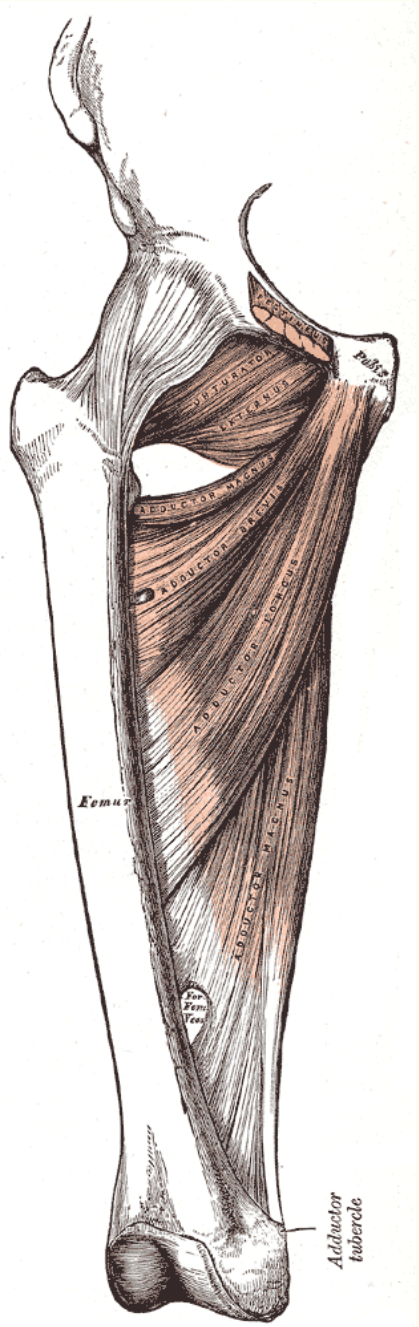


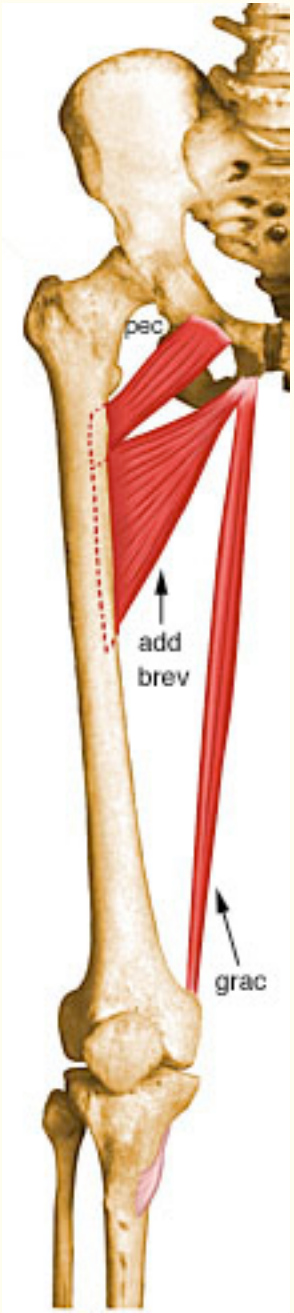
Pectineus

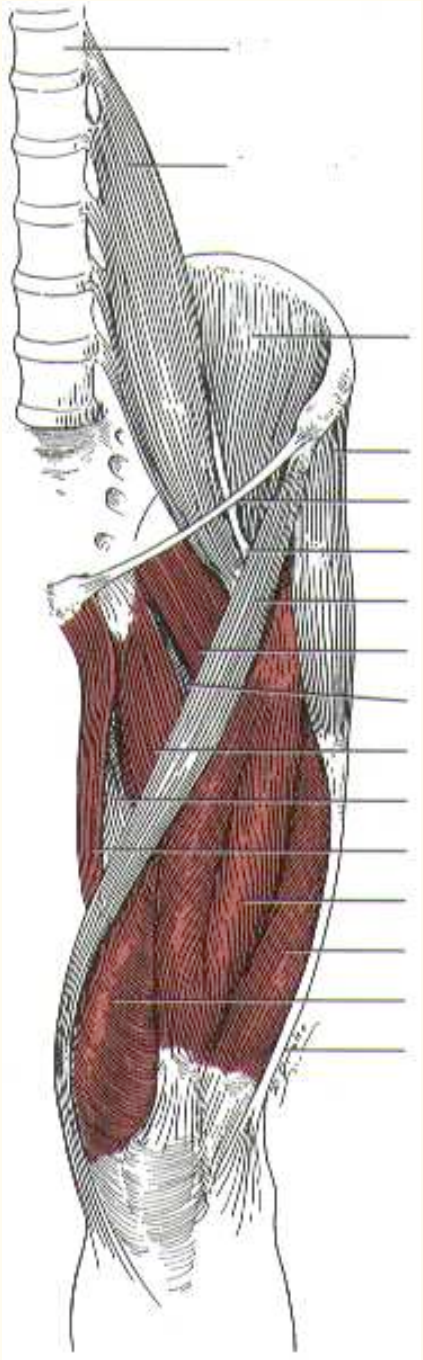
Adductor Brevis

- Origin: Inferior ramus of pubis
- Insertion: Pectineal line (linea aspera)
- Actions:
  - Adduction
  - External rotation
  - Flexion (weak)



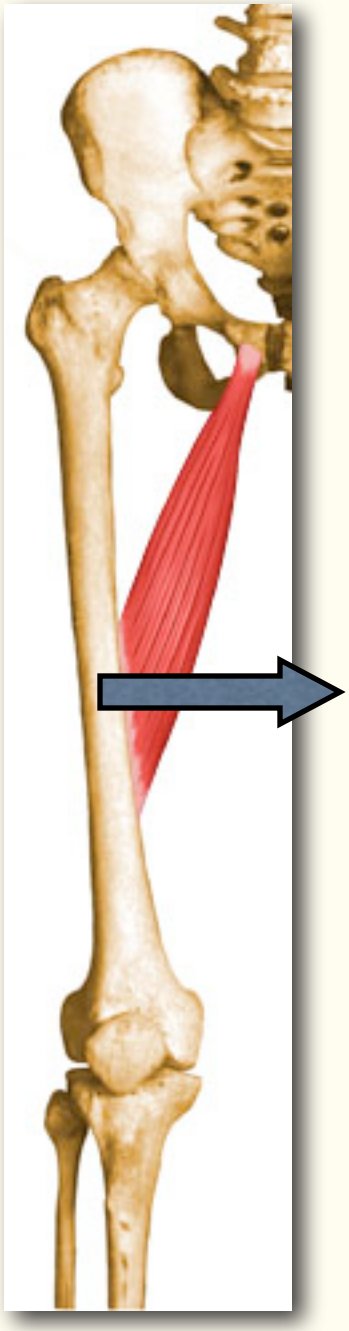

Pubis
Femur
Adductor tubercle


pec
add brev
grac



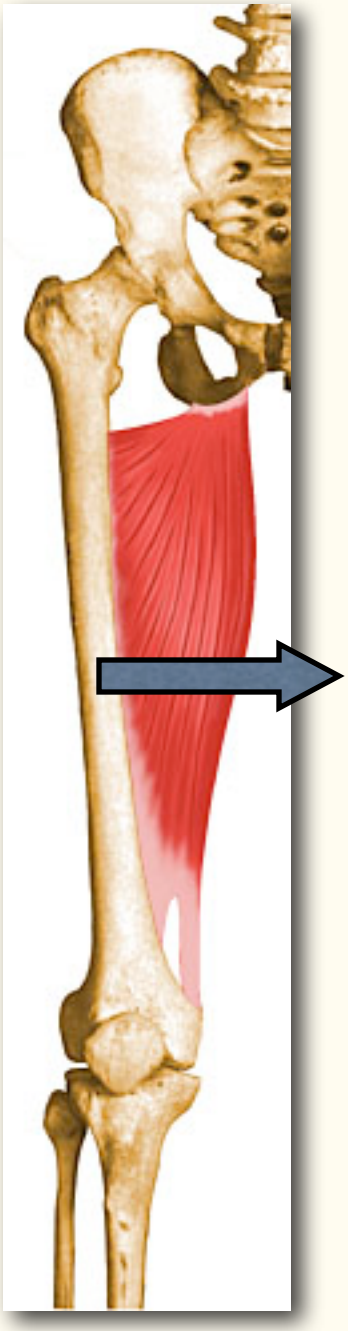
Adductor Longus

- Below the adductor brevis
- O: front of the pubis just below its crest
- I: middle third of the linea aspera
- Actions:
  - Adduction
  - Flexion (weak)



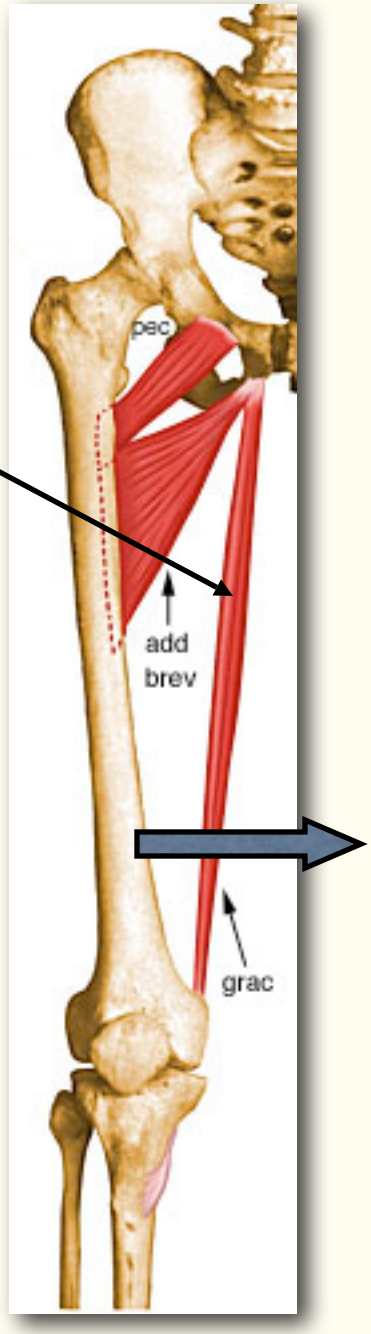
Adductor Magnus

- Located posterior to the longus
- O: edge of the pubic crest and ischial tuberosity
- I: linea aspera
- Actions:
  - Adduction
  - External rotation
  - Extension



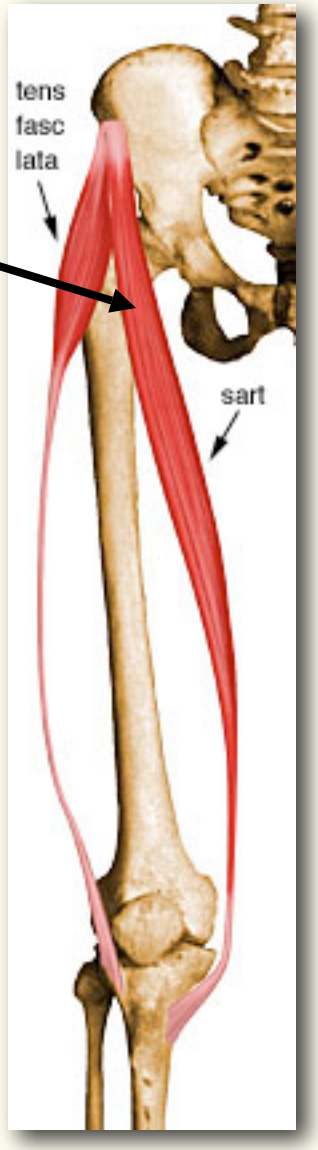
Gracilis

- O: pubic crest
- I: medial condyle of tibia
- Actions:
  - Adduction at the hip
  - Internal rotation
  - Flexion (weak)

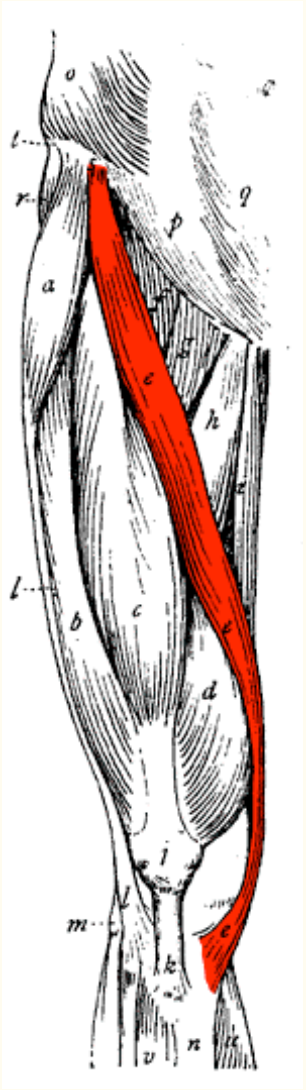


Sartorius

- Origin: Anterior-superior spine of the ilium
- Insertion: Anterior medial condyle of the tibia (behind the medial condyle)
- Action:
  - Flexion of hip
  - External rotation of the hip
  - Abduction




tens
fasc
lata
sart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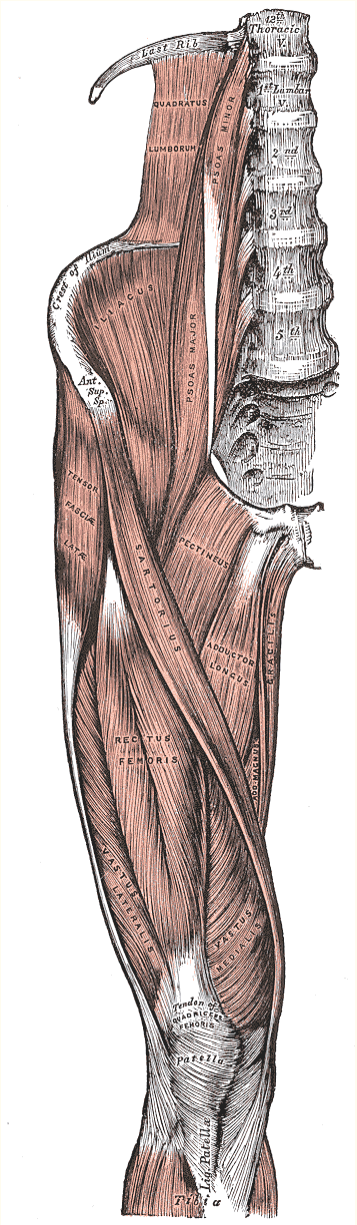
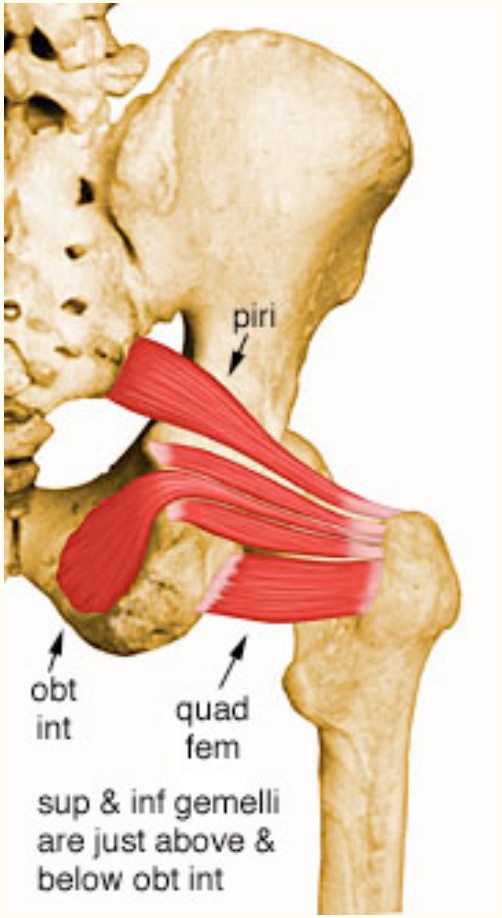

Last Rib
QUADRATUS LUMBORUM
PSOAS MINOR
PSOAS MAJOR
Crest of Ilium
Ant. Sup. Sp.
TENSOR FASCIÆ LATÆ
SARTORIUS
PECTINEUS
ADDUCTOR LONGUS
GRACILIS
RECTUS FEMORIS
VASTUS LATERALIS
VASTUS MEDIALIS
patella
Lig. Patellæ

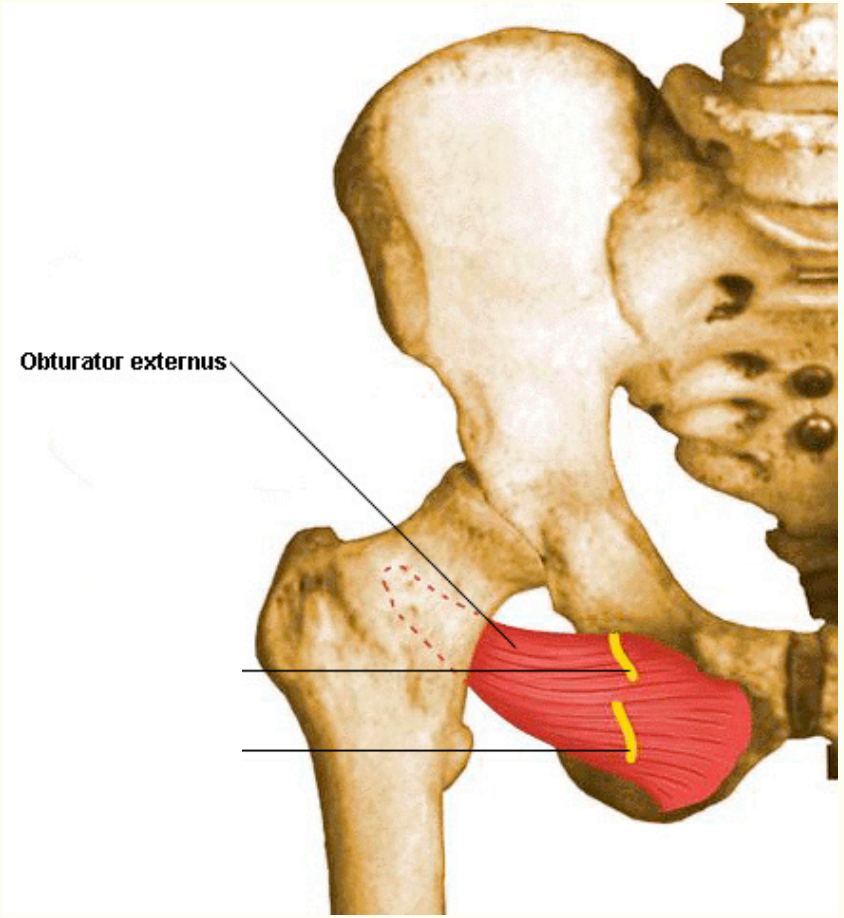
Rectus Femoris

- Origin: anterior-inferior iliac spine of the ilium
- Insertion: top of the patella and patellar ligament to the tibial tuberosity
- Action: Flexion of the hip

Hip Rotator Muscles



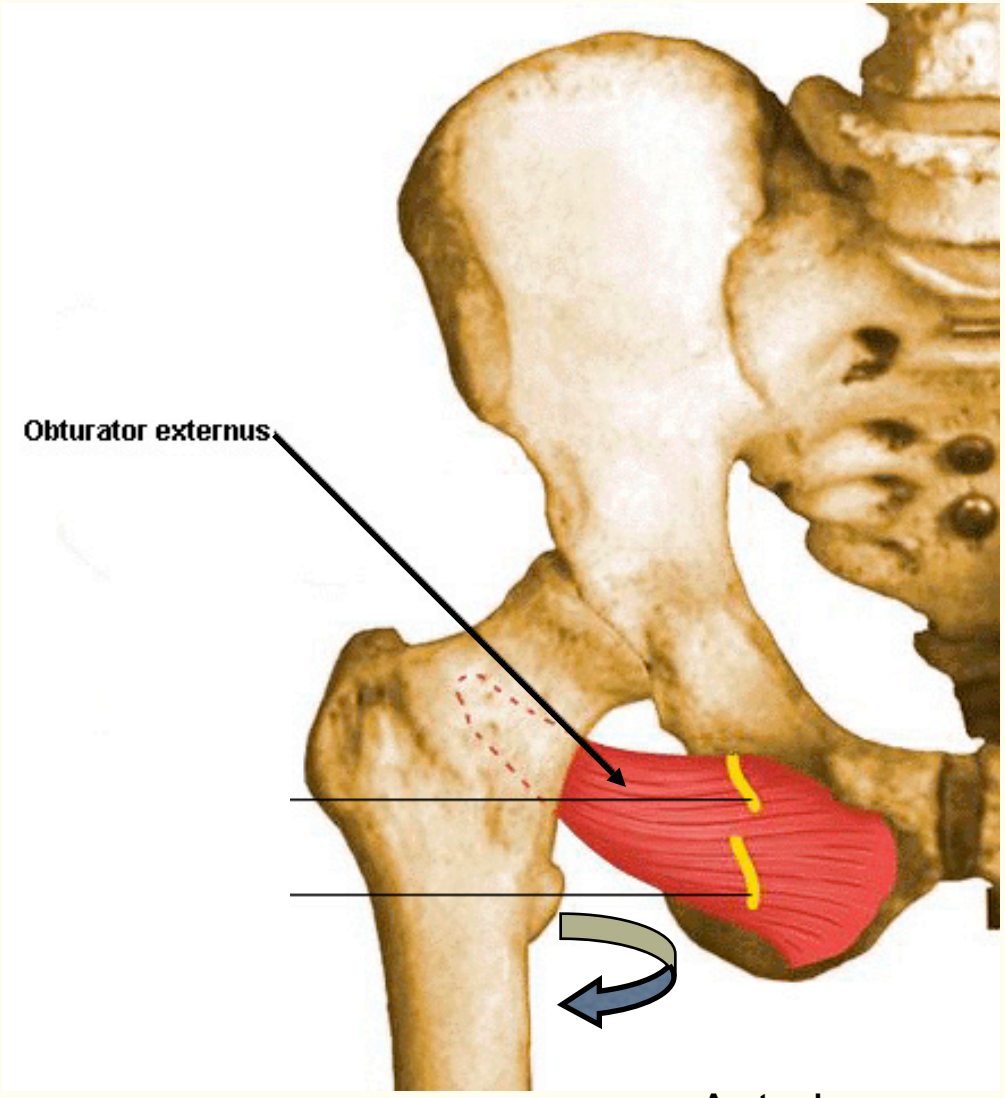
Posterior



Anterior

Hip Rotator Muscles

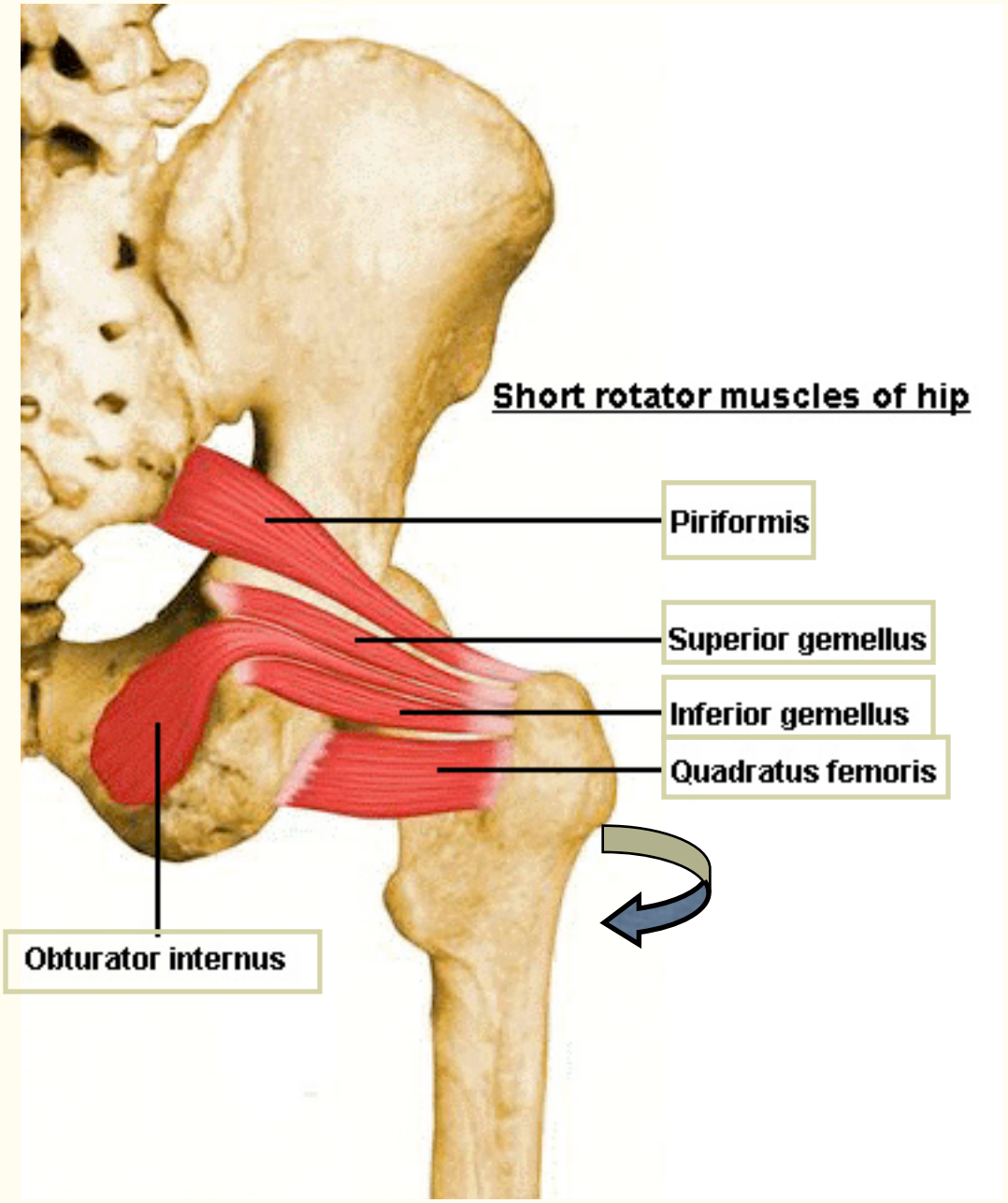
- <u>ANTERIOR</u>
- Obturator Externus



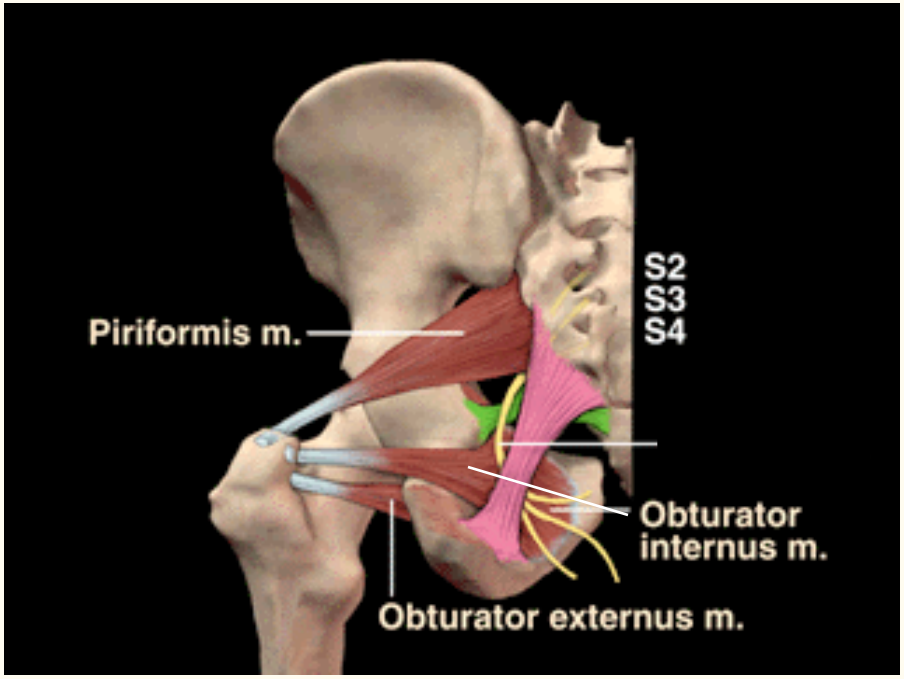
Anterior

Hip Rotator Muscles

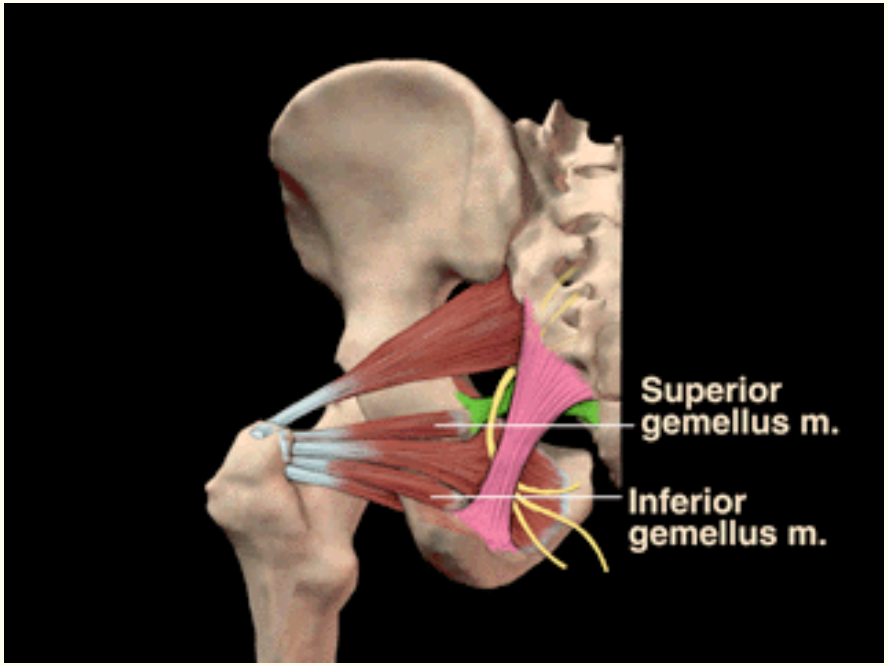
- POSTERIOR
- Piriformis
- Gemellus superior
- Obturator internus
- Gemellus inferior
- Quadratus femoris



Posterior



Posterior



Posterior

Six Hip Rotator Muscles

- Common action is External Rotation
- Powerful external rotation of the hip is required to throw a baseball, swing a bat or golf club.
- The sciatic nerve passes just inferior to the piriformis therefore a tight piriformis muscle my contribute to compression on the sciatic nerve.