

muscles of the lower limb

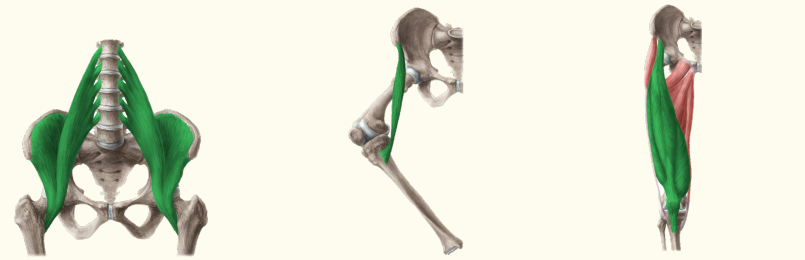
Muscles of the anterior part of thigh

innervated with **Femoral nerve** except Psoas major → Lumbal plexus L1, L2, L3

Iliopsoas
 - origin: Iliacus: iliac fossa, Psoas major: L1, L2, L3
 - insertion: lesser trochanter of femur
 Action: flexes the thigh
 Psoas major: flexes the trunk on thigh if thigh is fixed

Sartorius
 - origin: anterior superior iliac spine
 - insertion: upper medial surface of tibia
 Action: 1. factor position
 2. The thigh: flexes, abduction & lateral rotation
 3. The knee: flexes & medial rotation

Quadriceps femoris
 - origin: 4 heads
 → Rectus femoris
 → vastus medialis
 → vastus lateralis
 → vastus intermedius
 - insertion: patella & tibial tuberosity via patellar ligament
 Action: extends the knee
 Rectus femoris → flexes the thigh

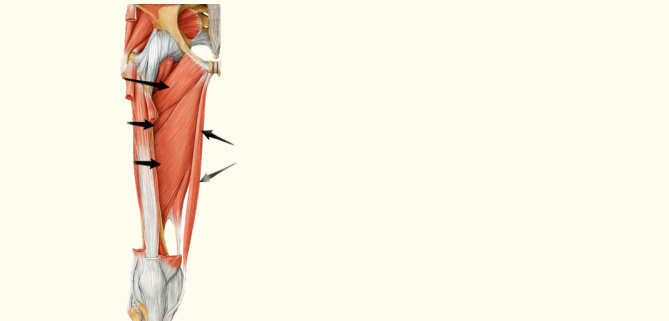


Medial compartment of the thigh "adductors"

innervated by **obturator nerve**

1. adductor longus
2. Adductor brevis
3. Adductor Magnus "pubic head"
4. gracilis ⇒ Adducts Thigh
 • flexes & rotate the leg

Adduct Thigh

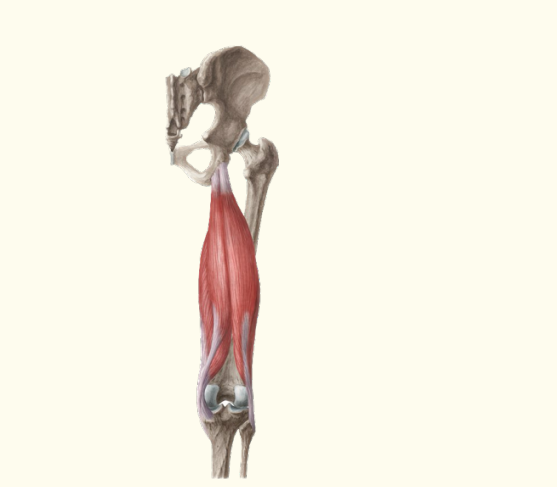


Posterior compartment of the thigh "Hamstring"

innervated by **tibial branch of sciatic nerve** exception: short head of biceps femoris by common peroneal branch of sciatic nerve

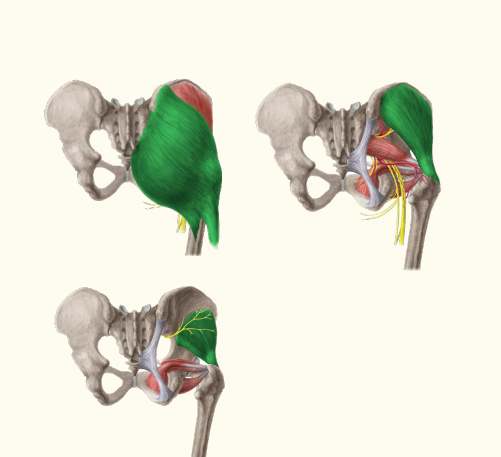
1. Biceps femoris → long + short
2. Semitendinosus
3. Semimembranosus
4. Adductor Magnus (ischial head)

⇒ Actions:
 - All extends the hip except short head of biceps
 - flexes the knee & leg
 - Medial muscles → medial rotation
 - lateral muscles → lateral rotation



Gluteal region

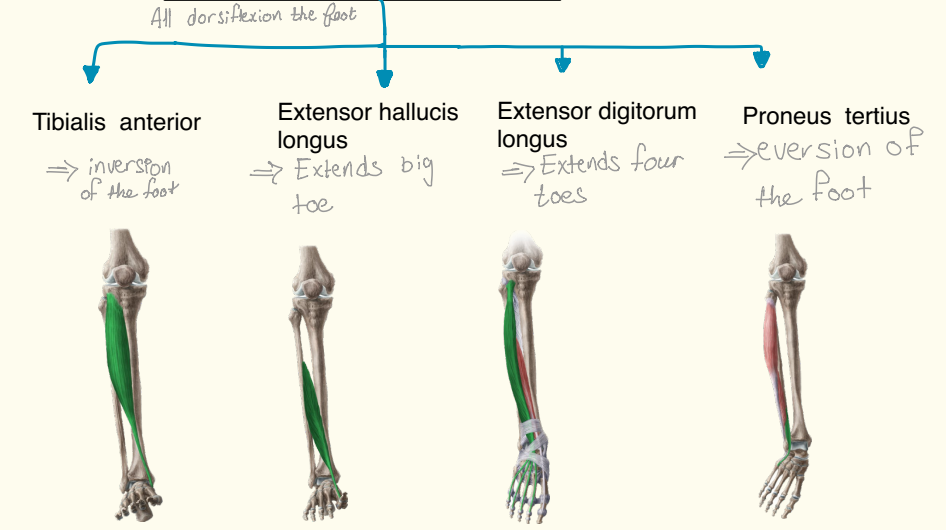
1. Gluteal maximus ⇒ inferior gluteal nerve
 * Action: Extends & lateral rotation of thigh
2. Gluteal medius ⇒ superior gluteal nerve
3. Gluteal minimus
 * Action: Abduction & preventing tilting of the pelvis when opposite limb is raised



The leg

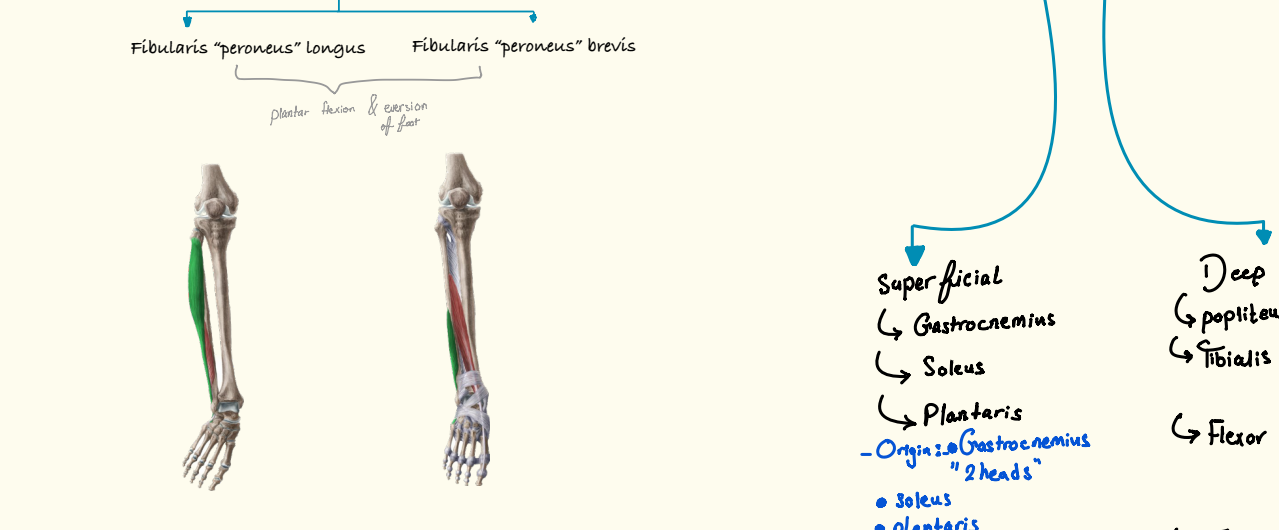
All of them are innervated by **Deep fibular nerve**

muscles of anterior compartment
 All dorsiflexion the foot



All of them are innervated by **Superficial fibular nerve**

muscles of lateral compartment
 Fibularis "peroneus" longus
 Fibularis "peroneus" brevis
 plantar flexion & eversion of foot



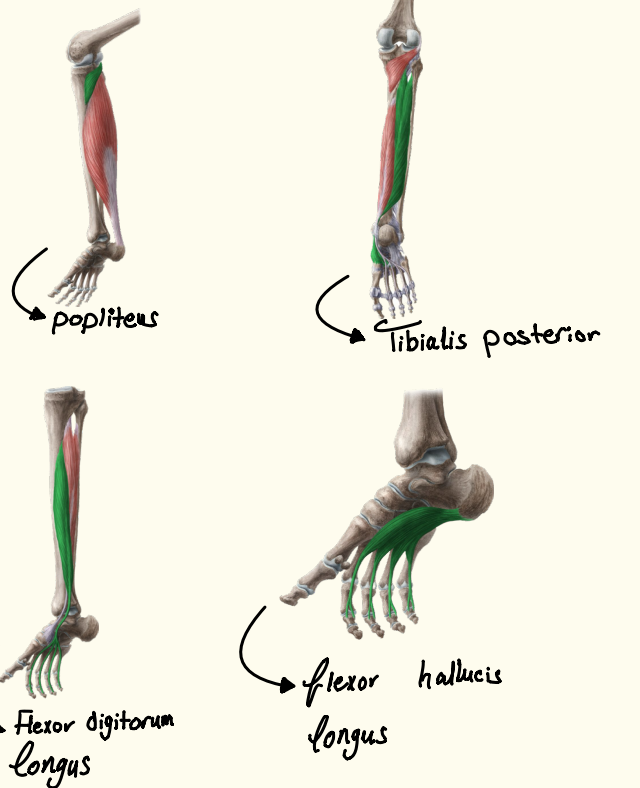
All of them are innervated by **Tibial nerve**

muscles of posterior compartment

Superficial
 ↳ Gastrocnemius
 ↳ Soleus
 ↳ Plantaris
 - Origin: Gastrocnemius "2 heads"
 • soleus
 • plantaris
 - insertion: onto the calcaneus foot, via the calcaneal tendon
 ⇒ Action: - plantar flex foot & weak knee flexion

Deep
 ↳ popliteus → Flex and unlock the knee
 ↳ Tibialis posterior → inversion of the foot
 ↳ Flexor digitorum longus → flexes big toe
 ↳ Flexor hallucis longus → flexes 4 other toes

Plantar flexion the foot



Clinical anatomy:-
 The lateral upper quadrant is most suitable for intramuscular injection