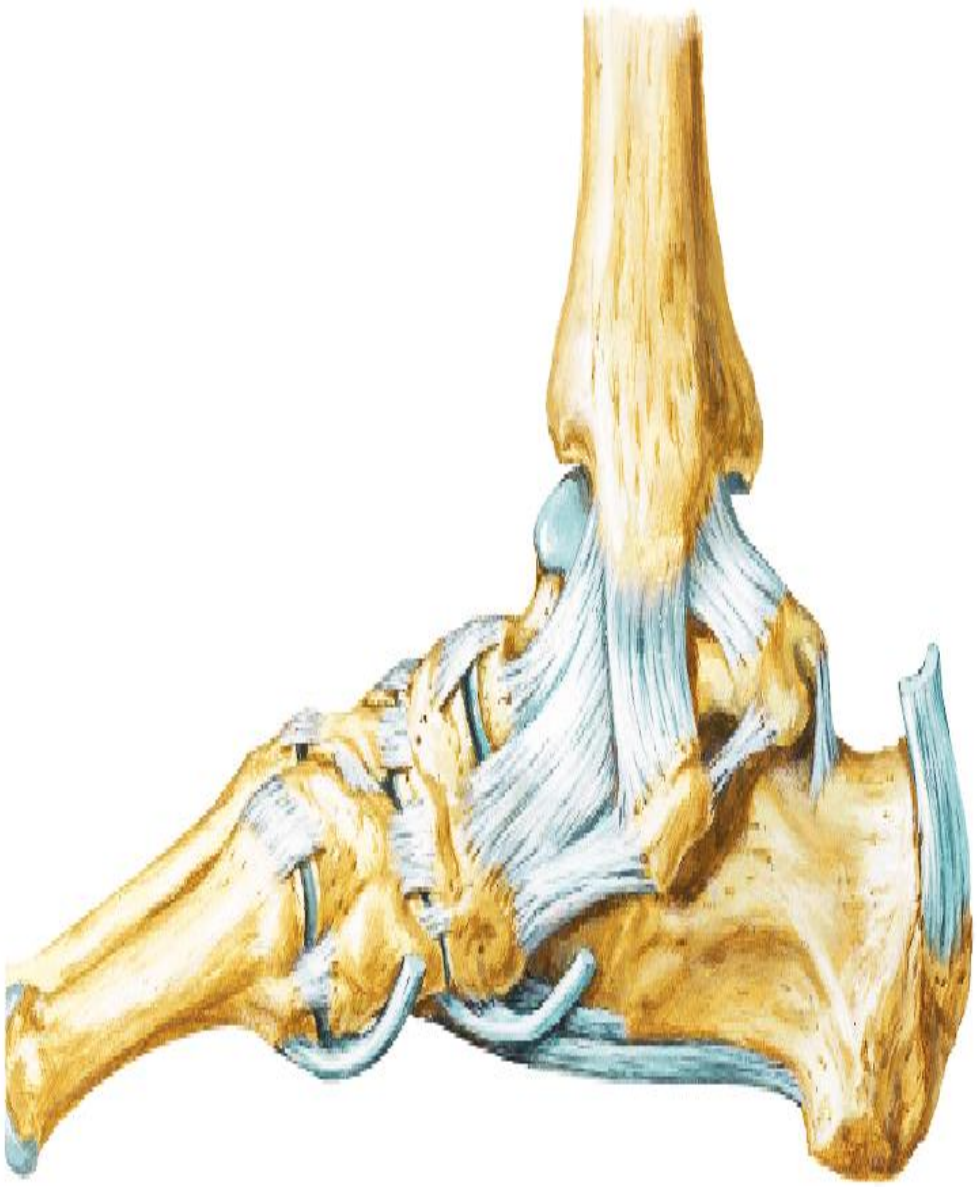
# ANKLE JOINT & JOINTS OF FOOT



BY

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# ANKLE JOINT

**Type:** synovial

**variety:** hinge

**Articular parts:**

Above:

Inferior surface of lower end of tibia,

Inner surface of medial malleolus,

Inner surface of lateral malleolus

Below: talus

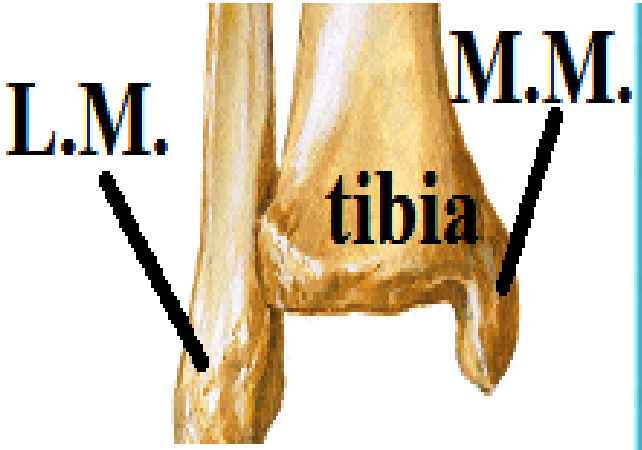
Superior surface of trochlea of talus

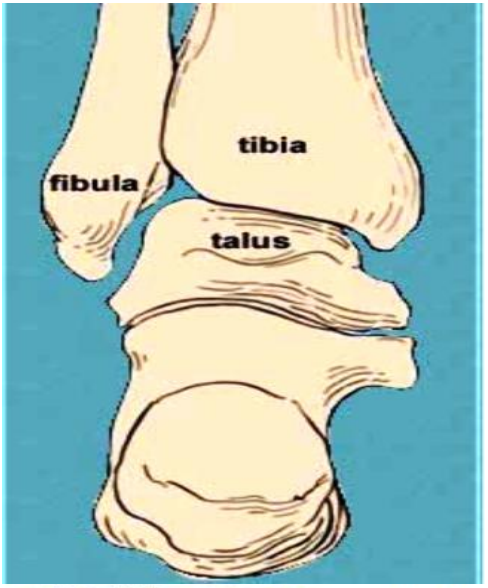
Comma shaped surface for med. Mall.

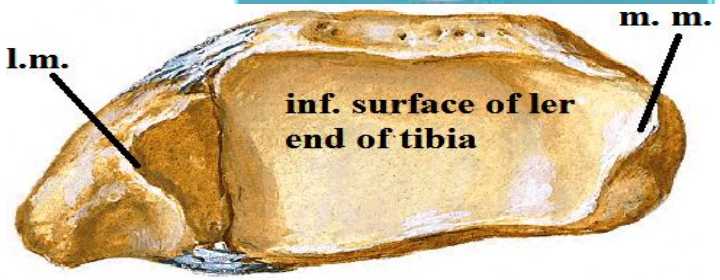
Triangular surface for lat. Mall.

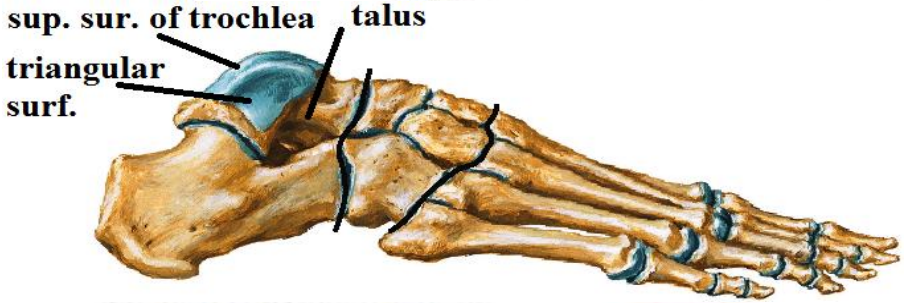
**Capsule:** attach to margins of articular surface. Thin in front , back thick on sides

**Synovial membrane:** line the capsule




# ANKLE JOINT

**Ligaments:**

1-medial collateral (deltoid) lig.

-One of the strongest ligaments in the body

-Triangular in shape

**-Attachment**

Apex : medial malleolus

Base:

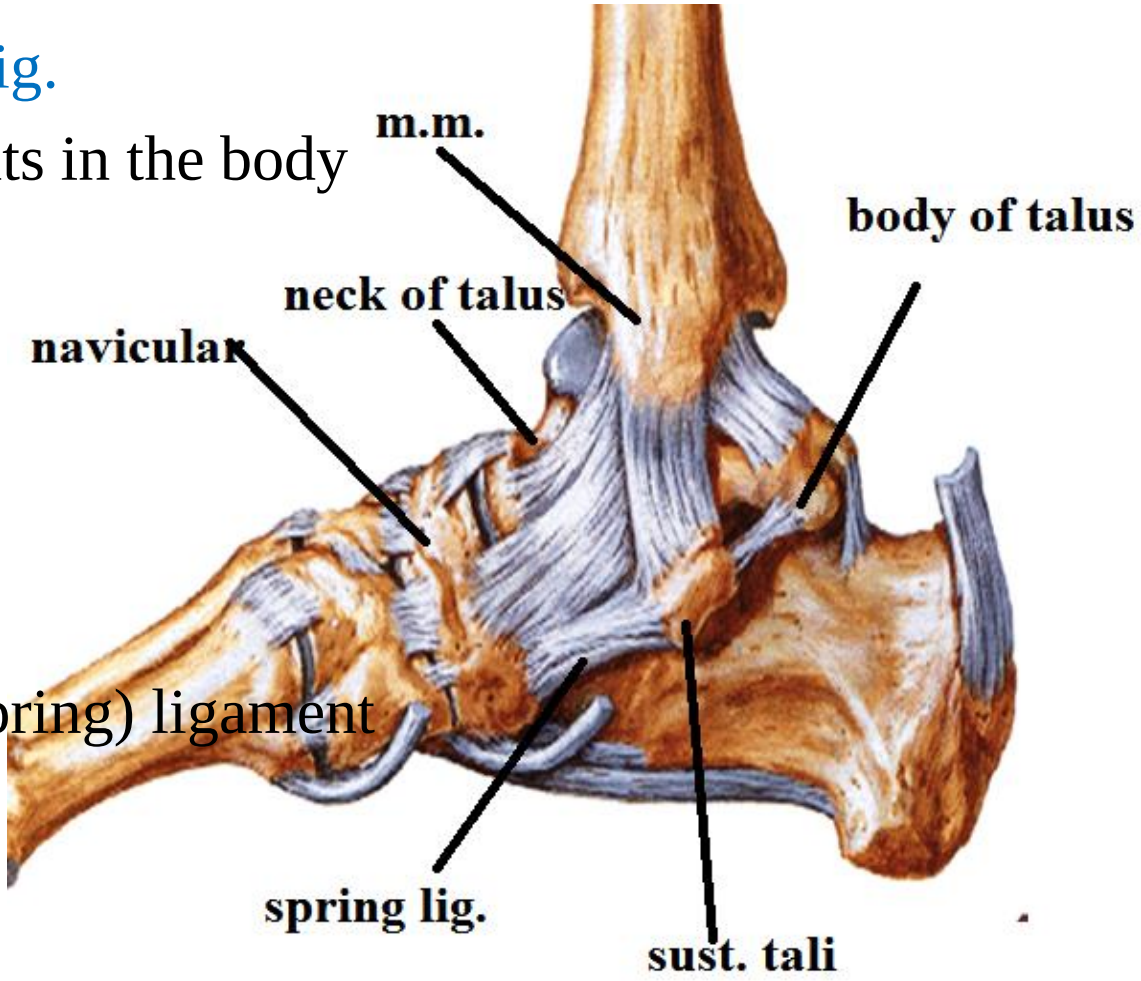
tuberosity of navicular bones

Plantar calcaneo navicular (spring) ligament

neck of talus

Sustantaculum tali

Body of talus




**-Function** 1- prevent over eversion of foot

2- maintain the medial long. Arch of foot

# ANKLE JOINT

**Ligaments:**

2-lateral collateral lig.

-weaker

- 3 bands

calcaneo – fibular lig :

From : tip of lateral malleolus

To : lateral surface of calcaneus

ant. talofibular lig :

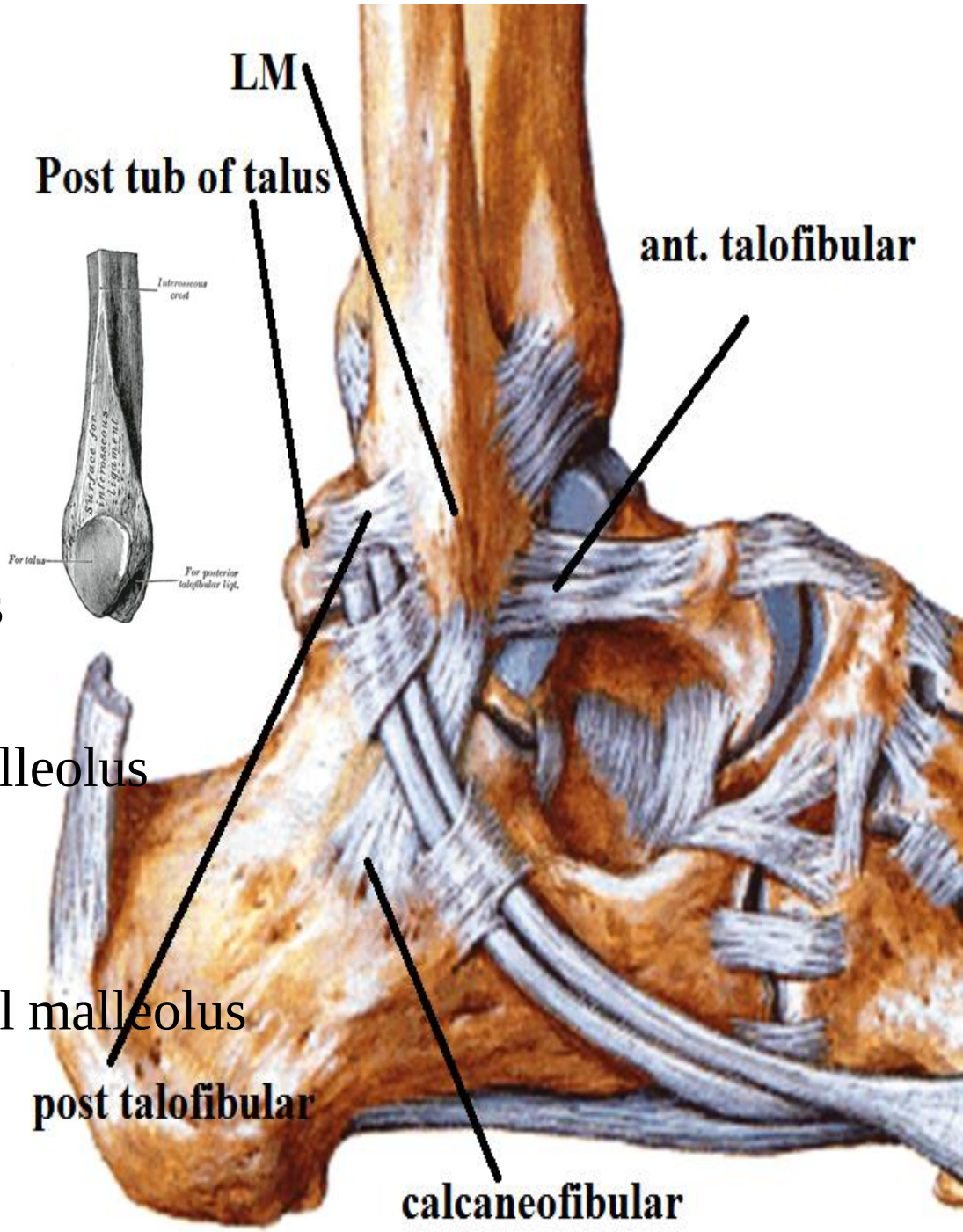
From : ant. border of lateral malleolus

To : neck of talus

post. talofibular lig :

From : malleolar fossa of lateral malleolus

To : posterior tubercle of talus



# ANKLE JOINT

**Relations:**

Anteriorly

Structures deep to the extensor retinacula

**1-Tom:** Tibialis ant.

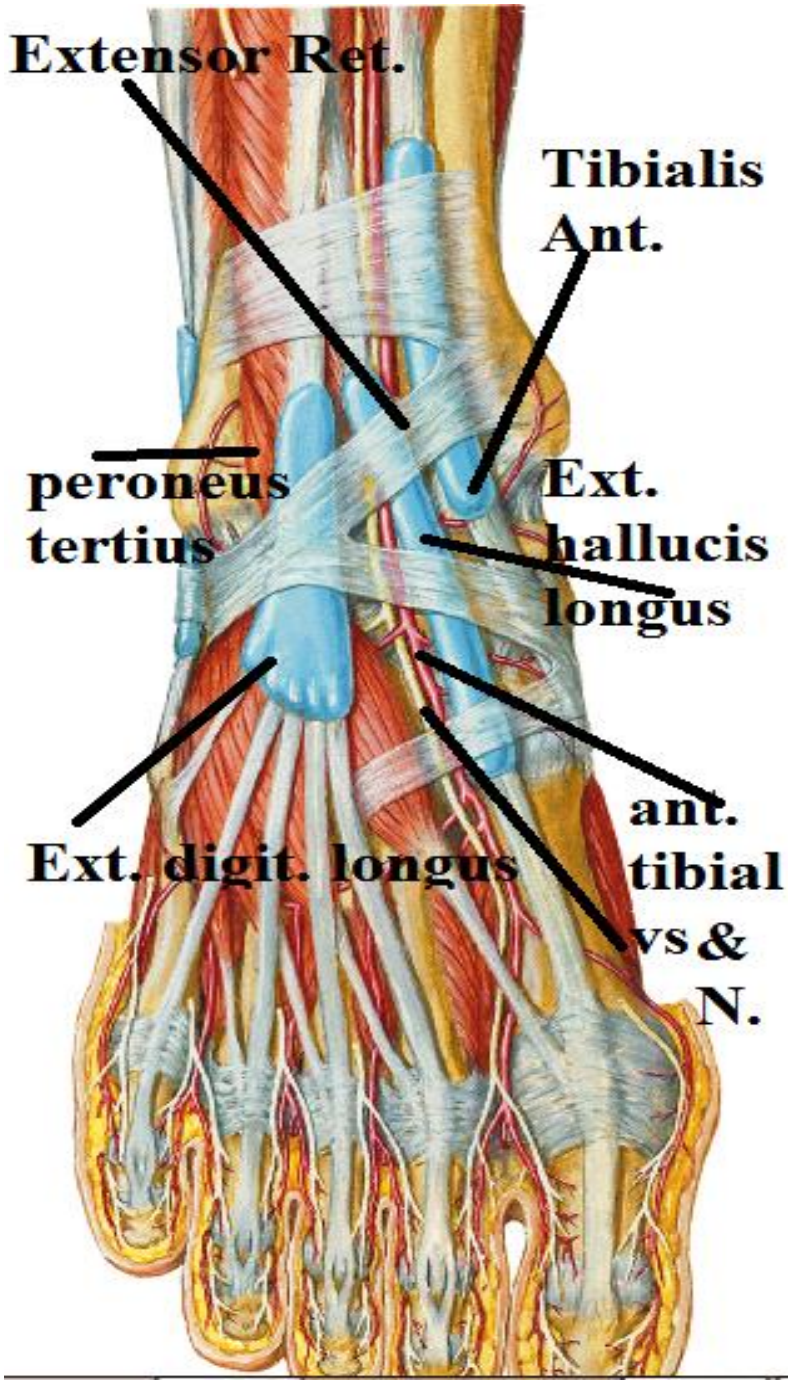
**2-Has:** ext. hallucis longus

**3-Very:** ant. tibial vessels

**4-Nice:** ant. tibial n.

**5-Dog:** ext. digitorum longus

**6-& Pigs:** peroneus tertius



# ANKLE JOINT

**Relations:**

posteromedially

Structures deep to the flexor retinaculum

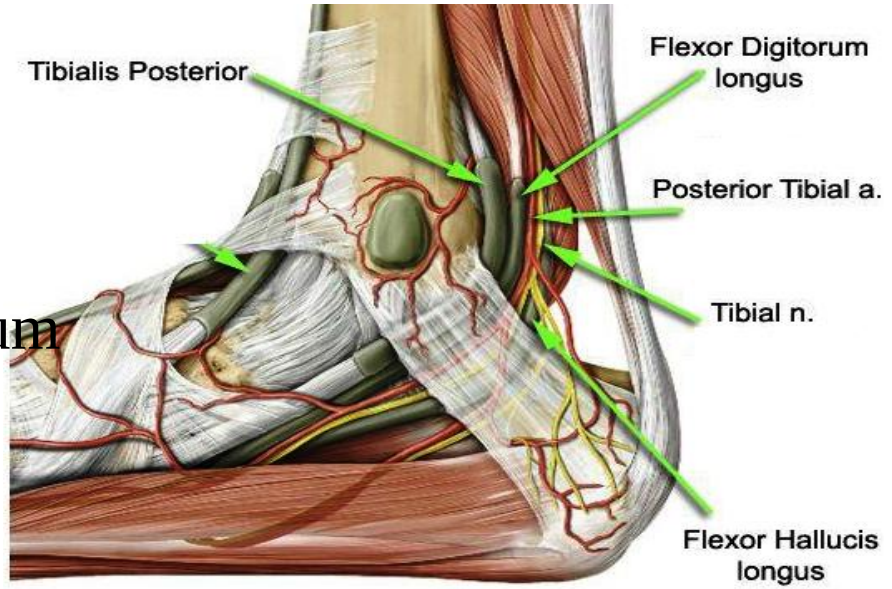
**1-Tom:** Tibialis post.

**2-Does:** flexor digitorum longus

**3-Very:** post. tibial vessels

**4-Nice:** post. tibial n.

**5-hats:** flexor hallucis longus




Posterolaterally

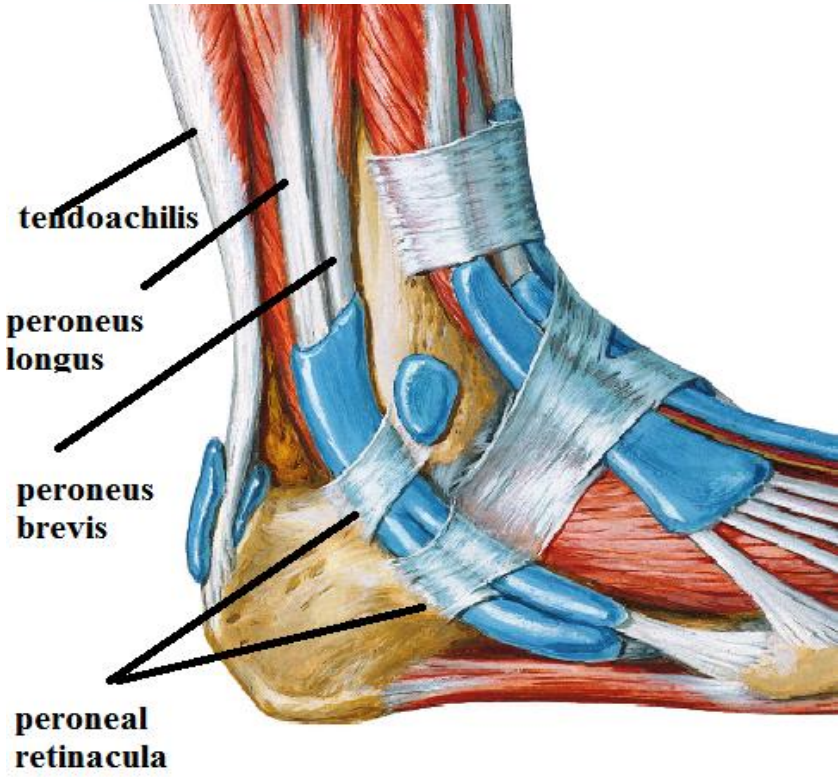
Structures deep to the peroneal retinacula

Tendons of peroneus longus & brevis

posterior

Tendoachilis

**N.S.** Ant. & post. Tibial nerves



# ANKLE JOINT

**Movements:**

only dorsiflexion & plantar flexion

But Eversion & eversion occur at tarsal joints

Dorsiflexion (extension): by

1-tibialis ant

2-extensor hallucis longus

3-extensor digi longus

4-peroneus tertius

Plantar flexion (flexion) : by

1-gasterocnemius

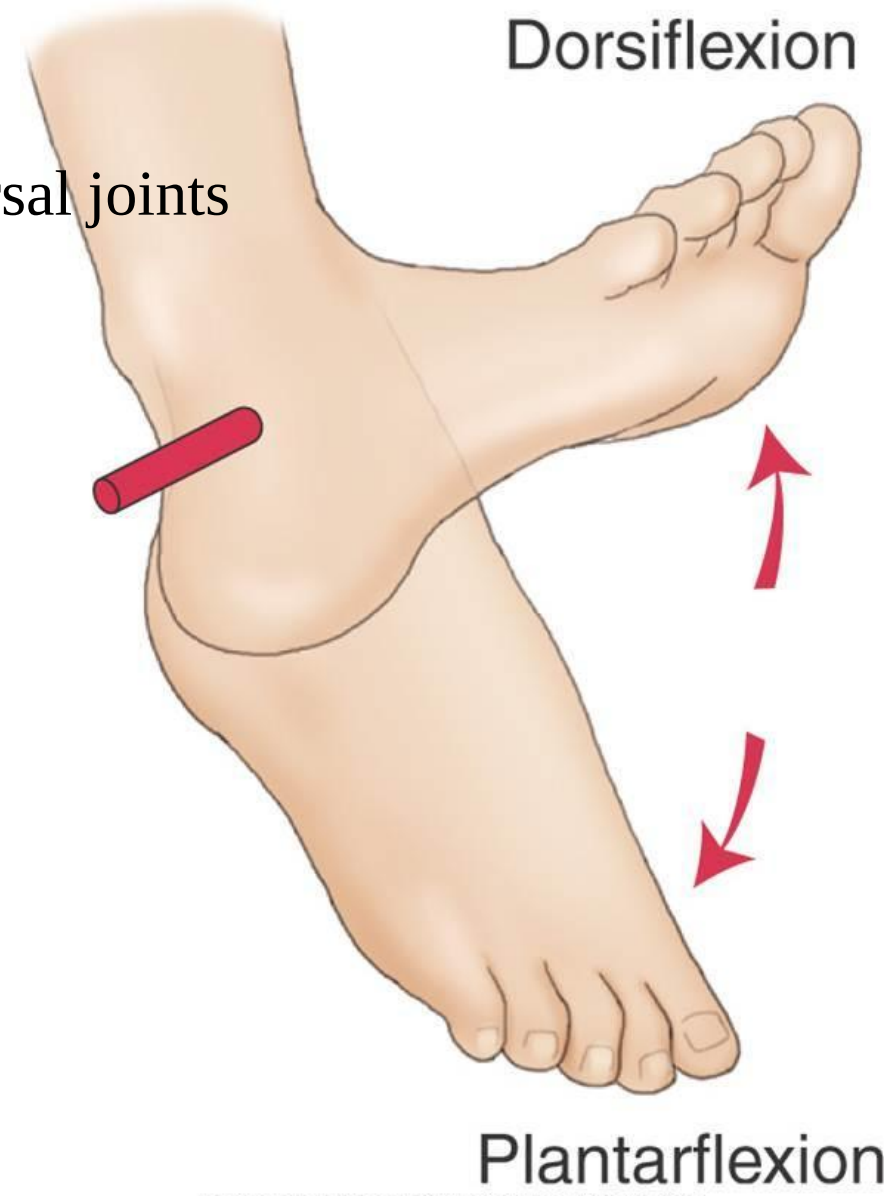
2-soleus

3-plantaris

4-tibialis post.

5-flexor hall. Longus

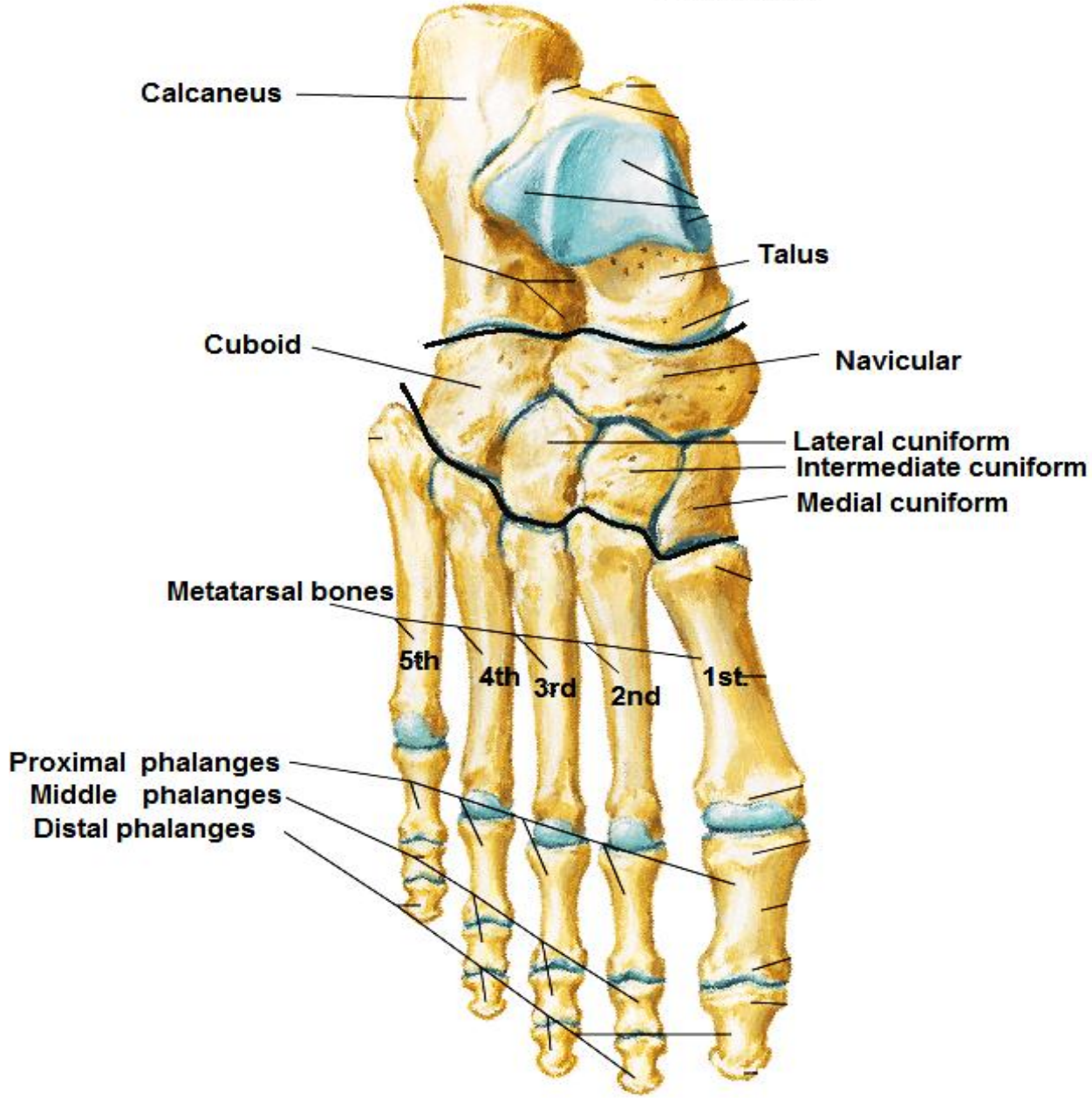
6-flexor digi longus



# JOINTS OF FOOT

# Bones of Foot

Dorsal View



# JOINTS OF FOOT

## 1- SUBTALAR JOINT

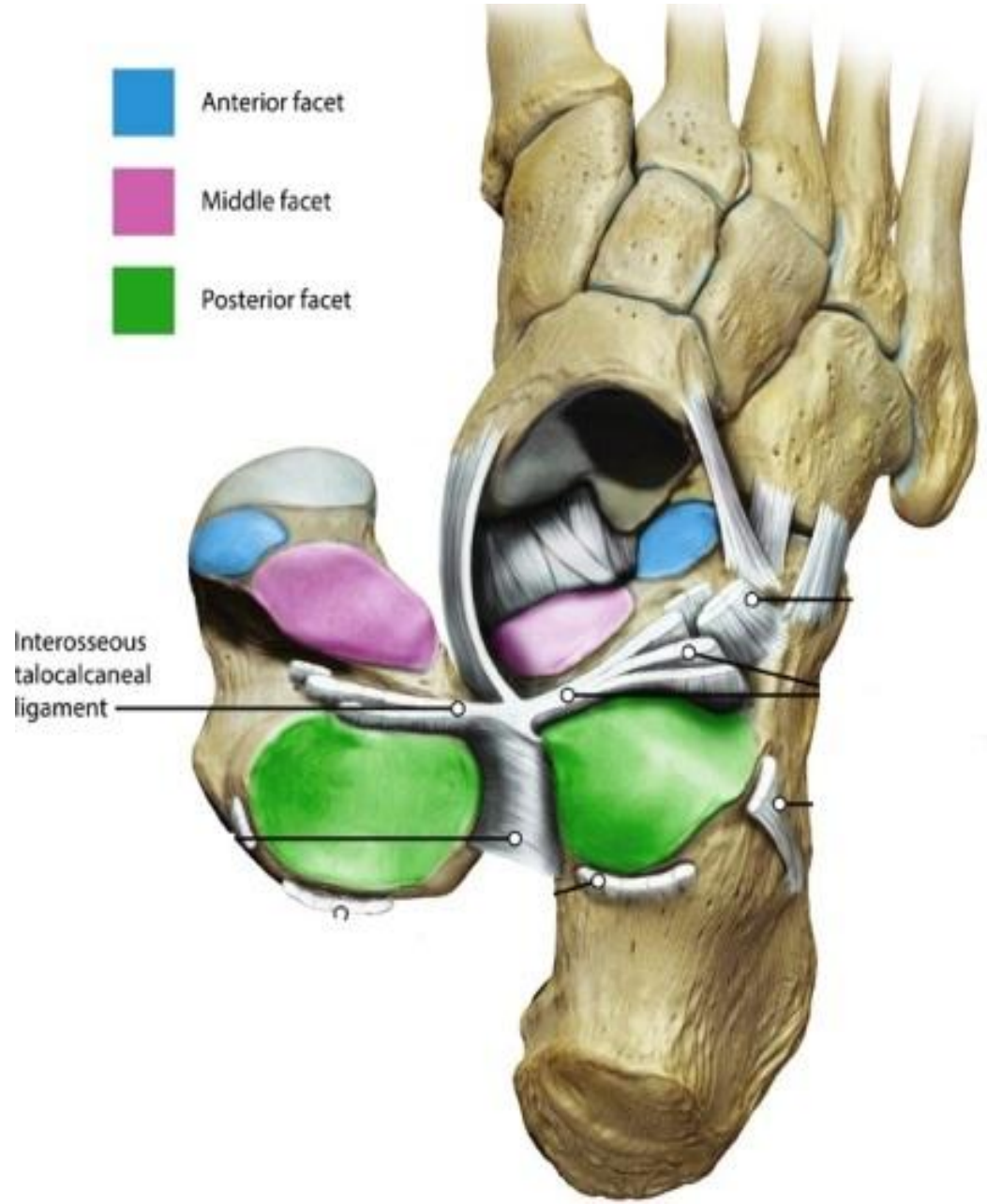
**Type:** synovial

**variety:** plane

**Articular parts:**

lower surface of body of talus

upper surface of calcaneus



# JOINTS OF FOOT

## 2- TALOCALCANEONAVICULAR JOINT

**Type:** synovial

**variety:** Ball & socket

**Articular parts:**

a- Ball:- is formed by the head of the talus.

b- Socket:- is formed by

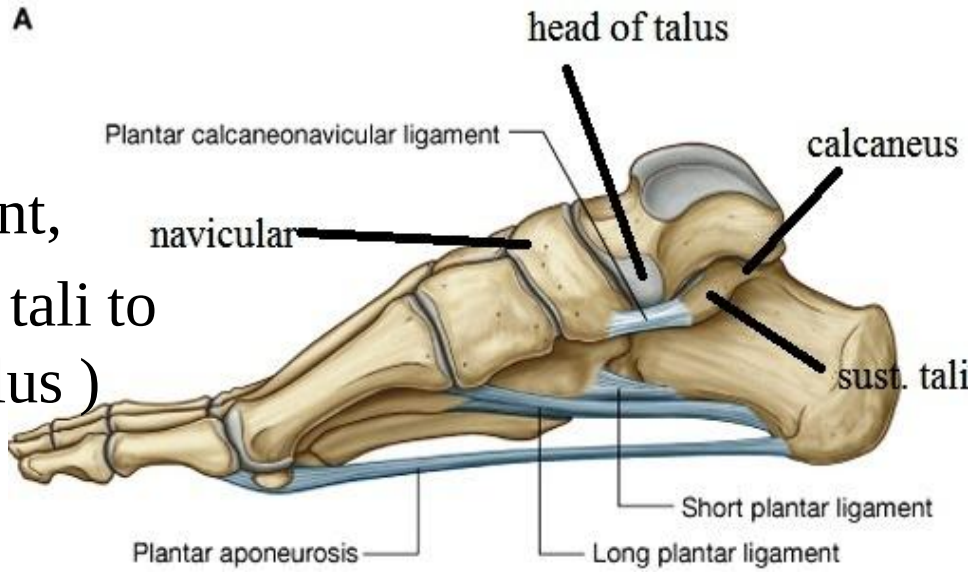
- navicular bone,

-upper surface of the spring ligament,

(which extends from sustantaculum tali to navicular bone it support head of talus )

-sustentaculum tali,

-superior surface of the calcaneus



# JOINTS OF FOOT

## Movements

### 1- Inversion

-medial rotation of the foot so the sole looks inwards

- It is done by

a) Tibialis anterior

b) Tibialis posterior.

### 2- Everson:

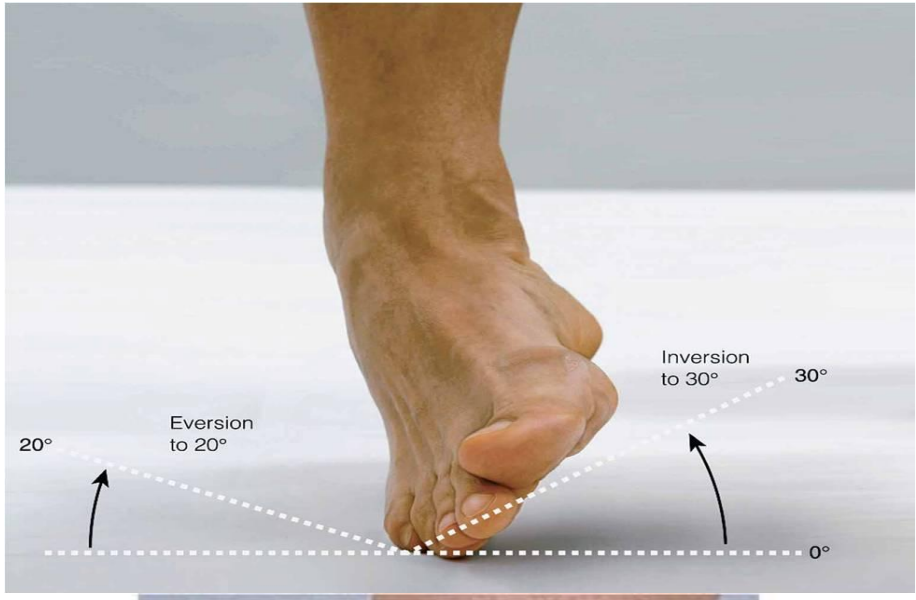
-Lateral rotation of the foot so the sole looks outwards

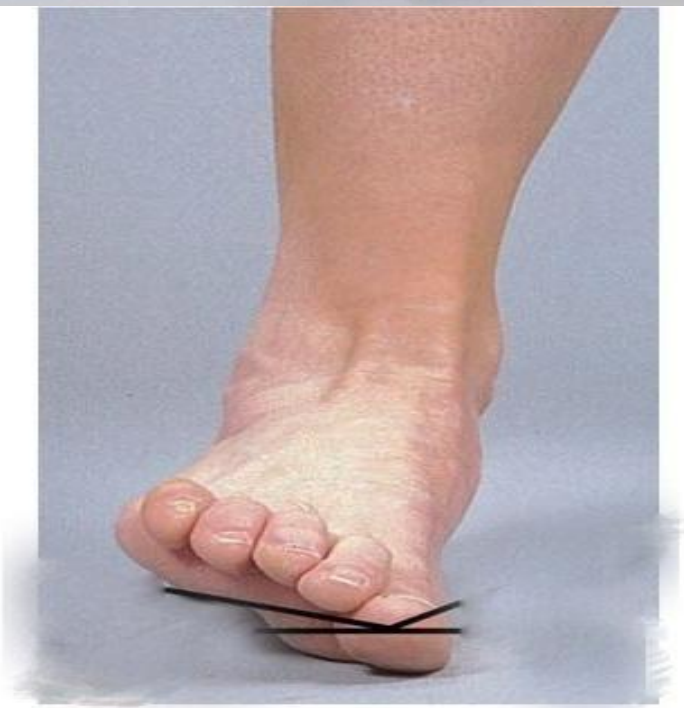
-It is done by

a) Peroneus longus.

b) Peroneus brevis.

c) Peroneus tertius.



eversion

# TIBIFIBULAR JOINTS

# TIBIOFIBULAR JOINTS

**1- superior tibiofibular**

**Type:** synovial **variety:** plane

**Articular parts:**

Head of fibula

Fibular facet on lateral condyle of tibia

**Movements:-** sliding

**2- middle tibiofibular**

the interosseous membrane( )tibia & fibula

**3- inferior tibiofibular**

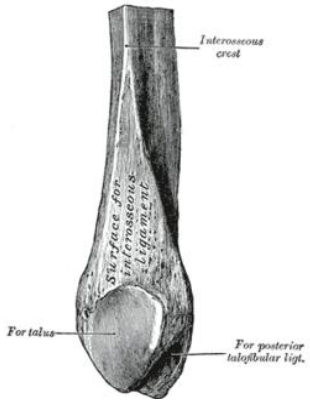
**Type:** fibrous

**Articular parts:**

Rough area on medial side of lower part of fibula

Fibular notch on lower end of tibia

**Movements:-** no





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