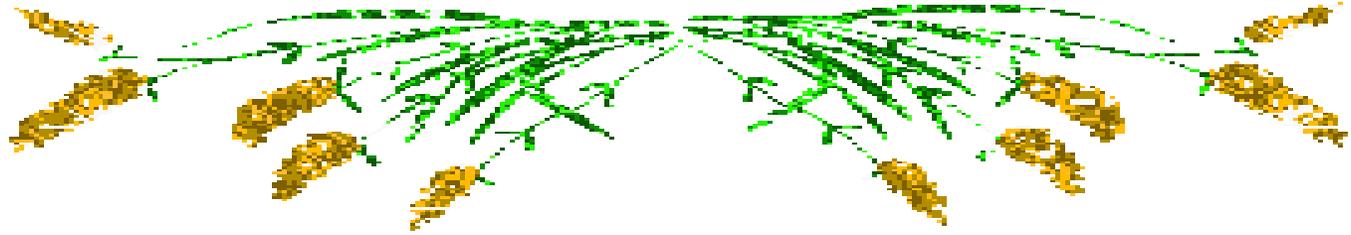


Muscles of the leg



Compartments of leg

Anterior

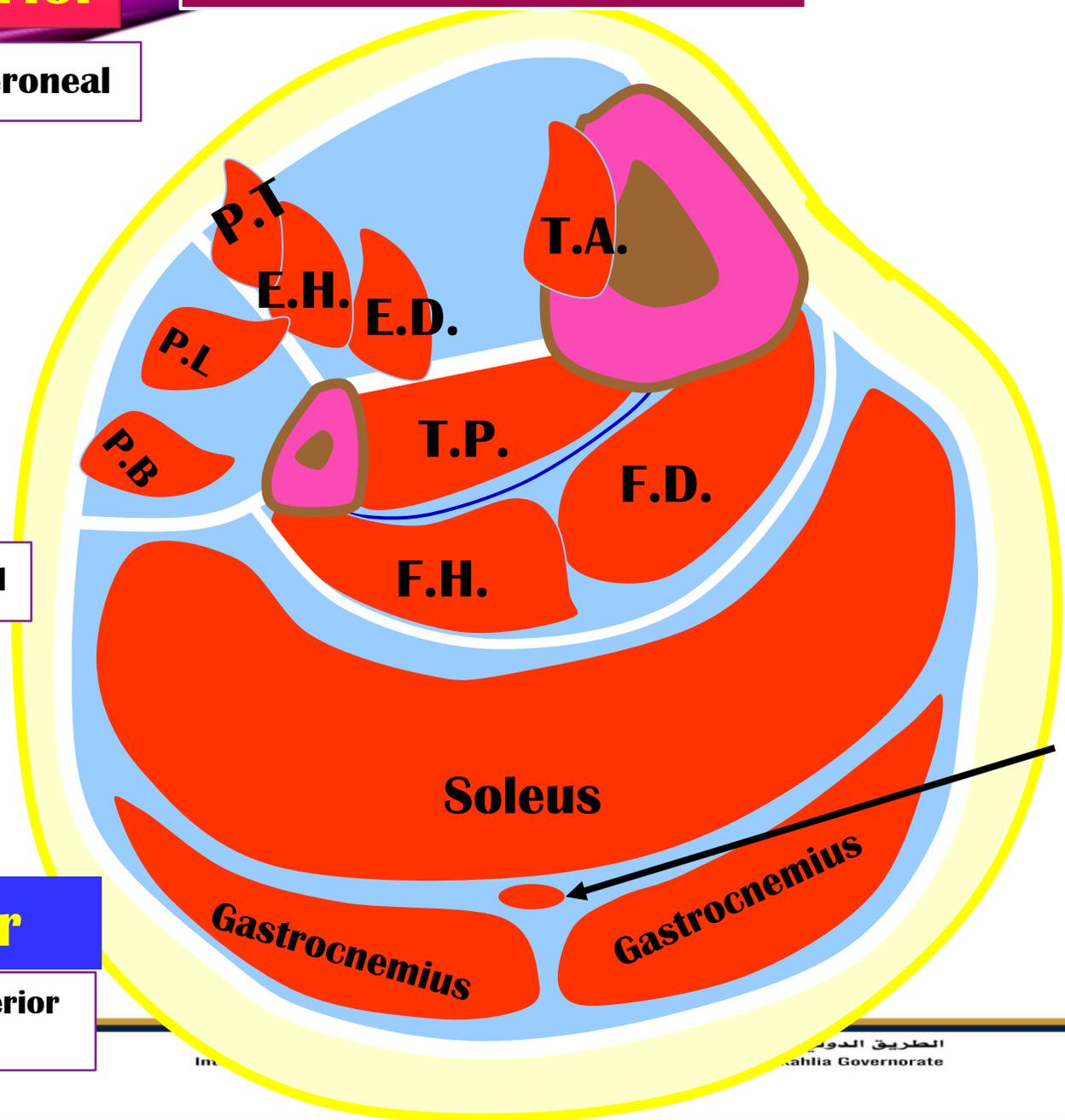
Deep peroneal

Lateral

Superficial peroneal

Posterior

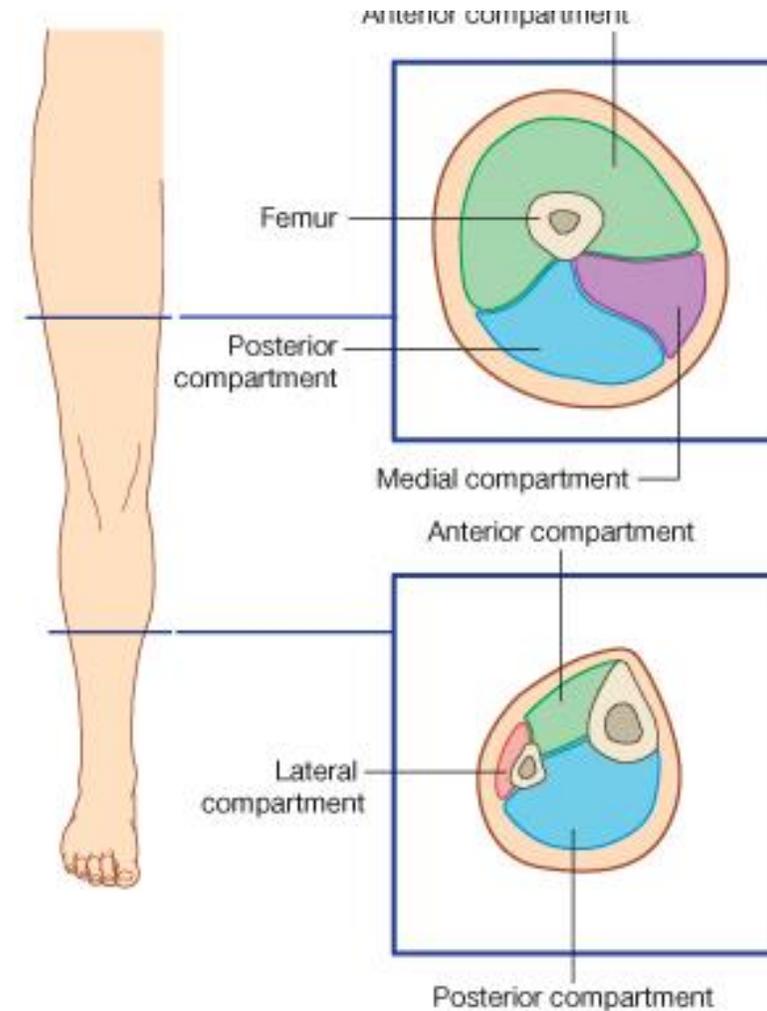
Tibial and posterior tibial nerve

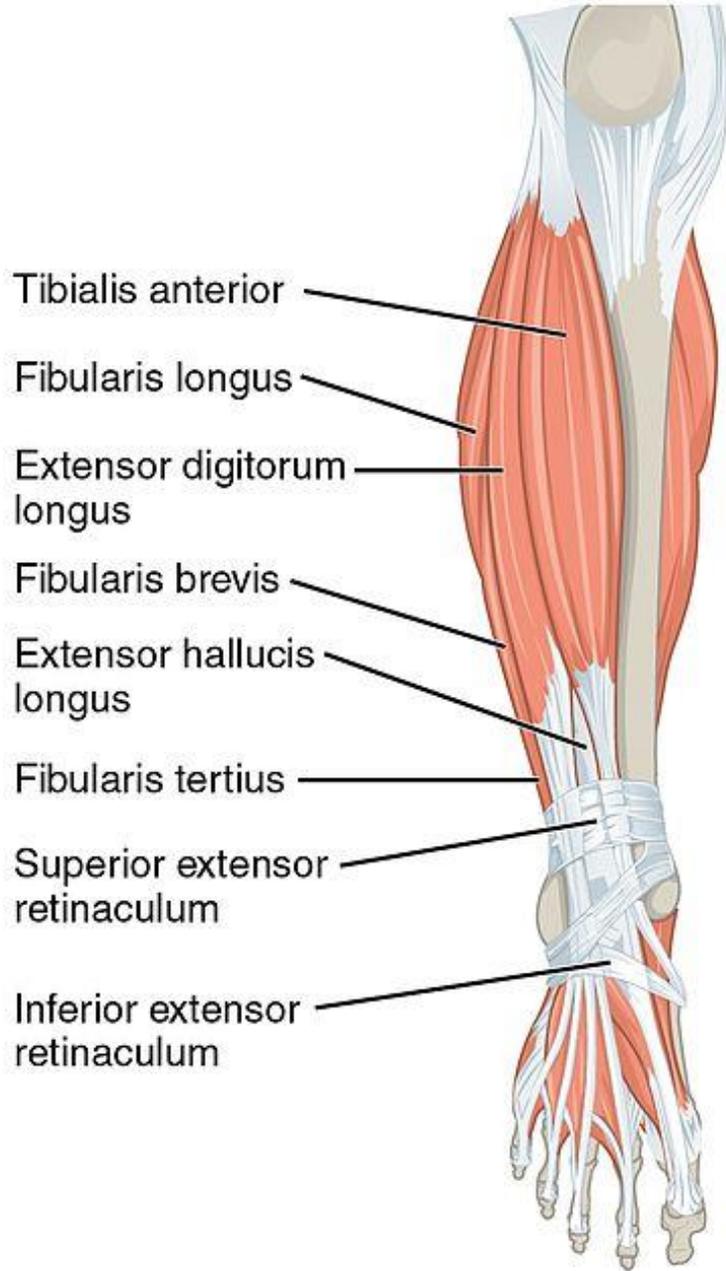


Plantaris

MUSCLES OF THE LEG

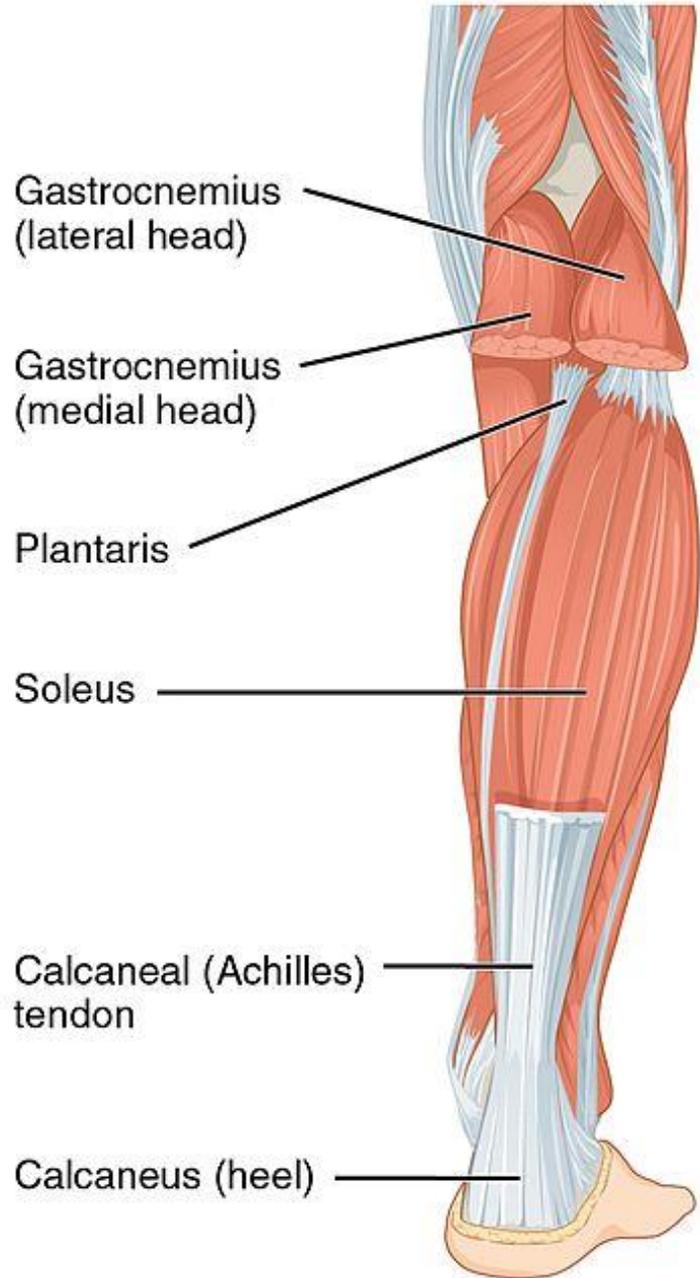
- **Anterior Compartment (extensors)**
 - Dorsiflex ankle, invert foot, extend toes
 - Innervation: Deep fibular (peroneal) nerve (ant. Tibial N.)
- **Lateral Compartment (peroneal)**
 - Plantarflex, evert foot
 - Innervation: Superficial Fibular (peroneal) nerve (musculocutaneous N.)
- **Posterior Compartment (flexors)**
 - Superficial and deep layers
 - Plantarflex foot, flex toes
 - Innervation: Tibial nerve





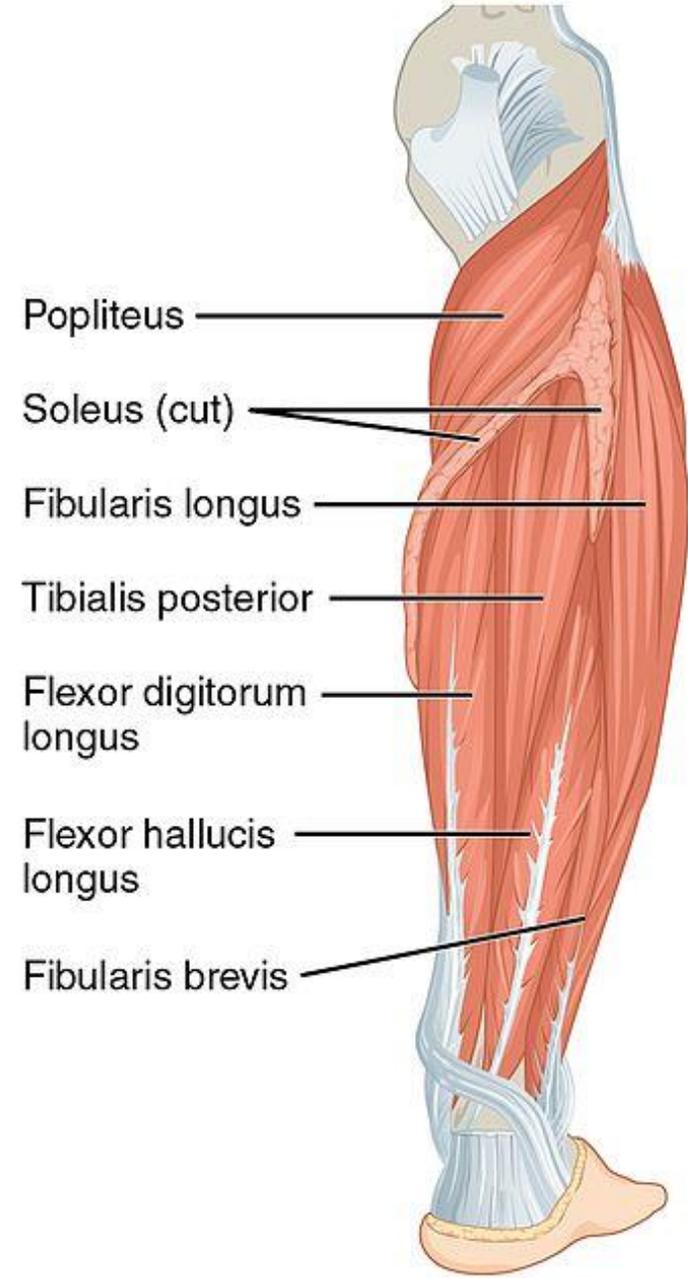
- Tibialis anterior
- Fibularis longus
- Extensor digitorum longus
- Fibularis brevis
- Extensor hallucis longus
- Fibularis tertius
- Superior extensor retinaculum
- Inferior extensor retinaculum

Superficial muscles of the right lower leg (anterior view)



- Gastrocnemius (lateral head)
- Gastrocnemius (medial head)
- Plantaris
- Soleus
- Calcaneal (Achilles) tendon
- Calcaneus (heel)

Superficial muscles of the right lower leg (posterior view)



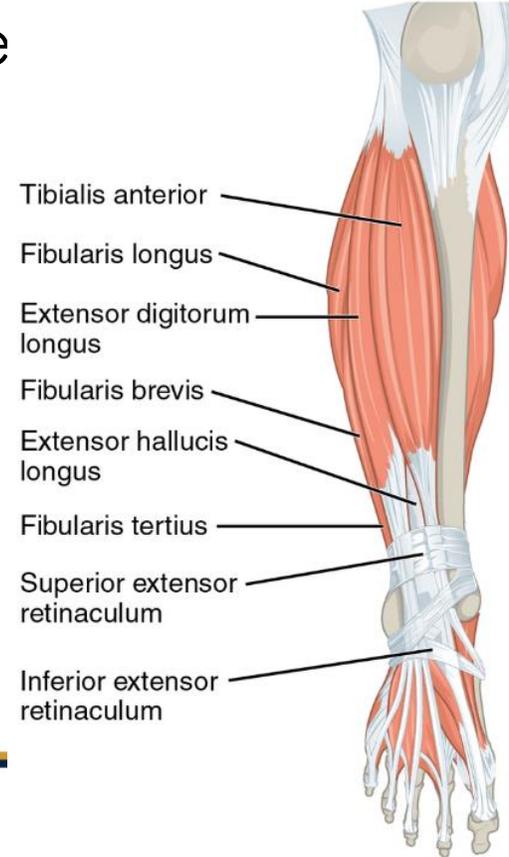
- Popliteus
- Soleus (cut)
- Fibularis longus
- Tibialis posterior
- Flexor digitorum longus
- Flexor hallucis longus
- Fibularis brevis

Deep muscles of the right lower leg (posterior view)



Muscles of the anterior compartment

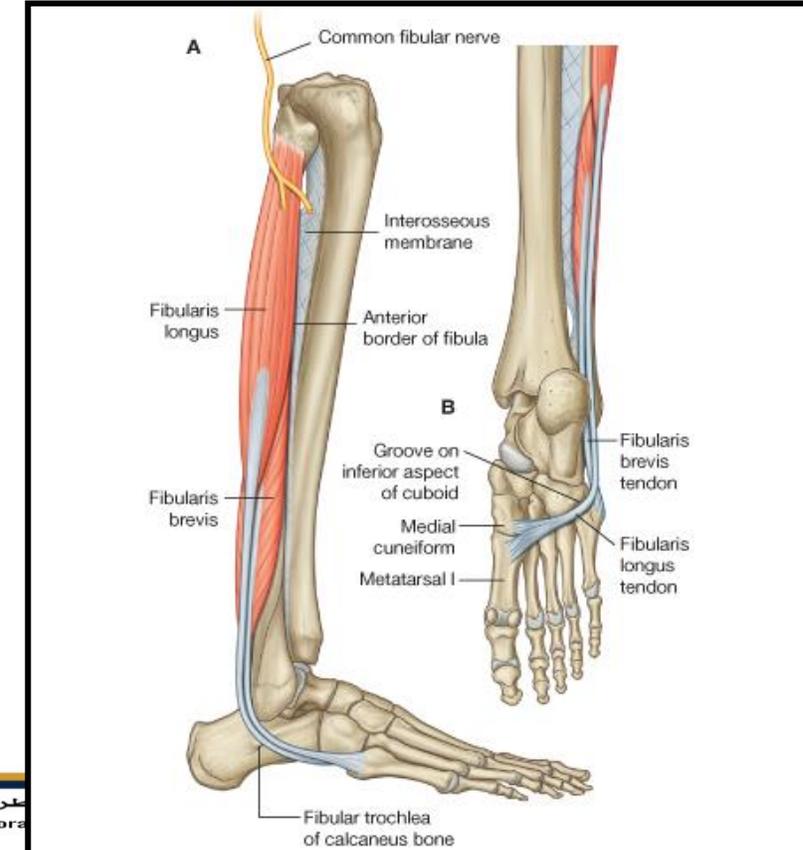
1. Tibialis anterior muscle.
2. Extensor digitorum longus muscle.
3. Extensor hallucis longus muscle.
4. Peroneus tertius muscle



Muscles of the lateral compartment



1. Peroneus longus muscle.
2. Peroneus brevis muscle.





Anterior Compartment of leg



anterior compartment	Origin	Insertion	Nerve supply	Action	
<u>Tibialis anterior</u>	The upper half of the lateral surface of the tibia .	Medial cuneiform bone. 1 st metatarsal bone	Deep peroneal nerve.	Dorsiflexion of the foot at the ankle joint.	support the medial longitudinal arch
<u>Extensor digitorum longus</u>	The upper 3/4 of the anterior surface of the fibula .	Middle and distal phalanges of the lateral 4 toes through the extensor expansions.	Deep peroneal nerve. <i>Ant. Tibial N.</i>		Extension of the lateral four toes.
<u>Extensor Hallucis longus</u>	The middle 2/4 of the anterior surface of the fibula .	distal phalanx of big toe			Extension of the big toe
<u>Peroneus tertius</u>	The lower 1/4 of the anterior surface of the fibula	5 th metatarsal bone.			Eversion of the foot
					Inversion of the foot



Tibialis anterior:

Origin:

- 1- The Upper Half of The Lateral Surface of The Tibia
- 2- The Anterior Surface of Interosseous Membrane

Action:

- 1- Dorsiflexion (Extension) on Ankle Joint

Insertion:

- 1- The Medial Cuneiform Bone
- 2- Base of First Metatarsal Bone

- 2- Inversion on Subtalar Joint



Extensor Digitorum longus:

Origin:

Upper $\frac{3}{4}$ of Anterior Surface of Fibula

Extensor digitorum longus



Action:

1- Dorsiflexion (Extension) on Ankle Joint

2- Dorsiflexion (Extension) Of joints of lateral 4 toes

Insertion:

The Middle and Distal Phalanges of The Lateral 4 toes

Peroneus tertius:

Origin:

Lower 1/4 of Anterior Surface of Fibula

Insertion:

The Base of Fifth Metatarsal Bone

Action:

1- Dorsiflexion (Extension) on Ankle Joint

2- eversion on Subtalar Joint

Extensor hallucis longus:

Origin:

Middle 2/4 of Anterior Surface of Fibula

Insertion:

Distal Phalanx of Big Toe

Action:

1- Dorsiflexion (Extension) on Ankle Joint

2- Dorsiflexion (Extension) Of joints of big toe

Extensor hallucis longus

Peroneus tertius





Lateral Compartment of leg



Lateral compartment	Origin	Insertion	Nerve supply	Action
<p><u>Peroneus longus</u></p>	<p>The lateral surface of the head of the fibula. The upper 2/3 of the lateral surface of the shaft of the fibula.</p>	<p>Medial cuneiform bone. 1st metatarsal bone</p>	<p>superficial peroneal nerve <i>(<u>musculocutaneous N.</u>)</i></p>	<ol style="list-style-type: none"> Eversion of the foot at the subtalar joint. Planter flexion of the ankle joint. Maintains the transverse arch of the foot
<p><u>Peroneus brevis</u></p>	<p>The lower 2/3 of the lateral surface of the shaft of the fibula</p>	<p>5th metatarsal bone.</p>		

Peroneus longus:

Origin:

- 1- Lateral Surface of Head of Fibula
- 2- Upper 2/3 of Lateral Surface of Shaft

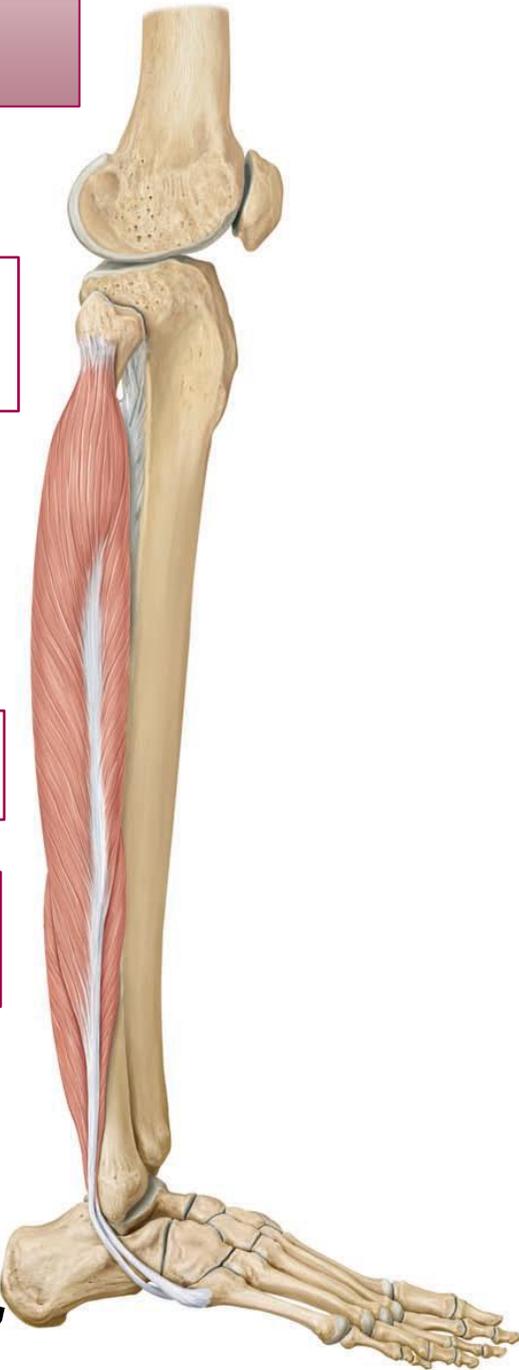
Insertion:

- 1- Medial Cuneiform Bone
- 2- Base of The First Metatarsal Bone

Action:

- 1- Planter flexion (flexion) on Ankle Joint

- 2- Eversion on Subtalar Joint



Peroneus brevis:

Origin:

Lower 2/3 of Lateral Surface of Shaft

Insertion:

Base of The Fifth Metatarsal Bone

Action:

1- Planter flexion (flexion) on Ankle Joint

2- Eversion on Subtalar Joint





Posterior Compartment of leg

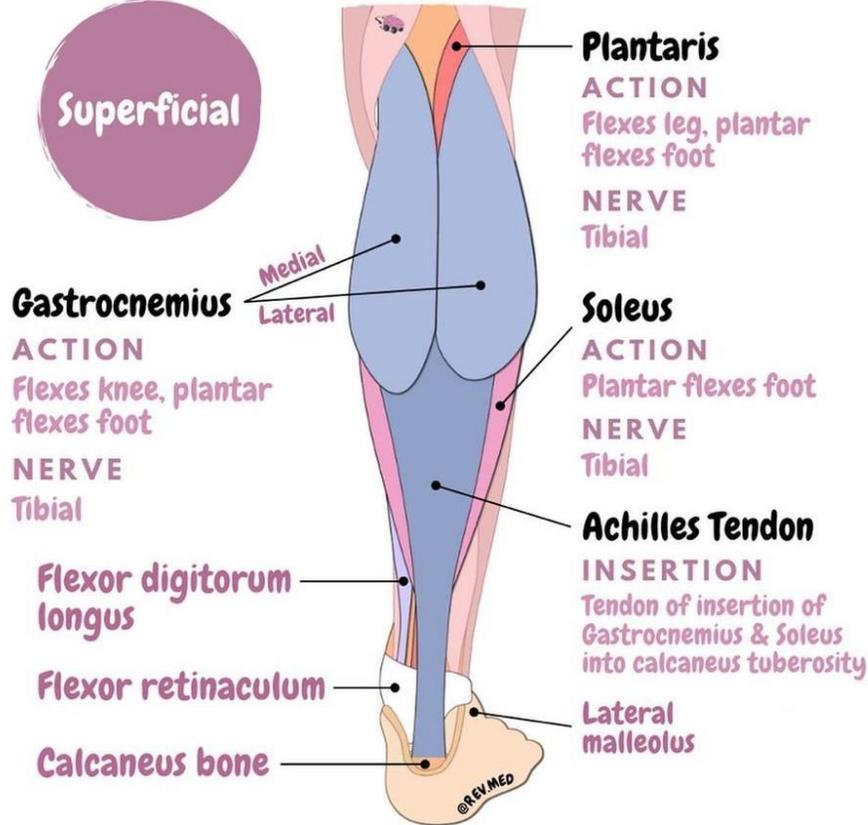


POSTERIOR COMPARTMENT (FLEXORS)

Leg Muscles

POSTERIOR COMPARTMENT

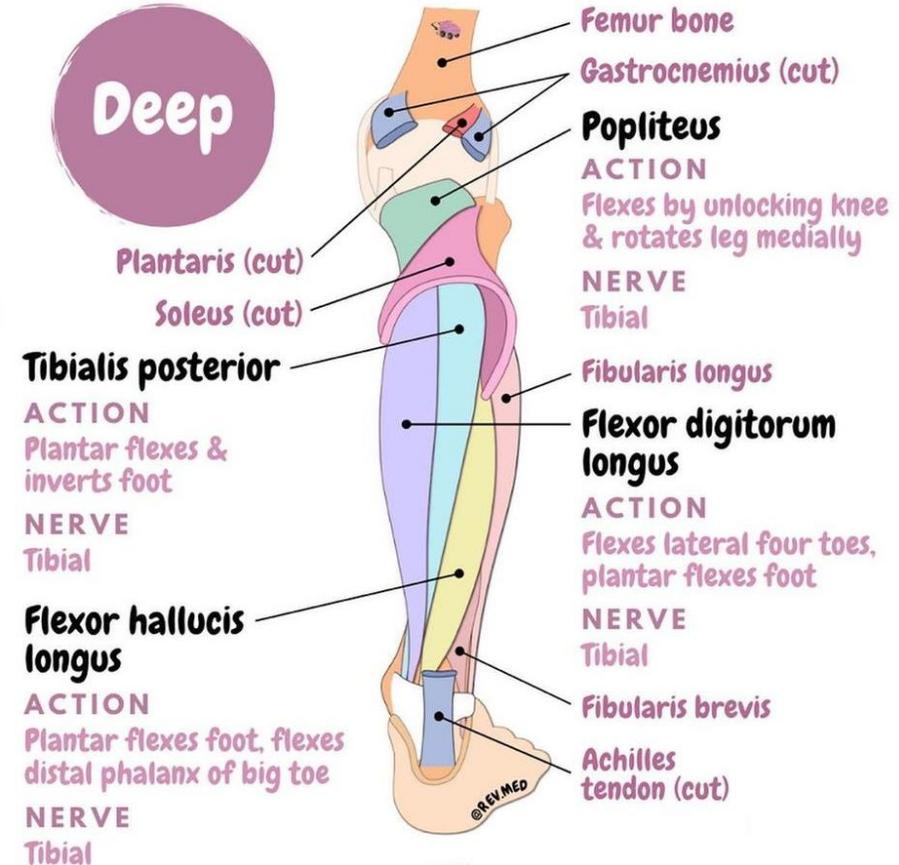
Superficial



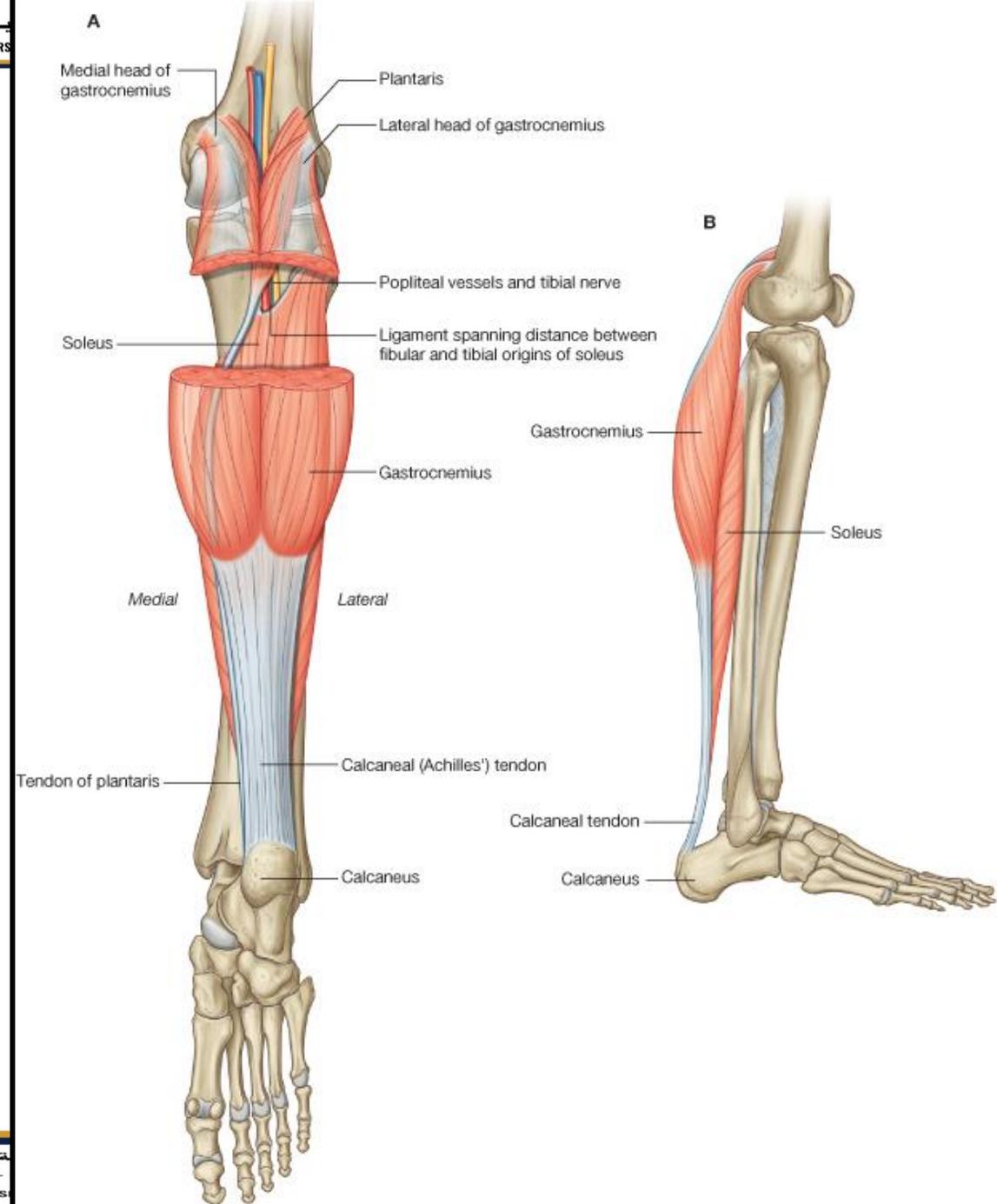
Leg Muscles

POSTERIOR COMPARTMENT

Deep



SUPERFICIAL POSTERIOR COMPARTMENT



<u>Superficial muscles</u>	Origin	Insertion	Nerve supply	Action
<u>Gastrocnemius</u>	Lateral head: lateral surface of the lateral femoral condyle above the lateral epicondyle. Medial head: popliteal surface of femur above the medial condyle.	The tendons of the 3 muscles join each other to form tendocalcaneus Which is inserted into the middle 1/3 of the posterior surface of the calcaneus.	Tibial nerve	<ol style="list-style-type: none"> The main plantar flexor of the ankle. propelling force in walking. important elements in the muscle pump. Gastrocnemius only assists in knee flexion.
<u>Soleus</u>	<ol style="list-style-type: none"> The posterior surface of fibula. The soleal line and middle 1/3 of the medial border of tibia. 			
<u>Plantaris</u>	<ol style="list-style-type: none"> Popliteal surface of the femur above lateral condyle of femur. 			<ol style="list-style-type: none"> Plantar flexion of ankle joint. Assists in knee flexion

Gastrocnemius Muscle

Origin:

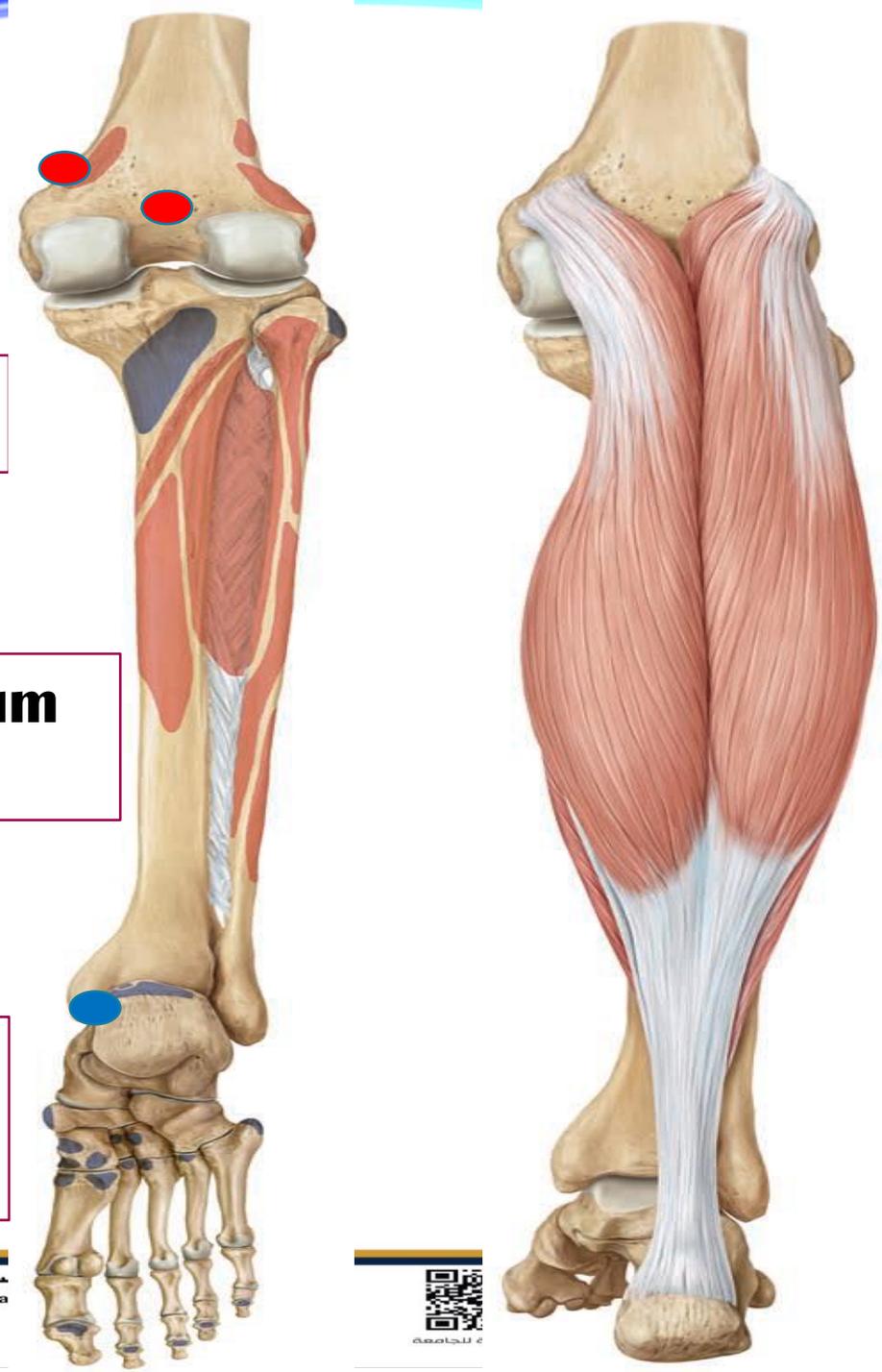
Medial Head: Above Medial Femoral Condyle.
Lateral Head: Lateral Femoral condyle

Insertion:

**The Middle Part of Posterior Surface of Calcaneum
By Tendocalcaneous (Tendon of Achilles)**

Action:

- 1- Chief Plantar Flexor**
- 2- Flexion of Knee**
- 3- Important Muscle Pump for venou Blood**



Soleus Muscle:

Origin:

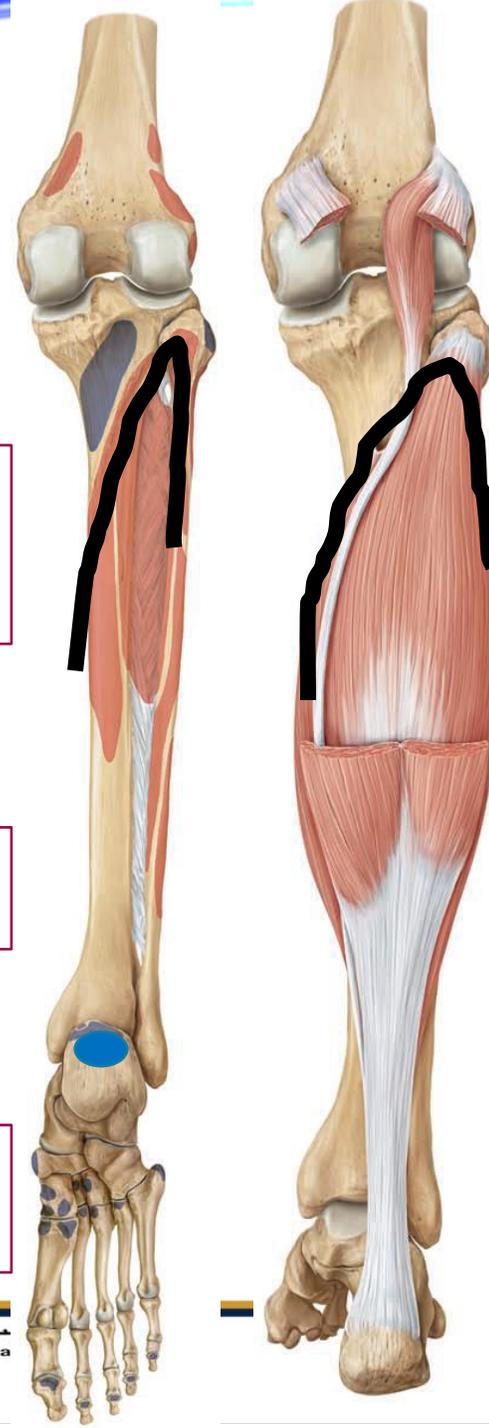
- 1- Upper Third of Posterior Aspect of the Fibula.
- 2- Back of The Head of the Fibula
- 3- Soleal Line
- 4-Medial Border of Tibia

Insertion:

The Middle Part of Posterior Surface of Calcaneum
By Tendocalcaneous (Tendon of Achilles)

Action:

- 1- Chief Plantar Flexor
- 2- Important Muscle Pump for venous Blood



Plantaris Muscle:

Origin:

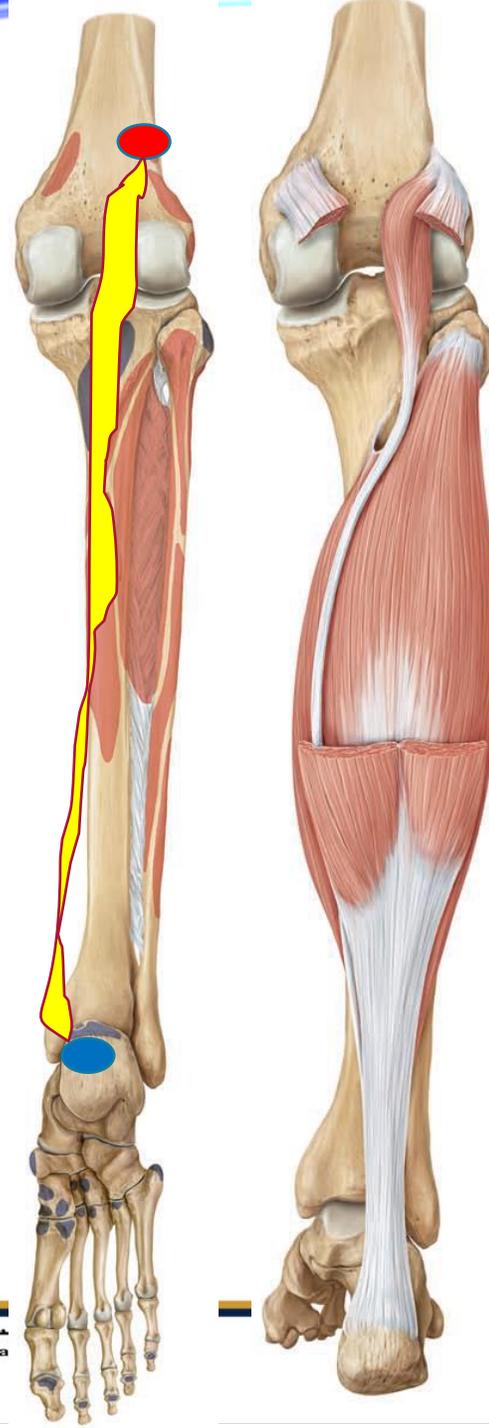
The Popliteal Surface of The Femur above The Lateral Femoral Condyle

Insertion:

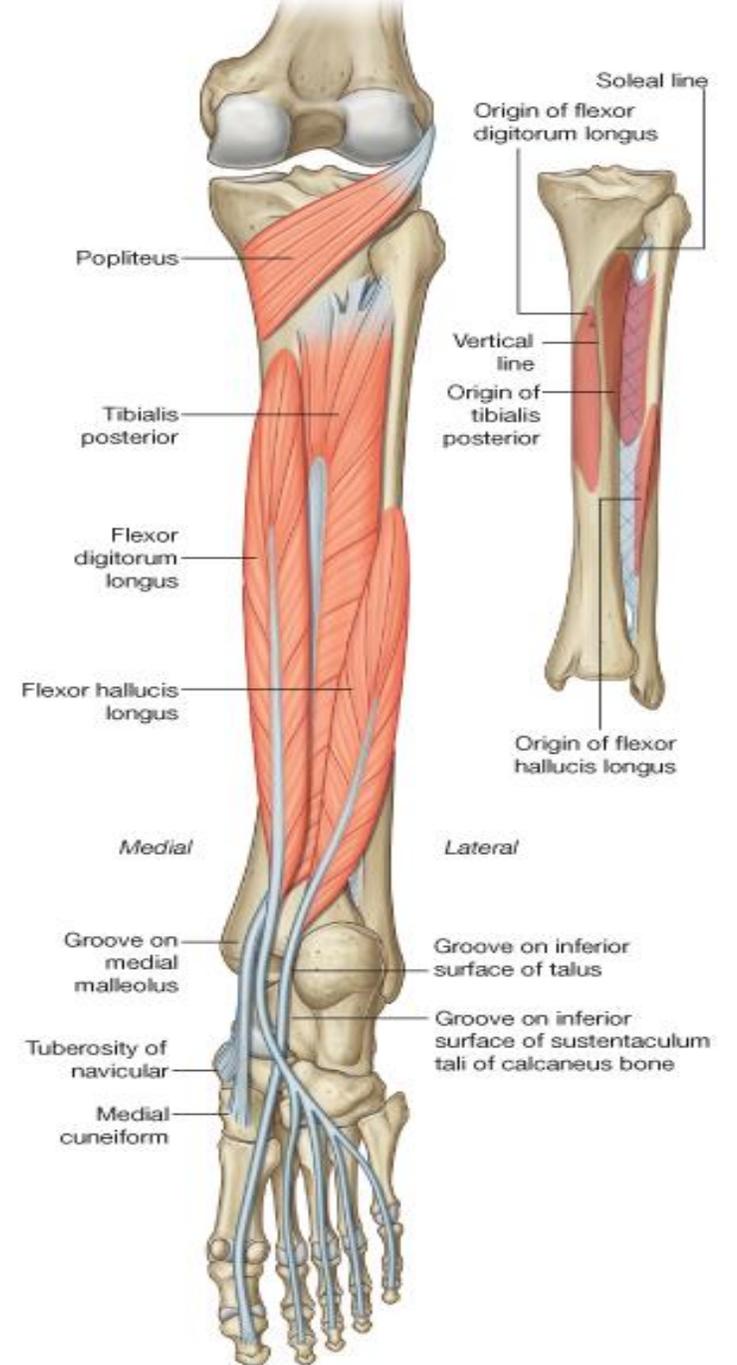
Middle part of Posterior Surface of Calcaneum Separately or with Tendocalcaneus

Action:

- 1- Plantar Flexion
- 2- Flexion of Knee



MIDDLE & DEEP POSTERIOR COMPARTMENT



Middle and Deep muscles	Origin	Insertion	Nerve supply	Action
<u>Popliteus</u>	Groove on the lateral surface of the lateral femoral condyle just below the lateral epicondyle.	Upper part of the posterior surface of tibia above soleal line.	Tibial nerve ✓	✓ Flexes the knee ✓ Rotates the leg medially at the beginning of flexion of the fully extended leg (unlocks the knee joint).
<u>Flexor digitorum longus</u>	Posterior surface of the tibia	Terminal phalanx of the lateral four toes.		3. Flexion of all joints of the lateral four toes.
<u>flexor hallucis longus</u>	posterior surface of the fibula	terminal phalanx of the big toe.		4. Flexion of all joints of the big toe.
<u>Tibialis posterior</u>	1. Posterior surface of the tibia. 2. interosseous membrane. 3. Posterior surface of the fibula.	Navicular bone (main insertion). All the tarsal bones except the talus. Middle three metatarsal bones.		Plantar flexion Inversion Maintains the medial longitudinal arch of the foot.

Popliteus Muscle

Origin

:

groove Below Lateral Epicondyle

Insertion:

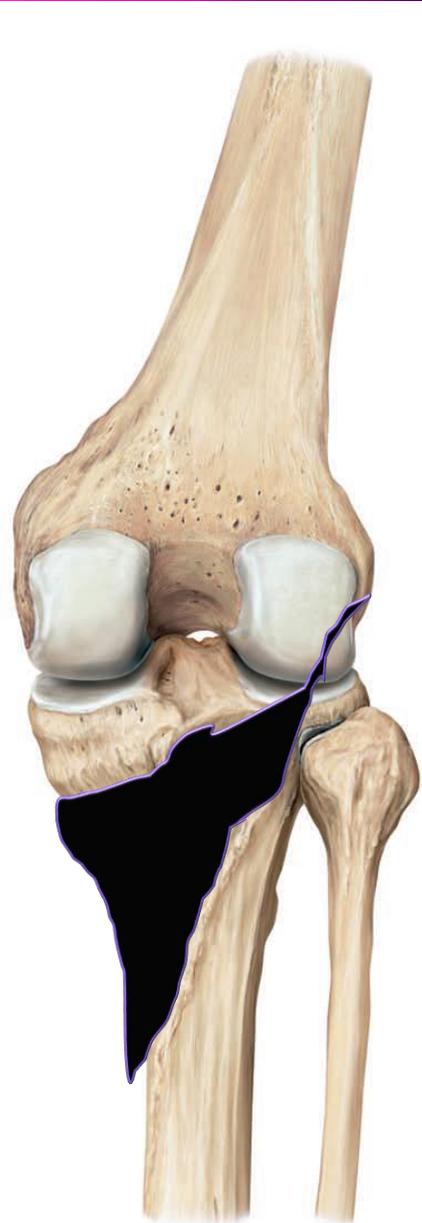
The Upper part of Posterior Surface of Tibia
Above The Soleal Line

Action:

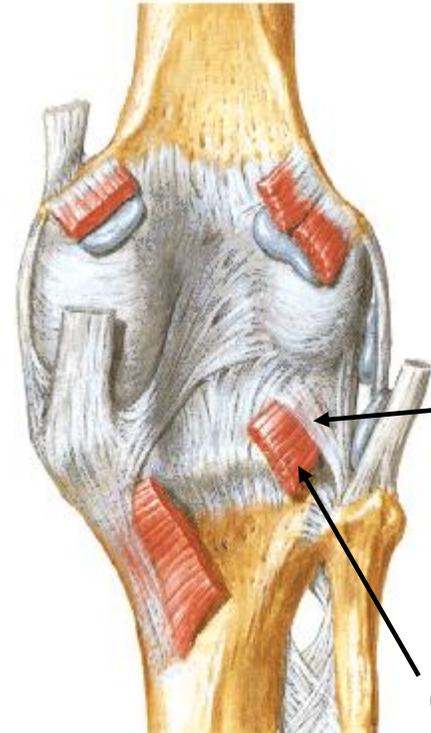
Unlocks The Knee Joint:

By Initial Medial Rotation of Tibia Under the Femur
at The Beginning of Flexion of an Extended Limb





Knee Posterior View



Capsule
of
Knee Joint

Origin of Popliteus



Tibialis posterior Muscle

Origin:

- 1- Posterior Surface of Tibia Below Soleal Line
- 2- Posterior Surface of Interosseous Membrane
- 3- Posterior Surface of Fibula

Insertion:

- 1- Tuberosity of Navicular Bone
- 2- All Tarsal Bones but Talus
- 3- Bases of 2nd, 3rd and 4th Metatarsal Bones

Action:

- 1- Plantar Flexion of Ankle Joint
- 2- Inversion of Foot at Subtalar Joint



Flexor Digitorum Longus Muscle

Origin:

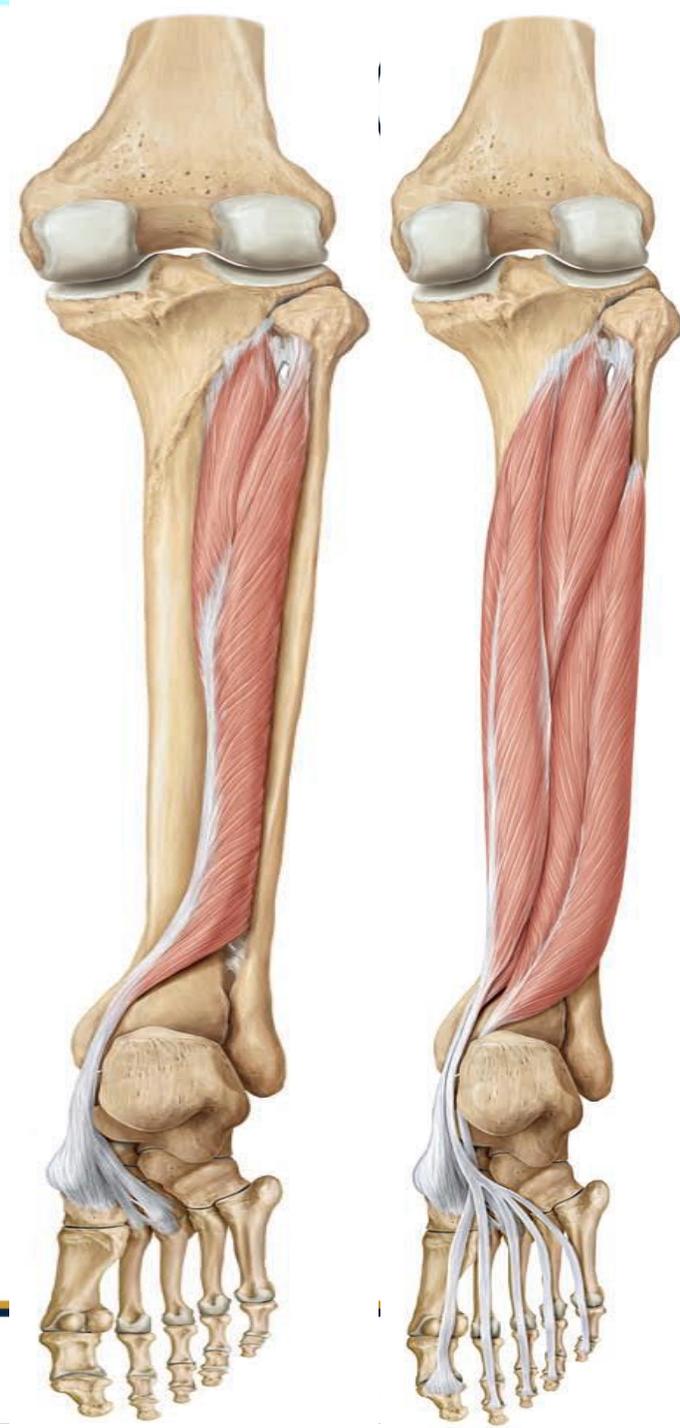
1- Posterior Surface of Tibia Below Soleal Line medial to TP.

Insertion:

distal phalanges of lateral 4 toes

Action:

- 1- Plantar Flexion of Ankle Joint
- 2- Flexion of Interphalangeal joints of Lateral 4 Toes



Flexor Hallucis Longus Muscle

Origin:

1- Posterior Surface of fibula Below lateral to TP.

Insertion:

Terminal Phalanx of The Big Toe

Action:

1- Plantar Flexion of Ankle Joint
2- Flexion of Interphalangeal joints of Big toe

