Muscles of Leg
Deep Posterior Compartment
Posterior View

Medial **Proximal** **Lateral**

Flexor Digitorum Longus Muscle

- the most medial and superficial of the 3 long muscles of the deep posterior crural compartment
- can often palpate the tendon posterior to the medial malleolus during contraction

O: posterior surface of the tibia, inferior to the soleal line (popliteal line) and medial to the vertical line

I: plantar aspect of the bases of the distal phalanges of the lesser digits (2 through 5)

- its tendon passes inferiorly along the tibial groove for tibialis posterior and flexor digitorum longus muscles, the medial (flattened) edge of the sustentaculum tali where it lies within the flexor retinaculum, then into the plantar foot under the talus, the tendon splits into four slips near the level of the cuneiform bones and one slip passes plantarly along each of the four lesser metatarsals, along the groove for the flexor tendons on the head of each of the lesser metatarsal bones, and along the plantar surface of the proximal and middle phalanges of each lesser digit

A: plantar flexes the lesser digits

- begins at the distal interphalangeal joints, then the proximal interphalangeal joints and then the metatarsophalangeal joints

aids in plantar flexing the ankle joint

NS: tibial nerve

AS: posterior tibial artery

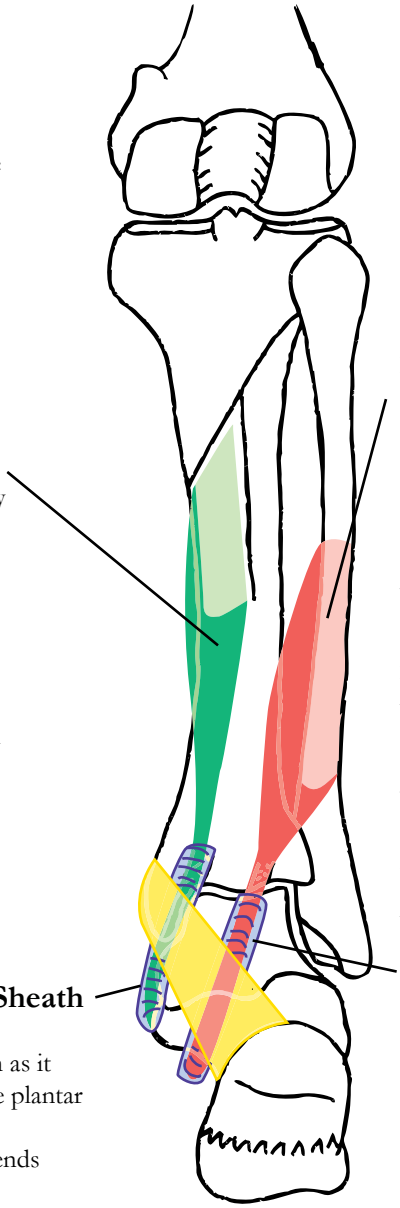
Flexor Digitorum Longus Synovial Sheath

Proximal Sheath

- surrounds the flexor digitorum longus tendon as it courses posterior to the ankle joint and into the plantar foot
- begins posterior to the medial malleolus and ends proximal to the knot of Henry
- passes within the laciniate ligament

Distal Sheaths

- a second sheath is present and surrounds each of the four tendons as they pass along the plantar aspects of the lesser digits from the metatarsophalangeal joints to the middle phalanges



Distal

Deep Posterior Crural Compartment

- separated from the superficial posterior crural compartment by the deep transverse crural intermuscular septum / deep transverse fascial septum of the leg
- attachments of fascial septum:
  - proximal – tibial popliteal line
  - distal – distal posterior tibiofibular ligament
  - medial – medial tibial border and fascia cruris
  - lateral – crista medialis and posterior crural intermuscular septum

Flexor Hallucis Longus Muscle

- the most lateral of the long muscles of the deep posterior crural compartment

O: inferior 2/3 of the posterior fibular surface

I: plantar aspect of the base of the distal phalanx of the hallux

- its tendon passes along the groove for flexor hallucis longus tendon at the posteroinferior aspect of the tibia, the groove for flexor hallucis longus tendon on the posterior process of the talus, along the inferior surface of the sustentaculum tali where it lies within the flexor retinaculum, and then along the plantar aspect of the first ray, between the tibial and fibular sesamoids of the first metatarsal bone, and along the plantar aspect of the proximal phalanx of the hallux

A: plantar flexes the hallux;

- begins at the interphalangeal joint and with continued contraction, also plantar flexes the hallux at the metatarsophalangeal joint

aids in inversion of the foot;

aids in plantar flexion of the ankle joint

NS: tibial nerve

AS: posterior tibial and fibular arteries

Flexor Hallucis Longus Synovial Sheaths

Proximal Sheath

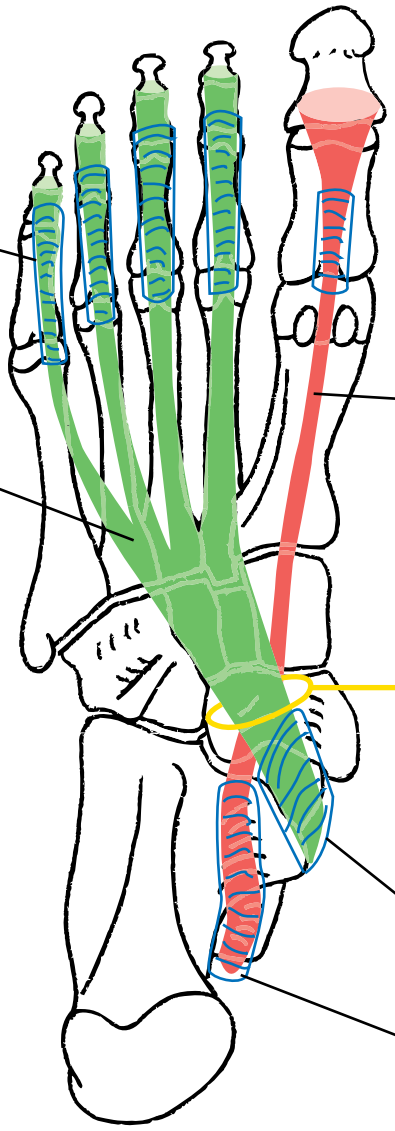
- surrounds the flexor hallucis longus tendon as it courses posterior to the medial malleolus and inferior to the sustentaculum tali
- begins at the distal end of the tibia and ends at the knot of Henry
- begins and ends most distally
- passes within the flexor retinaculum

Distal Sheath

- surrounds the flexor hallucis longus tendon as it passes along the plantar aspect of the hallux from the metatarsal head to the central proximal phalanx

Muscles of Leg
Deep Posterior Compartment
Plantar View

Lateral **Distal** **Medial**



Flexor Digitorum Longus Distal Synovial Sheaths

Flexor Digitorum Longus Muscle

Flexor Hallucis Longus Distal Synovial Sheath

Flexor Hallucis Longus Muscle

Knot of Henry / Master Knot of Henry
- a shared tendinous slip between the tendons of flexor hallucis longus and flexor digitorum longus muscles
- at the area where the flexor hallucis longus tendon passes dorsal / deep to the flexor digitorum longus tendon (usually at the level of the navicular and cuneiform bones, plantarly)

Flexor Digitorum Longus Proximal Synovial Sheath

Flexor Hallucis Longus Proximal Synovial Sheath

Proximal

Muscles of Leg
Deep Posterior Compartment
Posterior View

Medial **Proximal** **Lateral**

Tibialis Posterior Muscle

- the deepest of the long muscles of the deep posterior compartment of the leg
- can palpate tendon at posteromedial edge of medial malleolus; sometimes is visible during contraction between medial malleolus and navicular tuberosity

O: interosseous membrane, the posterior tibial shaft inferior to the soleal line and lateral to the vertical line, and the medial part of the posterior surface of the fibular shaft (anterior to the crista medialis)

I: navicular tuberosity, the plantar aspect of the intermediate cuneiform, and the plantar aspect of the bases of the 2nd, 3rd and 4th metatarsals

- may also insert plantarly on the medial cuneiform, cuboid, lateral cuneiform, 1st metatarsal base, 5th metatarsal base and sustentaculum tali
- its tendon passes inferiorly and slightly medial to emerge from deep to the tendon of flexor digitorum longus muscle, then along the tibial groove for tibialis posterior and flexor digitorum longus muscles and inferiorly along the medial malleolus and within the flexor retinaculum to the plantar foot

A: inverts and adducts the foot (inverting the foot supinates the subtalar and midtarsal joints); aids in plantar flexing the ankle joint

NS: tibial nerve

AS: posterior tibial and fibular arteries

Tibialis Posterior Synovial Sheath

- surrounds the tibialis posterior tendon as it courses posterior to the ankle joint
- begins at the proximal posterior medial malleolus and ends after passing through the porta pedis
- begins and ends most proximally
- passes within the laciniate ligament

Popliteus Muscle

- a short flat muscle located at the posterior aspect of the knee
- an intracapsular structure, which becomes extracapsular before its insertion
- covered by fascia over popliteus muscle from semimembranosus muscle

O: (popliteal groove of the) lateral aspect of the lateral condyle of the femur and the posterior edge of the lateral meniscus

I: superior to the soleal line / popliteal line on the posterior surface of the tibial shaft

A: medially rotates the leg (on the thigh); flexes the leg

- these occur simultaneously when the knee is extended and is called *unlocking the knee*

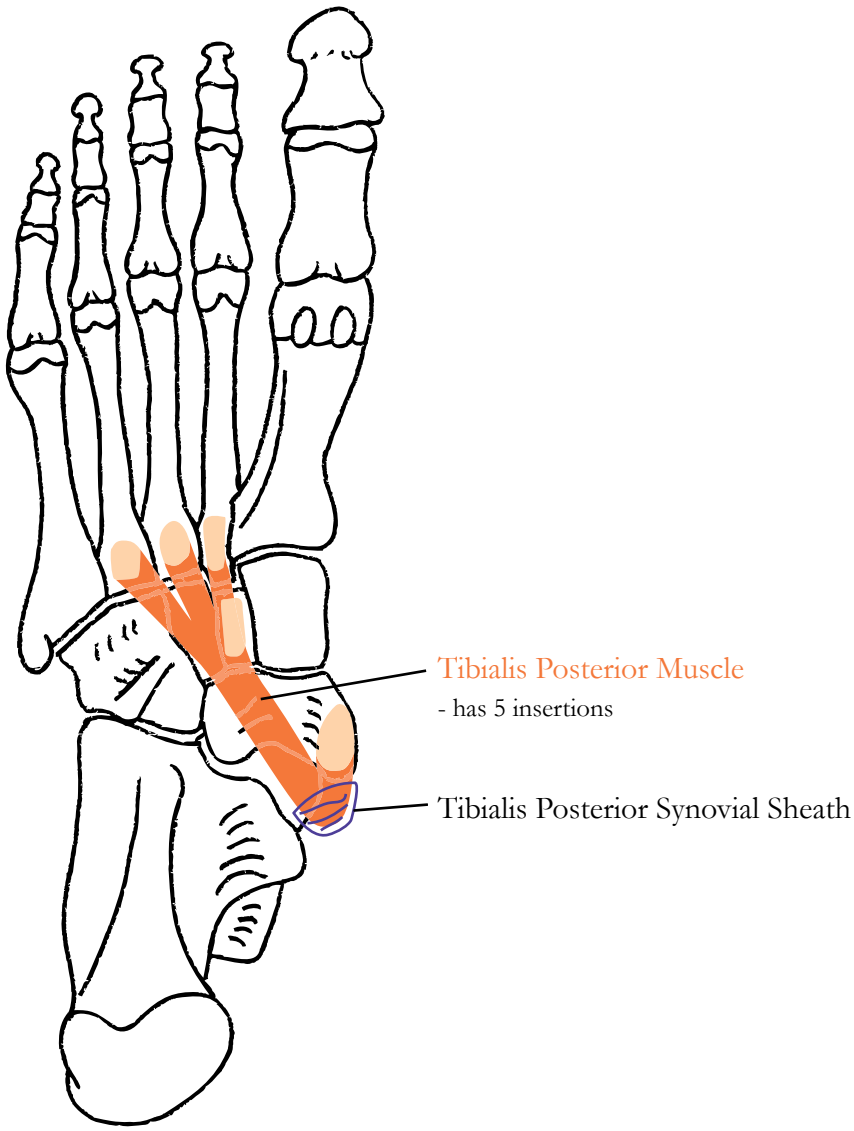
NS: tibial nerve

AS: posterior tibial artery and medial inferior genicular artery

Distal

Muscles of Leg
Deep Posterior Compartment
Plantar View

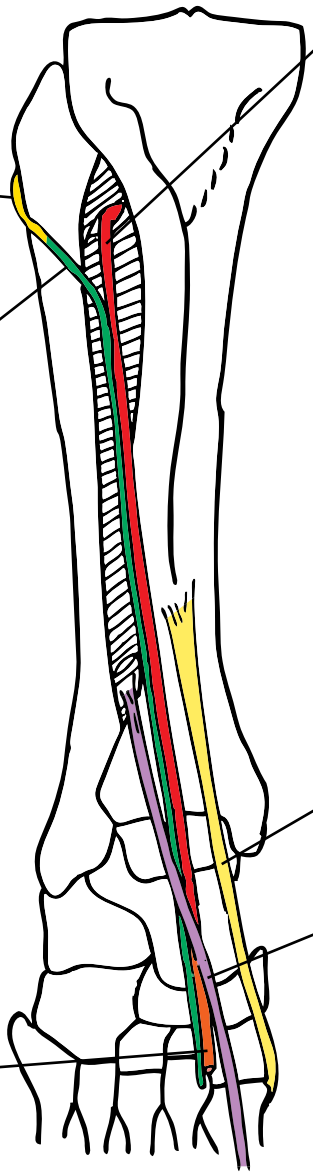
Lateral **Distal** **Medial**



Proximal

Neurovasculature of Anterior Crural Compartment Anterior View

Lateral **Proximal** **Medial**



Common Fibular (peroneal) Nerve

Deep Fibular (Peroneal) Nerve
- a branch from the common fibular nerve arising within the lateral compartment of the leg
- enters the anterior compartment of the leg by piercing the *anterior crural intermuscular septum / anterior crural fascial septum*, then it passes through the extensor digitorum longus muscle at the muscle's origin to travel with the anterior tibial artery on the anterior surface of the interosseous membrane
- the deep peroneal nerve lies lateral to the anterior tibial artery throughout its course in most of the leg including at the ankle region
- the deep fibular (peroneal) nerve retains its name in the foot

Dorsalis Pedis Artery

Anterior Tibial Artery
- branch of the popliteal artery which enters the anterior crural compartment through the proximal opening in the interosseous membrane at the level of the neck of the fibula
- passes inferiorly along the interosseous membrane between the tibialis anterior muscle and the extensor digitorum longus muscle
- at the inferior leg and anterior ankle, it passes intermediate to the tendons of tibialis anterior and extensor hallucis longus muscles
- at the inferior ankle, the tendon of extensor hallucis longus passes over the artery and the artery is renamed the dorsalis pedis artery

Variations
- Occasionally the anterior tibial artery is small or absent. When it is absent, the anterior compartment muscles are usually supplied by perforating branches of the posterior tibial artery, and the dorsalis pedis artery is a continuation of the perforating peroneal artery

Tibialis Anterior Tendon

Extensor Hallucis Longus Tendon

Distal

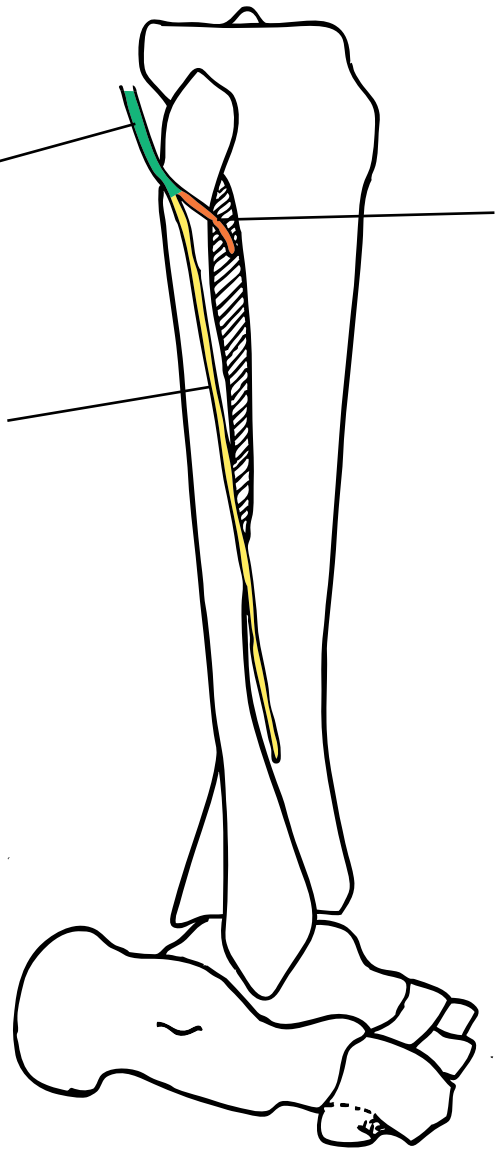
Neurovasculature of Lateral Crural Compartment Lateral View

Posterior **Proximal** **Anterior**

Common Fibular (peroneal) Nerve

Deep Fibular (Peroneal) Nerve

Superficial Fibular (peroneal) Nerve
- a branch of the common fibular (peroneal) nerve after the common fibular nerve passes around the head of the fibula and pierces the posterior crural intermuscular septum, which attaches along the posterior border of the fibula
- this nerve remains within the lateral crural compartment and passes inferiorly between the fibularis longus and brevis muscle bellies
- at the inferior 1/3 of the leg, it pierces the fascia cruris, anterolaterally, to provide its cutaneous innervation



Fibular (Peroneal) Artery
- branches pierce the *posterior crural intermuscular (fascial) septum* to supply the fibularis muscles
- the artery DOES NOT lie within the lateral compartment of the leg
- the artery is within the posterior compartment

Distal

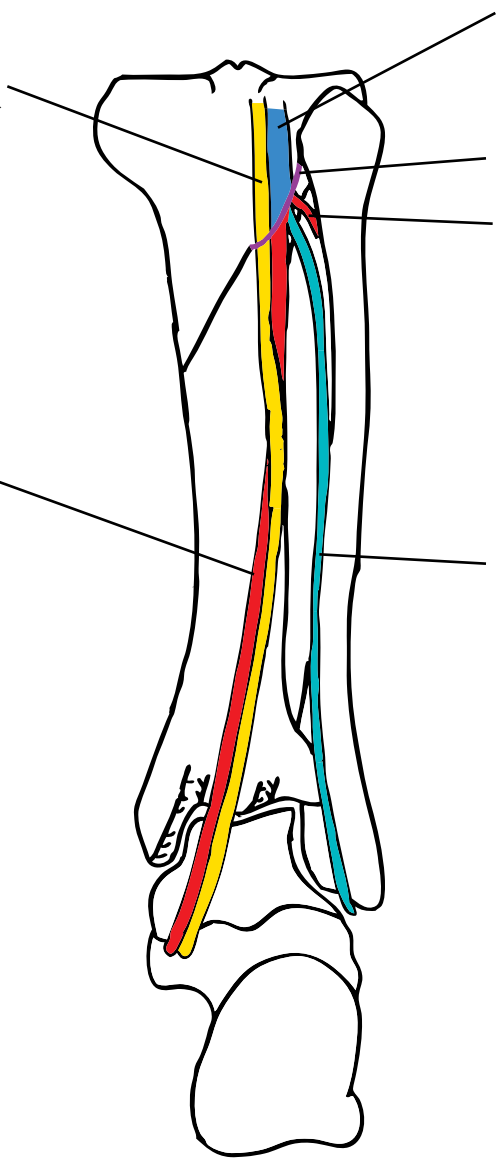
Neurovasculature of Posterior Crural Compartment Posterior View

Medial **Proximal** **Lateral**

Tibial Nerve
- passes through the popliteal fossa, enters the leg by passing through the *tendinous arch of the soleus muscle* and follows the course of the posterior tibial artery
- it divides to form the medial and lateral plantar nerves near the level of the ankle joint prior to entering the foot
- at the ankle region, it gives rise to the medial calcaneal nerve which pierces the laciniate ligament

Posterior Tibial Artery
- usually appears to be the continuation of the popliteal artery
- it arises within the posterior crural compartment and passes distally along the superficial / posterior surface of the tibialis posterior muscle, intermediate to the flexor hallucis longus and flexor digitorum longus muscle bellies, then posterior to the medial malleolus where it divides to form the medial and lateral plantar arteries
- its pulse is palpated posterior to the medial malleolus

Nutrient Artery to the Tibia
- usually arises deep to the soleus muscle (at its proximal end)



Popliteal Artery

Tendinous arch of the soleus muscle

Anterior Tibial Artery
- branches supply the proximal part of the fibularis (peroneus) longus muscle at its origin on the lateral tibial condyle

Fibular (Peroneal) Artery
- a branch of the posterior tibial artery arising near the inferior edge of the popliteus muscle
- it passes inferiorly deep to the soleus muscle, it then continues intermediate to the flexor hallucis longus and tibialis posterior muscles, at the ankle it lies posterior to the lateral malleolus (near the peroneal tendons) where it divides to form the *lateral calcaneal arteries*

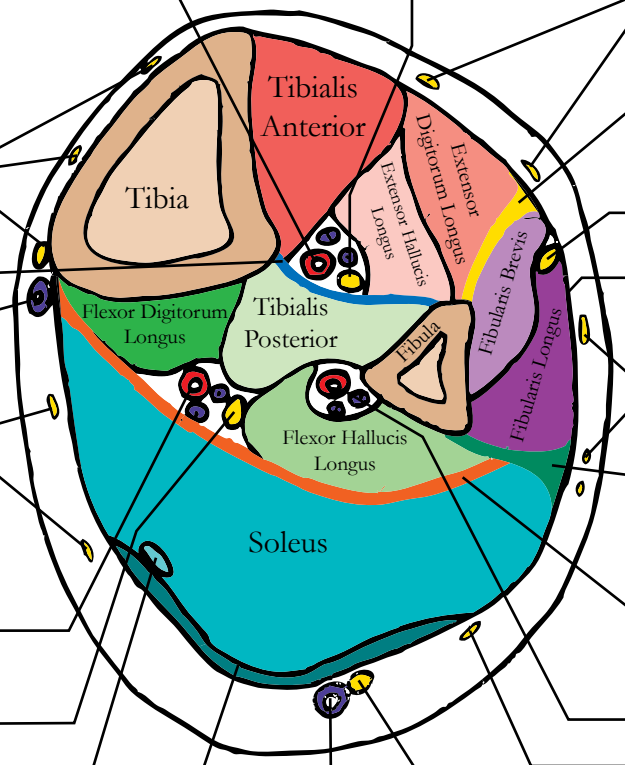
Nutrient Artery to the Fibula
- a branch usually arising near midshaft and entering the fibula in the proximal ½ of the posterior surface

Perforating Fibular (peroneal) Artery
- passes into the anterior ankle region through the inferior opening in the interosseous membrane

Fibular (peroneal)Communicating Artery
- a transverse branch which anastomoses with the posterior tibial artery (in the inferior 1/3 of the leg, posteriorly)

Distal

Cross Section of Leg
Mid-level
Superior View



Deep Fibular Nerve
- branch of the common fibular nerve that enters the anterior crural compartment by piercing the anterior crural fascial septum

Anterior Tibial Artery with venae comitantes

Saphenous Nerves

Interosseous Membrane

Great Saphenous Vein

Saphenous Nerves

Posterior Tibial Artery with venae comitantes

Tibial Nerve

Plantaris Tendon

Lateral Cutaneous Nerve of the Calf

Anterior Crural Intermuscular Septum
- an extension of the fascia cruris from its anterolateral aspect which passes to the anterior border of the fibular shaft (extends the length of the fibula)

Superficial Fibular Nerve

Fascia Cruris (deep fascia)
- thicker anteriorly because some muscles take partial origin from the fascia

Lateral Cutaneous Nerve of the calf

Posterior Crural Intermuscular Septum
- an extension of the fascia cruris from its lateral aspect which passes to the posterior border of the fibular shaft (extends the length of the fibula)

Deep Transverse Intermuscular Septum

Fibular Artery with venae comitantes

Sural Communicating Nerve

Gastrocnemius Aponeurosis

Sural Nerve

Small Saphenous Vein

Interosseous Membrane
- a sheet of fibrous tissue connecting the tibia and fibula at their interosseous borders
- fibers pass from superior medial to inferior lateral which allows the fibula to glide slightly proximal with respect to the tibia
- a superior opening pierces the membrane at the level of the neck of the fibula; allows passage of the anterior tibial artery
- an inferior opening pierces the membrane near the tibiofibular syndesmosis; allows passage of the perforating fibular artery

Anterior Compartment
Borders
- Medial Border – Tibial lateral surface
- Anterior Border – Fascia Cruris
- Lateral Border – Anterior Crural Intermuscular Septum
- Posterior Border – Interosseous Membrane and Medial Fibular Surface

Posterior Compartment
Deep Posterior Compartment
Borders
- Anterior Border - Interosseous Membrane and Medial Part of Posterior Fibular Surface
- Lateral Border - Posterior Fibular Surface and Posterior Crural Intermuscular Septum
- Medial Border - Posterior Tibial Surface
- Posterior Border - Deep Transverse Crural Intermuscular Septum

Superficial Posterior Compartment
Borders
- Anterior Border - Deep Transverse Crural Intermuscular Septum
- Medial Border - Fascia Cruris
- Lateral Border - Fascia Cruris
- Posterior Border - Fascia Cruris

Deep Transverse Intermuscular Septum
- an extension of the fascia cruris from posteromedial to posterolateral near the posterior crural intermuscular septum; deep to soleus muscle
- attaches to the medial tibial border, the tibial soleal line, the crista medialis, the posterior border of the fibular shaft, and the distal posterior tibiofibular ligament
- separates the superficial posterior crural compartment from the deep posterior crural compartment
- usually covers the posterior surface of the tibial nerve & posterior tibial artery

Lateral Compartment
Borders
- Anterior Border - Anterior Crural Fascial Septum
- Lateral Border - Fascia Cruris
- Posterior Border - Posterior Crural Fascial Septum
- Medial Border - Lateral Fibular Surface

Anterior Compartment

Muscles

a. *Tibialis Anterior Muscle*
- located medially, the largest muscle mass at this level (for this compartment)

b. *Extensor Hallucis Longus Muscle*
- centrally located and deep to the other 2

c. *Extensor Digitorum Longus Muscle*
- located laterally

d. *Fibularis Tertius Muscle*
- distal to this level so it is not seen

Neurovasculature

a. *Anterior Tibial Artery and venae comitantes*
- located anterior to the interosseous membrane and intermediate to tibialis anterior and extensor hallucis longus muscles

b. *Deep Fibular Nerve / Deep Peroneal Nerve*
- usually lies just lateral to the vessels in the same fascial space
- branch of the common fibular nerve that enters the anterior crural compartment by piercing the *anterior crural fascial septum*

Lateral Compartment

Muscles

a. *Fibularis Longus Muscle / Peroneus Longus Muscle*
- more posteriorly located; proximally, it is the only muscle present and distally, it is present only as a tendon

b. *Fibularis Brevis Muscle / Peroneus Brevis Muscle*
- more anteriorly located; proximally, it is not present and distally, its muscle belly is present with the peroneus longus tendon

c. *Fibularis Quartus Muscle / Peroneus Quartus Muscle*
- when present, is seen as a muscle belly at midlevel and as a third tendon distally; intermediate to fibularis longus and brevis tendons or deep to both tendons
- not pictured

Neurovasculature

- there are no vessels within the compartment
- arterial supply is from the fibular artery

1. *Superficial Fibular Nerve / Superficial Peroneal Nerve*
- near the superficial junction of the fibularis longus and brevis muscles
- proximally, it is more posterior and deep (near the fibula deep to the peroneus longus muscle)
- distally, it pierces the fascia cruris to supply the skin

Posterior Compartment

Deep Posterior Compartment

Muscles

i. Flexor Digitorum Longus Muscle
- most medially located

ii. Tibialis Posterior Muscle
- most centrally located and deepest (most anterior)

iii. Flexor Hallucis Longus Muscle
- most laterally located

iv. Popliteus Muscle
- is proximal to this level so it is not seen
- is also proximal to the attachment of the deep transverse crural

intermuscular septum

Neurovasculature

i. Posterior Tibial Artery
- and its venae comitantes
- somewhat medially located, just deep to the deep transverse crural intermuscular septum

ii. Tibial Nerve
- same fascial compartment as posterior tibial artery, usually just lateral to the vessels

iii. Fibular Artery / Peroneal Artery
- and its venae comitantes
- somewhat laterally located, often at the posterior surface of the fibula between tibialis posterior muscle and flexor hallucis longus muscle

Superficial Posterior Compartment

Muscles

i. Soleus Muscle
- usually the only muscle belly present at this level, fills the compartment, located anteriorly

ii. Gastrocnemius Aponeurosis
- the tendinous part of gastrocnemius muscle before it becomes the tendo calcaneus, located posteriorly

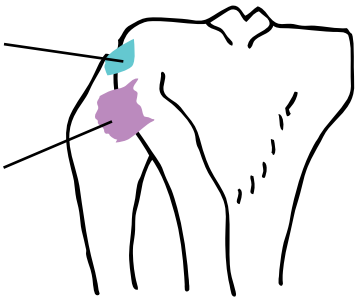
iii. Plantaris Tendon
- at the medial side, just deep to the gastrocnemius aponeurosis

Tibiofibular Joint

Proximal Tibiofibular Joint
Anterior View

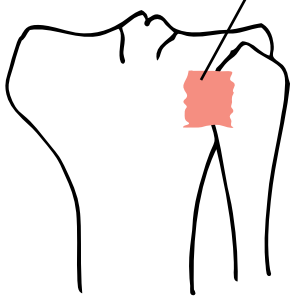
Lateral Tibiofibular Ligament
- reinforces its lateral aspect

Proximal Anterior Tibiofibular Ligament
- reinforces its anterior aspect



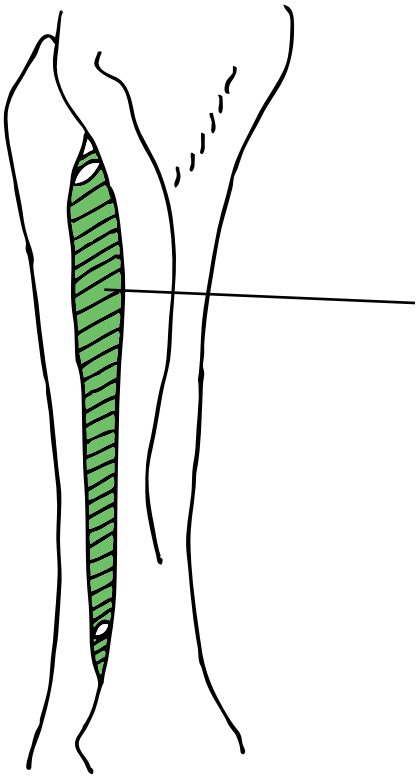
Posterior View

Proximal Posterior Tibiofibular Ligament
- reinforces its posterior aspect



- The proximal tibiofibular joint is located between the head of the fibula and lateral condyle of the tibia.
- Structurally it is a planar or gliding synovial joint.
- Functionally, it is a diarthrosis.
- It is reinforced by ligaments.
- This articulation undergoes rotational moments and gliding movements when the distal tibiofibular joint separates.
- receives arterial supply from the inferior lateral genicular and anterior tibial recurrent arteries
- innervation from the common peroneal nerve and the nerve to popliteus muscle

Middle Tibiofibular Joint
Anterior View



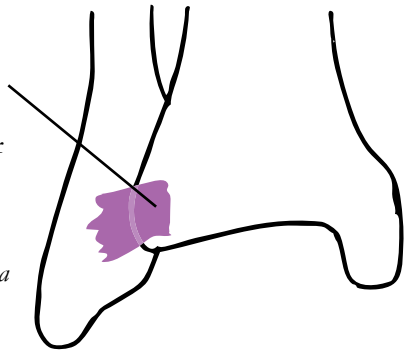
Interosseus Membrane

- The middle tibiofibular joint is formed by the interosseous membrane as it attaches to the interosseous borders of both the tibia and fibula.
- The fibers of the interosseous membrane pass from proximal medial to distal lateral which allows the fibula to slide slightly proximal on the tibia.
- This sliding accompanies a slight separation of the fibula from the tibia at their distal extremities.

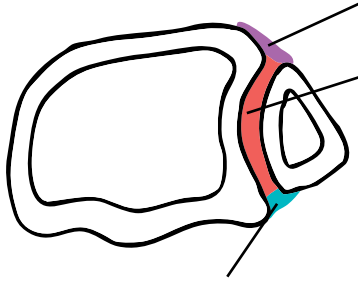
Distal Tibiofibular Joint

Anterior View

Distal Anterior Tibiofibular Ligament
- extends from the anterior border of the fibular notch of the tibia to the anterior border of the fibula and the anterior edge of the triangular area on the distal extremity of the fibula
- *helps to prevent separation of the fibula from the tibia*



Superior View



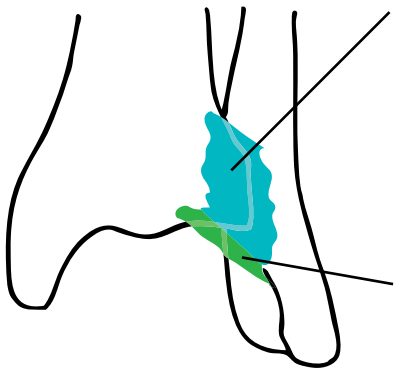
Distal Anterior Tibiofibular Ligament

Interosseous Tibiofibular Ligament
- inferior continuation of the interosseous membrane
- extends from the central part of the fibular notch of the tibia to the central part of the rough triangular area on the fibular distal extremity
- strongest of the ligaments at this joint
- often is a small synovial extension of the ankle joint within this ligament
- *prevents the talus from wedging between the tibia and fibula by preventing separation of the fibula from the tibia*

Distal Posterior Tibiofibular Ligament

Posterior View

- The distal tibiofibular joint / tibiofibular syndesmosis is located between the fibular notch of the tibia and the roughened triangular area on the medial aspect of the fibular distal extremity.
- structurally a syndesmotic fibrous joint
- functionally an amphiarthrotic joint
- The motion usually accompanies inversion and eversion of the foot during closed kinetic chain motion, when the foot is fixed on the ground.
- It is reinforced by several ligaments
- The distal tibiofibular joint receives arterial supply from the perforating peroneal, anterior medial malleolar and posterior lateral melleolar arteries
- it receives innervation from the deep peroneal, tibial and saphenous nerves.

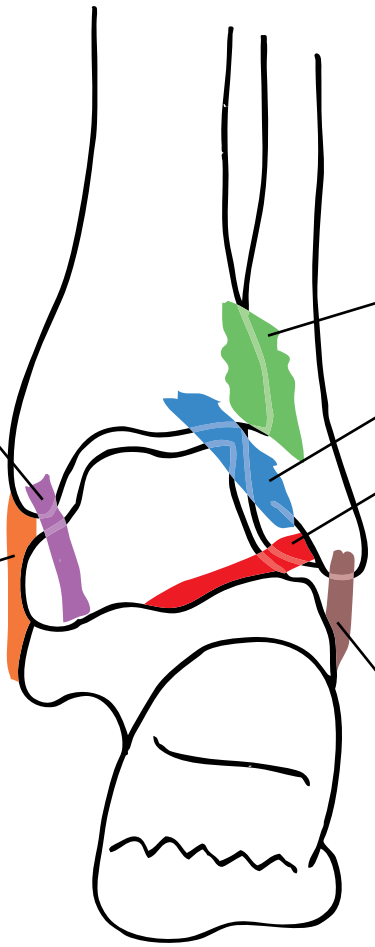


Distal Posterior Tibiofibular Ligament
- extends from the posterior border of the fibular notch and the posterior process of the tibia to the posterior edge of the triangular area on the medial aspect of the distal fibula
- very broad ligament which *decreases the posterior movement of the talus within the ankle mortise and prevents separation of the fibula from the tibia*

Transverse Inferior Posterior Tibiofibular Ligament
- the inferior part of the posterior tibiofibular ligament which blends with the fibrous capsule of the ankle joint
- has articular cartilage on its deep surface for articulation with the posterior aspect of the trochlea tali so it forms part of the ankle mortise (ankle joint)
- passes from the posterior process of the tibia to the superior (½ of the) lateral malleolar fossa of the fibula

Ankle Ligaments
Posterior View

- aid in providing stability to the ankle joint



Posterior Talotibial Ligament
- this ligament has deep and superficial parts
- extend from the medial malleolar posterior colliculus to the medial tubercle of the talar posterior process
- part of the medial collateral ligament of the ankle joint

Calcaneotibial Ligament
- extends from the inferior aspect of the medial malleolus, anterior and posterior colliculi, to the medial surface of the sustentaculum tali
- part of the medial collateral ligament of the ankle

Distal Posterior Tibiofibular Ligament
- necessary for ankle joint stability

Transverse Tibiofibular Ligament

Posterior Talofibular Ligament
- extends from the lateral tubercle of the posterior process of the talus to the inferior (½ of the) lateral malleolar fossa of the fibula
- part of the lateral collateral ligament of the ankle joint

Calcaneofibular Ligament
- an extracapsular ligament
- extends from the summit of the lateral malleolus to the calcaneal lateral surface, superoposterior to fibular trochlea
- part of the lateral collateral ligament of the ankle

ANKLE JOINT / TALOCRURAL JOINT

The ankle joint is the articulation between the talus and the tibia and between the talus and the fibula. It is classified, structurally, as a synovial, ginglymus (hinge) joint and functionally, as a diarthrosis. The ankle joint primarily moves in dorsiflexion and plantar flexion; however a small amount of adduction/abduction and inversion/eversion are allowed. This is mainly due to the shape of the articular surfaces. The tibial plafond and the trochlea tali are both wider anteriorly than posteriorly, but the trochlea of the talus is narrower posteriorly than the tibial plafond. This makes the ankle joint more mobile laterally when it is in a plantar flexed position. In addition, the interosseous membrane allows a small amount of separation between the tibia and the fibula. Also, the ankle joint axis is not perpendicular to the sagittal plane and as such the motion is sometimes described as triplanar, biomechanically.

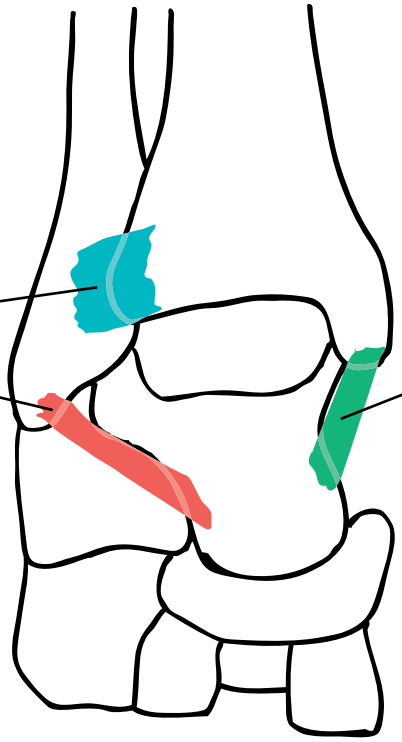
A. **Terminology**

1. **Ankle Mortise**
   - the concavity formed by the tibia, the fibula and the transverse tibiofibular ligament
   - the talus fits into this concavity

B. **Capsule**
- the capsule of the ankle joint attaches at the articular margins of all surfaces of the ankle joint except the anterior trochlea tali; here it extends to the neck of the talus to allow ankle plantar flexion
- reinforced by ligaments

C. **Synovial Membrane**
- lines all areas of the capsule
- at the junction of the tibia and fibula inferiorly (in the syndesmosis), it extends slightly proximal to form a small recess in the interosseous tibiofibular ligament
- occasionally this recess is large enough to create a synovial joint between the distal tibia and fibula

Ankle Ligaments
Anterior View



Distal Anterior Tibiofibular Ligament

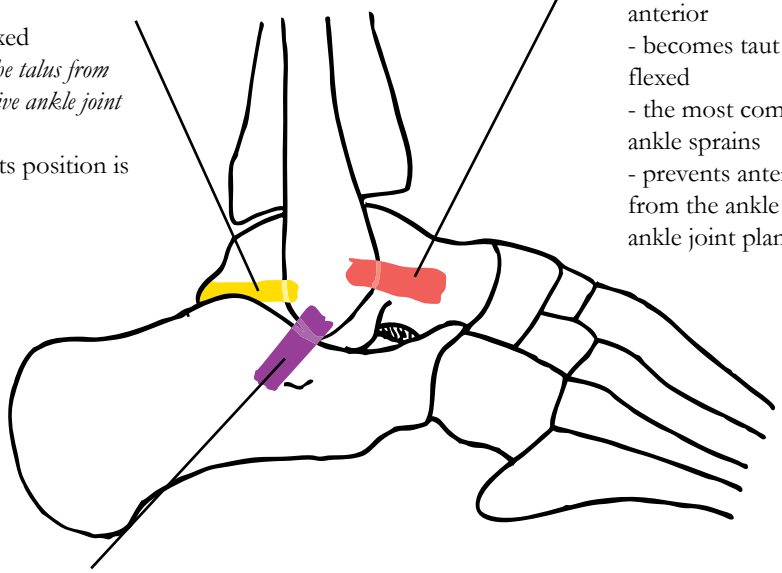
Anterior Talofibular Ligament
- extends from the anterior inferior edge of the lateral malleolus to the lateral aspect of the talar neck
- part of the lateral collateral ligament of the ankle joint

Anterior Talotibial Ligament
- extends from the inferior medial malleolus, the anterior colliculus, to the medial aspect of the neck of the talus
- part of the medial collateral ligament of the ankle joint

Ankle Ligaments
Lateral Collateral Ligaments of the Ankle
Lateral View

Posterior Talofibular Ligament
- from the posterior lateral malleolus to the lateral tubercle of the posterior process of the talus
- taut when the ankle is dorsiflexed
- *prevents posterior displacement of the talus from the ankle mortise and prevents excessive ankle joint dorsiflexion*
- rarely torn in ankle sprains as its position is almost horizontal

Anterior Talofibular Ligament
- from the anterior inferior edge of the lateral malleolus to the lateral aspect of the talar neck; passes primarily medial and slightly anterior
- becomes taut when the ankle joint is plantar flexed
- the most commonly injured ligament in ankle sprains
- prevents anterior displacement of the talus from the ankle mortise and prevents excessive ankle joint plantar flexion



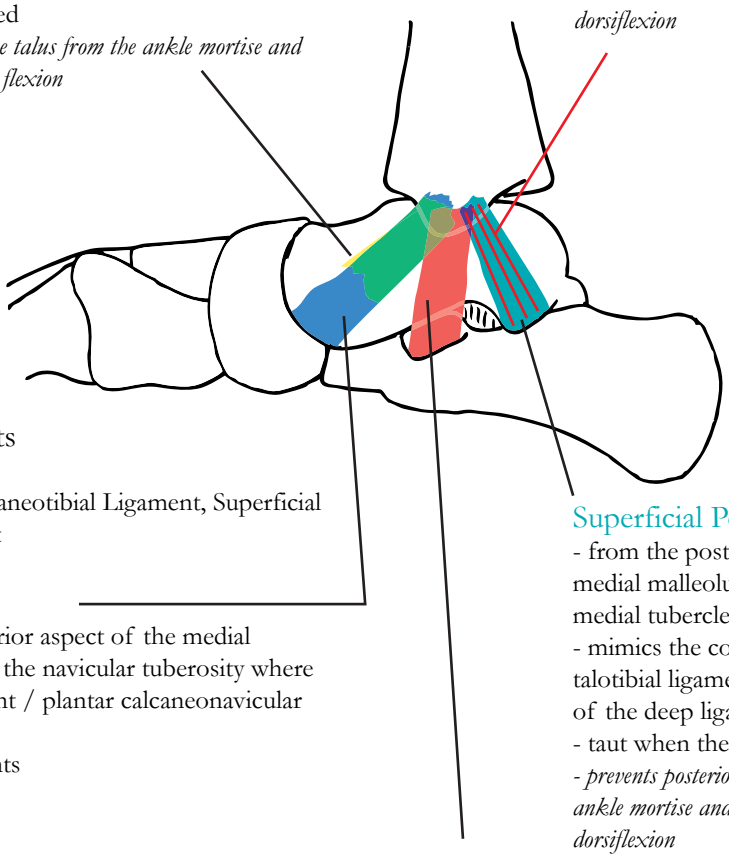
Calcaneofibular Ligament
- extends from the summit of the lateral malleolus to the lateral aspect of the calcaneus, just proximal and superior to the peroneal trochlea
- an extracapsular ligament which lies deep to the peroneal tendons
- becomes taut when the ankle joint is dorsiflexed
- forms an angle of approximately 105° with the anterior talofibular ligament
- *limits inversion of the rearfoot and prevents excessive ankle joint dorsiflexion*

Ankle Ligaments
Medial Collateral Ligaments of the Ankle (Deltoid ligament)
Medial View

Deep Deltoid Ligaments
- are 2 of them
  - Anterior Talotibial Ligament & Deep Posterior Talotibial Ligament

Anterior Talotibial Ligament
- from the anterior colliculus of the medial malleolus to the medial aspect of the talar neck
- its fibers often blend with the fibers of the tibionavicular ligament
- may be absent
- taut when ankle is plantar flexed
- *prevents anterior displacement of the talus from the ankle mortise and prevents excessive ankle joint plantar flexion*

Deep Posterior Talotibial Ligament
- from the posterior colliculus of the medial malleolus to the medial tubercle of the posterior process of the talus
- a strong thick ligament
- taut when the ankle is dorsiflexed
- *prevents posterior displacement of the talus from the ankle mortise and prevents excessive ankle joint dorsiflexion*



Superficial Deltoid Ligam ents
- are 3 of them
  - Tibionavicular Ligament, Calcaneotibial Ligament, Superficial Posterior Talotibial Ligament

Tibionavicular Ligament
- extends from the anterior inferior aspect of the medial malleolus, anterior colliculus, to the navicular tuberosity where it blends with the spring ligament / plantar calcaneonavicular ligament
- weakest of the deltoid ligaments

Superficial Posterior Talotibial Ligament
- from the posterior inferior aspect of the medial malleolus, posterior colliculus, to the medial tubercle of the posterior talar process
- mimics the course of the deep posterior talotibial ligament and may blend with the fibers of the deep ligament or may be absent
- taut when the ankle is dorsiflexed
- *prevents posterior displacement of the talus from the ankle mortise and prevents excessive ankle joint dorsiflexion*

Calcaneotibial Ligament
- extends from the medial malleolar colliculi to the medial surface of the sustentaculum tali
- lies deep to the tendon of flexor digitorum longus as it passes along the sustentaculum tali
- strongest of the deltoid ligaments
- *limits eversion of the calcaneus*

Medial Collateral Ligament of the Ankle
- also called the Deltoid Ligament
- very thick strong ligament; rarely injured
- *reinforces the ankle joint medially*
- *limits eversion of the rearfoot*
- consists of superficial and deep parts
- descriptions vary from three to five ligaments present, two may be absent or blended with others
- the common clinical description is 3 ligaments