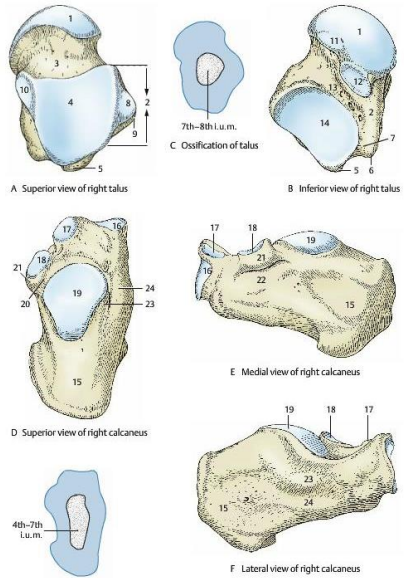




A láb ízületei és mozgásai

dr. Hanics János

Csontok



A Superior view of right talus

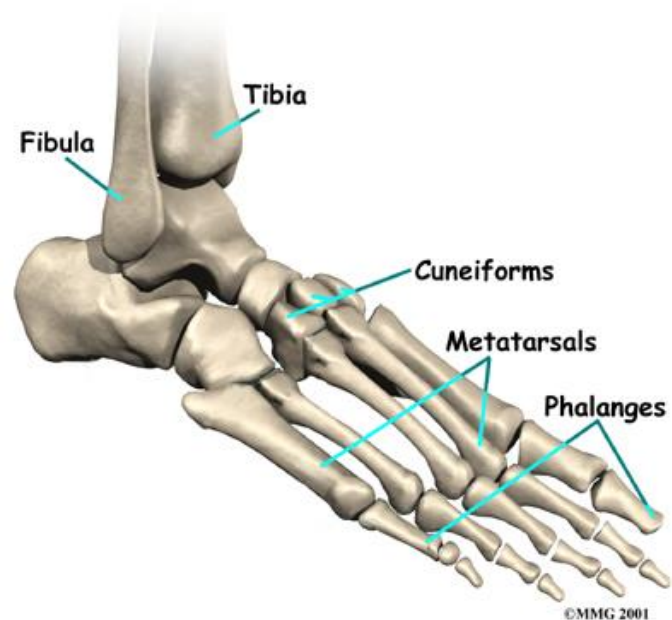
B Inferior view of right talus

C Ossification of talus

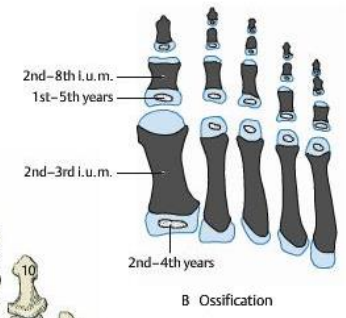
D Superior view of right calcaneus

E Medial view of right calcaneus

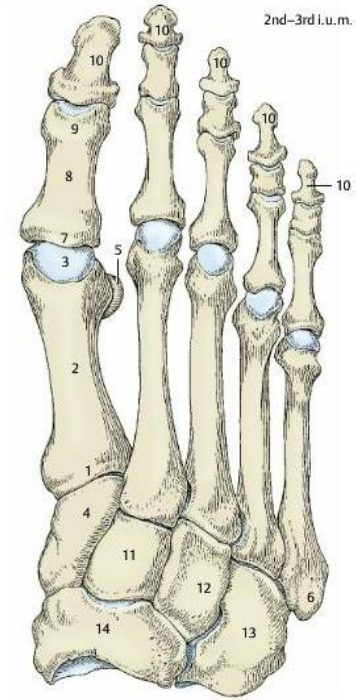
F Lateral view of right calcaneus



©MMG 2001



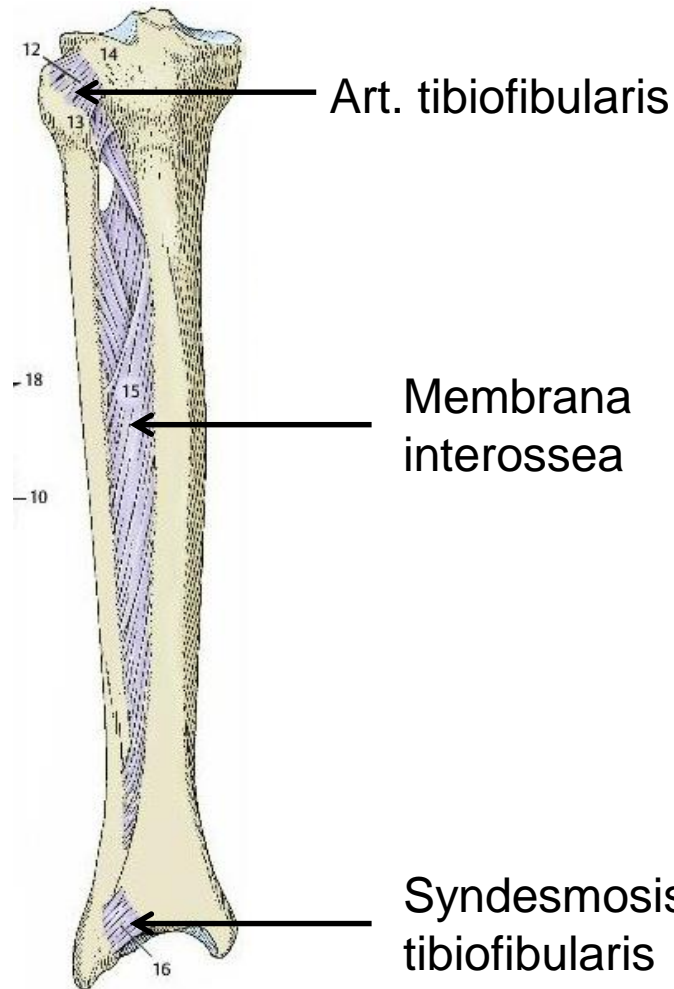
B Ossification



A Dorsal view of metatarsals and phalanges of right foot

Dorsalis nézet

Lábszár összeköttetései



D Connections between tibia and fibula

A láb összeköttetései

1) Felső ugróizület (art. talocruralis)

2) Alsó ugróizület (art. talotarsalis)

3) Art. calcaneocuboidea

4) Art. cuneonavicularis

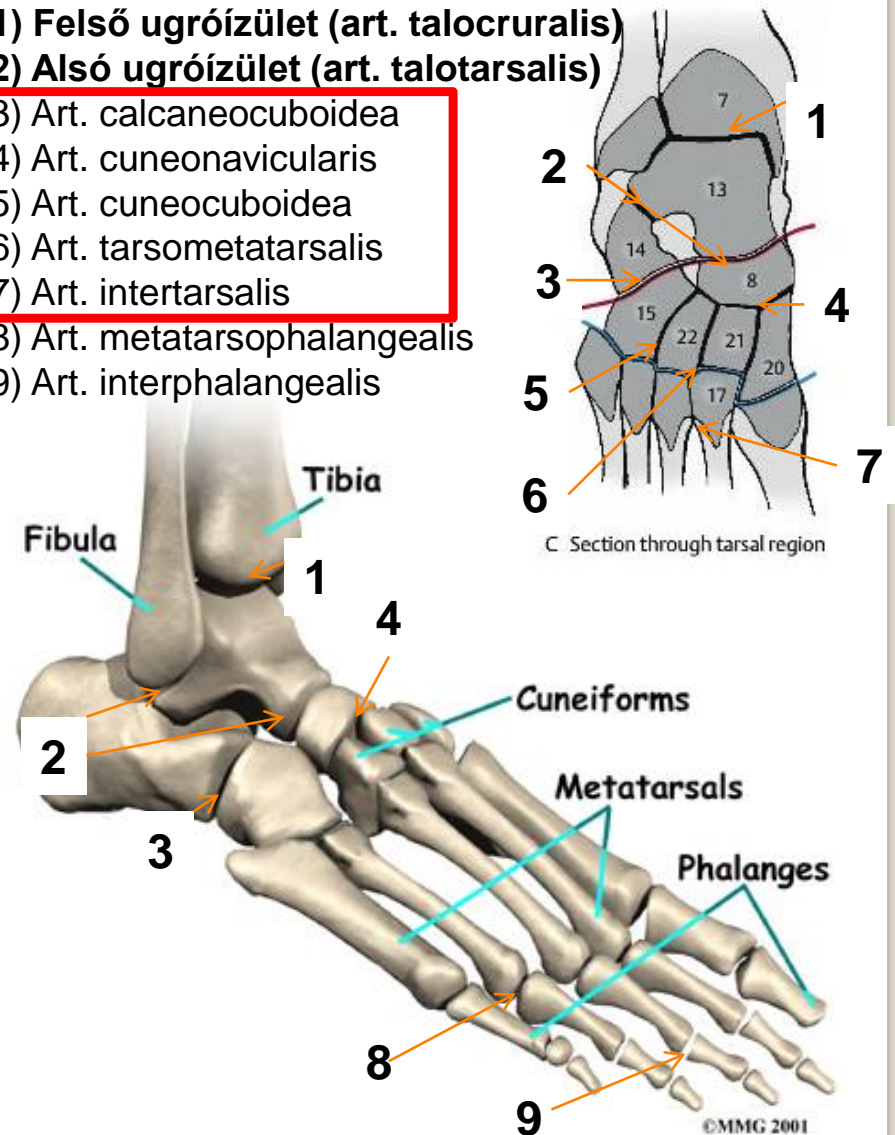
5) Art. cuneocuboidea

6) Art. tarsometatarsalis

7) Art. intertarsalis

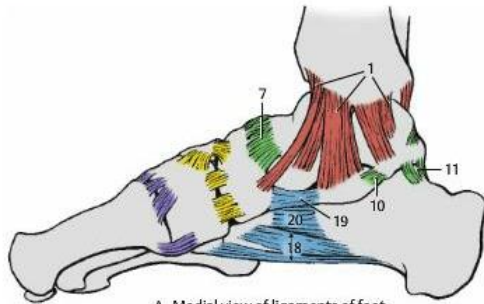
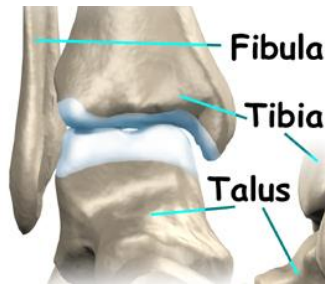
8) Art. metatarsophalangealis

9) Art. interphalangealis



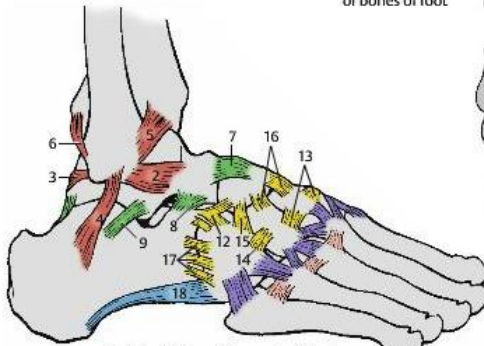
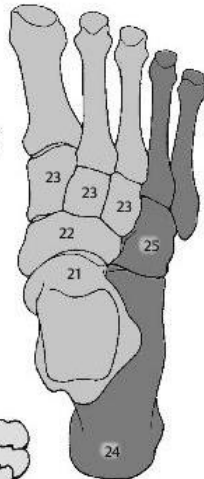
A láb ízületei – felső ugróízület (art. talocruralis)

előnézet

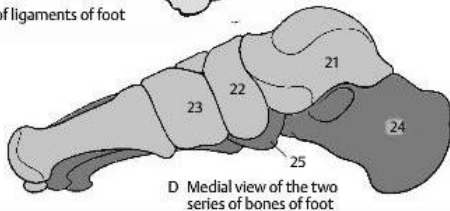


A Medial view of ligaments of foot

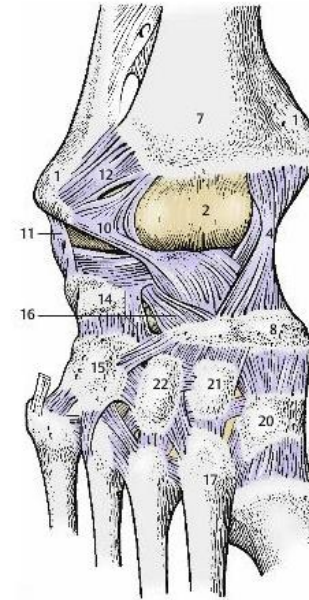
C View from above of the two series of bones of foot



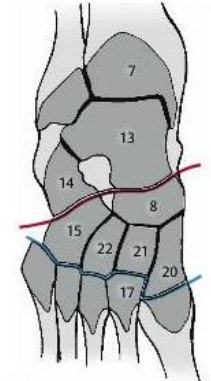
B Lateral view of ligaments of foot



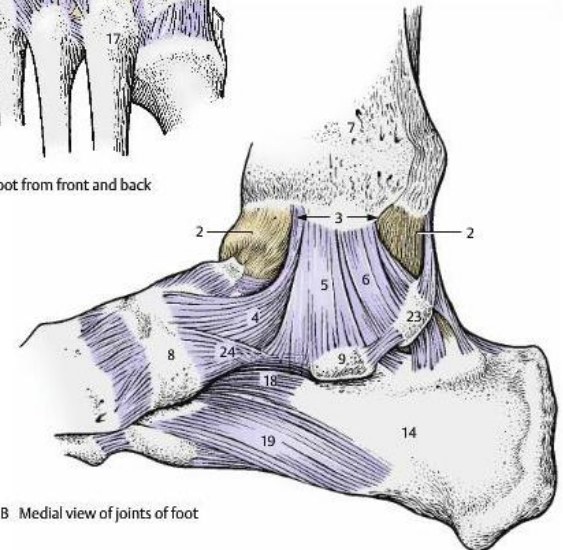
D Medial view of the two series of bones of foot



A Joints of foot from front and back



C Section through tarsal region



B Medial view of joints of foot

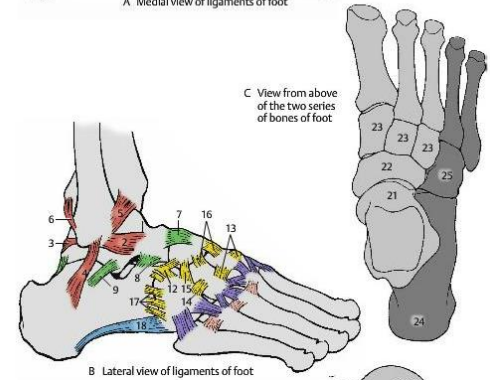
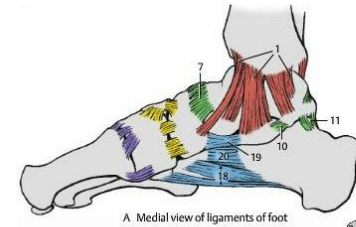
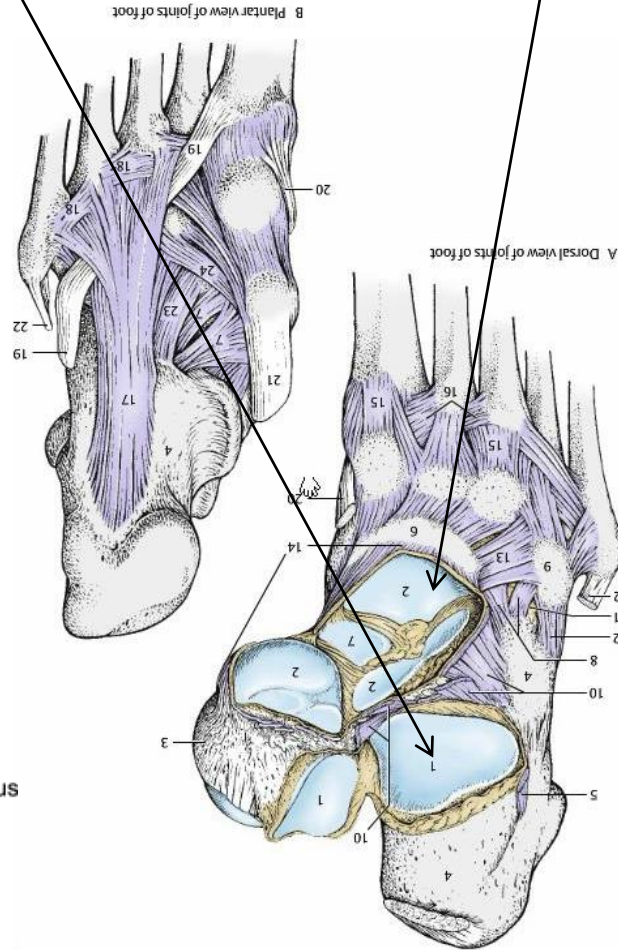
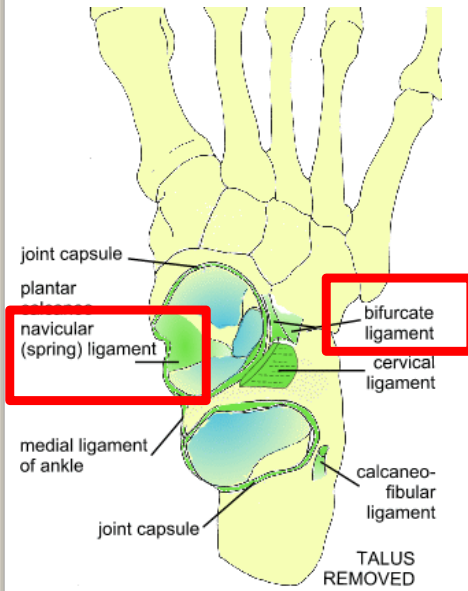
Medialis szalag: lig. deltoideum

Lateralis szalag: lig. talofibulare ant. et post.,
lig. calcaneofibulare

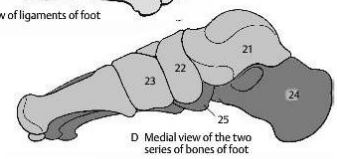
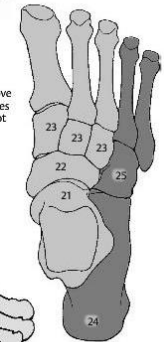
Gynglymus ízület collataralis szalagokkal

A láb ízületei – alsó ugróízület

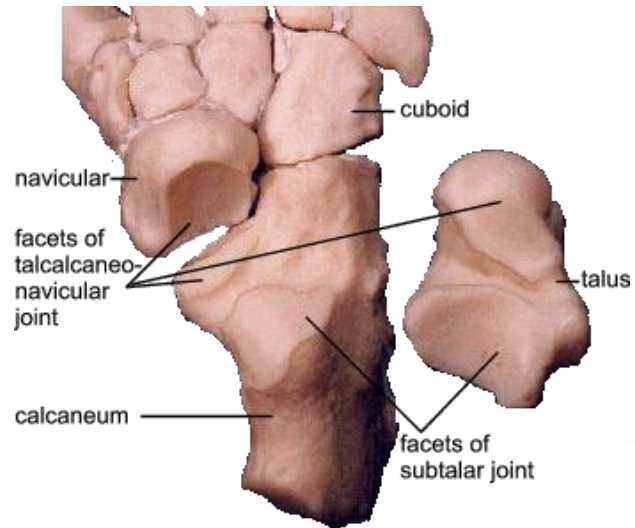
art. subtalaris + art. talocalcaneonavicularis



C View from above of the two series of bones of foot



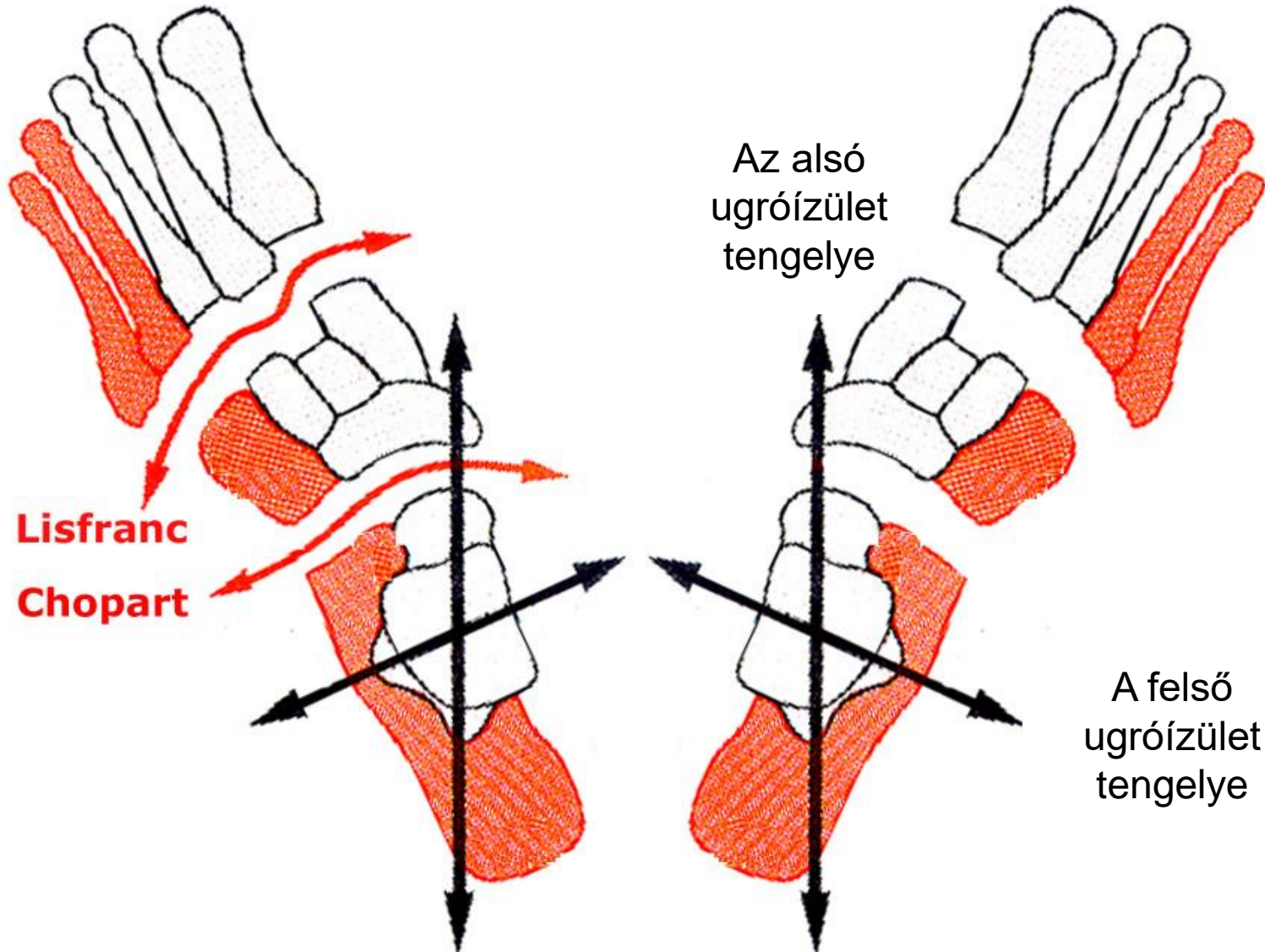
D Medial view of the two series of bones of foot



Trochoid ízület

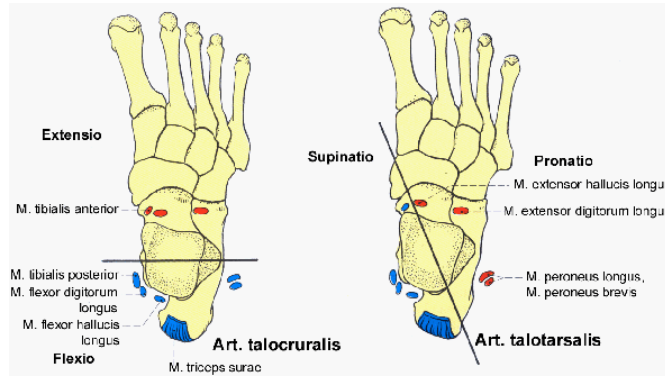
Az alsó és felső ugróizület tengelyei

gynglimus + trochoidea = trochogynglimus

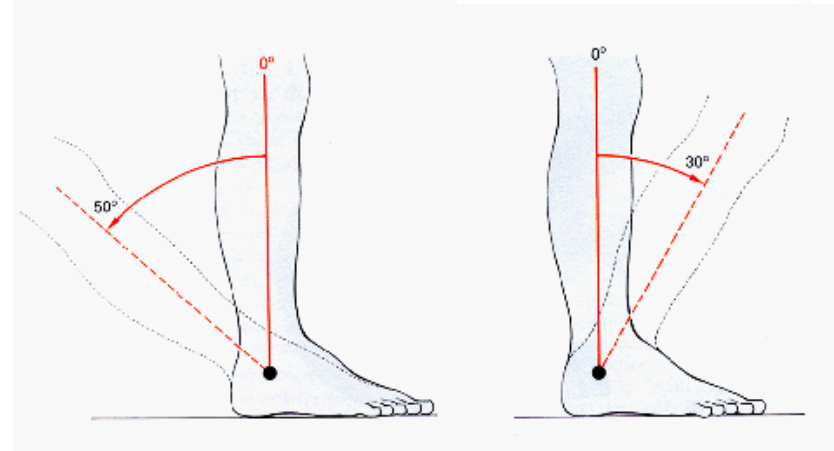
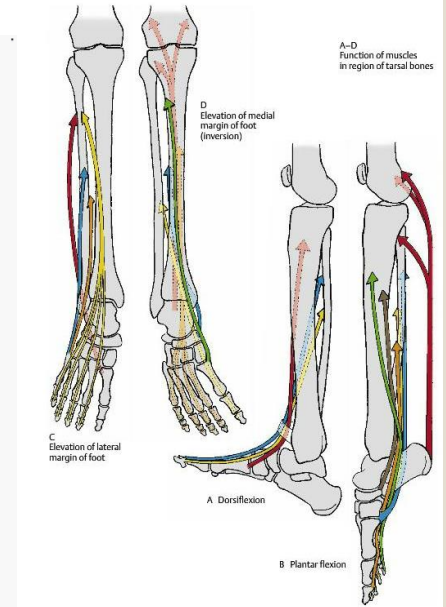
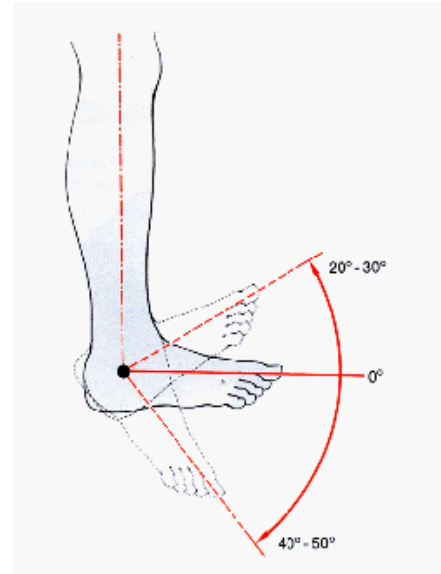
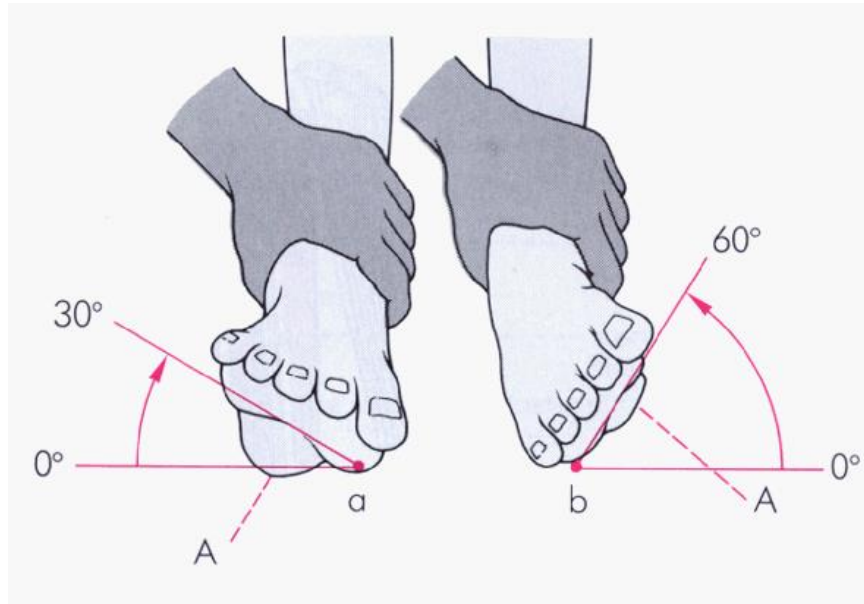


Mozgások

Dorsalis (extensorok) és plantaris (flexorok) flexio



Pronatio - supinatio



A lábra ható izmok működése

A láb dorsalflexióját végző izmok: (25-45°)

m. tibialis anterior,
m. extensor digitorum longus,
m. extensor hallucis longus.

A láb plantarflexióját végző izmok: (30-60°)

m. triceps surae,
m. flexor hallucis longus,
m. peroneus longus,
m. tibialis posterior,
m. flexor digitorum longus,
m. peroneus brevis.

A láb supinator izmai (egyidejűleg adductorok, plantarflexorok): (30°)

m. triceps surae,
m. tibialis posterior,
m. flexor hallucis longus,
m. flexor digitorum longus,
m. tibialis anterior,
m. extensor hallucis longus.

A láb pronator izmai (egyidejűleg abductorok és dorsalflexorok): 30°

m. peroneus longus,
m. peroneus brevis,
m. extensor digitorum longus,
m. peroneus tercius.

Pronatio

M. peronaeus longus
M. peronaeus brevis
M. extensor digitorum longus

Dorsalextensio

M. tibialis anterior
M. extensor digitorum longus
M. extensor hallucis longus



Plantarflexio

M. triceps surae
M. peronaeus longus
M. peronaeus brevis
M. flexor hallucis longus
M. flexor digitorum longus
M. tibialis posterior

Supinatio

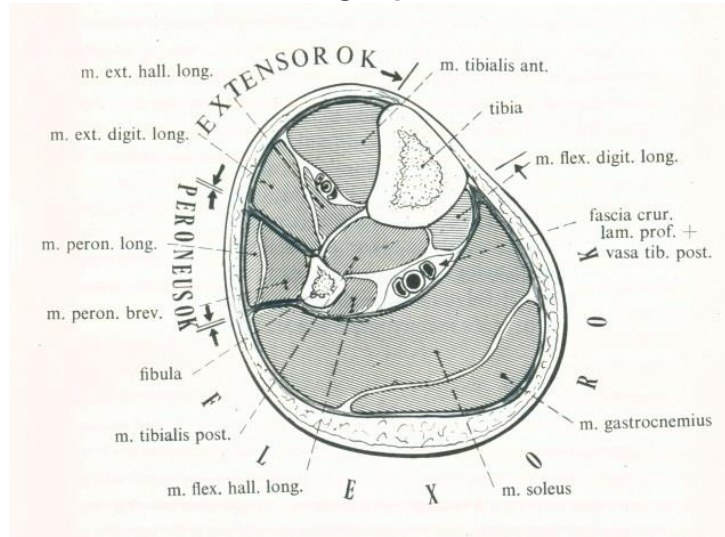
M. triceps surae
M. tibialis posterior
M. flexor hallucis longus
M. flexor digitorum longus
M. tibialis anterior

A lábszár izmainak elhelyezkedése

Vent.



Lat.



Dors.

Med.



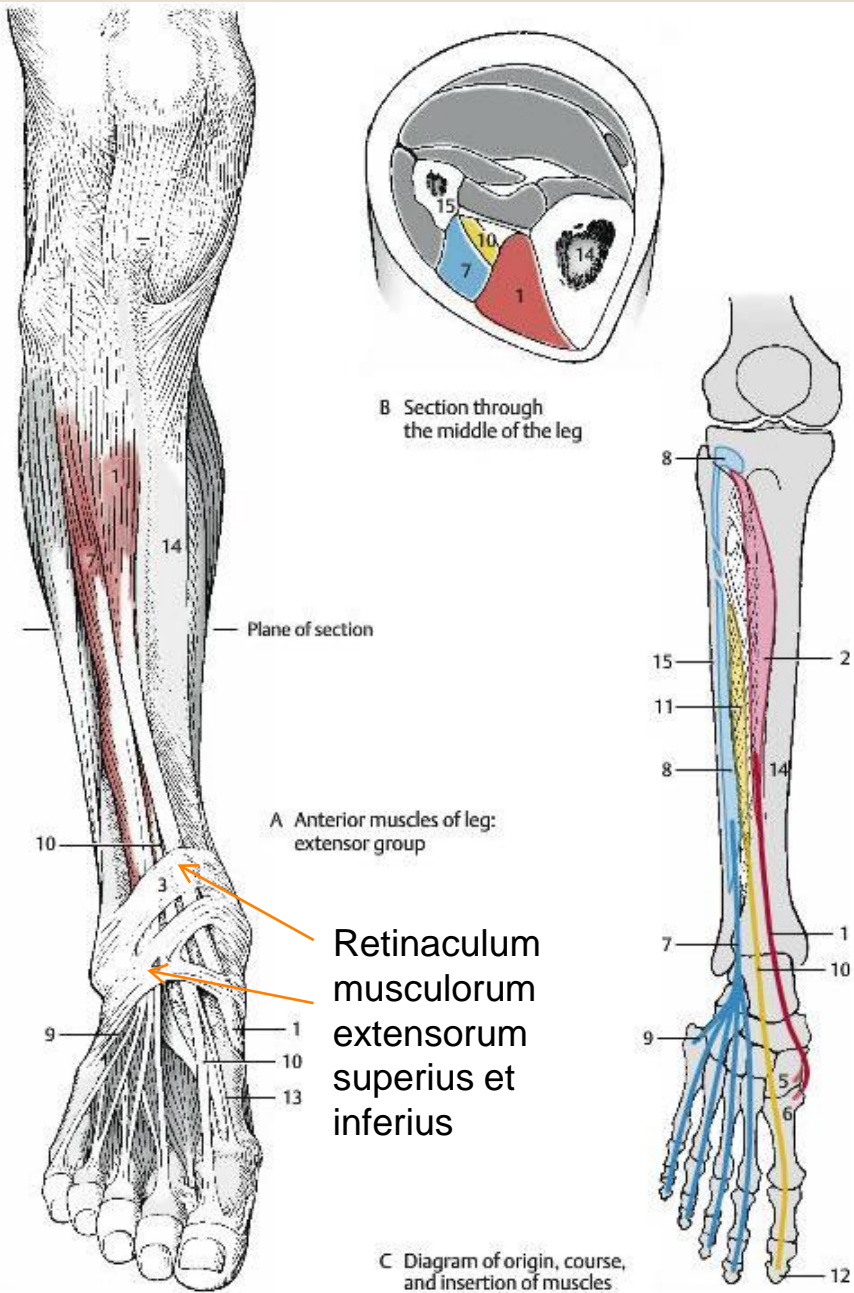
flexorok

peroneusok
extensorok

flexorok

Dorsalis nézet

Ventralis nézet

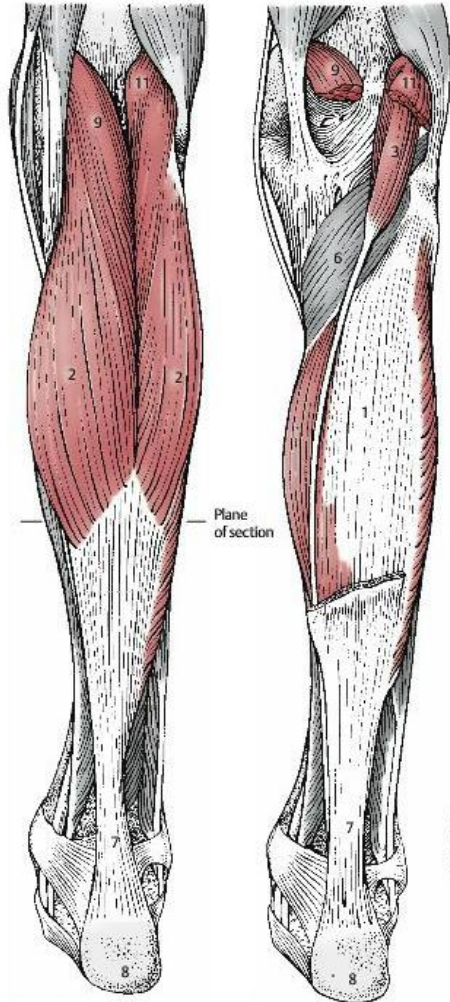


A láb extensorai

- m. tibialis anterior
- m. extensor hallucis longus
- m. extensor digitorum longus

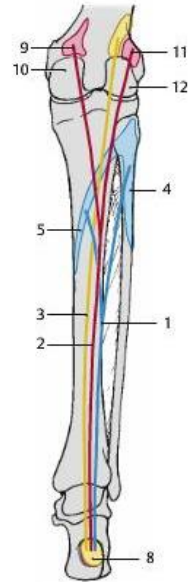
Felső réteg (3)

m. gastrocnemius,
m. soleus,
m. plantaris

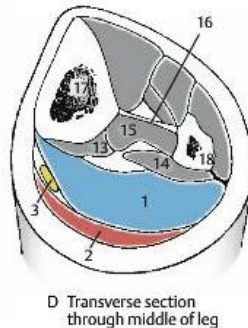


A Superficial layer of posterior leg muscles: triceps surae muscle

B Soleus (gastrocnemius removed)



C Diagram of origin, course, and insertion of triceps surae

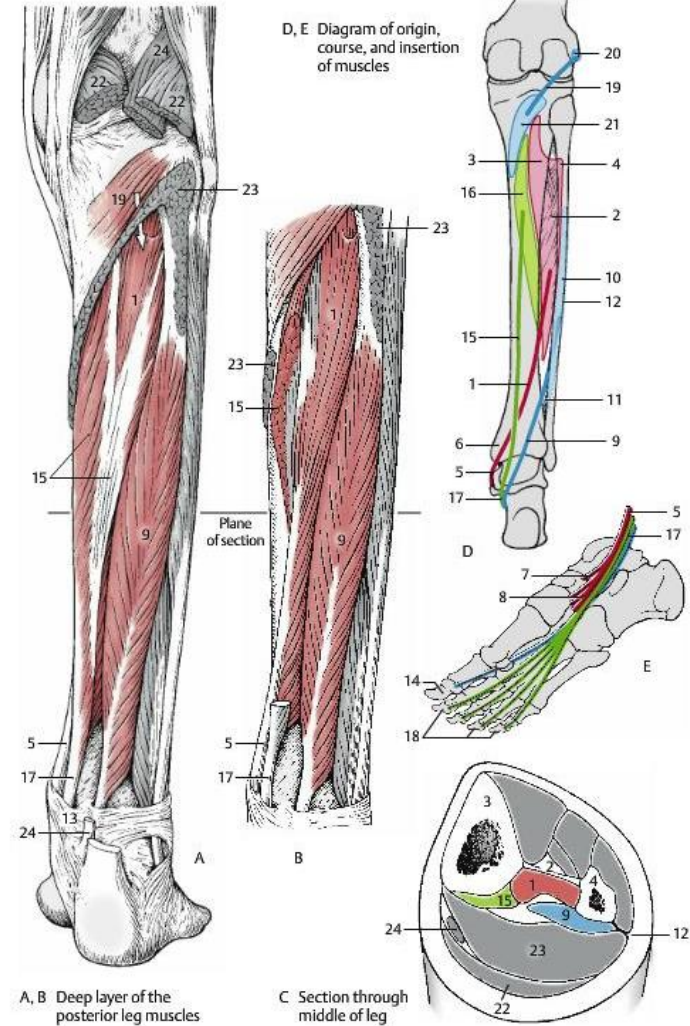


D Transverse section through middle of leg

A láb flexorai

Mély réteg (3)

m. flexor digitorum longus,
m. tibialis posterior,
m. flexor hallucis longus

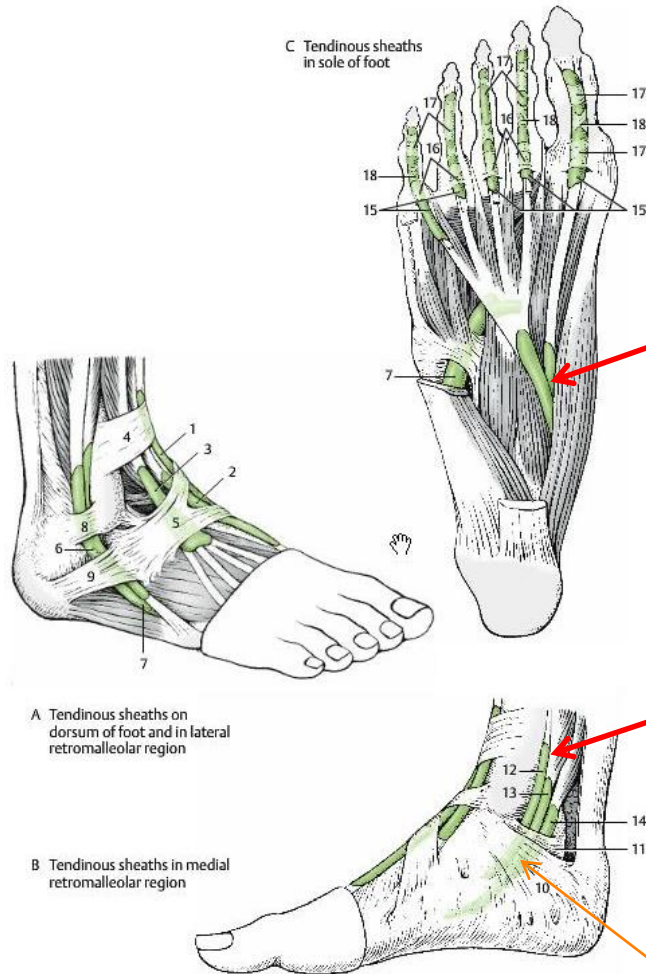


A, B Deep layer of the posterior leg muscles

C Section through middle of leg

D, E Diagram of origin, course, and insertion of muscles

Retinaculum musculorum flexorum, ínhüvelyek és chiasmák



chiasma plantaris – a m. flexor digitorum longus ína felszínesen keresztezi m. flexor hallucis longus tendóját a talp mélyebb rétegében.

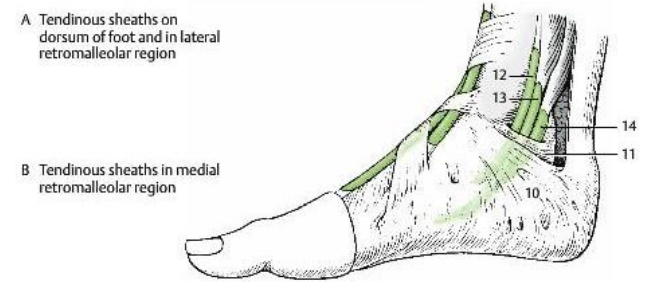
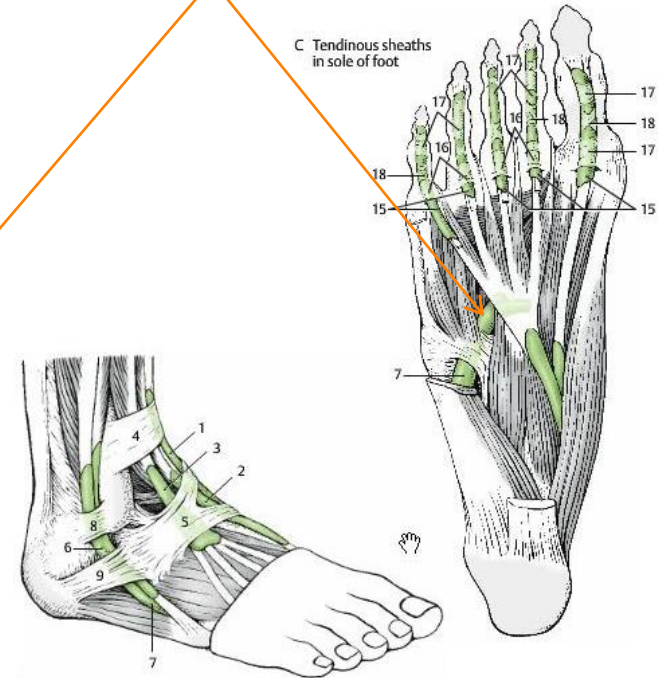
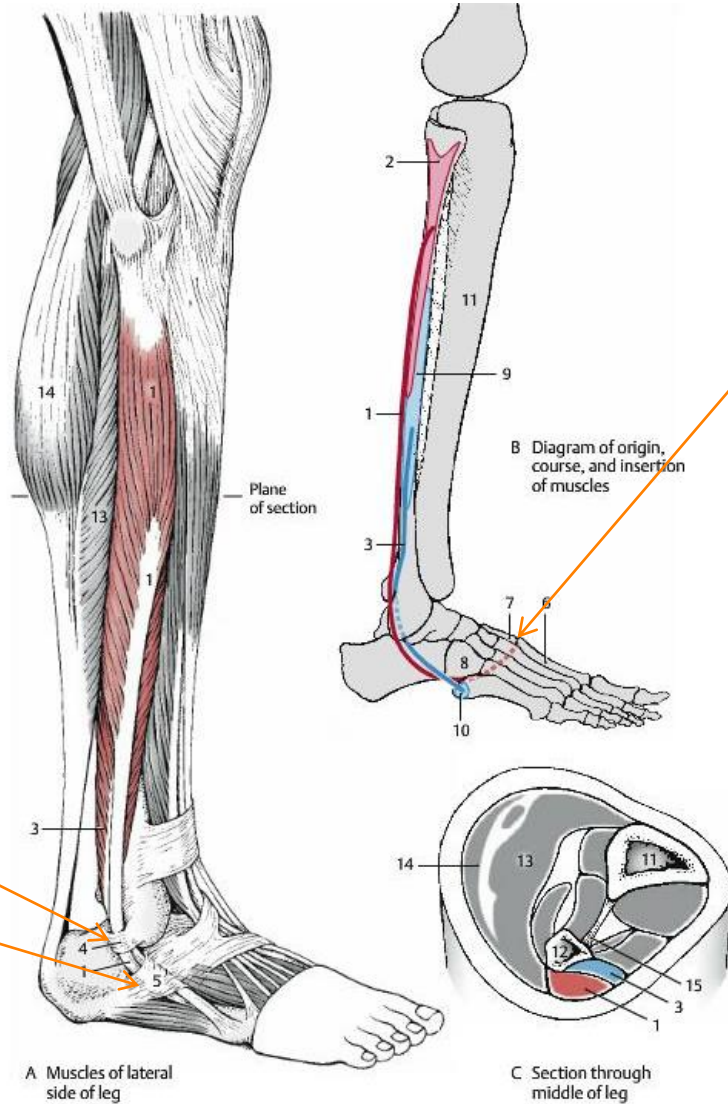
chiasma crurale – a medialis malleolus fölött a m. flexor digitorum longus ína felszínesen keresztezi m. tibialis posterior tendóját.

Retinaculum musculorum flexorum

A láb izmai – peroneus (fibularis) izmok

m. peroneus longus et brevis

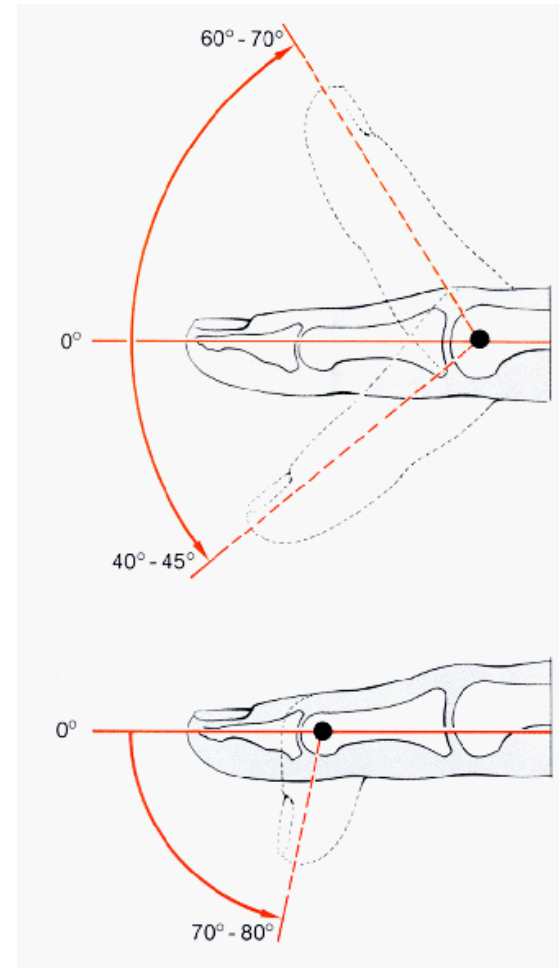
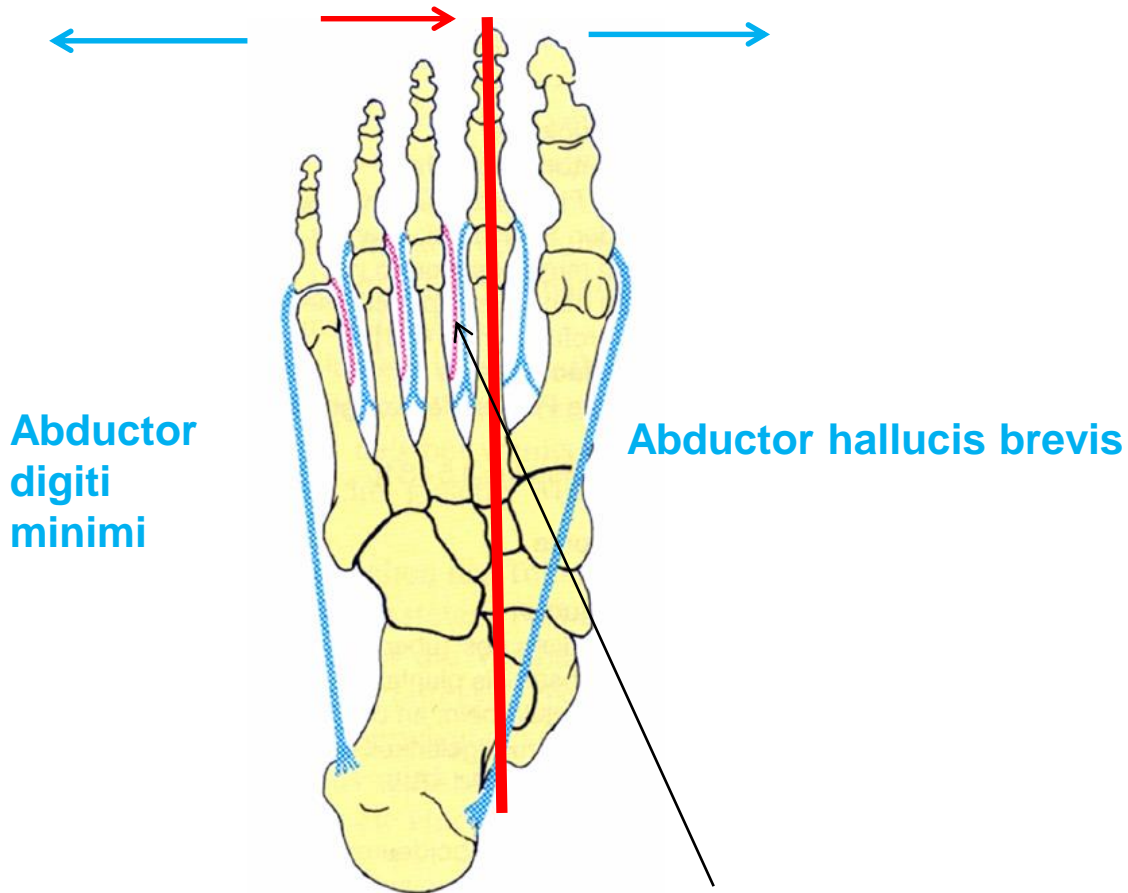
Retinaculum musculorum fibularium superius et inferius



A lábujjak mozgásai

Plantaris és dorsalis flexio

Abductio (interossei dorsales) – Adductio (interossei plantares)



A lábujjakra ható izmok

Az öregujj hajlító (plantarflexiót végző) izmai:
(40°)

m. flexor hallucis longus,
m. flexor hallucis brevis,
m. abductor hallucis,
m. adductor hallucis.

Az öregujj abductor izma:

m. abductor hallucis.

A II-V. lábujj hajlító (plantarflexiót végző) izmai: (40°)

m. flexor digitorum longus,
m. flexor digitorum brevis,
mm. interossei,
mm. lumbricales,
m. flexor digiti minimi brevis (kisujj),
m. abductor digiti minimi (kisujjnál).

A II-V. lábujj távolító (abductor) izmai:

mm. interossei dorsales,
m. abductor digiti minimi (kisujjnál).

Az öregujj feszítő (dorsalflexiót végző) izmai: (55°)

m. extensor hallucis longus,
m. extensor hallucis brevis.

Az öregujj adductor izma:

m. adductor hallucis.

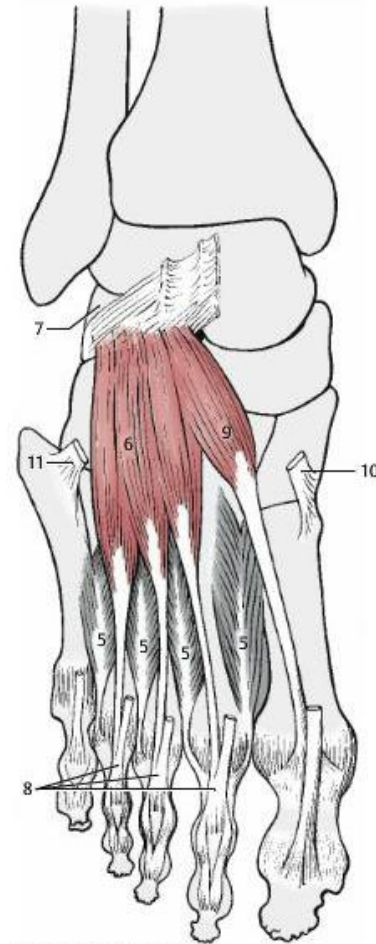
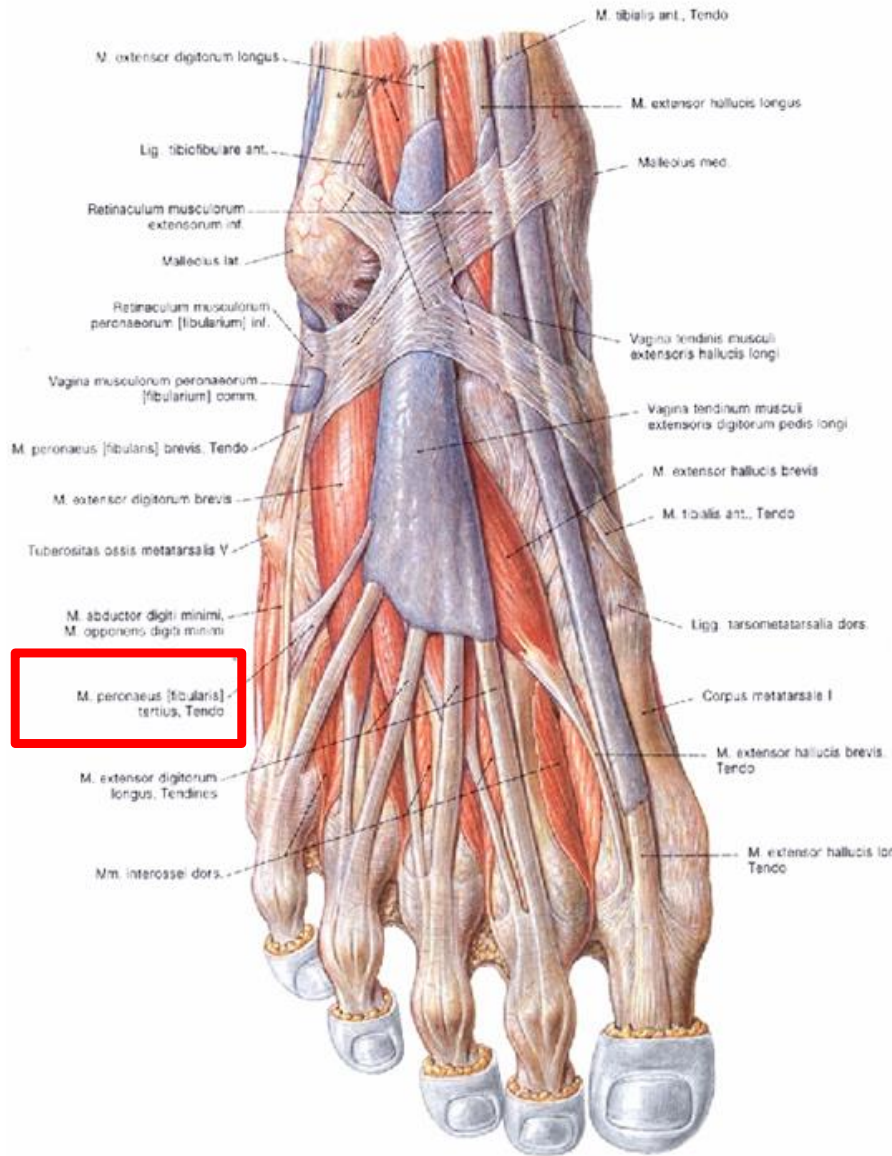
A II-V. lábujj feszítő (dorsalflexiót végző) izmai:
(55°)

m. extensor digitorum longus,
m. extensor digitorum brevis.

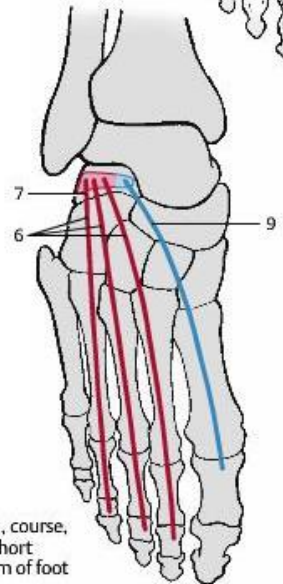
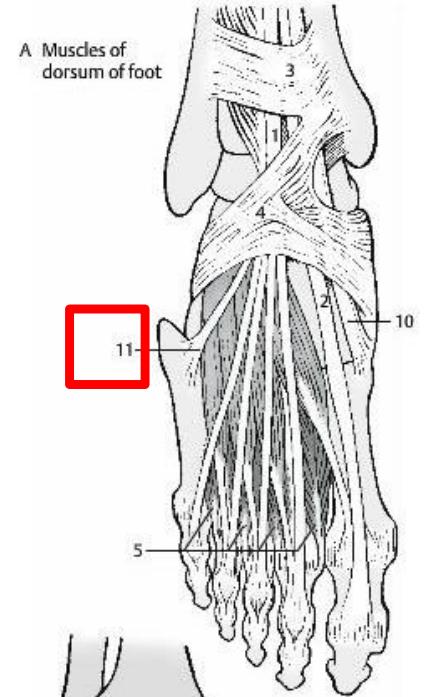
A II-V. lábujj közelítő (adductor) izmai:

mm. interossei plantares,
m. opponens digiti minimi (kisujjnál).

A lábujjak brevis extensorai



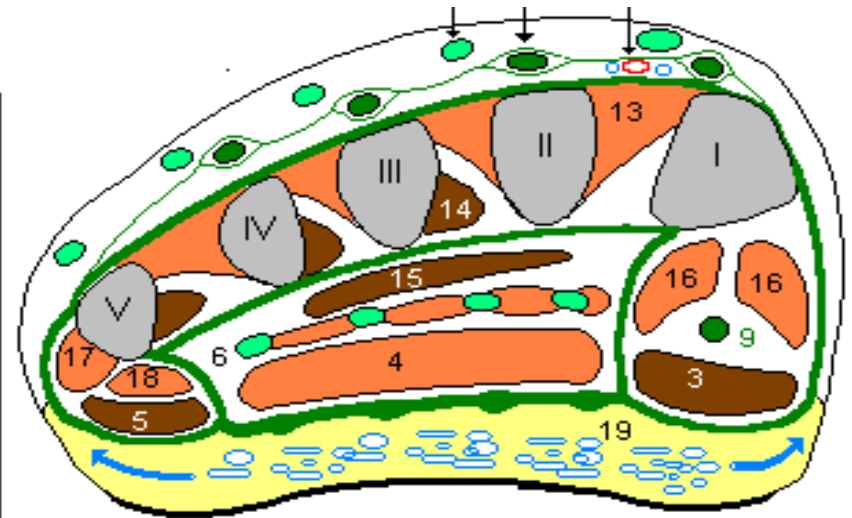
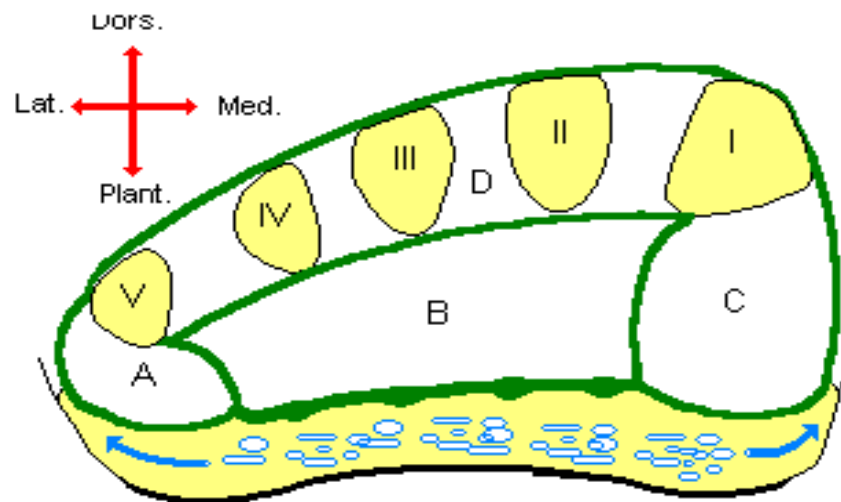
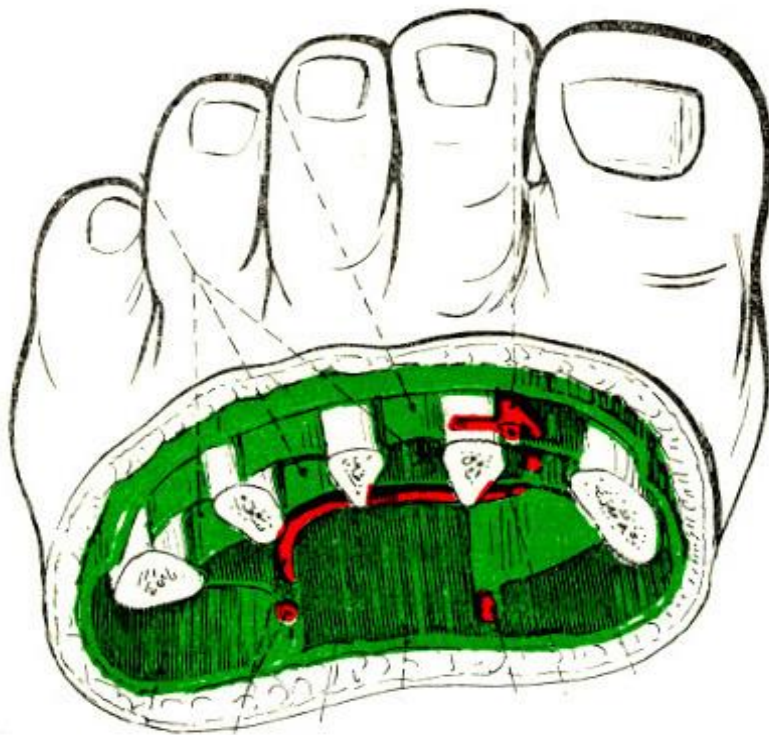
B Intrinsic muscles of dorsum of foot



C Diagram of origin, course, and insertion of short muscles of dorsum of foot

Eminencia plantaris

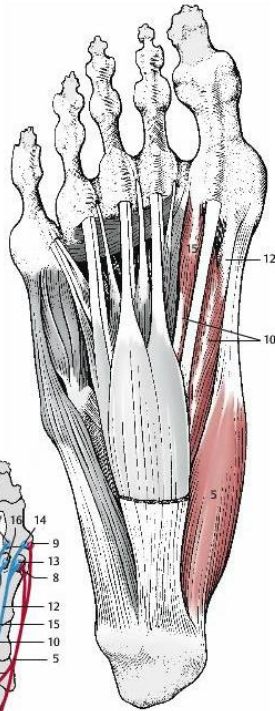
- medialis (C)
- intermedia (B)
- lateralis (A)



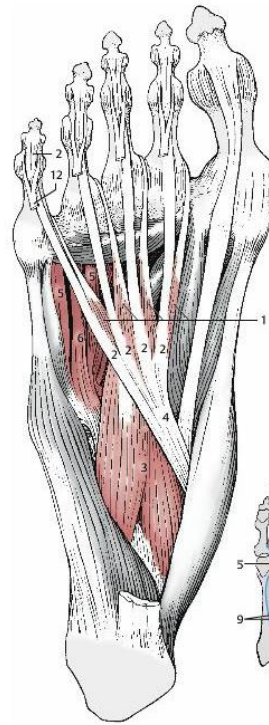
Plantaris izmok



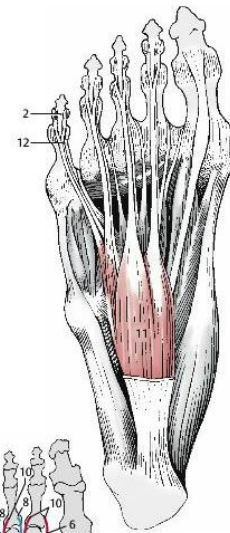
A Plantar aponeurosis



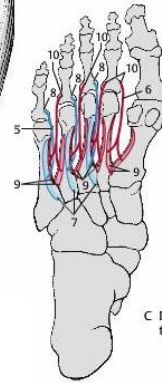
B Muscles in region of great toe; abductor hallucis and flexor hallucis brevis



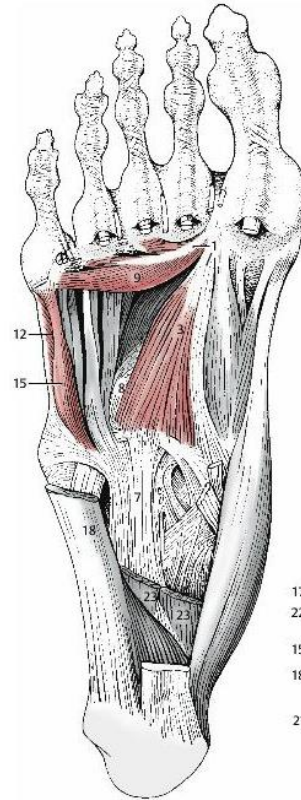
A Intrinsic muscles in middle region of sole of the foot



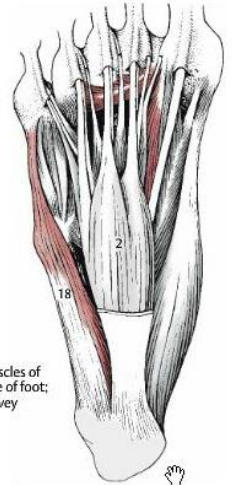
B Flexor digitorum brevis



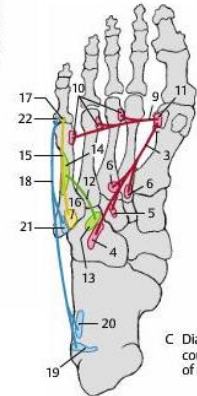
C Diagram of the interossei



A Adductor hallucis muscle and muscles in region of 5th digit, after removal of flexors



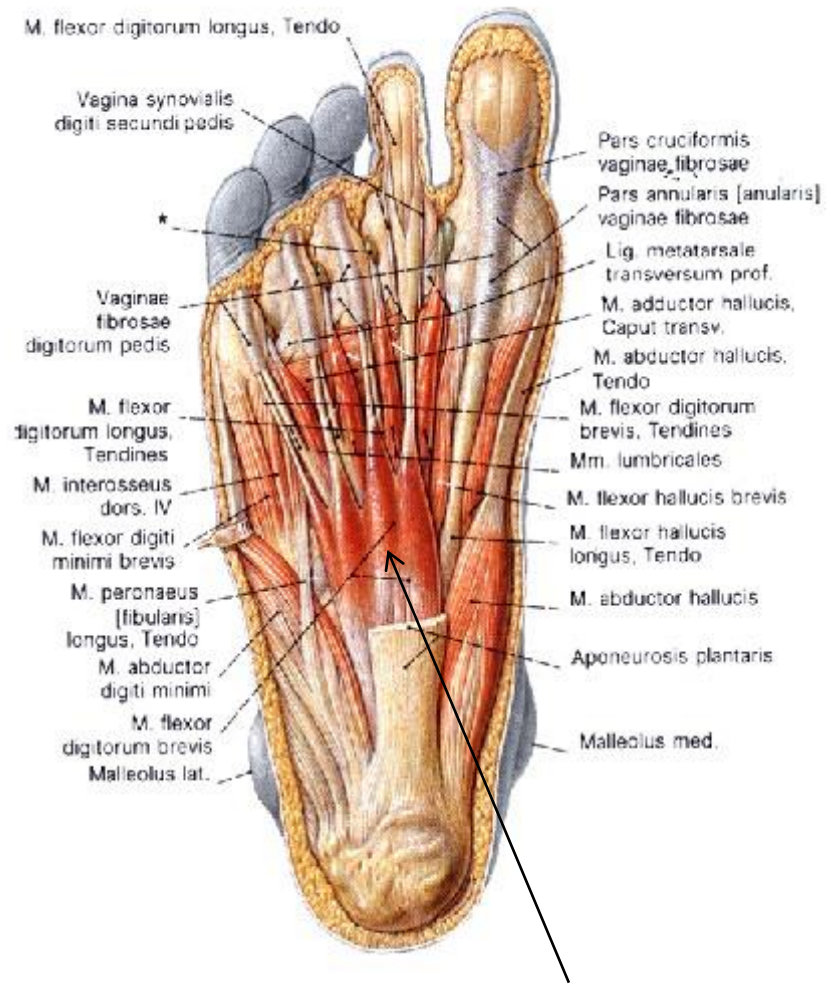
B Muscles of sole of foot; survey



C Diagram of origin, course, and insertion of muscles

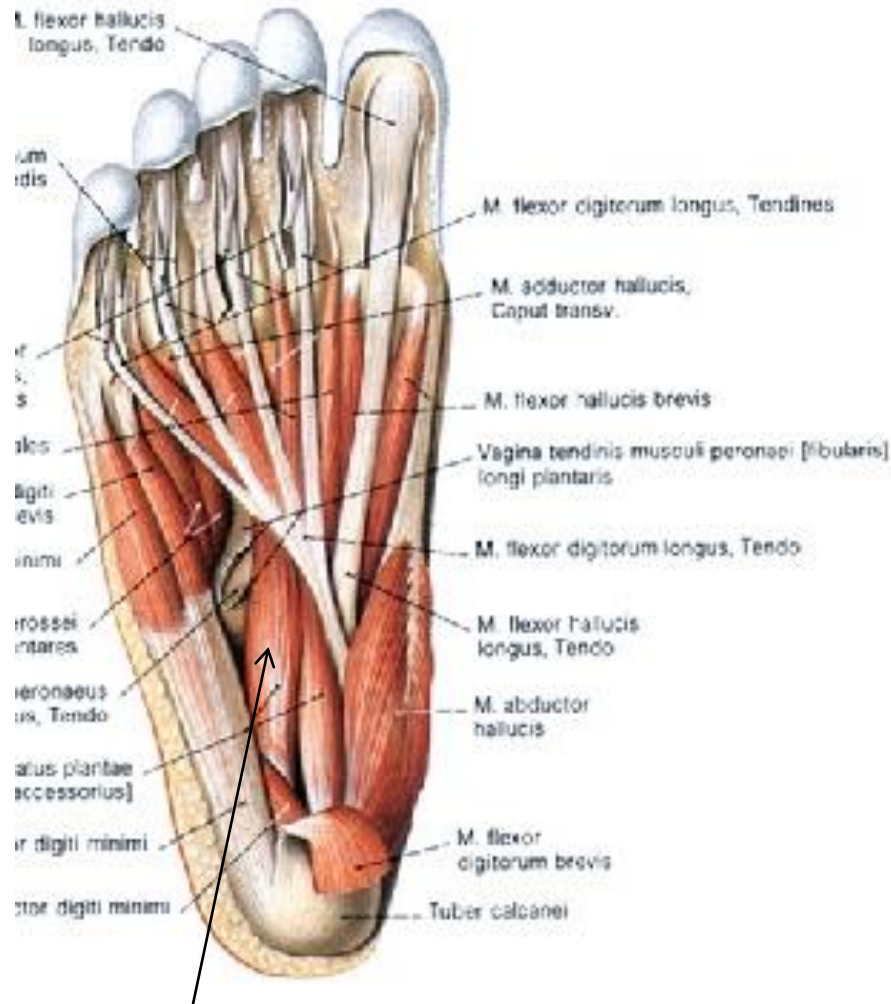
C Diagram of origin, course, and insertion of muscles

A talp felszínes rétegei – aponeurosis plantaris

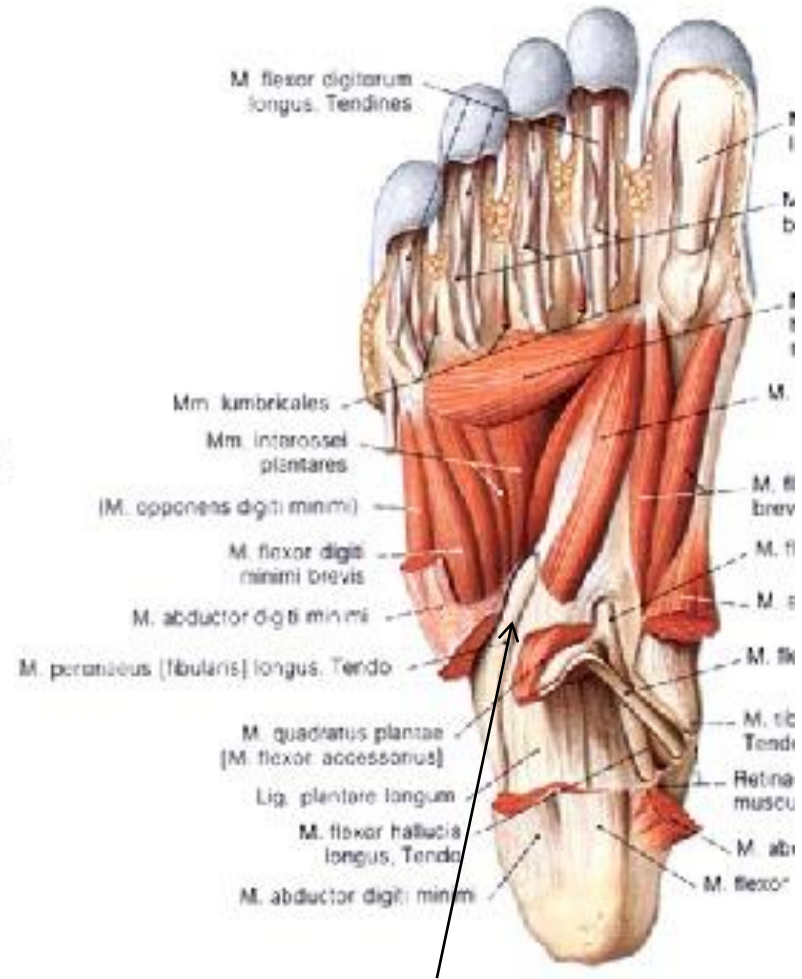


m. flexor digitorum brevis

A talp mély rétegei



m. quadratus plantae



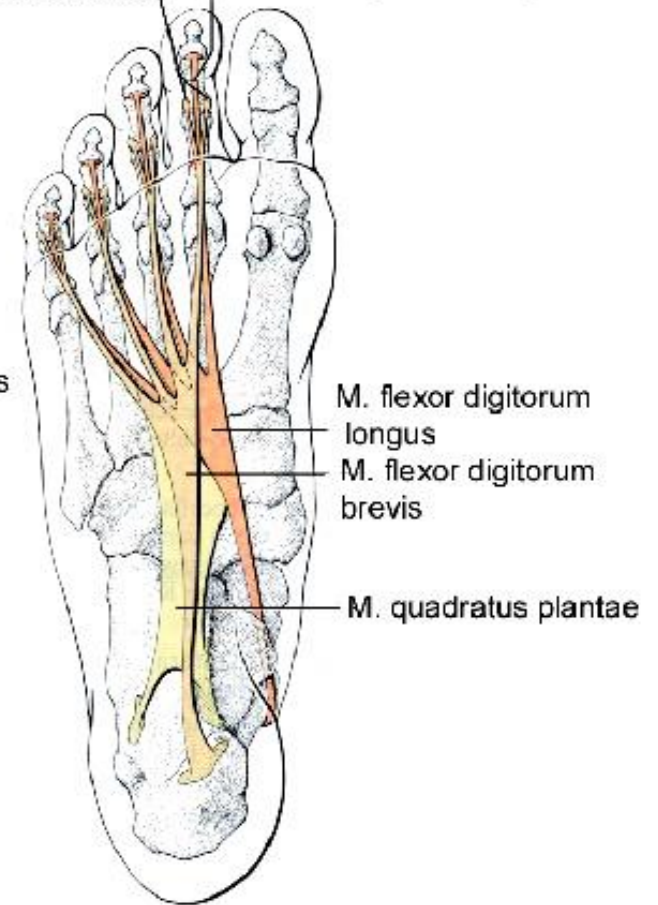
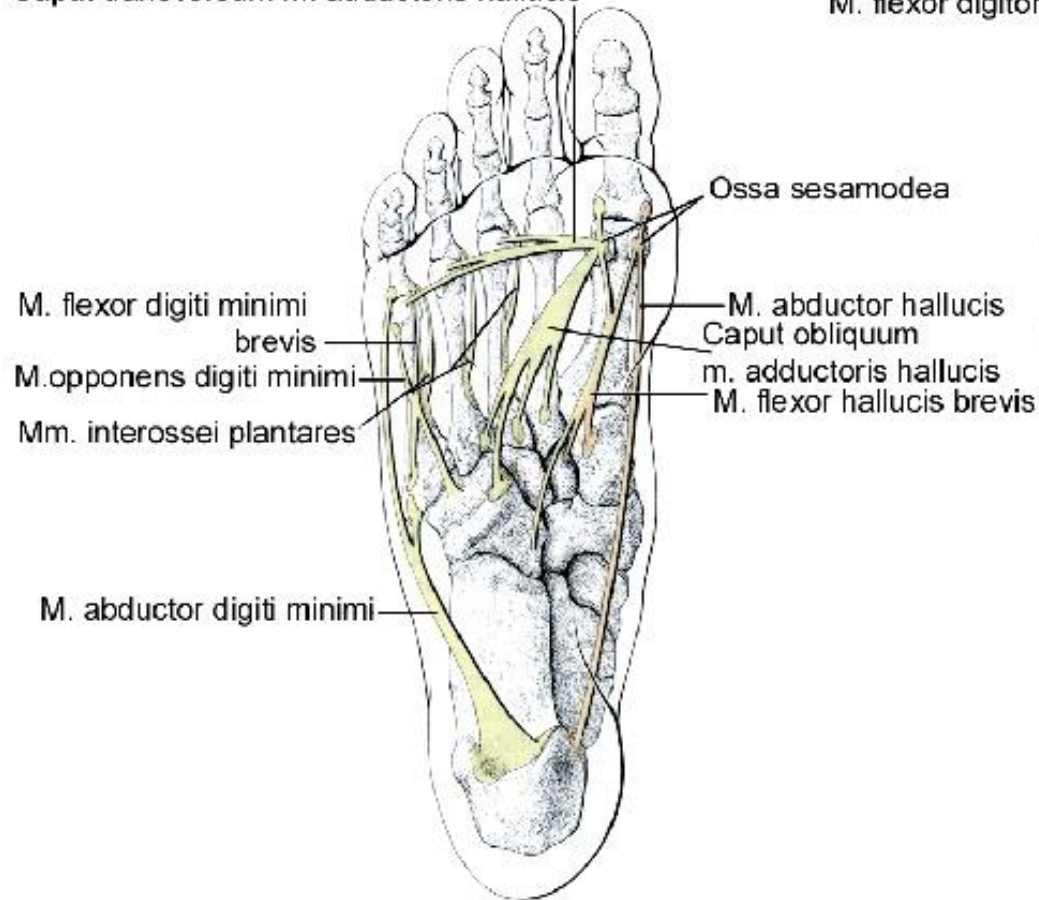
Tendo m. peronei longi

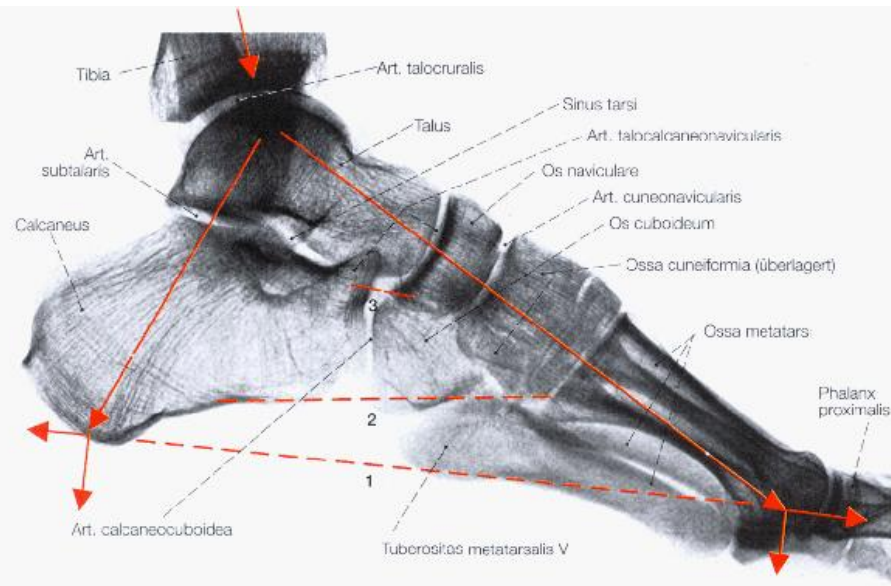
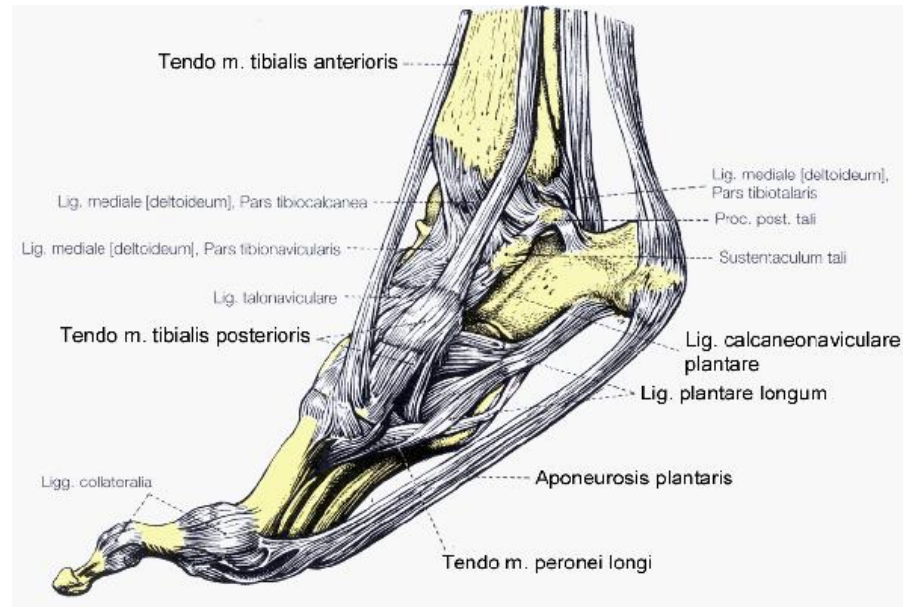
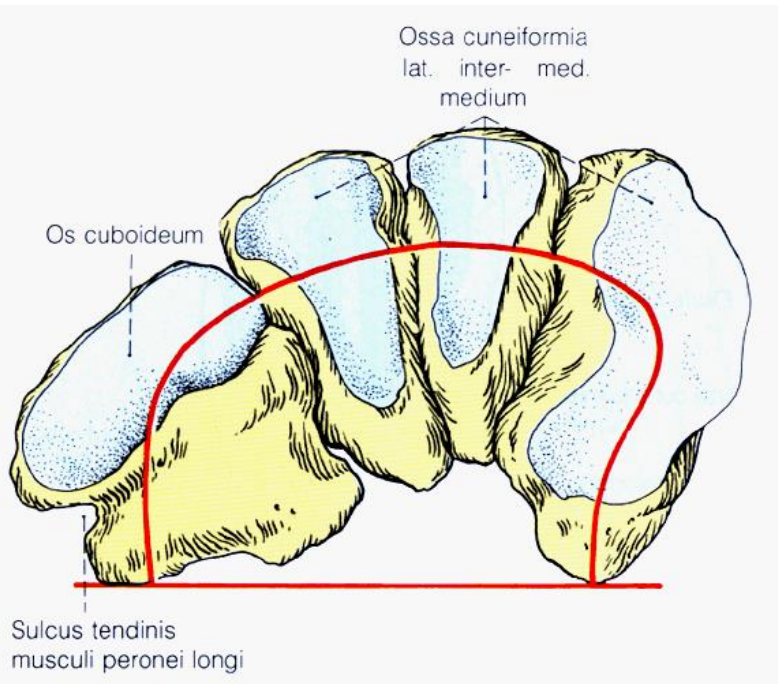
Eredések és tapadások

Caput transversum m. adductoris hallucis

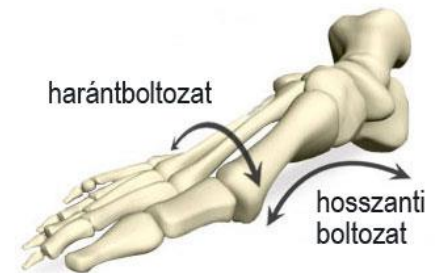
M. flexor digitorum brevis

M. flexor digitorum longus

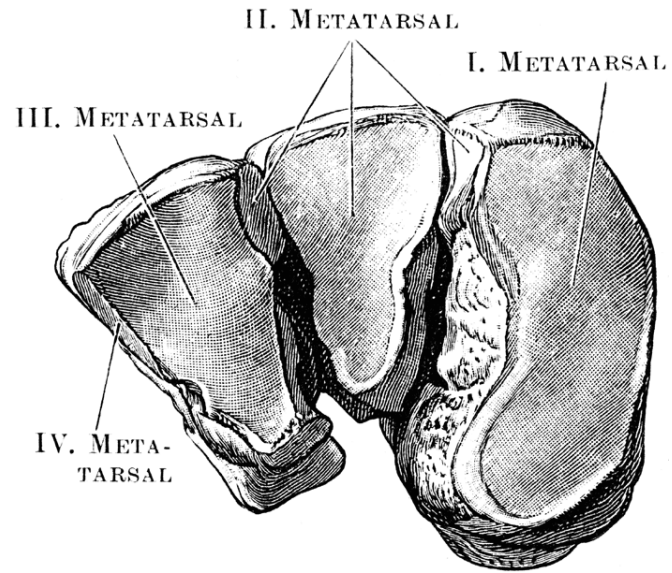
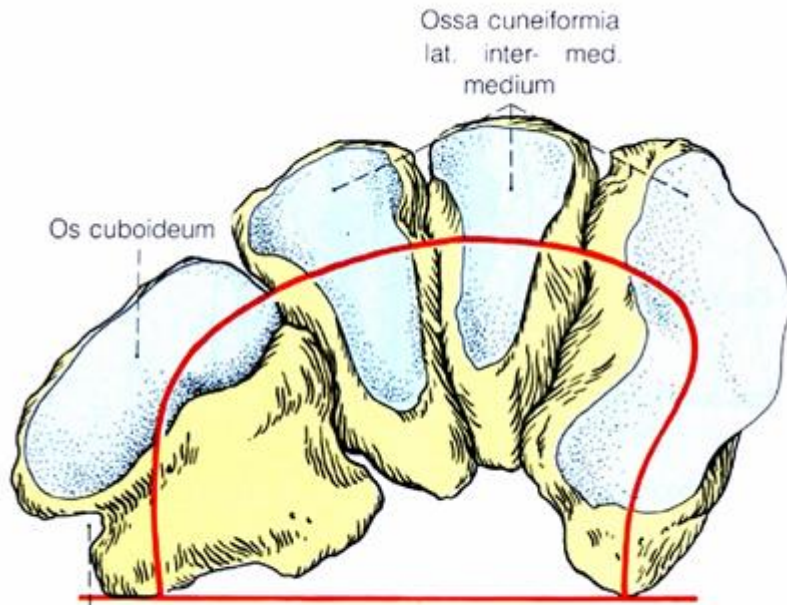




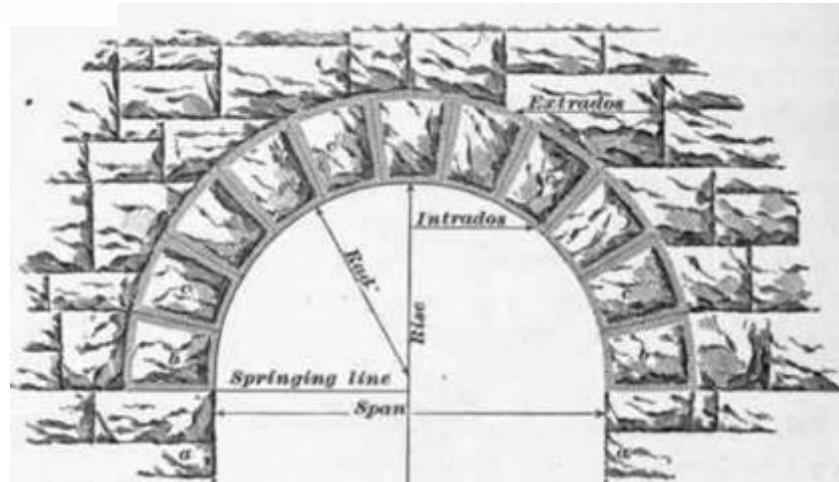
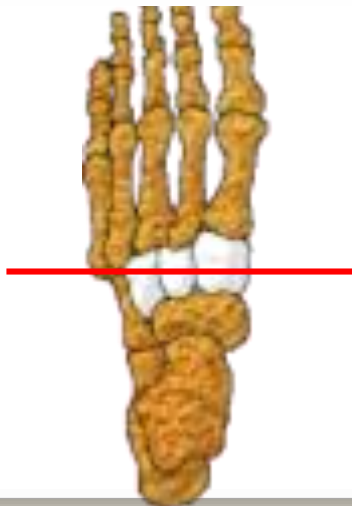
A láb íves szerkezete A lábboltozatok



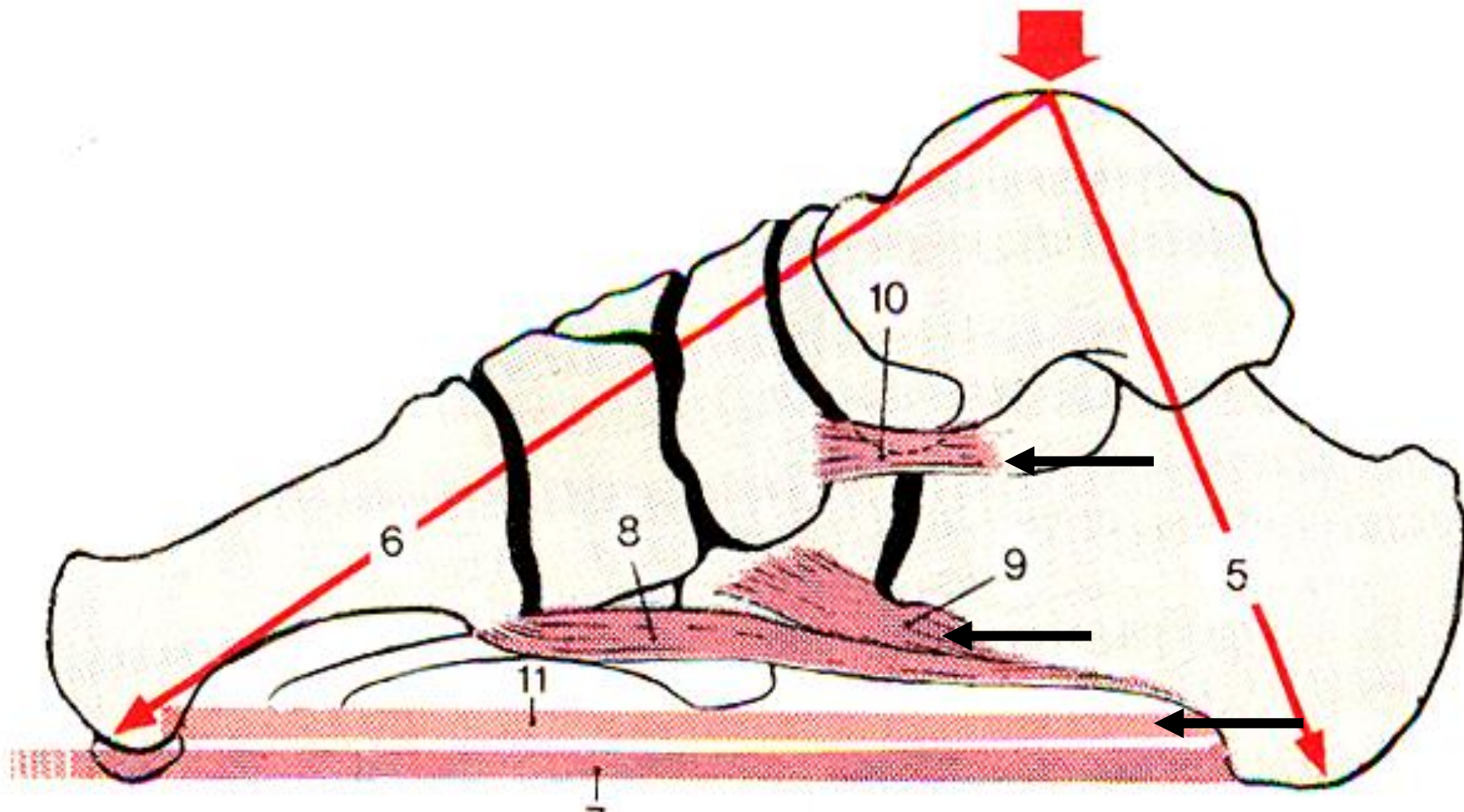
Lábboltozatok fenntartása: csontok alakja



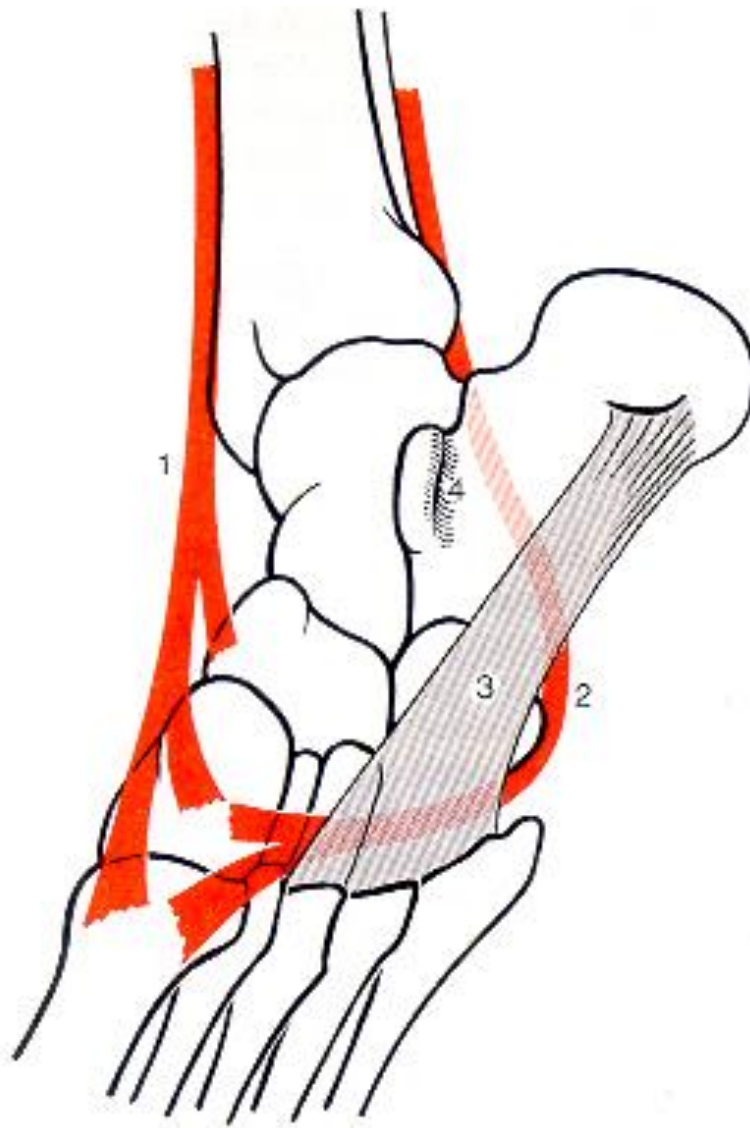
Sulcus tendinis
musculi peronei longi



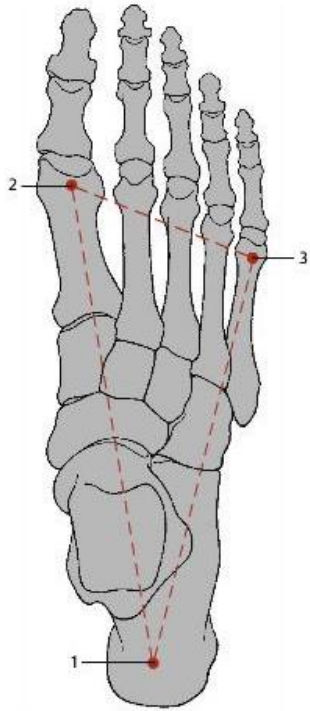
Lábboltozatok fenntartása: szalagok



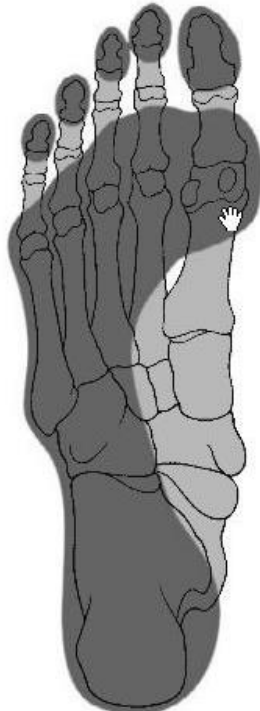
Lábboltozatok fenntartása: izmok, inak



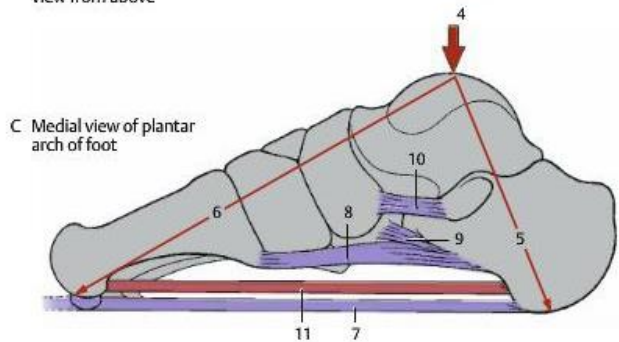
A lábholtozatok



A Skeleton of foot, showing weight-bearing points; view from above



B Footprint of right foot with outline of the bony skeleton; view from below



C Medial view of plantar arch of foot

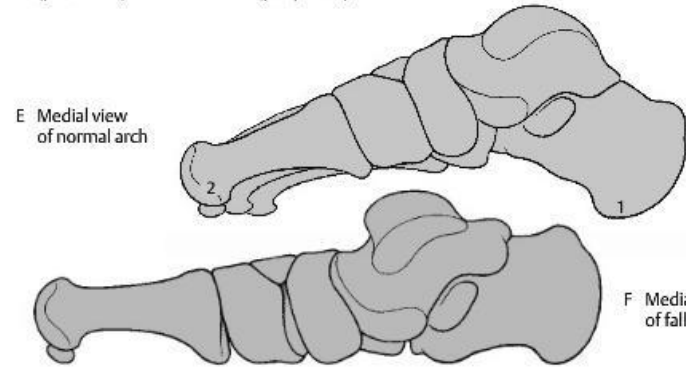


A Normal foot (pes rectus)

B Flat foot (pes planus)

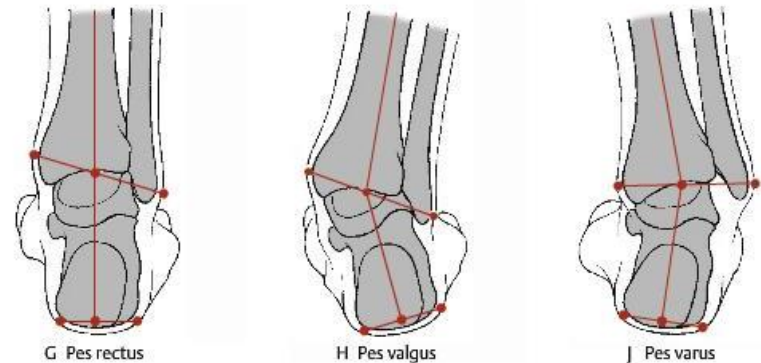
C Pes cavus

D Pes planovalgus



E Medial view of normal arch

F Medial view of fallen arch



G Pes rectus

H Pes valgus

J Pes varus



normal arch



high arch



flatfoot



normal foot



flat foot

FOOTPRINT



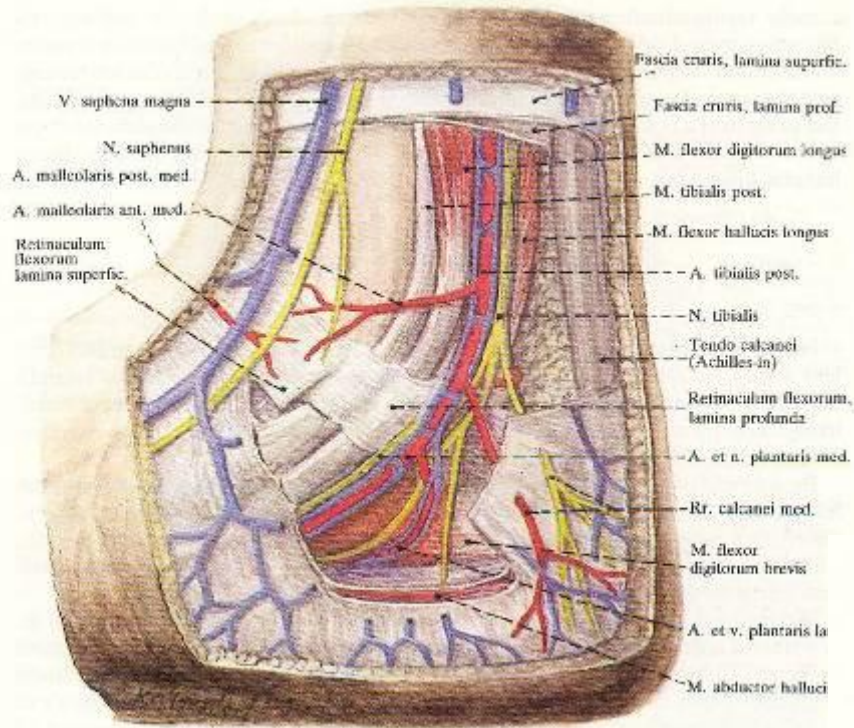
Normal Arch



Flat Arch

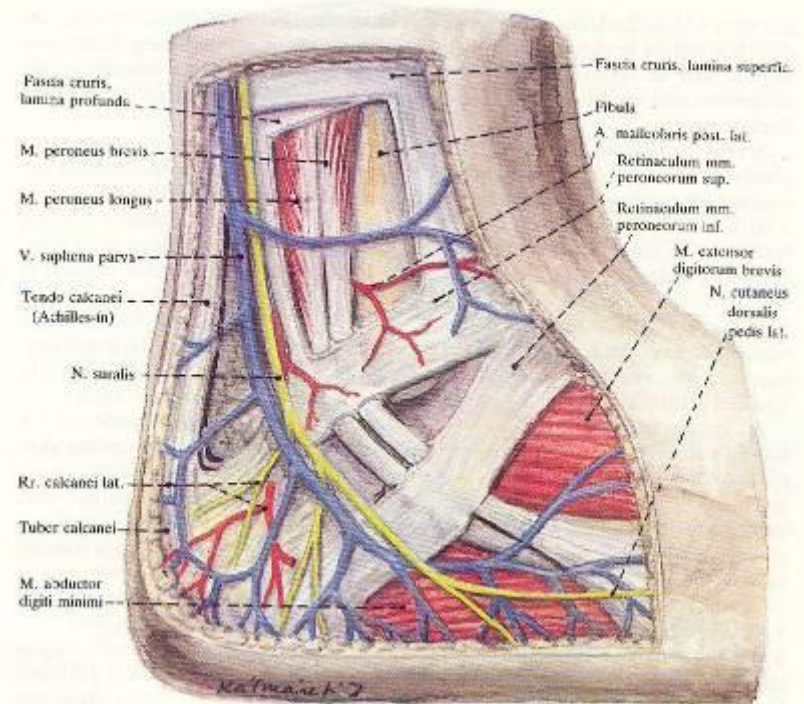


A lábboltozatok jelentősége

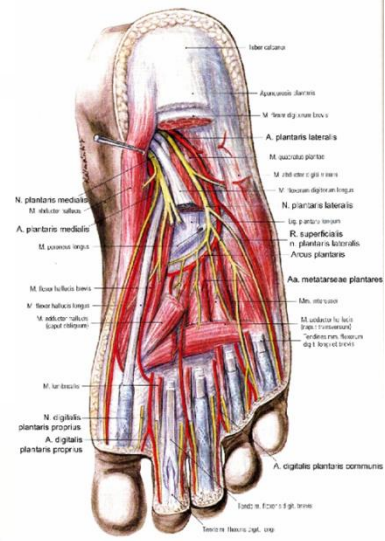
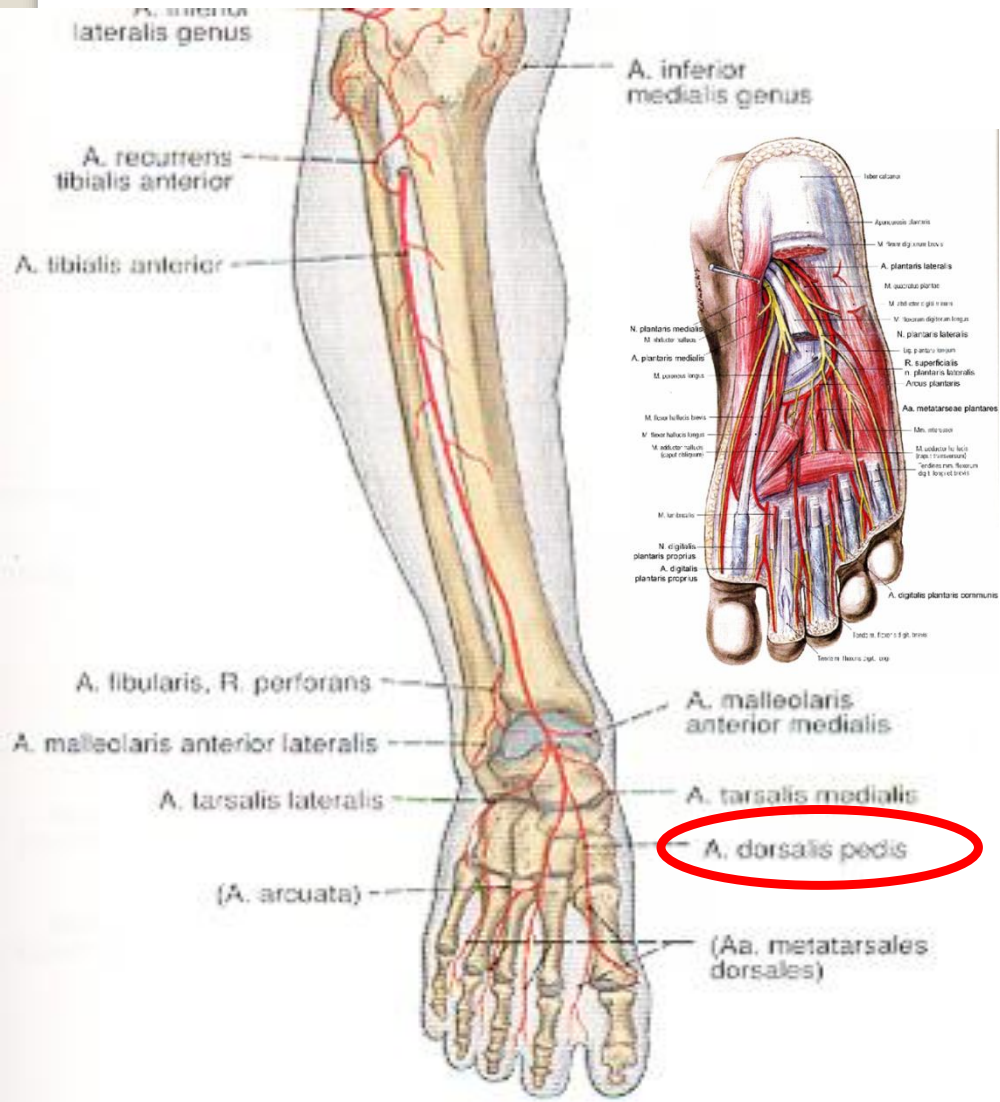


Med.

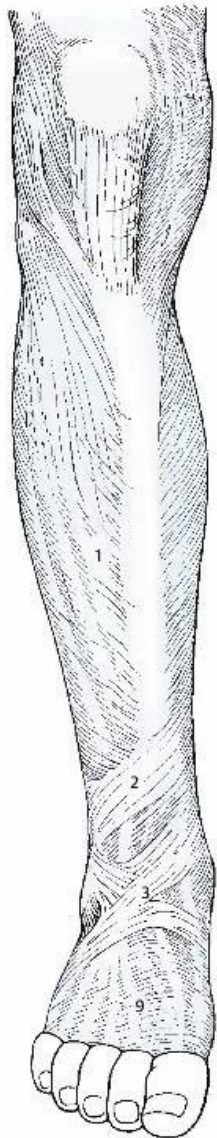
Lat.



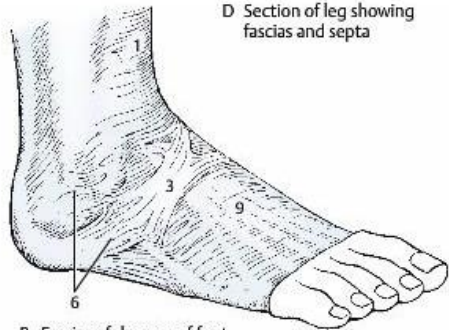
Artériák, illetve az arcus plantaris profundus



Fasciák és rekeszek



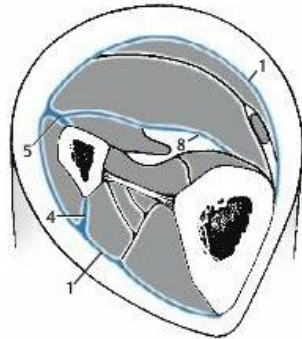
A Fascias of leg



B Fascias of dorsum of foot



C Fascias in medial retro-malleolar region



D Section of leg showing fascias and septa

