

Unit 38:

Lower limb: leg and foot

GENERAL OBJECTIVES:

- Muscles of leg and foot
- Supply of leg and foot

SPECIFIC OBJECTIVES:

1. Muscles of leg and foot

Deep Fascia of Leg (Crural Fascia)

Anterior & Posterior Intermuscular Septa - (3) Compartments

Interosseus Membrane

Muscles of Leg

Anterior Compartment

- Tibialis Anterior
- Extensor Hallucis Longus
- Extensor Digitorum Longus
- Peroneus Tertius

Lateral Compartment

- Peroneus Longus
- Peroneus Brevis

Posterior Compartment

Superficial layer	Gastrocnemius -> Tendo Calcaneus ('Achilles' Tendon)
	Plantaris
Intermediate layer	Soleus
Deep layer	Popliteus
	Flexor Digitorum Longus
	Flexor Hallucis Longus
Very deep layer	Tibialis Posterior

Deep Fascia

Extensor Retinacula Superior, Inferior

Peroneal Retinacula Superior, Inferior

Flexor Retinaculum (-> Roof of "Tarsal Tunnel")

Plantar Aponeurosis (2) Septa -> 3 Fascial Compartments

Deep Transverse Metatarsal Ligament

Fibrous Flexor Sheaths of Digits

Long Tendons (from 'Extrinsic' Muscles) and Synovial Sheaths

Extensor Tendons (and Synovial Sheaths), Extensor (Dorsal Digital) Expansions of Toes

Peroneal Tendons (and Synovial Sheaths), Flexor Tendons (and Synovial Sheaths)

Muscles of Foot

Intrinsic Muscle(s) of Dorsum

- Extensor Digitorum (& Hallucis) Brevis

Intrinsic Muscles of Sole

1st. Layer	Abductor Hallucis
	Flexor Digitorum Brevis
	Abductor Digiti Minimi
2nd. Layer	Flexor Accessorius (Quadratus Plantae)
	4 Lumbricals
3rd. Layer	Flexor Hallucis Brevis

	Adductor Hallucis
	Flexor Digiti Minimi Brevis
4th. Layer	3 Plantar Interossei
	4 Dorsal Interossei

2. Topographic anatomy of leg and foot

Anterior Compartment of Leg

Anterior Tibial Artery and Branches

Deep Peroneal Nerve

Lateral Compartment of Leg

Superficial Peroneal Nerve

Dorsum of Foot

Dorsal Venous Arch (-> Great & Small Saphenous Veins)

Saphenous, Sural & Superficial Peroneal Nerves

Dorsalis Pedis Artery and Branches (& Anastomosis around Ankle Joint)

Deep Peroneal Nerve

Dorsal Aspect of Toes

Dorsal Digital Arteries & Dorsal Branches of Plantar Digital Arteries

Dorsal Digital Nerves & Dorsal Branches of Plantar Digital Nerves

Nails and Nail Beds

Posterior Compartment of Leg

Popliteal Fossa

Boundaries:

Upper Medial & Upper Lateral, Lower Medial & Lower Lateral

Roof (with Small Saphenous Vein), Floor

Contents:

Popliteal Artery and Branches (& Anastomosis around Knee Joint)

Popliteal Vein & Tributaries:

Small Saphenous Vein

Popliteal Lymph Nodes

Tibial Nerve and Branches:

Sural Nerve

Common Peroneal Nerve and Branches

Posterior Compartment of Leg

Posterior Tibial Artery (& Veins) and Branches:

Peroneal Artery

Tibial Nerve

Tarsal Tunnel

Boundaries: Roof (Flexor Retinaculum)

Floor (Medial Surface of Talus & Calcaneus)

Contents: Long Tendons (3) and Synovial Sheaths

Posterior Tibial Artery -> Medial & Lateral Plantar Arteries

Tibial Nerve -> Medial & Lateral Plantar Nerves

Sole of Foot

Medial Plantar Artery

Lateral Plantar Artery -> Deep Branch -> Plantar Arch

Medial Plantar Nerve

Lateral Plantar Nerve -> Superficial & Deep Branches

Common Plantar Digital Branches of Plantar Nerves

Plantar Aspect of Toes

Plantar Digital & Dorsal Digital Arteries
Plantar Digital Nerves (from Medial & Lateral Plantar Nerves)