



Anatomy II

(UOMU013044)

LEC. 8

Lower limb(muscle, bone ,nerve and blood supply)

**Al-Mustaqbal University College of Engineering & Technology
Department of prosthetics and orthotics engineering**

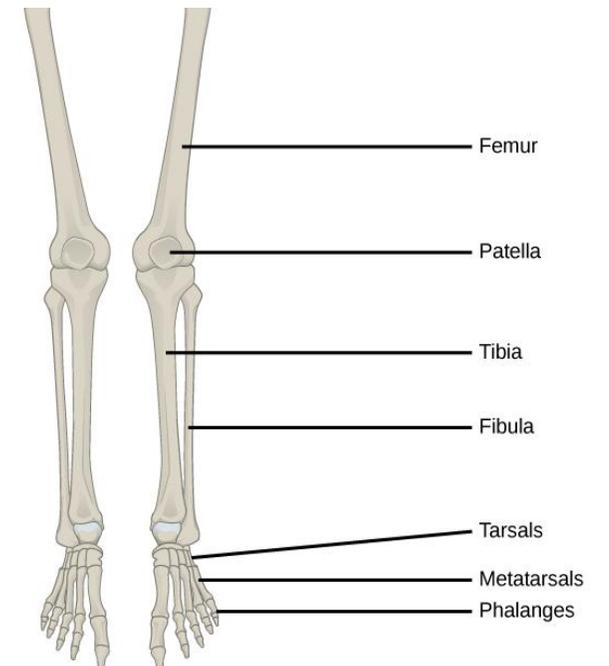
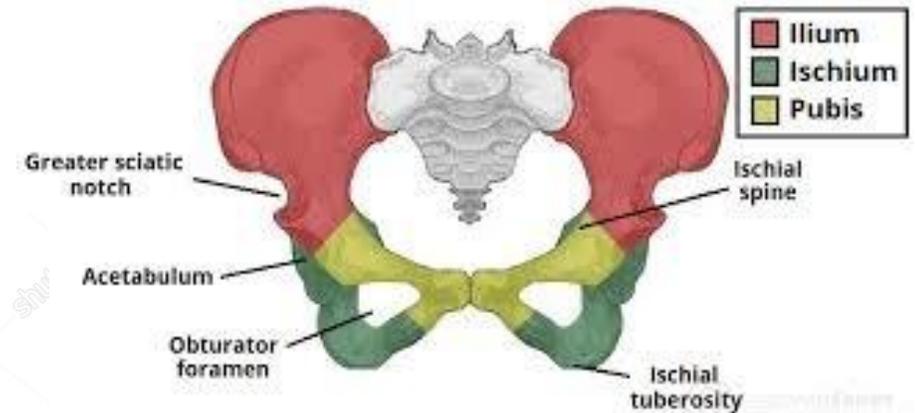
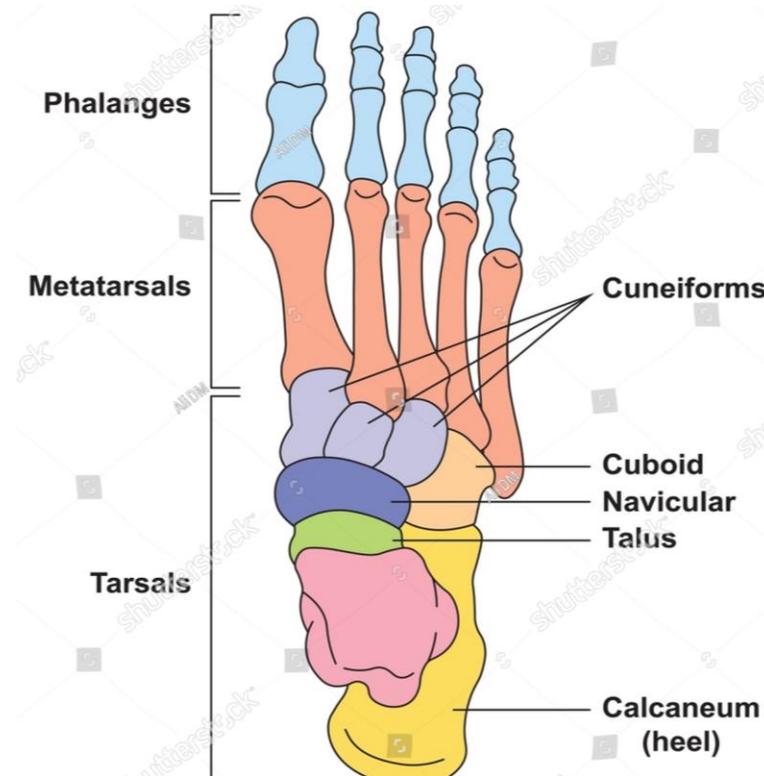
Dr. sally Alwash

Eng. Aya Talib

Bones of the Lower limb

The lower limb consists of:

- **Pelvic girdle** (ilium, ischium, pubis)
- **Thigh bone:** Femur
- **Leg bones:** Tibia (medial) & Fibula (lateral)
- **Patella** (kneecap)
- **Foot bones:**
 - Tarsals (e.g., talus, calcaneus , Navicular, Cuboid, Cuneiform).
 - Metatarsals.
 - Phalanges.

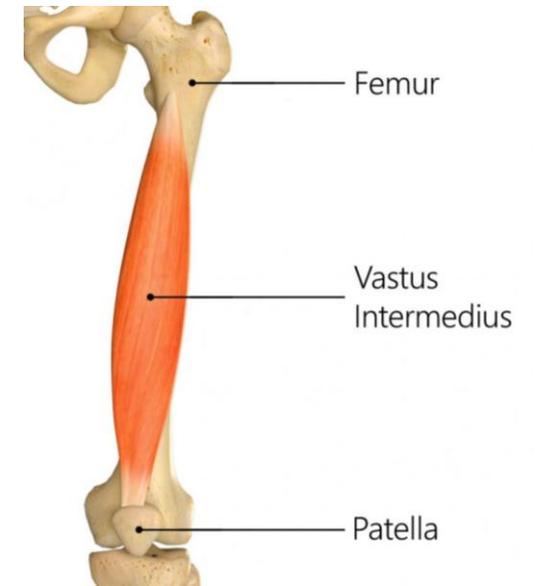
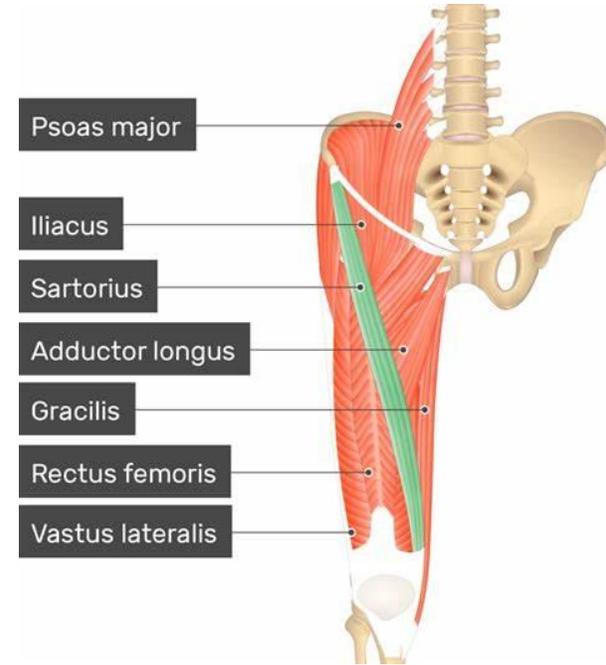
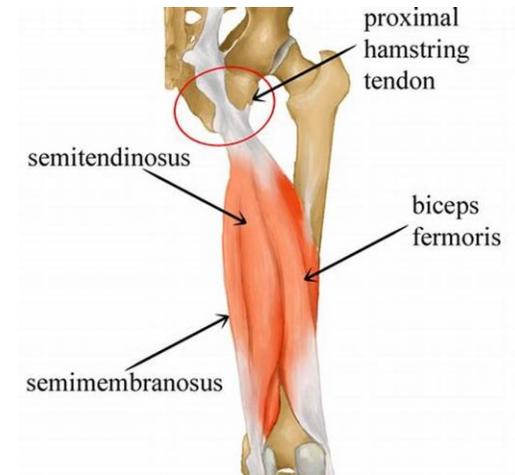
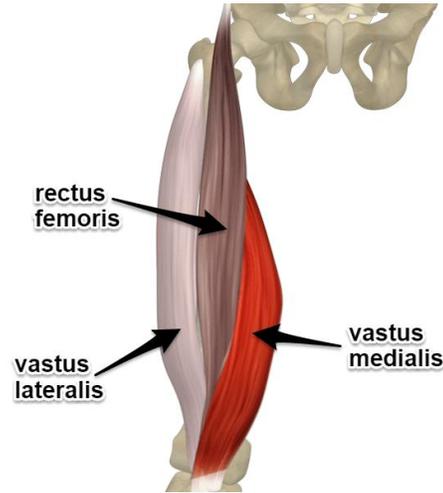


Muscles of the Lower limb

The lower limb muscles are categorized into different regions:

•Thigh Muscles

- *Anterior compartment:*
Quadriceps femoris (Rectus Femoris, Vastus Lateralis, Vastus Medialis, Vastus Intermedius)
sartorius
- *Medial compartment:*
Adductor longus, adductor brevis, adductor magnus, gracilis
- *Posterior compartment:*
Hamstrings (biceps femoris, semitendinosus, semimembranosus)



Leg Muscles:

Anterior compartment:

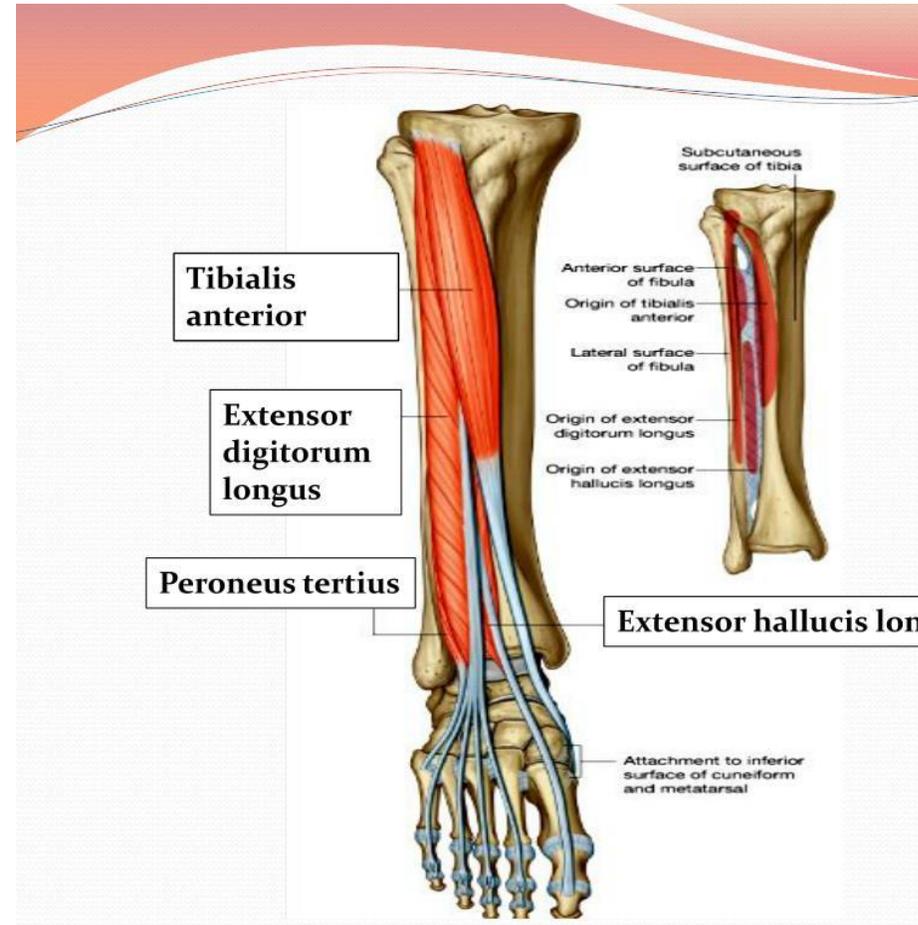
- Tibialis anterior
- extensor hallucis longus
- extensor digitorum longus

Lateral compartment:

Fibularis (peroneus) longus and brevis , Fibularis Tertius.

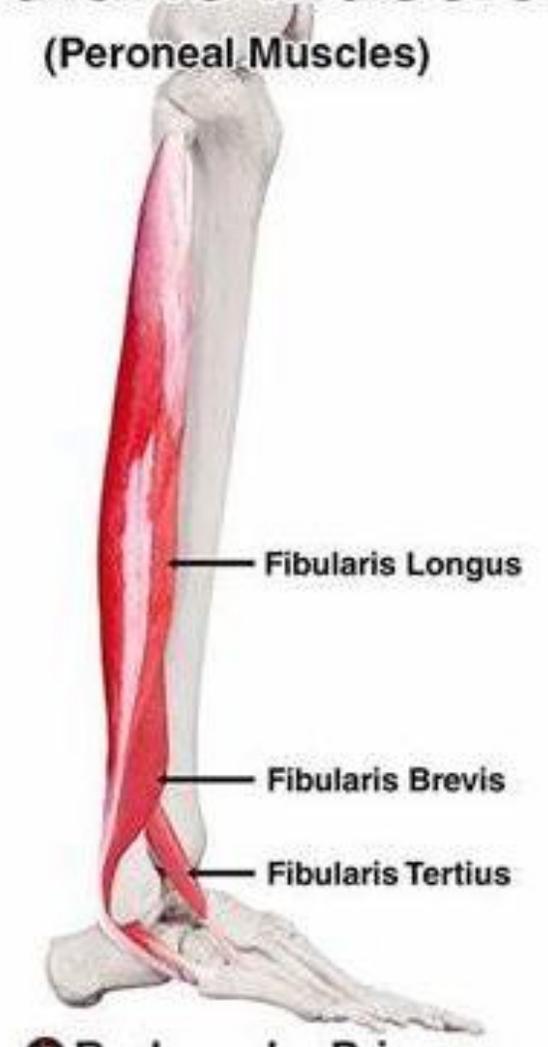
Posterior compartment:

- Gastrocnemius
- soleus
- tibialis posterior
- flexor hallucis longus
- flexor digitorum longus



Fibularis Muscles

(Peroneal Muscles)



•Foot Muscles

- **Intrinsic muscles:**

1. Abductor Hallucis.
2. Flexor Digitorum Brevis.
3. Abductor Digiti Minimi.

- **Extrinsic Muscles (Originate from the Leg)**
Anterior (Dorsiflexion & Toe Extension)

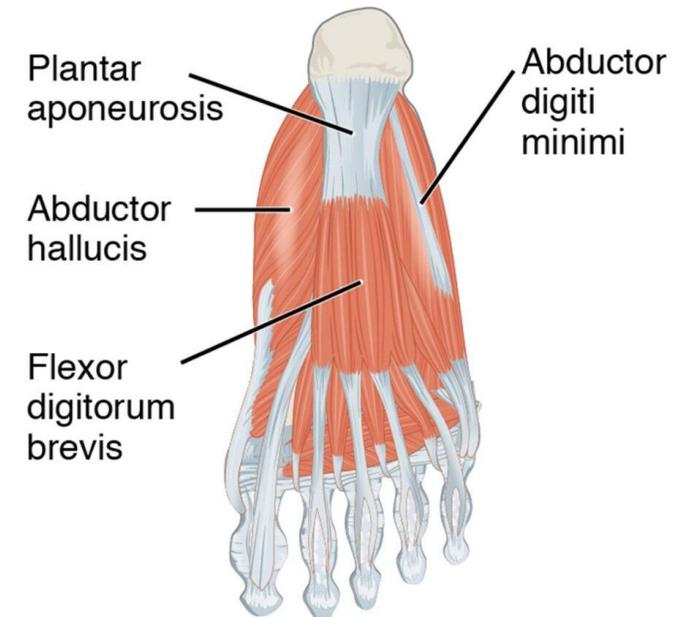
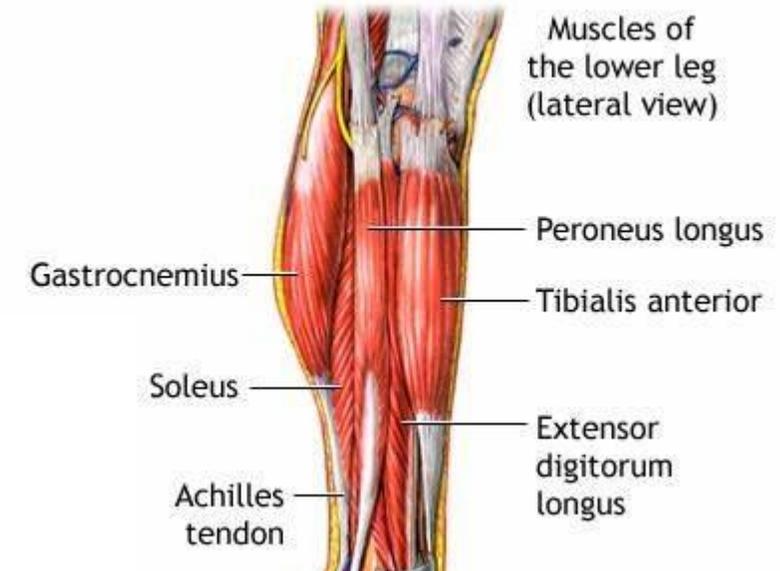
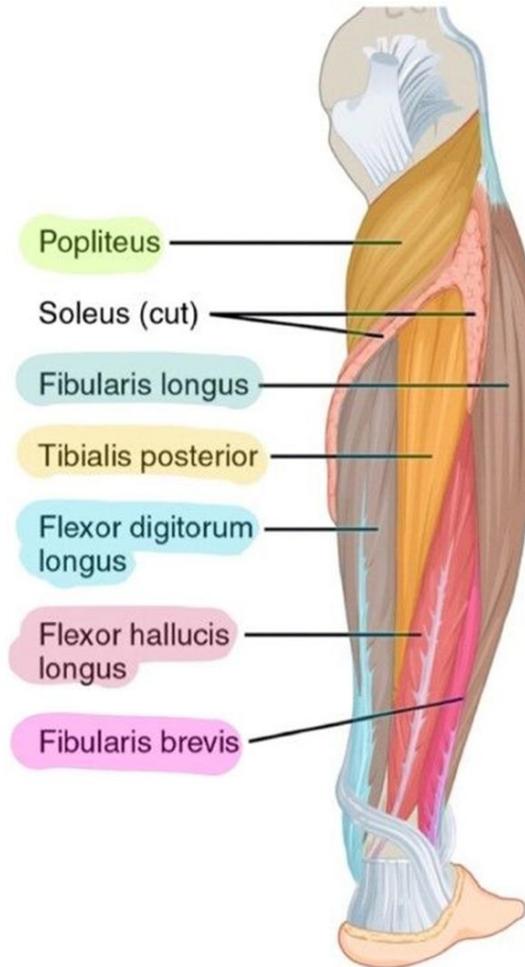
4. Tibialis Anterior
5. Extensor Hallucis Longus
6. Extensor Digitorum Longus

- Lateral (Eversion)**

7. Fibularis (Peroneus) Longus
8. Fibularis (Peroneus) Brevis

- Posterior (Plantarflexion & Toe Flexion)**

9. Gastrocnemius
10. Soleus
11. Tibialis Posterior
12. Flexor Digitorum Longus
13. Flexor Hallucis Longus



Nerve Supply

•Lumbar plexus (L1-L4):

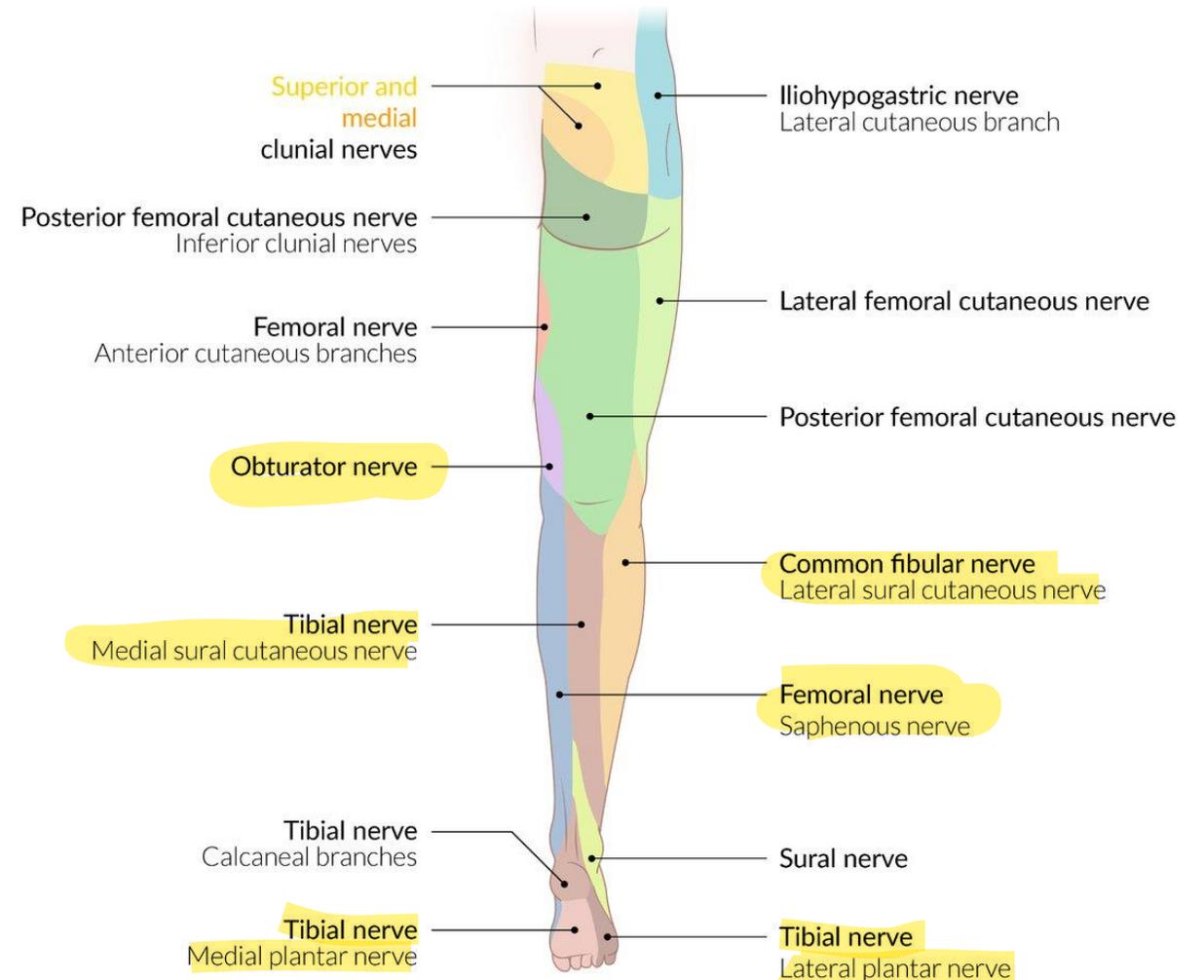
Supplies the anterior thigh (e.g., femoral nerve)

•Sacral plexus (L4-S4):

Supplies the posterior thigh, leg, and foot (e.g., sciatic nerve)

•nerves:

- *Femoral nerve*: Anterior thigh
- *Obturator nerve*: Medial thigh
- *Sciatic nerve*: Posterior thigh (divides into tibial & common fibular nerve)
- *Tibial nerve*: Posterior leg & sole of the foot
- *Common fibular nerve*: Anterior & lateral leg



Blood Supply

•Major arteries:

- *External iliac artery* → *Femoral artery* (main lower limb artery).
- *Popliteal artery* (behind the knee) → Branches into anterior & posterior tibial arteries.
- *Dorsalis pedis artery*: Supplies the foot.

•Major veins:

- *Great saphenous vein* (longest vein, drains into femoral vein).
- *Small saphenous vein* (drains into popliteal vein).

Arteries of the Pelvis
and Lower Limb
(Hip, Leg, Foot)

