

Anterior compartment of Leg

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Anterior(Extensor)compartment of the Leg-

Contents:

- **Muscles-** Tibialis Anterior, Extensor hallucis longus, Extensor digitorum longus & Peroneus tertius
- **Artery-** Anterior tibial artery.
- **Nerve-** Deep peroneal nerve (anterior tibial nerve).

Extensor compartment contains(medial –lateral)

1. Tibialis anterior
2. Extensor hallucis longus
3. Anterior tibial vessels(branch of popliteal artery arises distal end of popliteus)
4. Deep peroneal nerve (Terminal branch of common peroneal nerve at neck of fibula, Upper 1/3 & , lower 1/3 lies lateral to the artery, & Middle 1/3 anterior to the artery.
5. Extensor digitorum longus (4 tendons)
6. Peroneus tertius

Retinacula-Around the ankle **deep fascia is thickened** to form a strong fibrous band called retinacula.

They **retained the tendons** around ankle in place.

1.**Superior & Inferior extensor retinacula** on front of the ankle.

2.**Superior & inferior peroneal retinacula** on the lateral side of ankle.

3.**Flexor retinaculum** on posteromedial aspect of ankle.

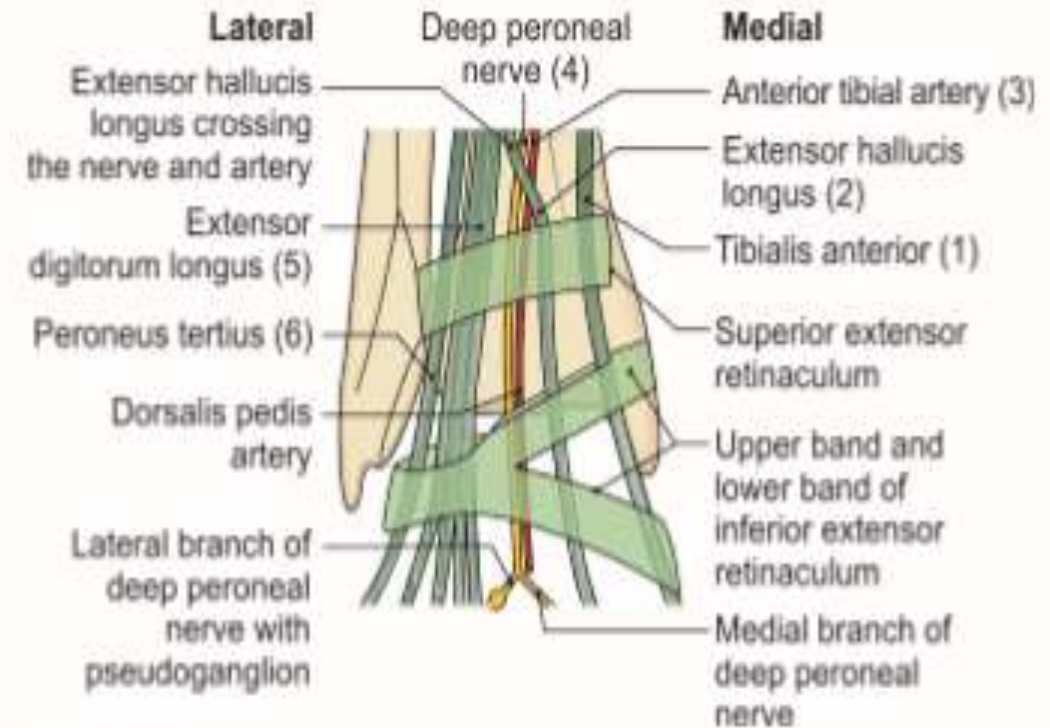


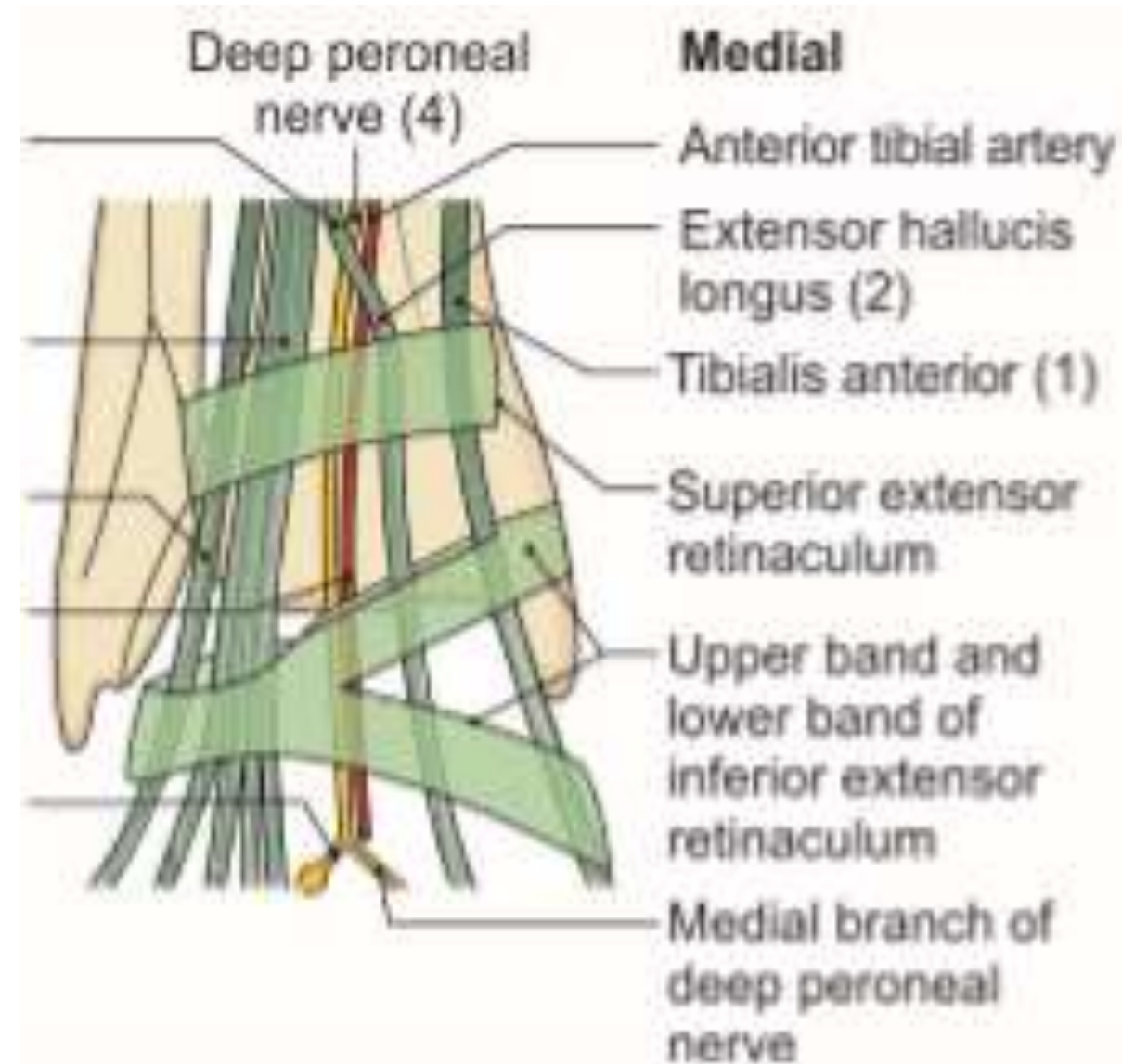
Fig. 8.3a: Tendons, vessels and nerves related to the extensor retinacula (numbered 1–6)

Attachment-

1. Sup. extensor retinaculum

Medially-attached to the lower part of the anterior border of the tibia.

Laterally- to the lower part of the anterior border of the fibula.



Inferior extensor retinacula- This is a Y-shaped band of deep fascia, situated in front of the ankle joint and over the posterior part of the dorsum of the foot.

Attachments-

- 1 The **stem** is attached (laterally) to the anterior non-articular part of the **superior surface of the calcaneum**, in front of the sulcus calcanei.
- 2 The **upper band** passes upwards and medially, and is attached to the **anterior border of the medial malleolus**.
- 3 The **lower band** passes downwards and medially and is attached to the **plantar aponeurosis**.

Structures Passing under the Retinacula -

- | | |
|-----------------------------|----------------------------|
| 1 Tibialis anterior | 2 Extensor hallucis longus |
| 3 Anterior tibial vessels | 4 Deep peroneal nerve |
| 5 Extensor digitorum longus | 6 The peroneus tertius |

Muscles of the Anterior compartment of the Leg.

- All muscles of ant. Compartment of the Leg arise from Fibula except the tibialis anterior which arise from the tibia.
- All of them are supplied by the **deep peroneal nerve**.
- **Dorsiflex** the foot at the ankle.

1. Tibialis Anterior- (multipennate muscle)

Origin- Lateral condyle of tibia, Upper two-thirds of the lateral surface of the shaft of the tibia, Adjoining part of interosseous membrane

Insertion- Inferomedial surface of the medial cuneiform and the adjoining part of the base of first metatarsal bone.

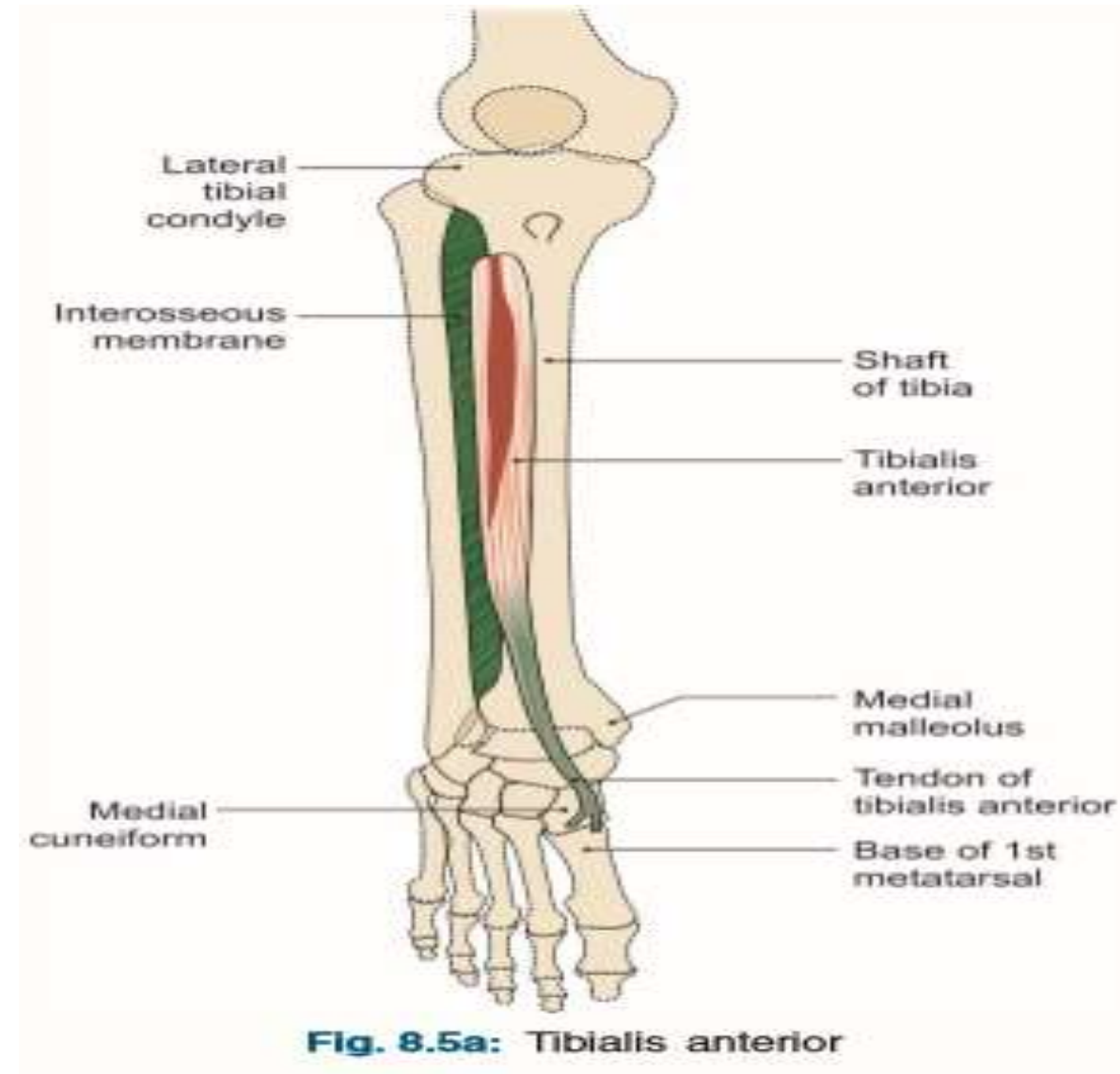
- **Nerve supply-** deep peroneal nerve.

Action-

- a. Dorsiflexor of foot
- b. Invertor of the foot

- c. Keeps the leg vertical while walking on uneven ground

- d. Maintains medial longitudinal arch of the foot.



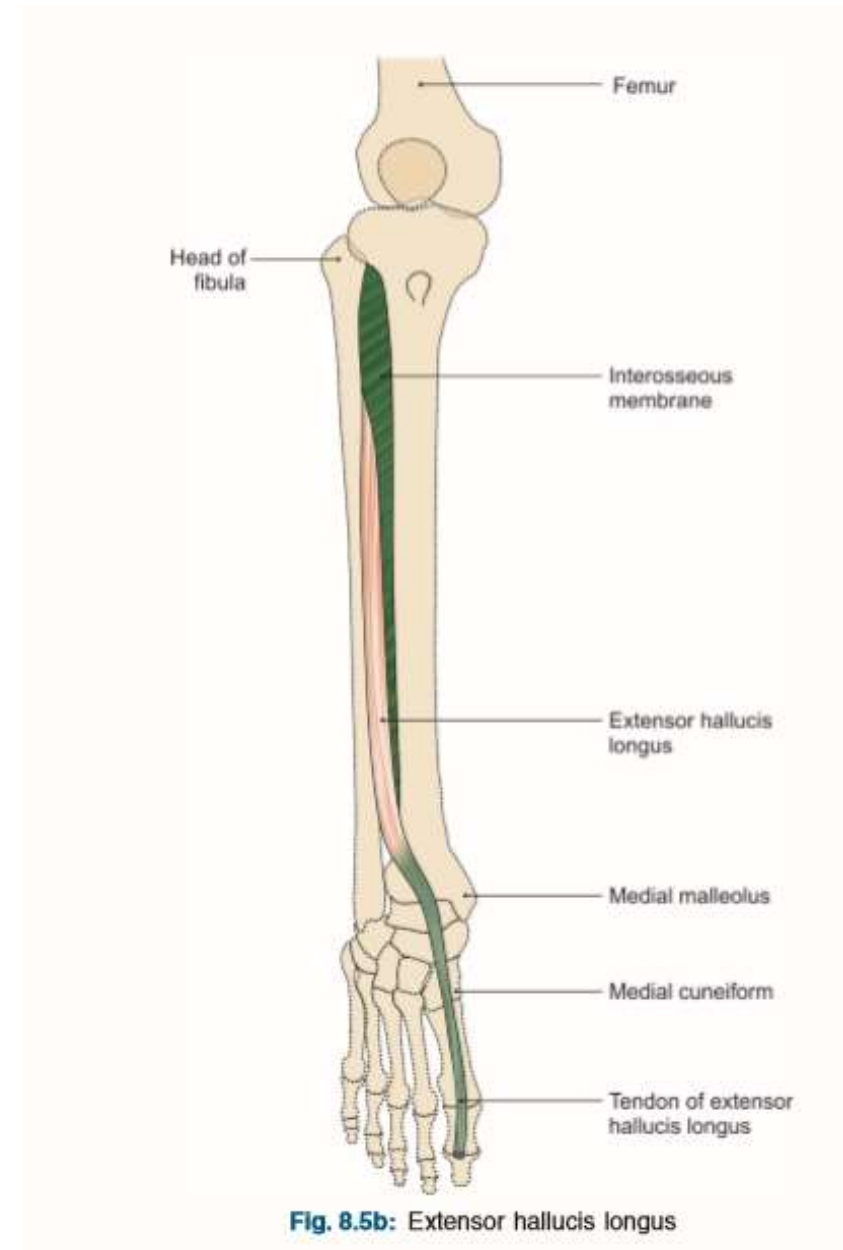
2. Extensor hallucis longus-

Origin- Posterior half of the middle two-fourths of the medial surface of the shaft of the fibula, medial to the extensor digitorum longus, Adjoining part of the interosseous membrane

Insertion- Dorsal surface of the base of the distal, phalanx of the big toe.

Nerve supply- Deep peroneal nerve

Action- Dorsiflexor of foot and extends metatarsophalangeal and interphalangeal joints of big toe



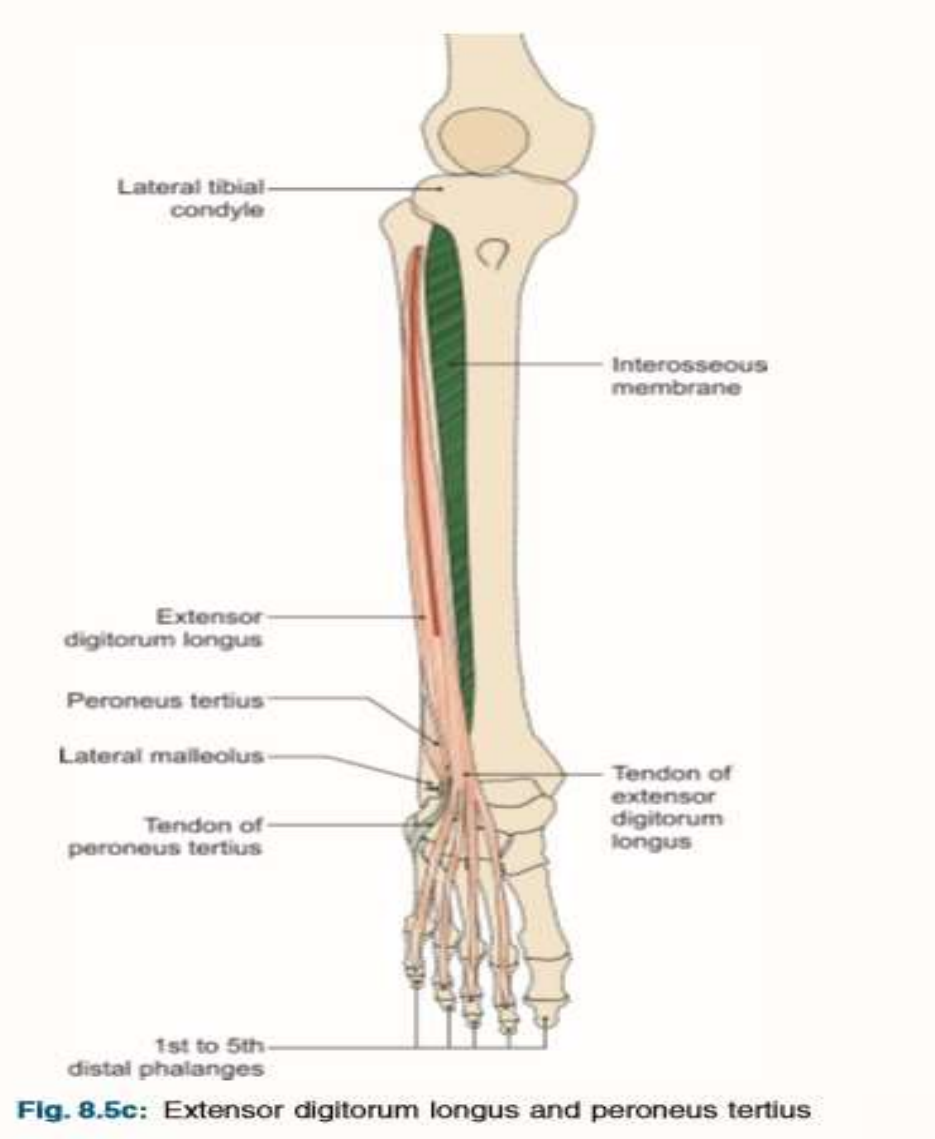
3. Extensor digitorum longus :

Origin- Lateral condyle of tibia, Whole of upper 1/4 and anterior half of middle 2/4 of the medial surface of the shaft of the fibula.

Insertion- It divides into 4 tendons for the lateral four toes. The tendons of 2nd, 3rd and 4th digits are joined on the lateral side by tendon of the extensor digitorum brevis, and forms the dorsal digital expansion. It is inserted on the bases of the middle and distal phalanges.

Nerve supply- Deep peroneal nerve

Action- Dorsiflexor of foot. Extends metatarsophalangeal, proximal and distal interphalangeal joints of 2nd–5th toes.



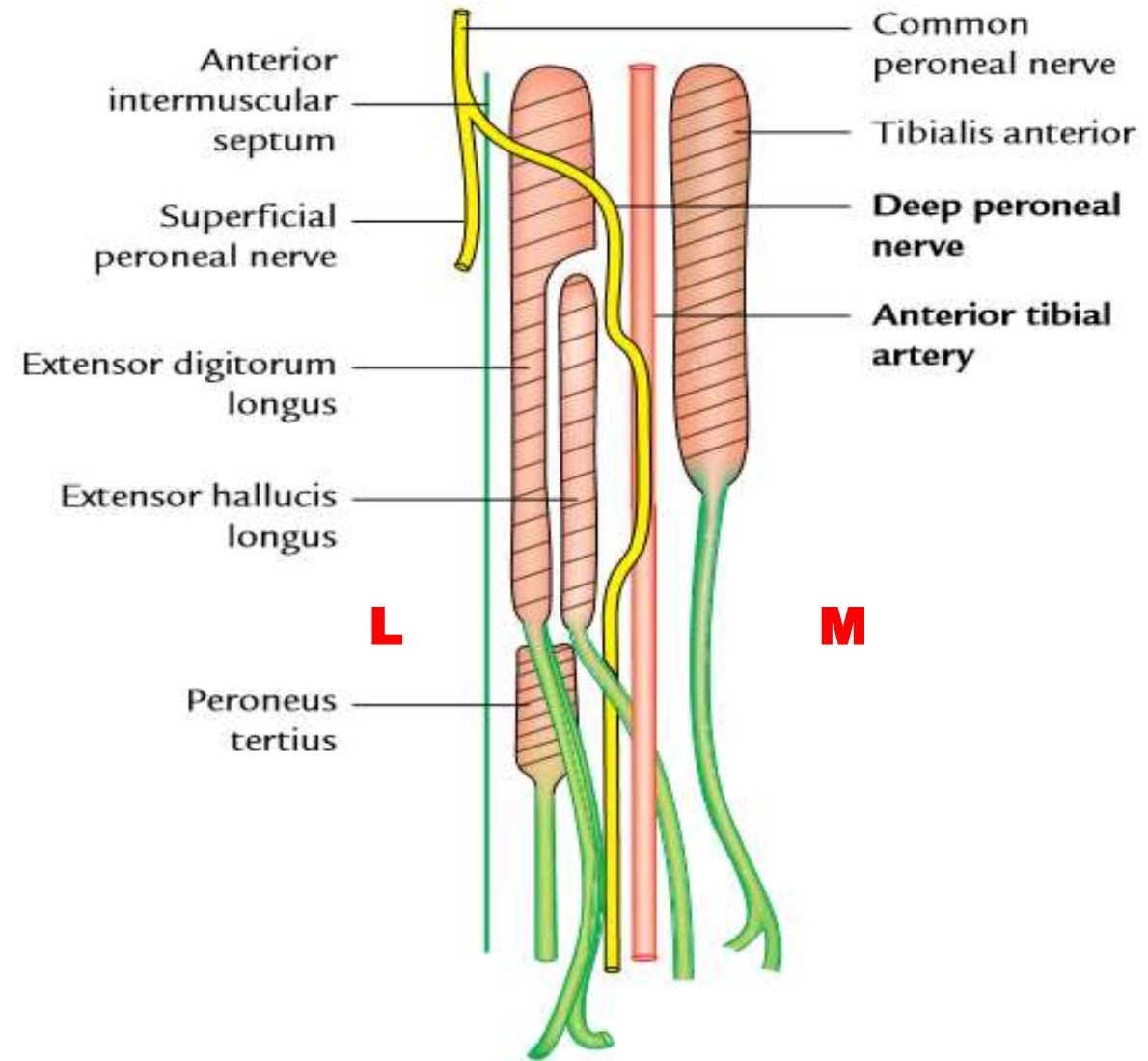
4. Peroneus Tertius

Origin: Lower 1/4 th of medial surface of fibula and Interosseous membrane

Insertion: Base of 5th metatarsal

Nerve supply: Deep peroneal nerve

Action: Dorsiflexion and Eversion of foot.



THANK YOU