

Attachment related to greater trochanter :

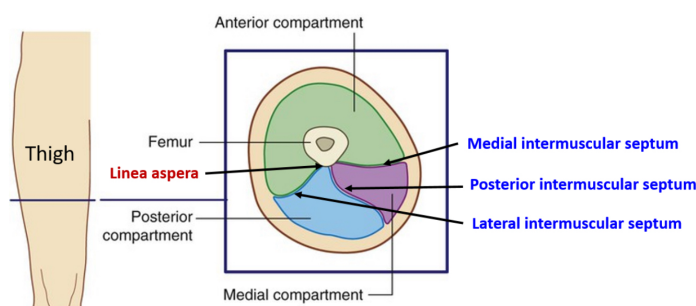
- The upper part of the greater trochanter is the insertion point for the piriformis muscle.
- The front of the greater trochanter is where the gluteus minimus muscle inserts.
- The lateral aspect of the greater trochanter is the insertion point for the gluteus medius muscle.
- The medial surface of the greater trochanter serves as the insertion point for the superior and inferior gemelli muscles.
- Above the trochanteric fossa, on the greater trochanter, is the insertion point for the obturator internus muscle.
- The trochanteric fossa, located on the inferior portion of the medial surface of the greater trochanter, is the insertion point for the obturator externus muscle.
- The femoral attachment of the ischiofemoral ligament is also associated with the greater trochanter.

Structures related to Linea Aspera

1. The intermuscular septa are attached to the linea aspera.
2. One point of origin of the vastus medialis is the linea aspera.
3. One point of origin of the vastus lateralis is the linea aspera.
4. One point of origin of the short head of the biceps femoris is the linea aspera.
5. One point of insertion of the adductor brevis is the linea aspera.
6. The insertion of the adductor longus is the linea aspera.
7. One point of insertion of the pubic part of the adductor magnus is the linea aspera.

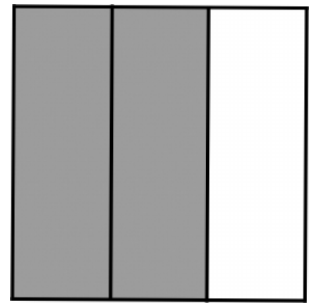
Intermuscular septa

- Fascia lata sends three intermuscular septa (**lateral, posterior and medial**), which are attached to the linea aspera of femur and divide the muscles of thigh into three compartments.
 - **Extensor /anterior compartment**- between lateral and medial septa.
 - **Adductor/medial compartment** - between medial and posterior septa.
 - **Flexor/ posterior compartment**- between posterior and lateral septa.



All goes around two-thirds :

Vastus intermedius: Originates from the upper two-thirds of the anterior and lateral surface of the shaft of the femur.



Peroneus longus: Originates from the upper two-thirds of the lateral surface of the fibula.

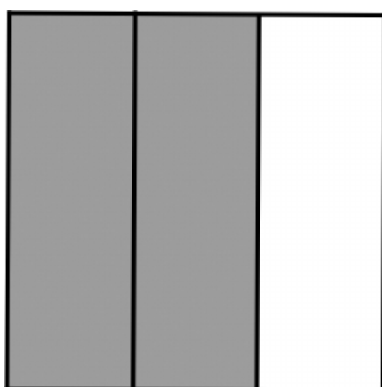


Peroneus brevis: Originates from the lower two-thirds of the lateral surface of the fibula.

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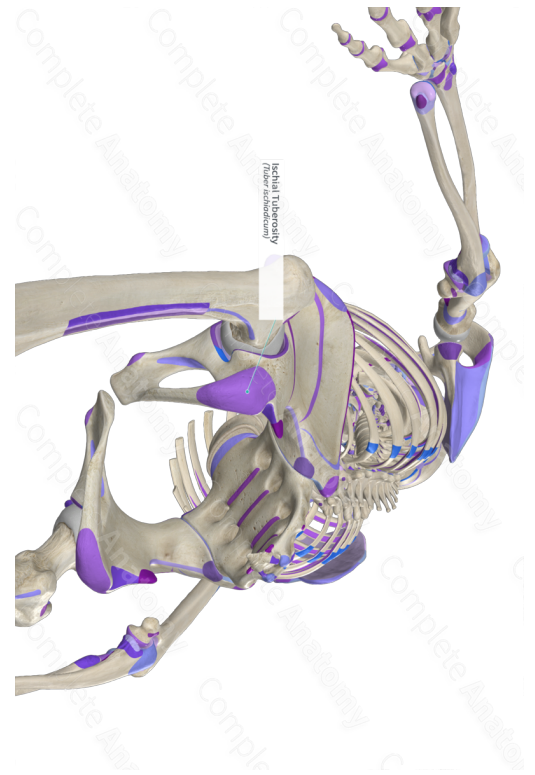
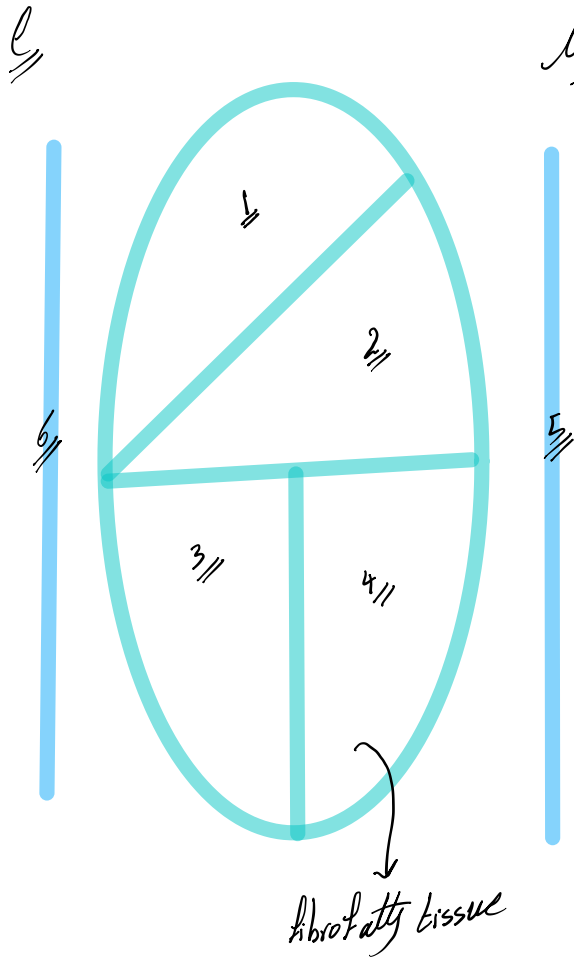
Tibialis anterior: Originates from the upper two-thirds of the lateral surface of the tibia.

Flexor hallucis longus: Originates from the lower two-thirds of the posterior surface of the fibula.

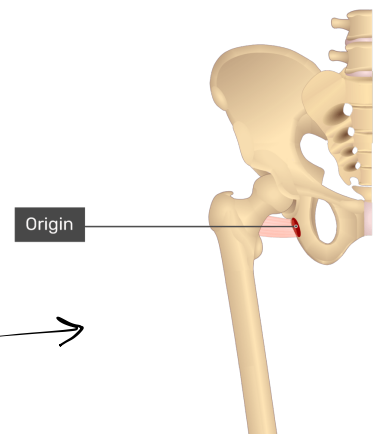
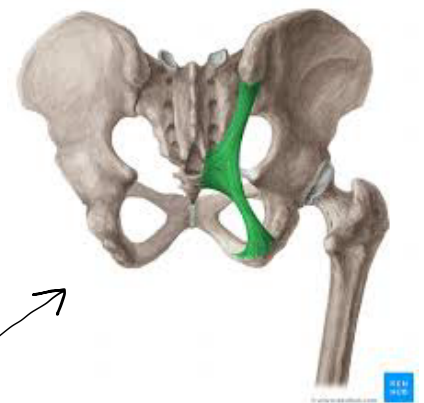


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Ischial tuberosity:



1. **Upper lateral part of the upper area:**
Origin of the semimembranosus muscle.
2. **Lower medial part of the lower area:**
Origin of the semitendinosus and long head of the biceps femoris muscles.
3. **Lateral part of the lower area:** Origin of the ischial part of the adductor magnus muscle.
4. **Medial part of the lower area:** Sitting place.
5. **Medial border:** Attached to the sacrotuberous ligament.
6. **Lateral border:** Origin of the quadratus femoris muscle.



Muscles and Their Innervations

Femoral Nerve

- **Quadriceps Femoris:** Innervated by the femoral nerve, with a branch to each head.
- **Iliacus:** Innervated by the femoral nerve.
- **Sartorius:** Innervated by the femoral nerve.

Pectineus

Lumbar Plexus

- **Psoas Major:** Innervated by the lumbar plexus.

Sciatic Nerve

- **Adductor Magnus (Ischial Part):** Innervated by the sciatic nerve.

Pectineus

Obturator Nerve

- **Adductor Magnus (Pubic Part):** Innervated by the obturator nerve.
- **Obturator Internus:** Innervated by the obturator nerve.
- **Adductor Brevis:** Innervated by the obturator nerve.
- **Adductor Longus:** Innervated by the obturator nerve.
- **Gracilis:** Innervated by the obturator nerve.

Dual Innervation

- **Pectineus:** Innervated by both the femoral nerve and the obturator nerve.
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Sacral Plexus

lecture 9

- **Piriformis:** Innervated by the sacral plexus, nerve to piriformis.
- **Obturator Internus:** Innervated by the sacral plexus, nerve to obturator internus.
- **Quadratus Femoris:** Innervated by the sacral plexus, nerve to quadratus femoris.

Nerve to Obturator Internus

- **Superior Gemellus:** Innervated by the nerve to obturator internus.

Nerve to Quadratus Femoris

- **Inferior Gemellus:** Innervated by the nerve to quadratus femoris.

Superior Gluteal Nerve (from Sacral Plexus)

+ Gluteus Medius

- **Gluteus Minimus:** Innervated by the superior gluteal nerve.
- **Tensor Fasciae Latae:** Innervated by the superior gluteal nerve.

Inferior Gluteal Nerve (from Sacral Plexus)

- **Gluteus Maximus:** Innervated by the inferior gluteal nerve.

Muscles and Their Innervations

Leah *1/1*

Tibial Part of Sciatic Nerve

- **Long Head of Biceps Femoris:** Innervated by the tibial part of the sciatic nerve.
- **Semimembranosus:** Innervated by the tibial part of the sciatic nerve.
- **Semitendinosus:** Innervated by the tibial part of the sciatic nerve.

Common Peroneal Part of Sciatic Nerve

- **Short Head of Biceps Femoris:** Innervated by the common peroneal part of the sciatic nerve.

Superficial Peroneal Nerve

- **Peroneus Longus Muscle:** Innervated by the superficial peroneal nerve.
- **Peroneus Brevis Muscle:** Also innervated by the superficial peroneal nerve.

Leah *1/1*

Deep Peroneal Nerve

- **Tibialis Anterior Muscle:** Innervated by the deep peroneal nerve.
- **Extensor Digitorum Longus Muscle:** Innervated by the deep peroneal nerve.
- **Extensor Hallucis Longus Muscle:** Innervated by the deep peroneal nerve.
- **Peroneus Tertius Muscle:** Also innervated by the deep peroneal nerve.

Tibial Nerve

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- **Plantaris Muscle:** Innervated by the tibial nerve.
- **Gastrocnemius Muscle:** Innervated by the tibial nerve.

Double Nerve Supply

- **Soleus Muscle:** Innervated by both the tibial nerve and the posterior tibial nerve.



Posterior Tibial Nerve

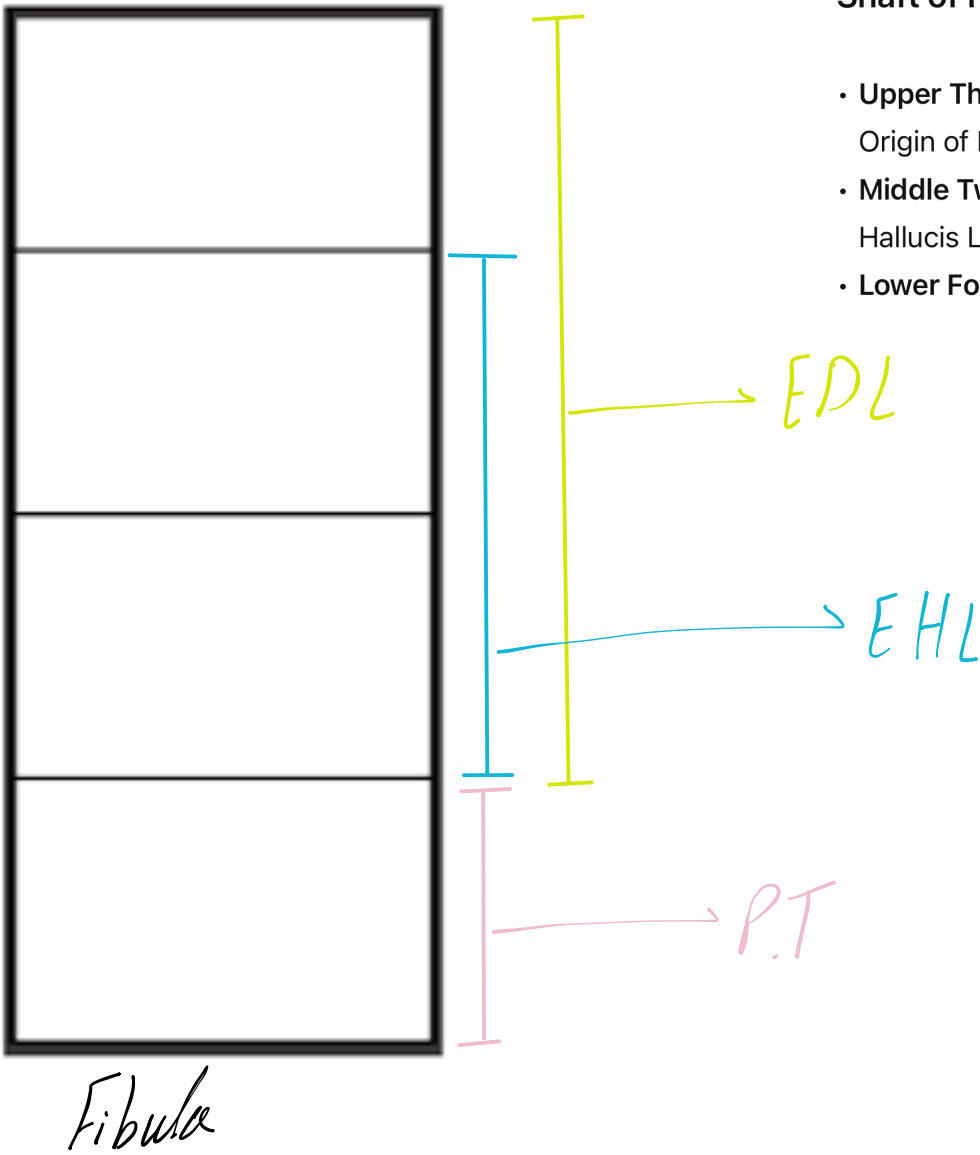
- **Tibialis Posterior:** Innervated by the posterior tibial nerve.
- **Flexor Digitorum Longus:** Innervated by the posterior tibial nerve.
- **Flexor Hallucis Longus:** Innervated by the posterior tibial nerve.

Tibial Nerve

- **Popliteus:** Innervated by the tibial nerve.

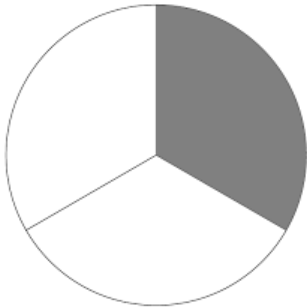
Shaft of Fibula

- **Upper Three-Fourths of Anterior Surface:** Origin of Extensor Digitorum Longus.
- **Middle Two-Fourths:** Origin of Extensor Hallucis Longus.
- **Lower Fourth:** Origin of Peroneus Tertius.



Medial Surface of the Thigh

- **Middle Third:** Location of Adductor Canal.



Medial Border of Tibia

- **Middle Third:** Included in the origin of Soleus Muscle.

sciatic n

Common Peroneal

Tibial n

superficial peroneal

Deep Peroneal

Posterior Tibial n

Medial Terminal division

Lateral Terminal division

Medial Terminal branch

Lateral Terminal branch

Medial Planter n

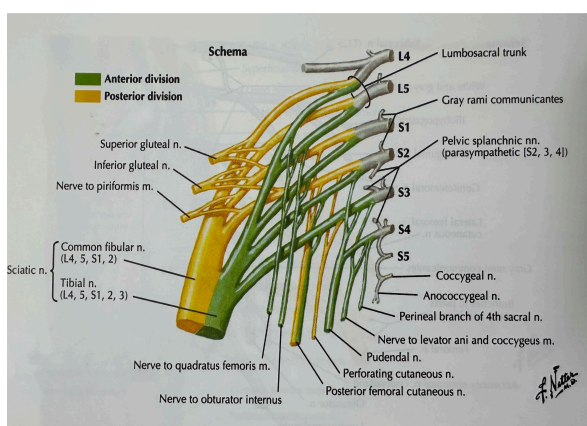
Lateral Planter

Medial branch

Lateral branch

Medial branch

Lateral branch

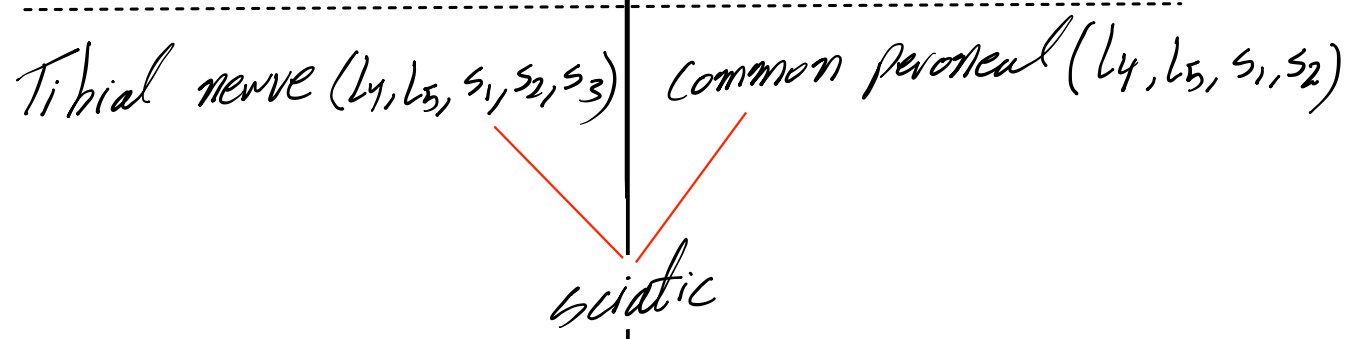


Anterior division

- Nerve to Quadratus femoris (L4, L5, S1)
- Nerve to obturator internus (L5, S1, S2)
- Pudendal nerve (S2, S3, S4)
- Nerve to levator ani + coccygeus m (S3, S4)
- Perineal branch of 4th sacral n (S4)

Posterior division

- superior gluteal nerve (L4, L5, S1)
- Inferior gluteal nerve (L5, S1, S2)
- Nerve to piriformis m (S1, S2)
- perforating cutaneous n (S2, S3)



Posterior cutaneous of thigh
 (S1, S2, S3)
 S1, S2 S2, S3
 Posterior division Anterior division

locking "extension"

- ⇒ passive no muscular action
- ⇒ Anterior cruciate ligament
- ⇒ passive medial rotation of the femur over tibia or lateral rotation of leg

unlocking "flexion"

- ⇒ Active, muscular action
- ⇒ popliteus muscle
- ⇒ Active lateral rotation of the femur over the tibia or (Medial rotation of tibia)