

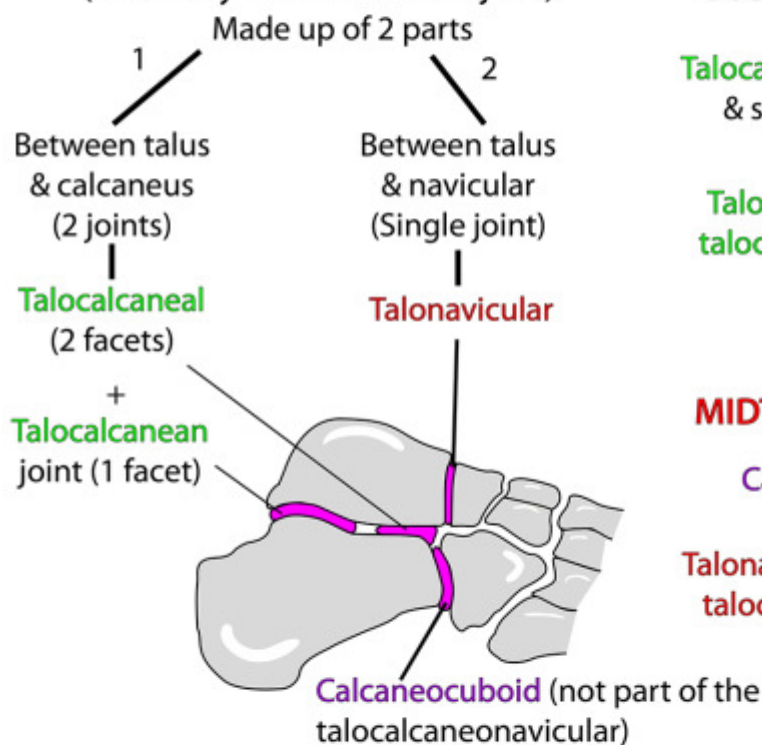
ANKLE, SUBTALAR AND TALOCALCANEONAVICULAR JOINTS

ANKLE (talocrural)

- Effectively a hinge joint but-
- Trochlear surface is slightly wider anteriorly so that there is a slight wiggle in full flexion
- Forces are transmitted to talus from tibia
- Plantar flexion - 30-50°
- Dorsiflexion - 20-30°
- Inversion injury may 1. tear ligaments, 2. pull off lower fibula, 3. pull of lower tibia & fibula

TALOCALCANEONAVICULAR

(effectively a ball and socket joint)



SUBTALAR (3 facets)

Talocalcaneal (posterior & separate, 1 facet)

+

Talocalcaneal part of talocalcaneonavicular (2 facets)

MIDTARSAL (2 facets)

Calcaneocuboid

+

Talonavicular part of the talocalcaneonavicular

INVERSION

Always with some adduction of toes

Muscles: Tibialis anterior/posterior (+/- flexor hallucis longus)

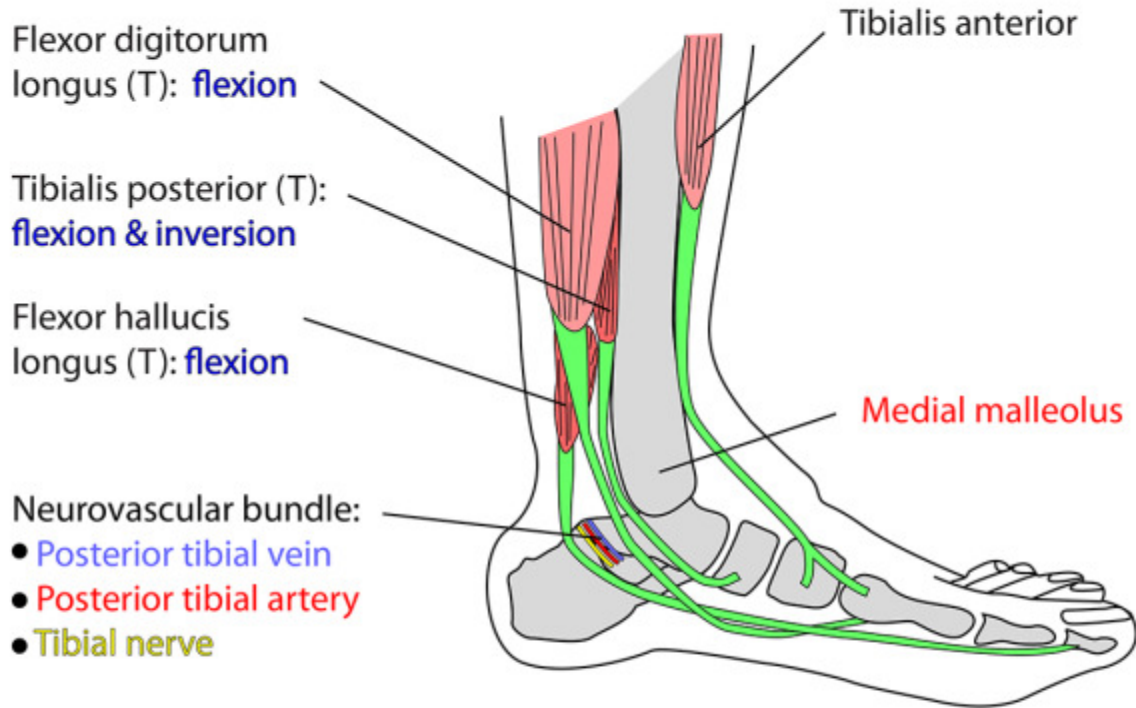
EVERSION

Always with some abduction of toes

Muscles: Fibularis longus/brevis (+ flexion), tertius (+ extension)

As all these tendons insert distal to the midtarsal joint, this joint moves first and a little, soon reaches its maximum and the torque is then transmitted to the subtalar joint which gives most of each movement

TENDON & NEUROVASCULAR RELATIONSHIPS ON **MEDIAL** ASPECTS OF ANKLE

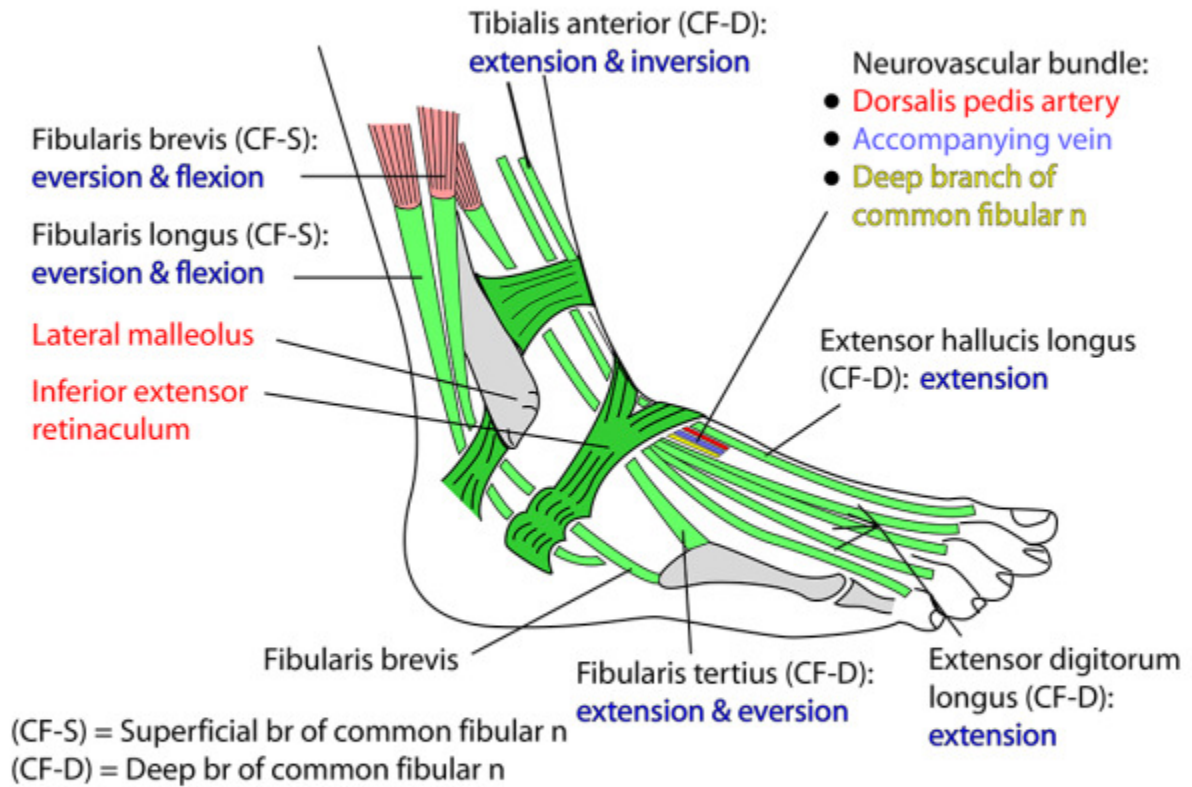


“Timothy Doth **Vex All Nervous** Housemaids”
or “Tom, Dick And **A Very Nervous** Harry”

Order of structures behind medial malleolus from anterior to posterior:
Tibialis posterior, flexor digitorum longus, posterior tibial vein & artery, tibial nerve, flexor hallucis longus
Mnemonic: Timothy Doth Vex All Nervous Housemaids

Flexor retinaculum
Tip of medial malleolus to medial calcaneal process and plantar aponeurosis

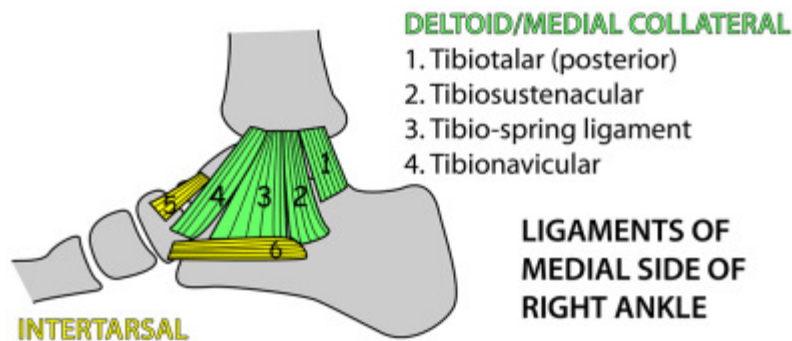
TENDON & NEUROVASCULAR RELATIONSHIPS ON **LATERAL** ASPECTS OF RIGHT ANKLE



**Mnemonic for dorsal tendons, vessels & nerves
from medial to lateral :**

"Timothy Has **A Very**
Nasty Diseased Foot"

ANKLE LIGAMENTS



INTERTARSAL

5. Talonavicular
6. Spring (plantar calcaneo-navicular)
Thick, strong, non-elastic, from sustentaculum tali to navicular. Upper surface articulates with head of talus.

Joints

- Intertarsal
- Ankle

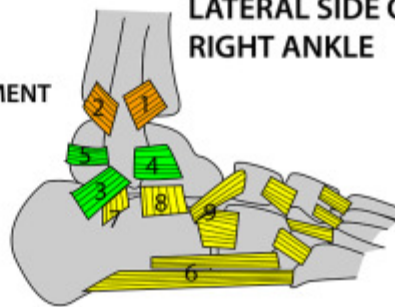
INFERIOR TIBIOFIBULAR LIGAMENT

1. Anterior tibiofibular
2. Posterior tibiofibular

LIGAMENTS OF LATERAL SIDE OF RIGHT ANKLE

LATERAL COLLATERAL LIGAMENT

3. Calcaneofibular
4. Anterior talofibular
5. Posterior talofibular



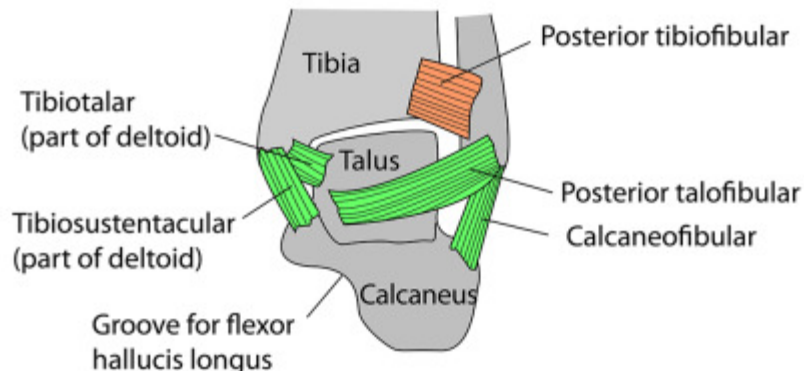
Joints

- Inferior tibiofibular
- Ankle
- Intertarsal

TARSAL/METATARSAL LIGAMENTS

6. Short/long plantar
7. Lateral talocalcaneal
8. Cervical
9. Bifurcate

POSTERIOR VIEW OF RIGHT ANKLE

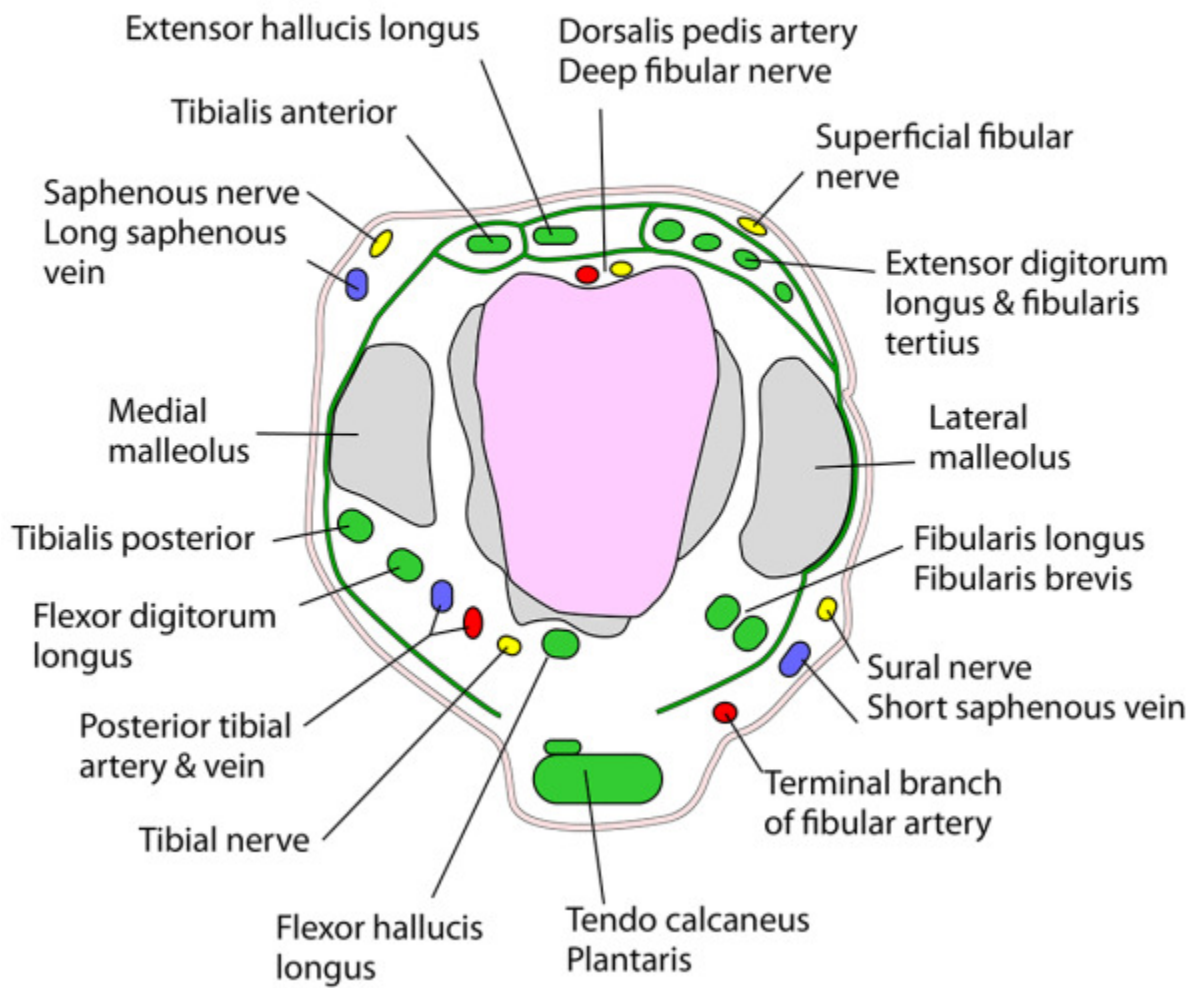


Because the fibula sticks out more laterally from the ankle joint than the tibia, the 3 parts of the lateral ligament are less strong and are easily torn in an inversion injury

Joints

- Inferior tibiofibular
- Ankle

AXIAL (CROSS) SECTION THROUGH ANKLE RIGHT ANKLE



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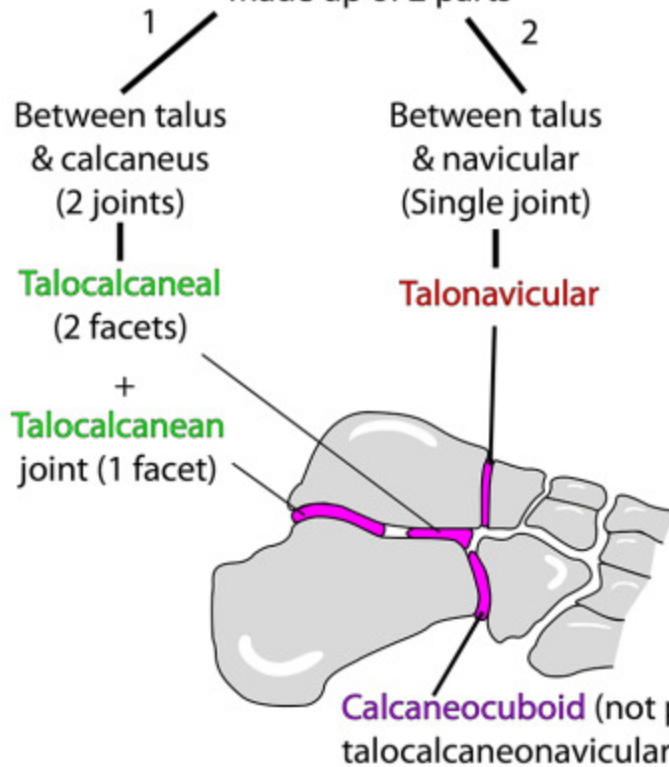
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