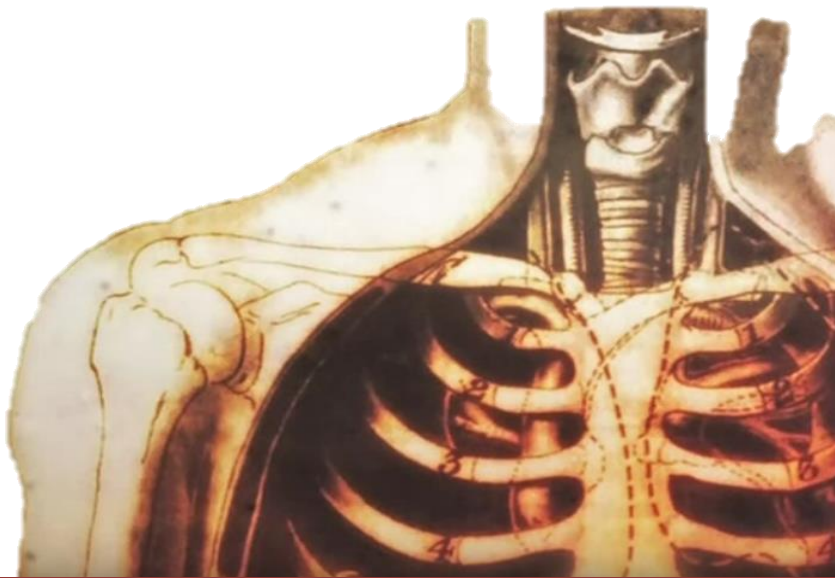




Anatomy Team
433

**King Saud University
College of medicine
Musculoskeletal Block**



MUSCLES of the lower limb

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Done by:

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Region	Muscle	Origin	Insertion	N.S	Action
Gluteal	Gluteus Max.	1- Back of sacrum, coccyx & Sacrotuberous ligament.	1-iliotibial tract & Gluteal tuberosity	1- Inf. Gluteal nerve	-Extension & Lateral rotation of hip joint. -Stabilizing femur on tibia through <u>iliotibial tract</u> .
	Gluteus Med.	Mid. Part of Gluteal surface of ileum.	Lateral greater trochanter	Sup. Gluteal nerve	-Abduction & medial rotation of hip joint. Prevent tilt of pelvis.
	Gluteus Mini.	Ant. Part of Gluteal surface of ileum.	Ant. Part of greater trochanter	Sup. Gluteal nerve	
Lateral Rotators	Obturator internus	Inner surface of the sidewall of the pelvis.	Mid. surface of the greater trochanter	Nerve to obturator internus.	Lateral Rotation of Hip joint
	Sup. Gamellus	Upper part of lesser sciatic notch	Upper & lower parts into tendon of obturator internus	Nerve to obturator internus	
	Inf. Gamellus	Lesser part of lesser sciatic notch		Nerve to Quadratus Femoris	
	Piriformis	Pelvic surface of Mid. 3 sacral vertebrae	Upper border of the greater trochanter	Anterior rami of S1, S2	
	Quadratus Femoris	Lateral border of the ischial tuberosity.	Quadratus tubercle & intertrochanteric crest	Nerve to Quadratus Femoris	
Hamstrings	Biceps Femoris	- The long head from the ischial tuberosity. - The short head from the linea aspera.	Head of the fibula.	The long head is supplied by the tibial part of the <u>sciatic</u> . The short head is supplied by the common peroneal part of the <u>sciatic</u>	-Flexion of the knee. -Lateral Rotation of flexed leg. * <u>Long Head</u> : Extension of hip.
	Semitendinosus	Ischial tuberosity	Medial surface of tibia > SGS	Tibial portion of sciatic nerve	-flexion&medial rotation of the leg at knee joint -Exten. Of hip joint
	Semimembraneus	Ischial tuberosity	Medial chondyle of tibia.		-It forms the Oblique Popliteal ligament. flexion&medial rotation of the leg at knee joint -Exten. Of hip joint

	Adductor Magnus	Ischial tuberosity	Adductor tubercle of the medial condyle of the femur		Exten. Of hip joint.
Anterior Comp. Of thigh	Sartorius	Anterior superior iliac spine	Medial surface of tibia	Femoral nerve	Flexion, abduction & lateral rotation of hip joint Flexion of knee joint
	Pectineus	Sup. Pubic remus	Back of femur		Flexion & Adduction of hip joint.
	Iliacus	Iliac fossa	Lesser trochanter		Flexion of hip joint.
	Psoas major	T12 & lumbar vertebrae			
	Quadriceps Femoris	<u>Rectus Femoris:</u> Ant. Inf. Iliac spine <u>Vastus Medialis</u> + <u>Vastus Lateralis</u> :Posterior border of femur <u>Vastus intermedialis:</u> Front shaft of femur	-Patella -from patella into tibial tuberosity through <u>ligamentum patellae</u>		Extension of knee joint
Middle Comp of the thigh	Adductor Longus	Body of pubos	Linea aspera	Obturator nerve	Adduction of hip joint <u>Gracillis:</u> flexion of knee joint.
	Adductor Brevis	Body of pubis & inferior remus			
	Adductor magnus	Inferior pubic remus & ischial remus			
	Gracilis		Mid. Surface of tibia.		
Posterior Comp of the leg superficial	Gastrocnemius	Lateral head lateral condyle of femur medial head above medial condyle	Post. Surface of calcaneum via. <u>Tendocalcanus</u>	Tibial prtion of sciatic nerve	Planter flexion at ankle joint Flexion knee joint
	Soleus	Shaft of tibi & fibula			Powerful plantar flexor of ankle joint; provides main propulsive force <u>in walking and running</u>
	Plantaris	Lateral	Posterior		Plantar flexes foot at

		supracondylar ridge of femur	surface of calcaneum		ankle joint; flexes knee joint
Posterior Comp of the leg Deep	Popliteus	Lateral surface of lateral condyle of femur (intracapsular)	Post. Surface of shaft of tibia (above soleal line)	Tibial portion of sciatic nerve	Flexion of leg at knee joint & <u>unlocking the joint by lateral rotation of femur on tibia</u>
	Flexor digi. longus	Post. Surface of shaft of tibia	Base of distal phalanx of lateral 4 toes		-Flexes distal phalanges of lateral four toes; -plantar Flexes foot at ankle joint; - <u>Supports medial and lateral longitudinal arches</u>
	Flexor hallucis longus	Post. Surface of shaft of fibula	Base of distal phalanx of big toe		-Flexion of big toe -Planter flexion at ankle joint - <u>Support medial longitudinal arch</u>
	Tibialis post.	Post. Surface of tibia & fibula & interosseus memb.	<u>Navicular tuberosity</u> and neighboring bones		-Planter flexion at ankle joint - <u>Invert foot</u> at subtalar & transverse tarsal joints - <u>Support medial longitudinal arch.</u>
Ant. Comp of the leg	Tibialis Ant.	Lateral surface of shaft of tibia & interosseous membrane	Medial cuneiform & base of 1 st metatarsal	Deep peroneal nerve	-Extension at ankle joint - <u>Inverts foot</u> -Holds medial long. Arch
	Extensor digi. longus	Ant. Surface of shaft of fibula	Extensor expansion of 4 lateral toes		-Extension of toes -Dorsi flexion at ankle joint
	Peroneus Tertius		Base of 5 th metatarsal		-Dorsi flexion at ankle joint - <u>Everts foot</u>
	Extensor hallucis long.		Base of distal phalanx of big toe		-Dorsi flexion of ankle -Extends big toe - <u>Inverts foot</u>
Lateral Comp. of the leg	Peroneus Long.	Lateral surface of shaft of fibula	Medial cuneiform & base of 1 st metatarsal	Superficial peroneal nerve	-Planter flexion -Everts foot - <u>Support lateral long. & Transverse arches</u>
	Peroneus Brevis		Base of 5 th metatarsal		- Planter flexion -Everts foot - <u>Support lateral long. Arch.</u>

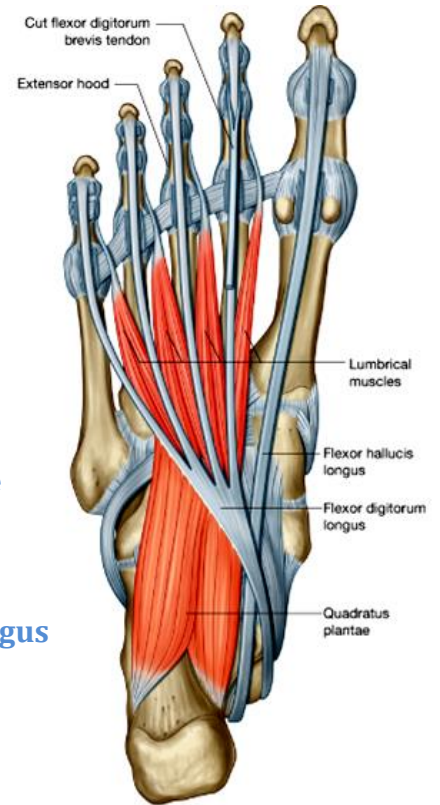
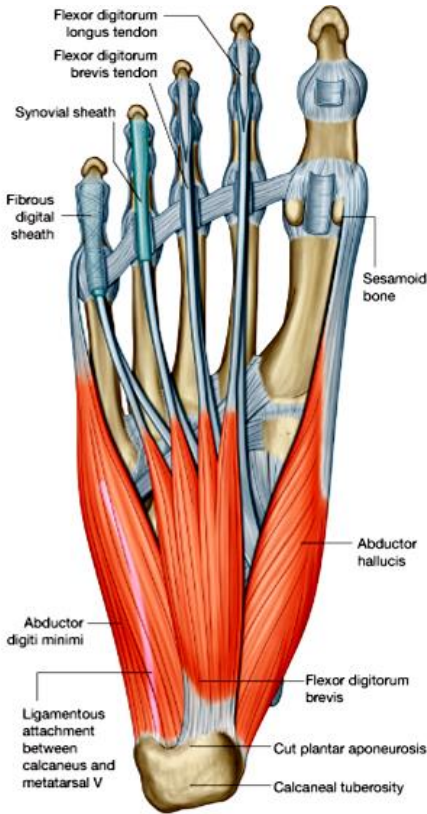
Muscle of Foot

Posterior compartment

4 Layers

1st layer:

1. Abductor hallucis,
2. Flexor digitorum brevis,
3. Abductor digiti minimi

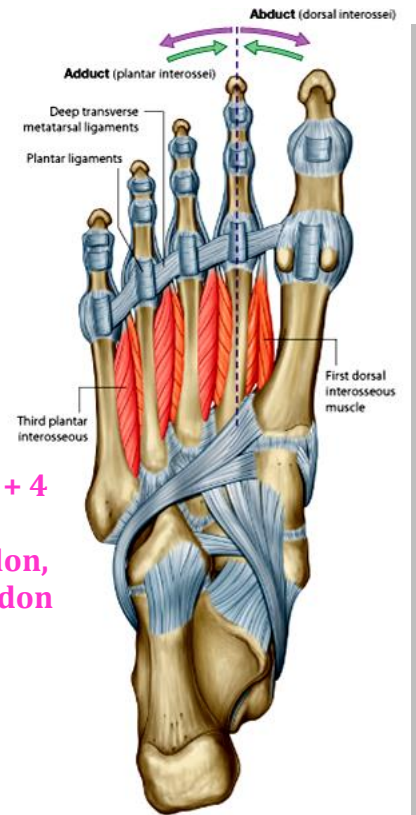
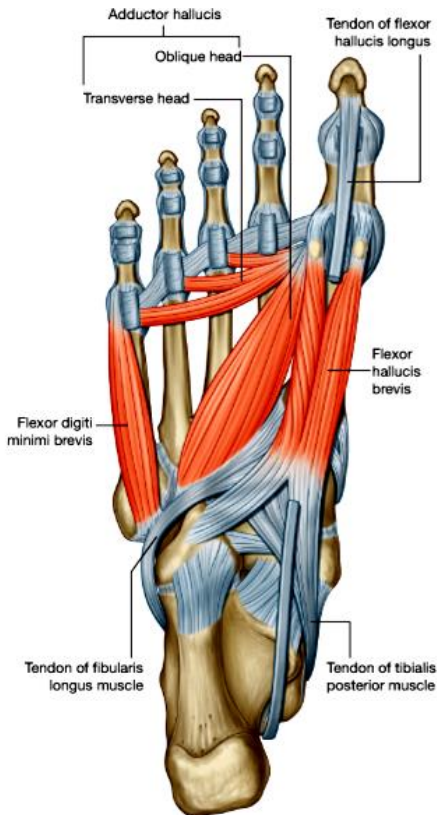


2nd layer:

1. Quadratus plantae
2. Lumbricals
3. Flexor digitorum longus tendon
4. Flexor hallucis longus tendon

3rd layer:

1. Flexor hallucis brevis
2. Adductor hallucis
3. Flexor digiti minimi brevis



4th layer:

1. Interossei, (3 plantar + 4 dorsal).
2. Peroneus longus tendon,
3. Tibialis posterior tendon

Muscle of Foot Dorsum surface

Extensor Digitorum Brevis

Origin: Anterior Part of upper surface of the calcaneum and from inferior extensor retinaculum

Insertion: By four tendons into the proximal phalanx of big toe and second, third, and fourth toes

Nerve supply: Deep & superficial peroneal nerve

Blood supply: Dorsalis Pedis

Action: extension of toes

