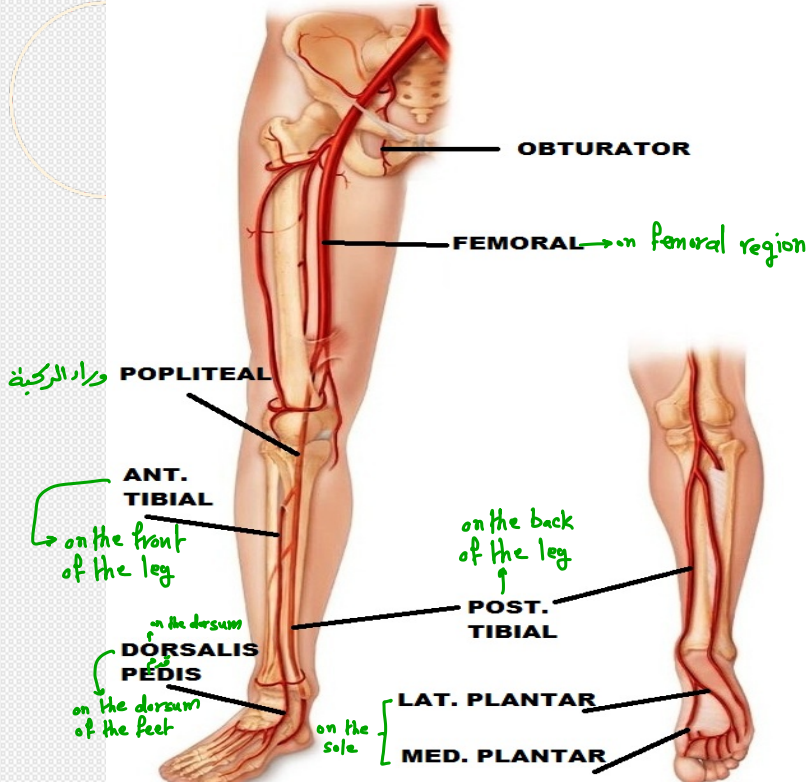


ARTERIES OF LOWER LIMB



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Mutah University



OBTURATOR

FEMORAL → on femoral region

وراد الركبة POPLITEAL

ANT. TIBIAL

→ on the front of the leg

on the dorsum
DORSALIS PEDIS

on the dorsum of the feet

on the back of the leg
↑

POST. TIBIAL

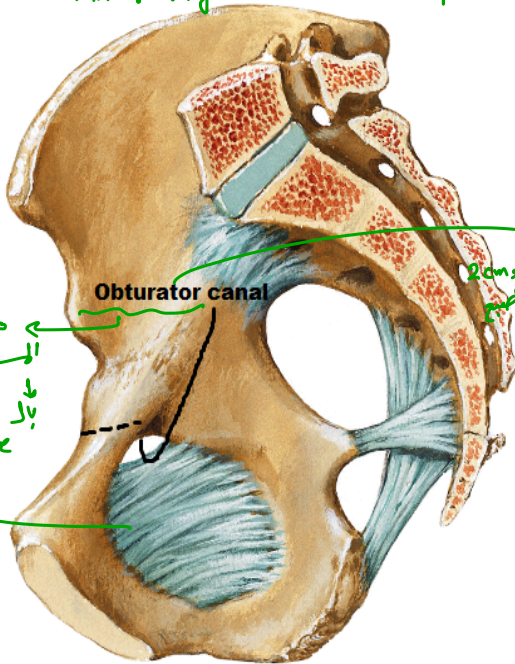
LAT. PLANTAR

MED. PLANTAR

on the sole

Rev.

inner Right side of the pelvis



Obturator canal

مغناها

السرود أو القفول

↓
obturator foramen membrane

مشن كبيرة

يادوب لها 2cm أو 1cm
يعني تستوعب أقل من طرفه الجسم

obturator ARTERY

O. :- br. from ant. division of int. iliac art.

Inside the pelvis

Course
 ↑
C. & r. :
 Relation
 ↑

- enters the thigh through obturator canal
- at ant. end of canal → medial & lateral divisions that from arterial circle at margins of obturator membrane

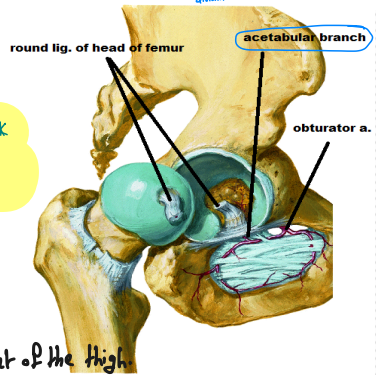
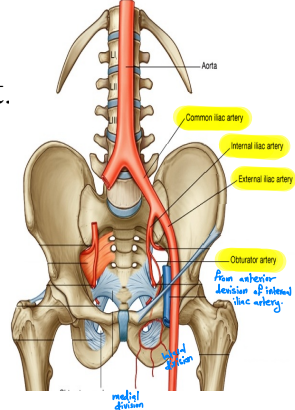
branches :

قاعدة : أي تريان به يعطي برانشات
 بال lower limb
 بال muscular branch
 عنان فيه كثير muscles

acetabular br.:-

- pass through acetabular notch to supply head of femur

-muscular branches:- to medial compartment of the thigh



بشيء به اللسانه
 فانه على acetabular notch
 من ال acetabular notch

خلو فتحة ال acetabular
 من روعه لانه فانه
 بعد ال ligament

Rev.

① ILIO
PSOAS

SYMPHYSIS PUBIS

سقفها SKIN & FASCIA

FEMORAL TRIANGLE

عبارة عن 3 عضلات

② PECTINEUS

③ ADDUCTOR LONGUS

ADDUCTOR
MAGNUS

أخرى عضلة من الـ medial compartment
تستقر على طولها الـ back of thigh
ذلك إذا حظيتا بصحبة الـ adductor canal
وذلك الـ knee joint من وراء

SARTORIUS

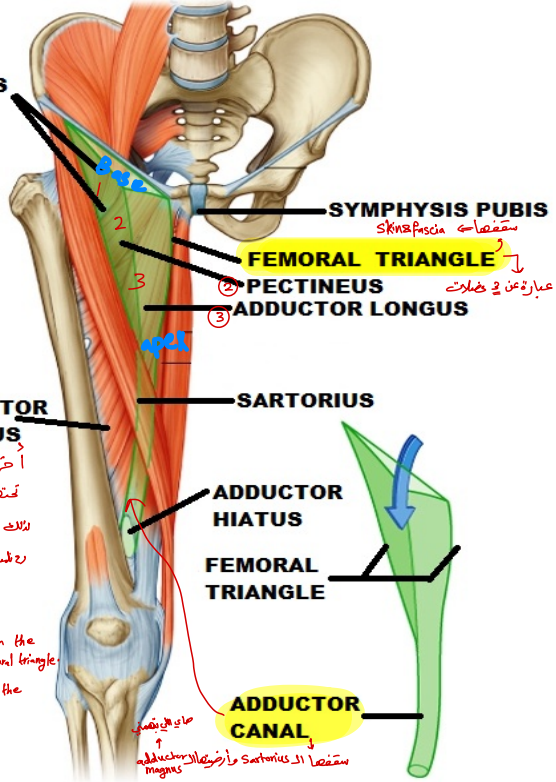
ADDUCTOR
HIATUS

FEMORAL
TRIANGLE

ADDUCTOR
CANAL

حادي التي يتصل
سقفها الـ Sartorius وارضها الـ Adductor Magnus

adductor canal → upper end → continuous with the apex of femoral triangle
→ lower end → continuous with the popliteal fossa.



FEMORAL ARTERY

Origin:-

continuation of ext. iliac art.
deep to inguinal lig

at midinguinal point (midway
between ASIS & symphysis
pubis)

بتقدر تحس
نبض الـ
artery
في هاي المنطقة

Course:

descend vertically on femoral triangle (from the base to the apex)

-upper part (superficial) in
femoral Δ from ^{part} base to apex

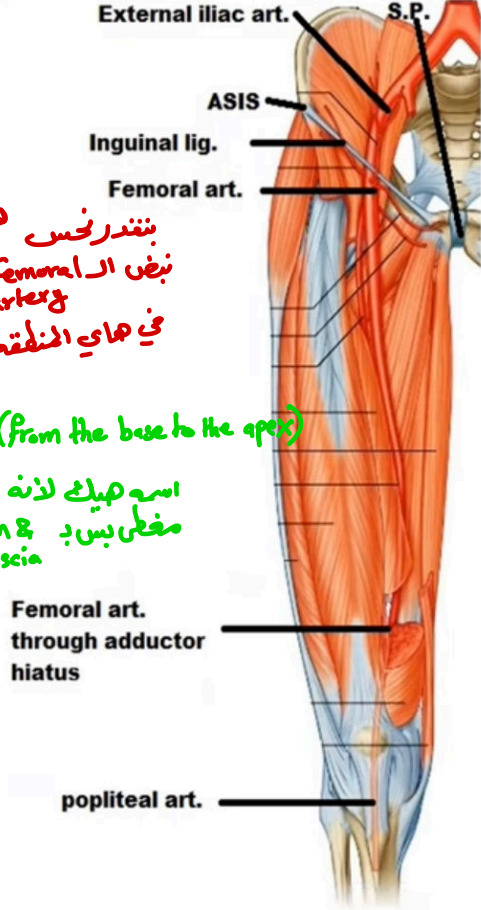
اسمها هيك لانه
مغطى بس بـ
fascia

-lower part (deep) in adductor
canal From ^{part} upper end to lower
end

اسمها هيك لانه من كل الاتجاهات
مغطى بـ
muscles

End: -

at adductor opening (hiatus) to
continue as popliteal art.



FEMORAL ARTERY

Relations:

medial: Femoral V.

Lateral:- Femoral n.

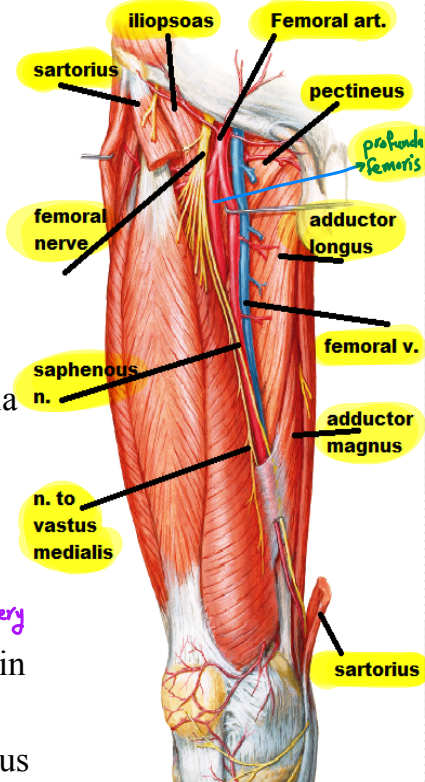
برائشات
Femoral n. → saphenous n.,
nerve to vastus medialis

superficial (ant.)-skin
Femoral triangle → -superficial fascia
-deep fascia

adductor
canal → -Sartorius

deep (post.)

أرضية ال
Femoral Δ → 1-iliopsoas
2-pectineus: with profunda femoris in
between
3-adductor longus 4-Adductor magnus
branch of femoral artery
أرضية ال
adductor canal



FEMORAL ARTERY

Branches : $\begin{cases} \rightarrow \text{3 superficial} \\ \rightarrow \text{3 Deep} \end{cases}$

Superficial brs: (Superf. inguinal arteries)

1-superficial circumflex iliac :
to anastomose around ASIS

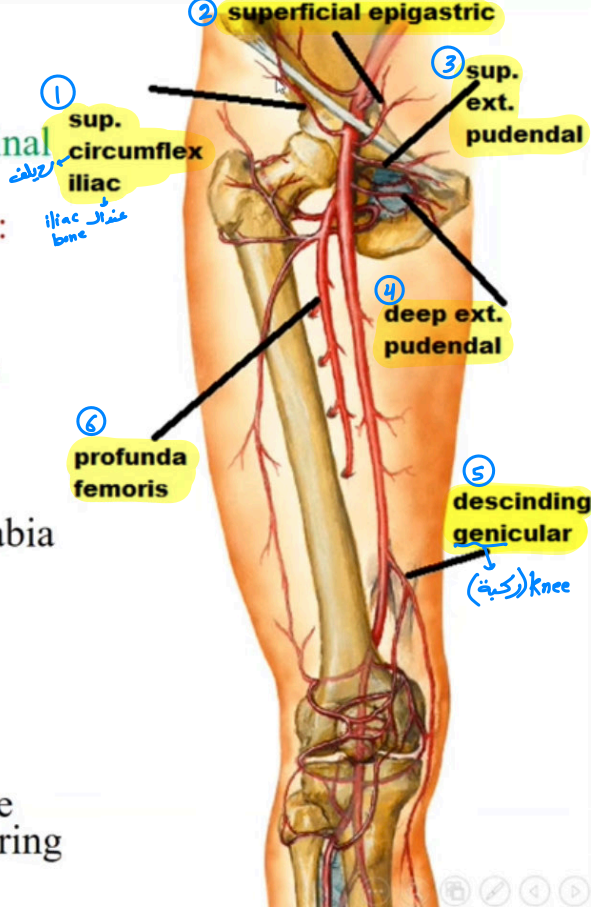
2-superficial epigastric :
cross the inguinal ligament to
enter the ant. abd. Wall till
umbilicus

3-superficial ext. pudendal :
to ext. genitalia (scrotum or labia
majora)

Deep brs:

4-deep ext. pudendal :
To ext. genitalia

5-descending genicular :
Only br. of femoral art. Inside
adductor canal. it ends by sharing
in anastomosis around knee



FEMORAL ARTERY

بأ 4
وانتهى 4

Branches :

Deep brs:

6-Profunda femoris art (the art. To thigh)

O.:- lateral side of femoral art

بأ 4 cm below ing. lig.

C & R:- descend downward & medially
deep to femoral vessels
The common femoral a & v

E: perforate adductor magnus near its
insertion as the 4th perforating art.
most deep of medial compartment

Branches :

فيه قله في من برانشاته
اختتمت الى
adductor magnus

lateral circumflex femoral:- at the origin

medial circumflex femoral:-at the origin

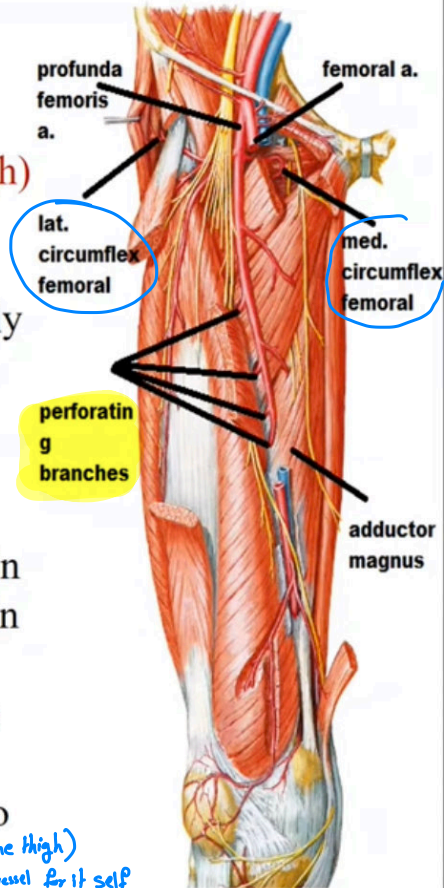
3 perforating branches:

Perforate insertion of adductor magnus

The perforating arteries

form longitudinal chain anastomosis to

supply back of thigh → because (back of the thigh)
don't have particular vessel for it self

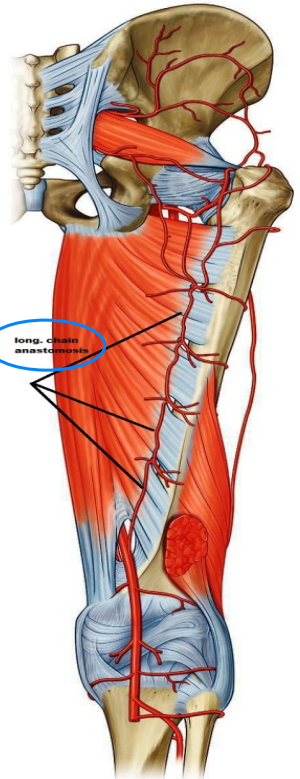
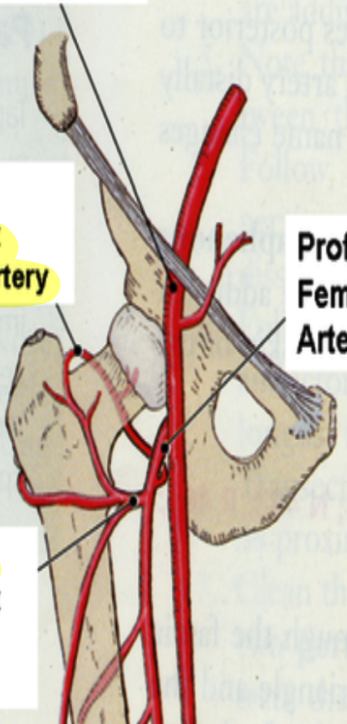


Femoral Artery

Medial Circumflex Femoral Artery

Lateral Circumflex Femoral Artery

Profunda Femoris Artery



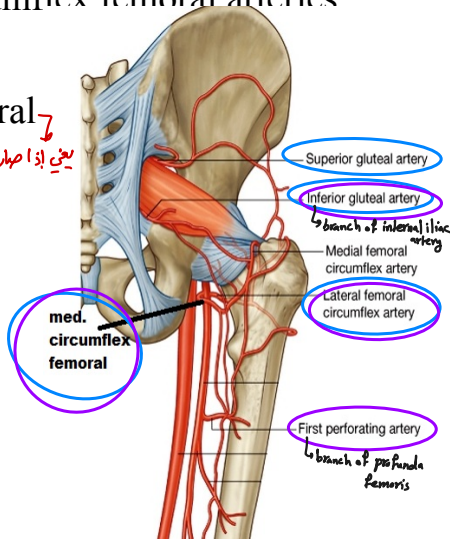
(FEMORAL ARTERY anastomosis)

Trochanteric anastomosis

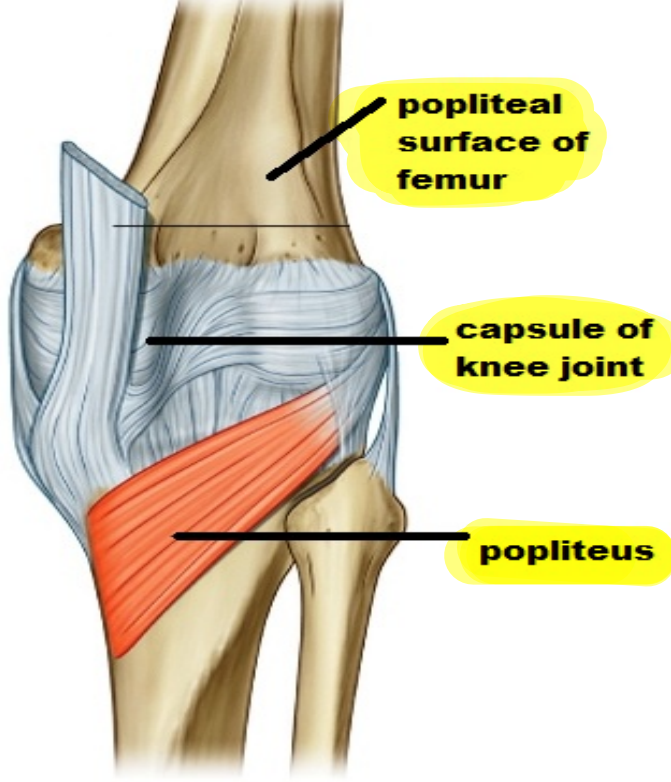
- It is the main blood supply to the head of the femur + acetabular artery
- formed by Superior, inferior gluteal arteries & Medial, lateral circumflex femoral arteries

cruciate anastomosis

- Between internal iliac & femoral
- formed by external femoral
- 1-1st perforator of profunda
- 2-inferior gluteal
- 3-Medial circumflex femoral
- 4-lateral circumflex femoral



Rev.



POPLITEAL ARTERY

O : -continuation of femoral art
 -at adductor opening

C. : descends in popliteal fossa
 as deepest structure

E. : -at lower border of popliteus
 -give ant. & post tibial arteries

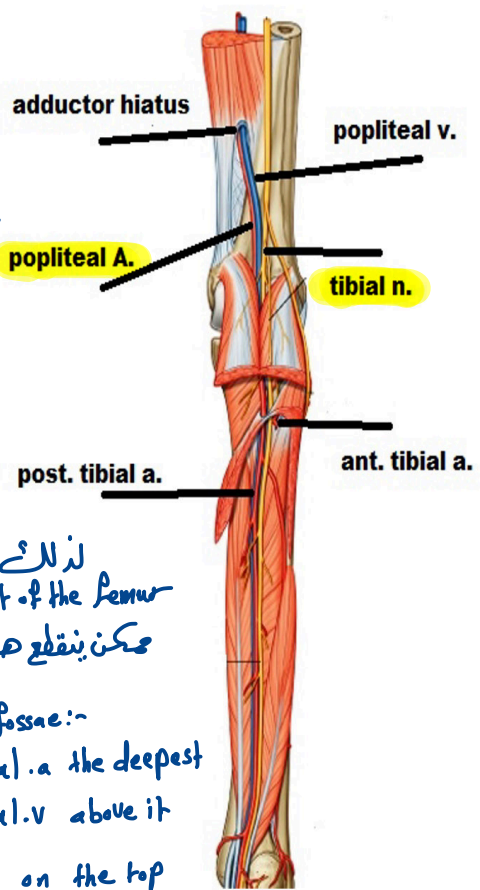
R.:

crossing over
 popliteal surface of femur
 capsule of knee joint
 popliteus muscle
 - crossed superficially by
 popliteal v & tibial n
 fasciae & skin
 -separated from the tibial n
 by popliteal v

صميم جداراً لأنض الشريان
 على اعظمها مشرة بعين اذا انكسر
 العظمة من تشوه

لذلك اذا انكسر
 lower part of the femur
 يمكن ينقطع هذا الشريان

popliteal fossae:-
 * popliteal .a the deepest
 * popliteal.v above it
 * tibial.n on the top



popliteal ARTERY

branches :

A-muscular brs : to near muscles

^{Knee}
B-genicular brs : 5

superomedial , superoLateral

inferomedial , inferolateral

middle

they share in anastomosis

around knee joint

anastomosis around knee

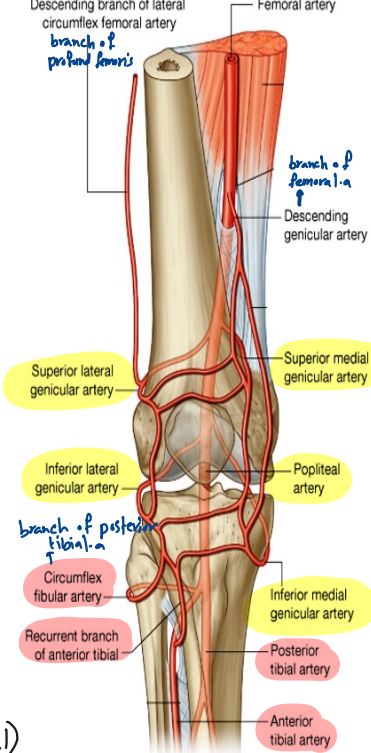
descending genicular (femoral)

br of lateral cir femoral (profund)

5 genicular branches (popliteal)

ant. & post. tibial recurrent (ant. fibial)

Circumflex fibular (post-fibial)



هذول مشيرين
في حاله صلينا
عالمين للركبة
Flexion
مفترق ال
Popliteal a
مسار شعيرت ال

ANT. TIBIAL ARTERY

O : - smaller terminal br. of popliteal art.
- at lower border of popliteus

C & R:

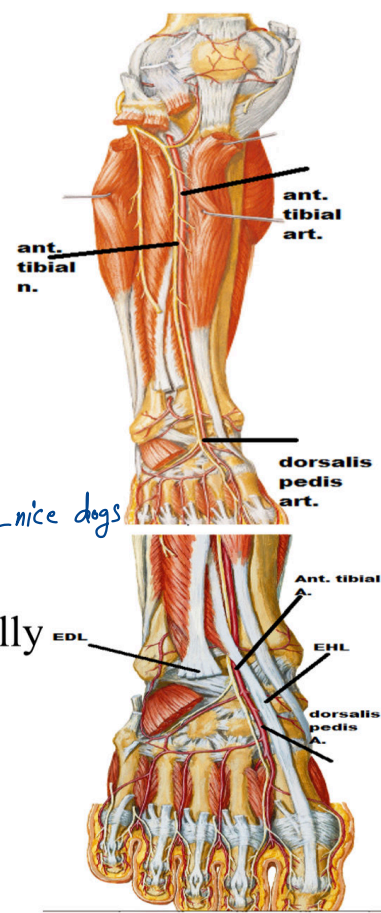
-at first it lies in post. compartment of leg
then pass forward through opening
in upper part of interosseous membrane
to enter ant. compartment of leg.

-descends in front of interosseous
membrane with ant. tibial n.

Tom has very nice dogs

-at the ankle; it lies between
tendons of ext. hallucis longus (medially
& ext. digit. Longus (laterally)
where pulsations are felt

E: -midway () 2 malleoli,
to be dorsalis pedis art.



Ant. Tibial ARTERY branches :

-muscular :

to muscles of ant. compartment

- post. tibial recurrent:

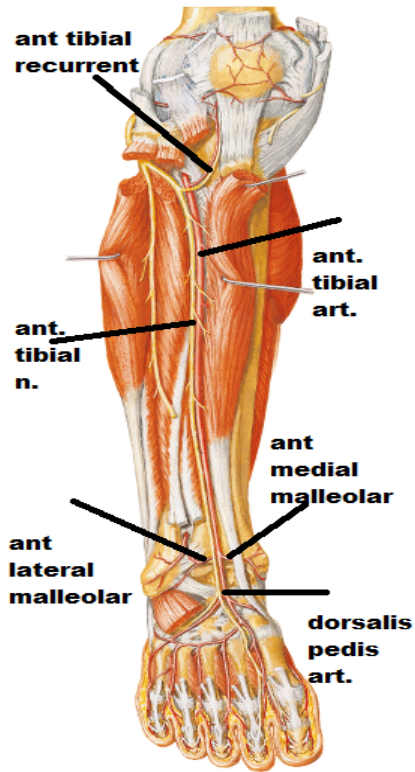
-ant. tibial recurrent:

both brs share in
anastomosis around knee

-ant. medial malleolar

-ant. lateral malleolar

both share in
anastomosis around ankle



Dorsalis pedis ARTERY

O : -midway () 2 malleoli

-as continuation of ant. tibial art

C: -run forward on dorsum of foot in line with 1st interdigital cleft

- downward () 2 heads of 1st dorsal interosseous to enter sole

E. : - in sole

- anastomose with plantar arch

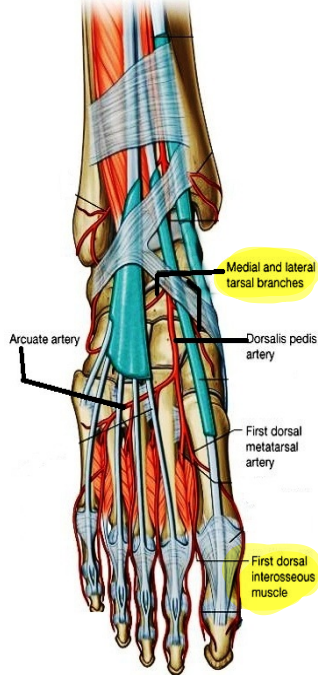
brs :

1- medial & lateral tarsal :

2- 1st dorsal metatarsal

3- Arcuate → 2nd, 3rd, 4th dorsal metatarsal

4- 1st plantar metatarsal.



POSTERIOR TIBIAL ARTERY

O : -larger terminal br of popliteal art
-at lower border of popliteus.
-It supplies post.
&lateral compartments of leg

C: descends in posterior compartment
of the leg accompanied by
posterior tibial nerve

in upper part of leg

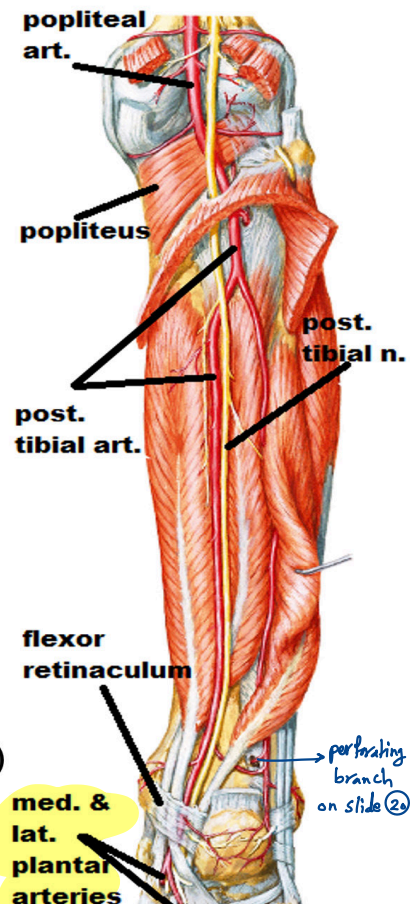
it is deep lies between the muscles

in lower part of leg

it is superficial

covered only by skin , fasciae

E : -deep to flexor retinaculum
(behind medial malleolus)(pulsation felt)
-give medial & lateral plantar arteries



Posterior tibial ARTERY

branches :

1-circumflex fibular:-

share in anastomosis around knee

2-peroneal art. :

The largest & longest br that supply lateral compartment

3-terminal brs :

medial & lateral plantar arteries

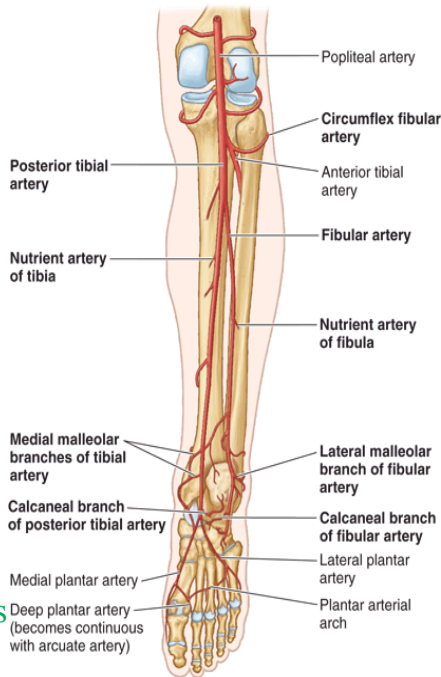
4-muscular brs :

to muscles of post. compartment

5-nutrient br: to tibia

6-medial calcanean & malleolar brs

anastomosis around ankle



Posterior view with foot plantar flexed

POSTERIOR TIBIAL ARTERY

اهم واحد

Peroneal (fibular) art.: → Supplies lateral compartment

O : - near to origin of post. tibial art

C : - descend vertically
behind the fibula

close to flexor hallucis longus

brs :

اهم واحد

1-perforating br.:

pierce interosseous membrane
to reach ant. Compartment of leg

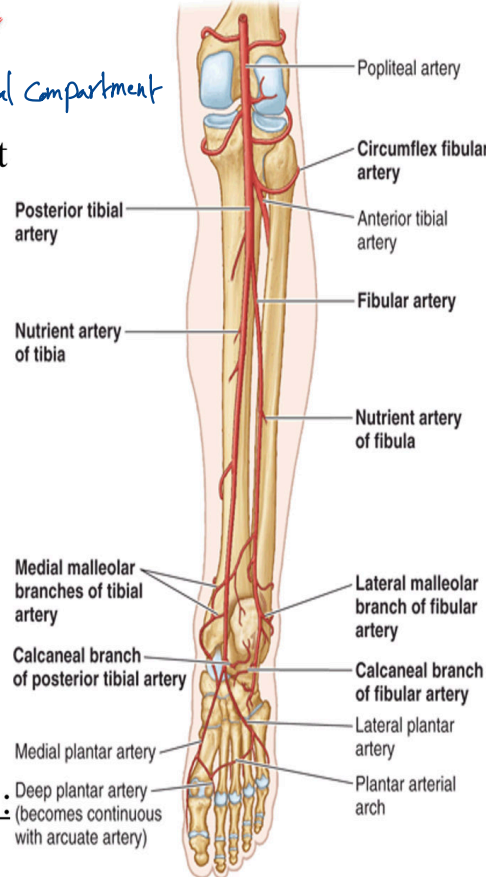
2-muscular brs :

to muscles of
lateral compartment of leg

3-nutrient br. to fibula

4- lateral calcaneal & malleolar brs :

to anastomosis around ankle



Posterior view with foot plantar flexed

Medial plantar ARTERY

O: - small terminal br.
of post. tibial art.

-deep to flexor retinaculum

C & r: with medial plantar n.
on medial border of the foot

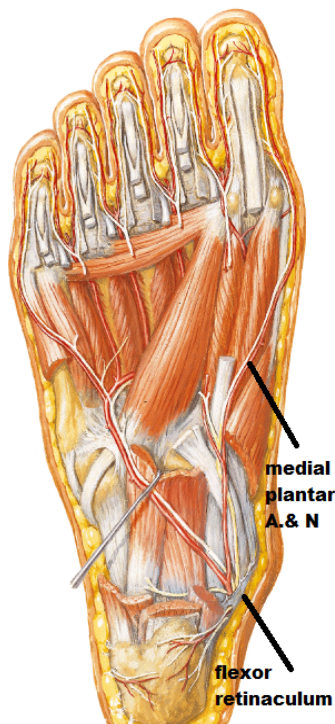
E.: by supplying medial side
of big toe

Brs:

Cutaneous &

Muscular &

Articular branches:



LATERAL PLANTAR ARTERY

O: - large terminal br
of post. tibial art.
-deep to flexor retinaculum

C & r:

-with lateral plantar n.
deep to abductor hallucis.
-then deep to flexor digitorum brevis
to reach base of 5th metatarsal bone
where it curve medially
to form plantar arch

E.: -anastomose with
the end of dorsalis pedis art.

brs:

- 1-cutaneous & muscular & articular branches
- 2-The plantar arch give: plantar digital arteries to toes.

