

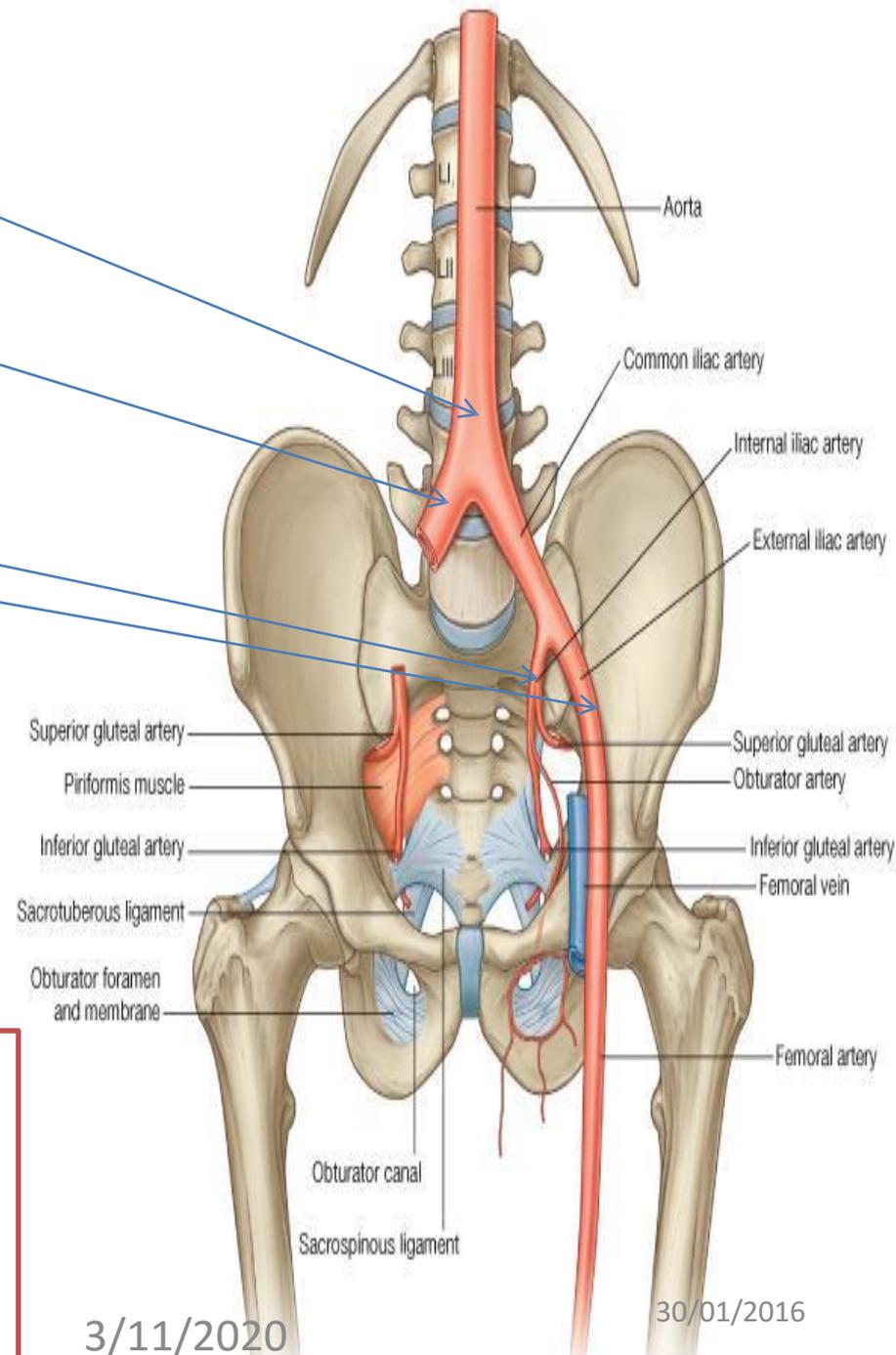
Blood supply of the lower limbs

1- The abdominal aorta divides at the level of **L4** into Right and left **common iliac arteries**

2- Each common iliac artery divides into **external and internal iliac arteries**

3- The external iliac artery becomes **the femoral artery** (**as it passes behind the inguinal ligament**) which will be the **main** blood supply to the whole lower limb

4- **The internal iliac artery** shares in the blood supply of the lower limb through its branches, for example, **the superior and inferior gluteal arteries and obturator**



5- **THE FEMORAL ARTERY** (to be discussed later) begins midinguinal point and ends at the **opening in the adductor magnus** where it becomes

THE POPLITEAL ARTERY

6- **The popliteal artery**

Ends at the lower border of the popliteus muscle by dividing into

ANTERIOR AND POSTERIOR TIBIAL ARTERIES

7- **The anterior tibial artery** supplies the anterior compartment of the leg and terminates

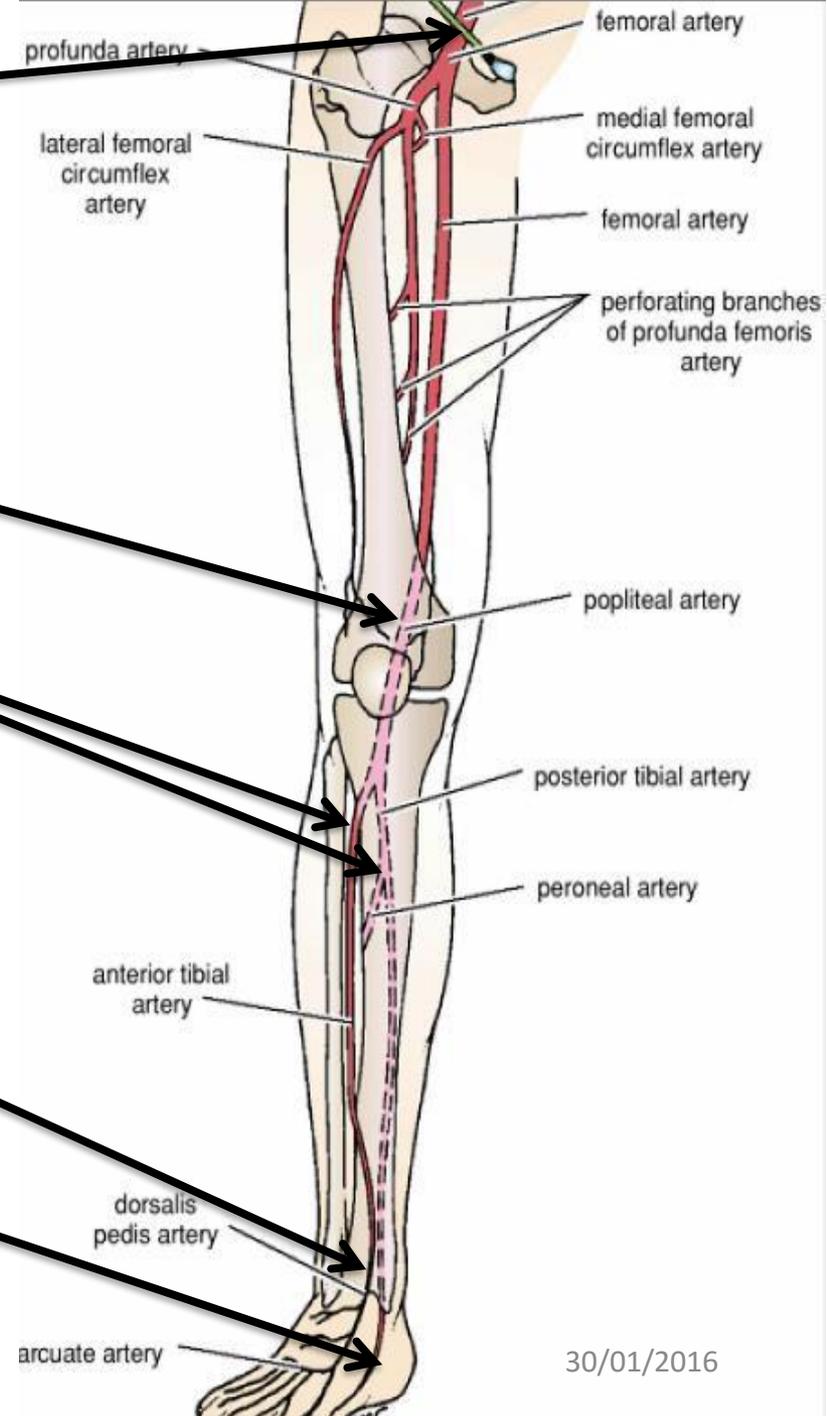
in front of the ankle joint by becoming **THE DORSALIS PEDIS ARTERY**

8- **The posterior tibial artery** supplies the posterior and the lateral compartments of the leg ends deep to the flexor retinaculum by dividing

Into

MEDIAL AND LATERAL PLANTER ARTERIES

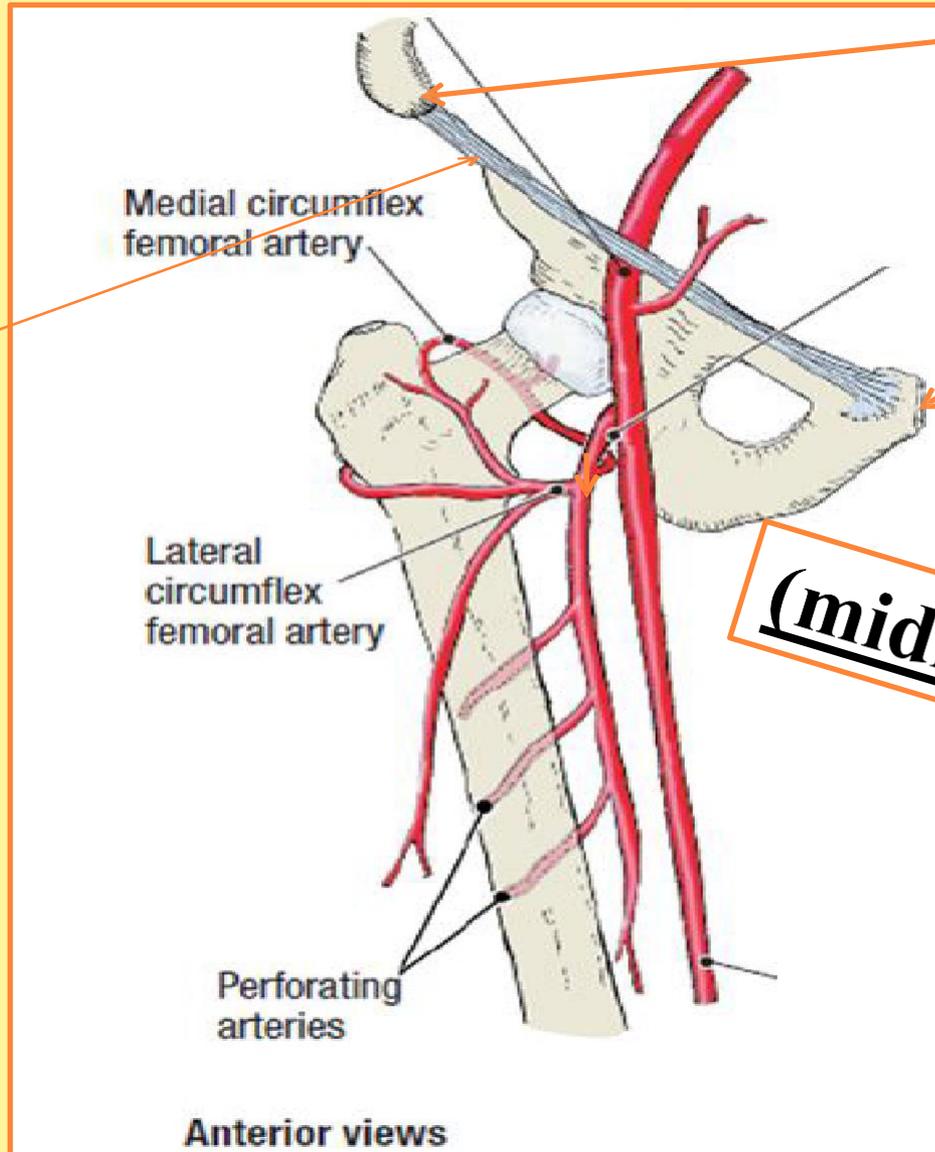
which supply the sole



The femoral artery

1- It enters the thigh from behind the inguinal ligament as a continuation of the external iliac artery.

2- It lies midway between the anterior superior iliac spine and the symphysis pubis

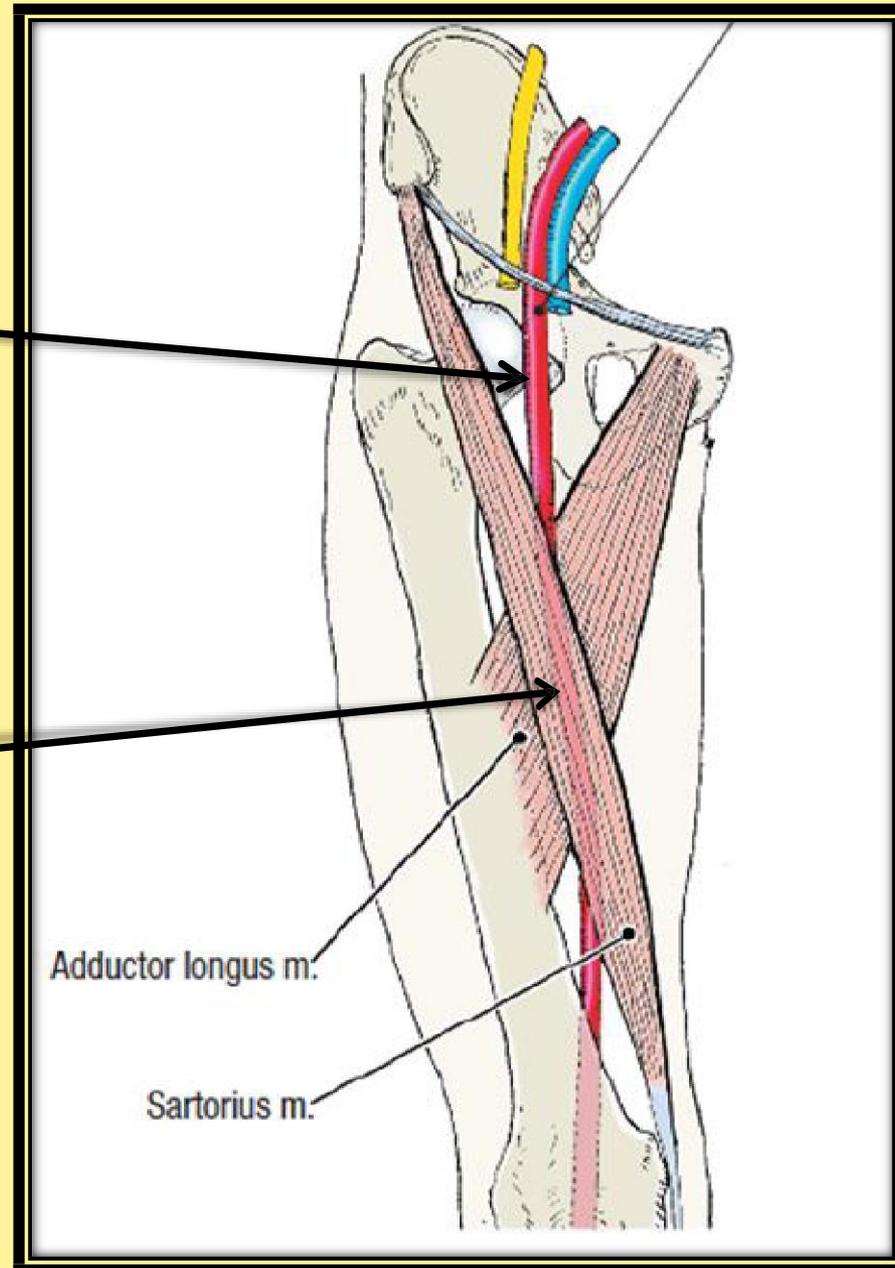


(midinguinal point)

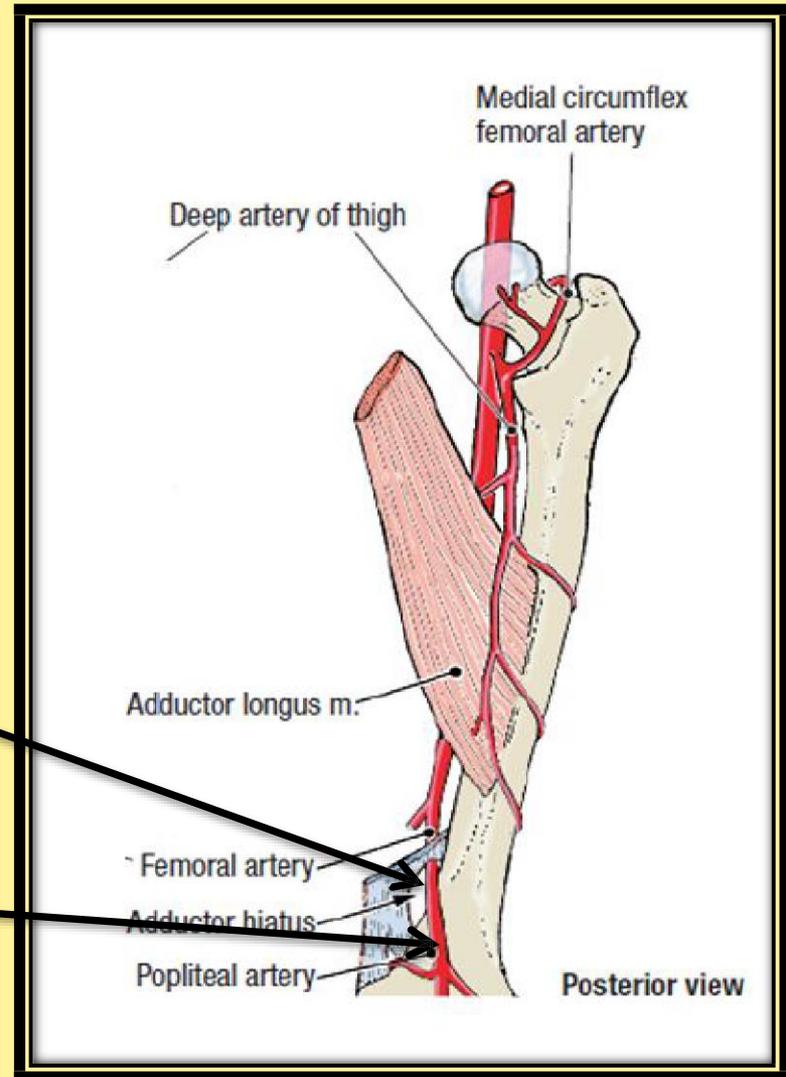
Dr. Amjad shatarat

3-As the femoral artery descends downwards,
its upper half lies
superficial
in the
femoral
triangle

while in the lower half
it lies ***deep in the***
subsartorial
(adductor) canal



4- The femoral artery then descends almost vertically toward the adductor tubercle of the femur and ends at the opening (Adductor hiatus) in the adductor magnus muscle by entering the popliteal space as THE POPLITEAL ARTERY



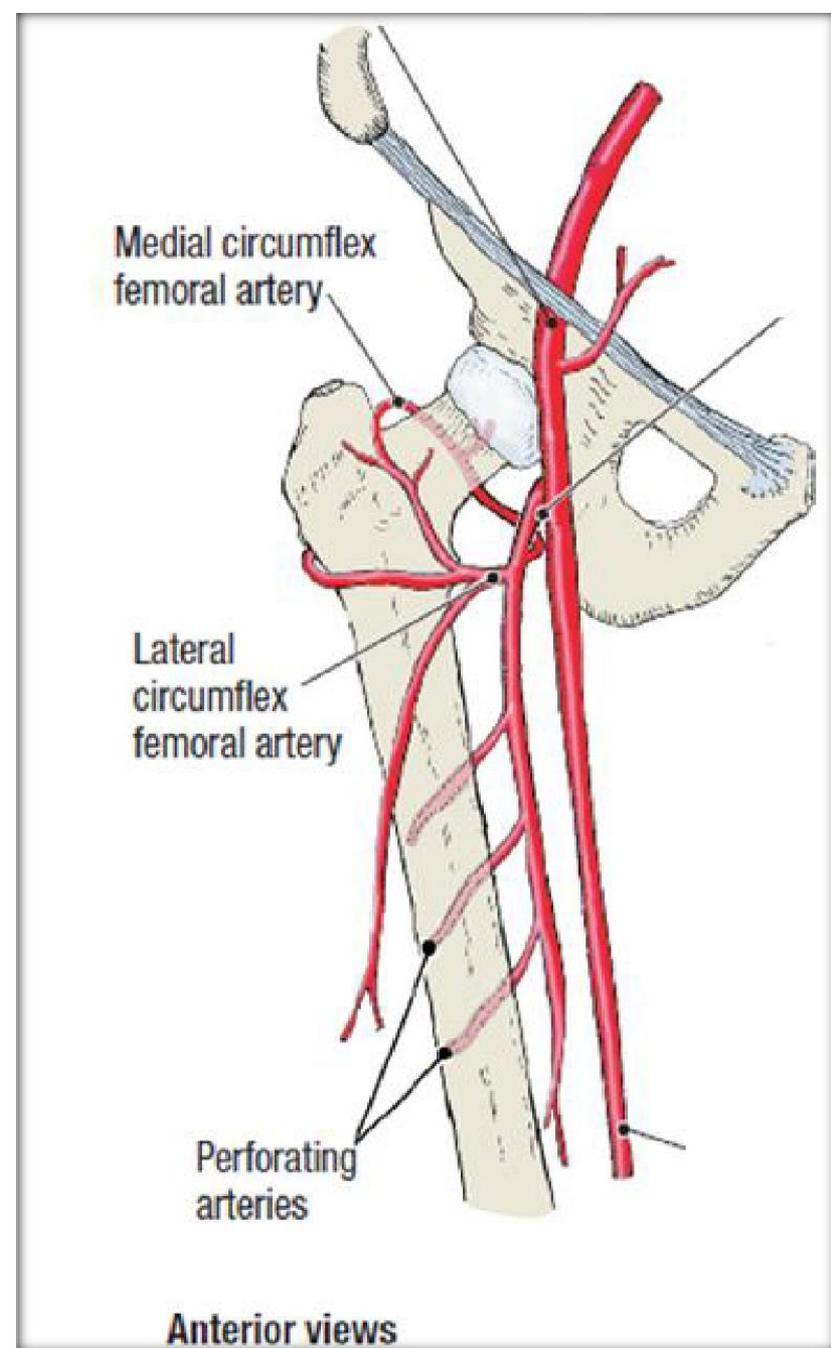
BRANCHES

The profunda femoris artery (*Deep artery of thigh*)

arises from the lateral side of the femoral artery about (4 cm) below the inguinal ligament

it gives off:

- A) lateral femoral circumflex artery***
- B) The medial femoral circumflex artery***
- C) Perforating arteries***



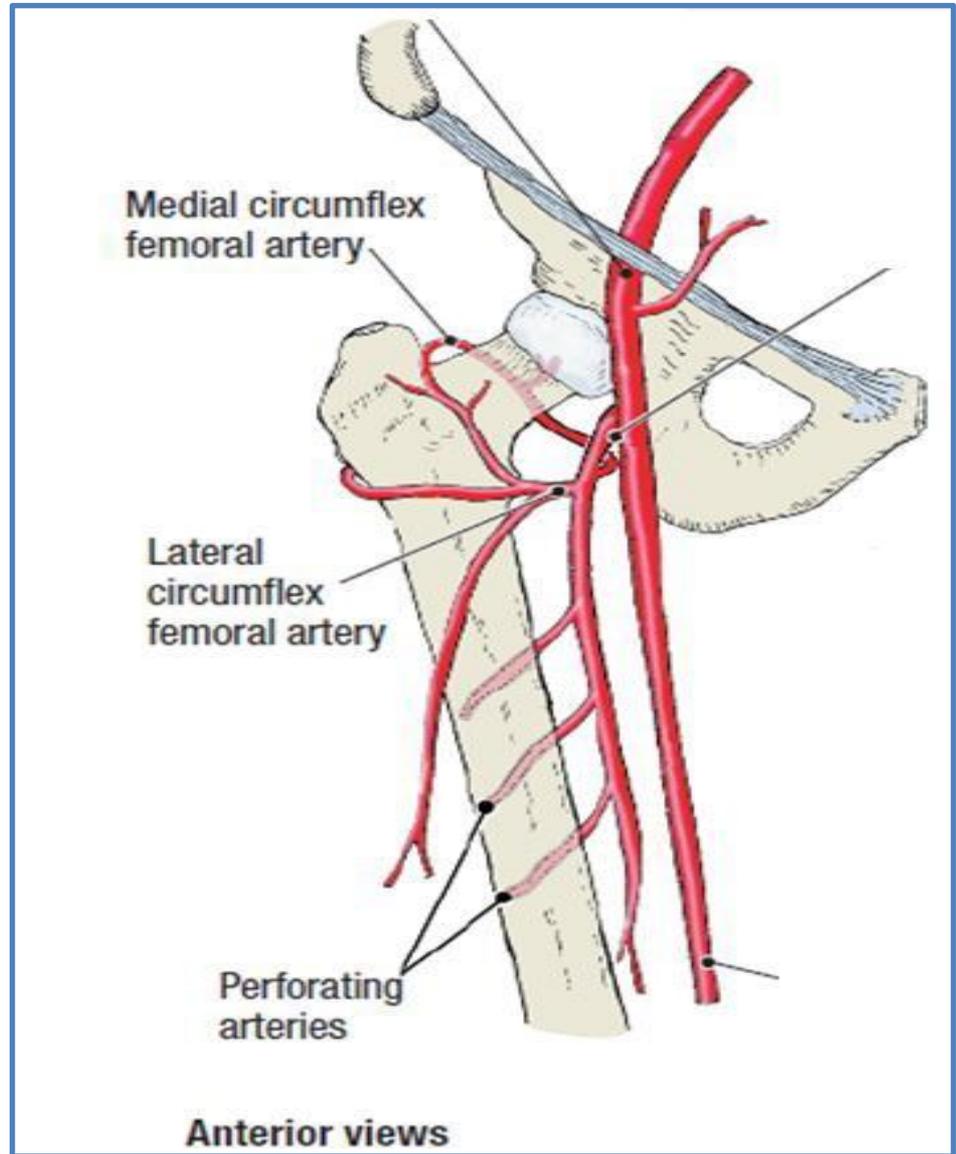
**Where should you palpate the pulse
of
different arteries in the lower limb?**

The femoral artery

In the femoral triangle, its pulse is easily felt just inferior to the inguinal ligament **midway** between the **pubic symphysis** and the **anterior superior iliac spine**.

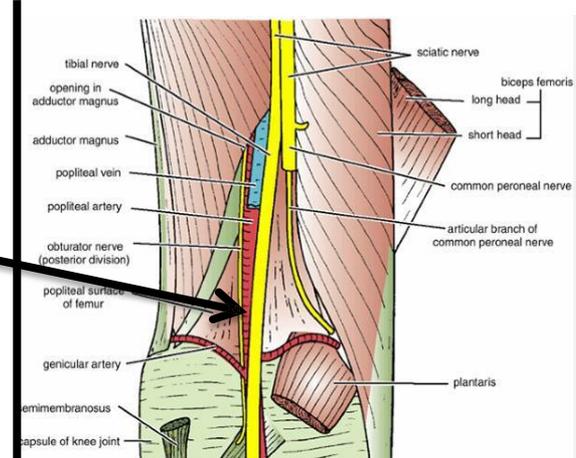


Femoral pulse



The popliteal artery

The popliteal artery pulse is difficult to find, but usually can be detected on deep palpation just medial to the midline of the popliteal fossa.



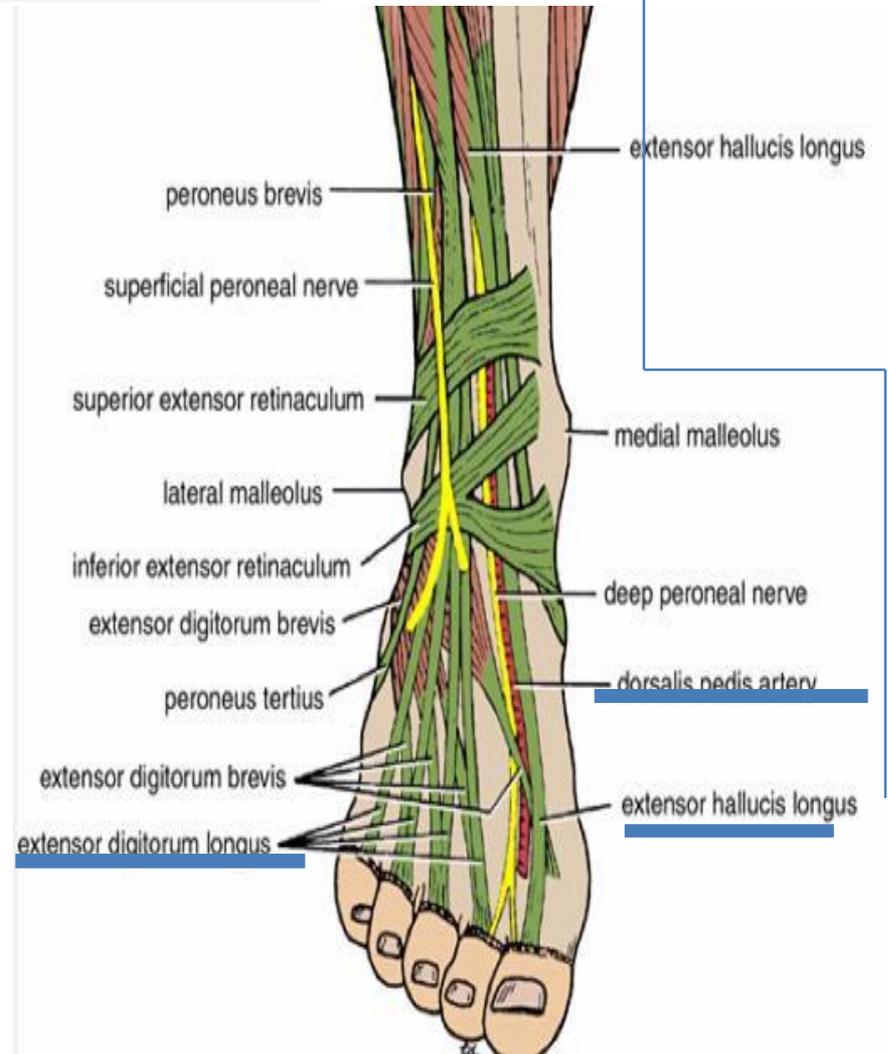
Popliteal pulse

The dorsalis pedis artery

Passes onto the dorsal aspect of the foot and anteriorly over the tarsal bones where it lies **between and is parallel** to the tendon of **extensor hallucis longus** and the tendon of **extensor digitorum longus** to the second toe.



Dorsalis pedis pulse

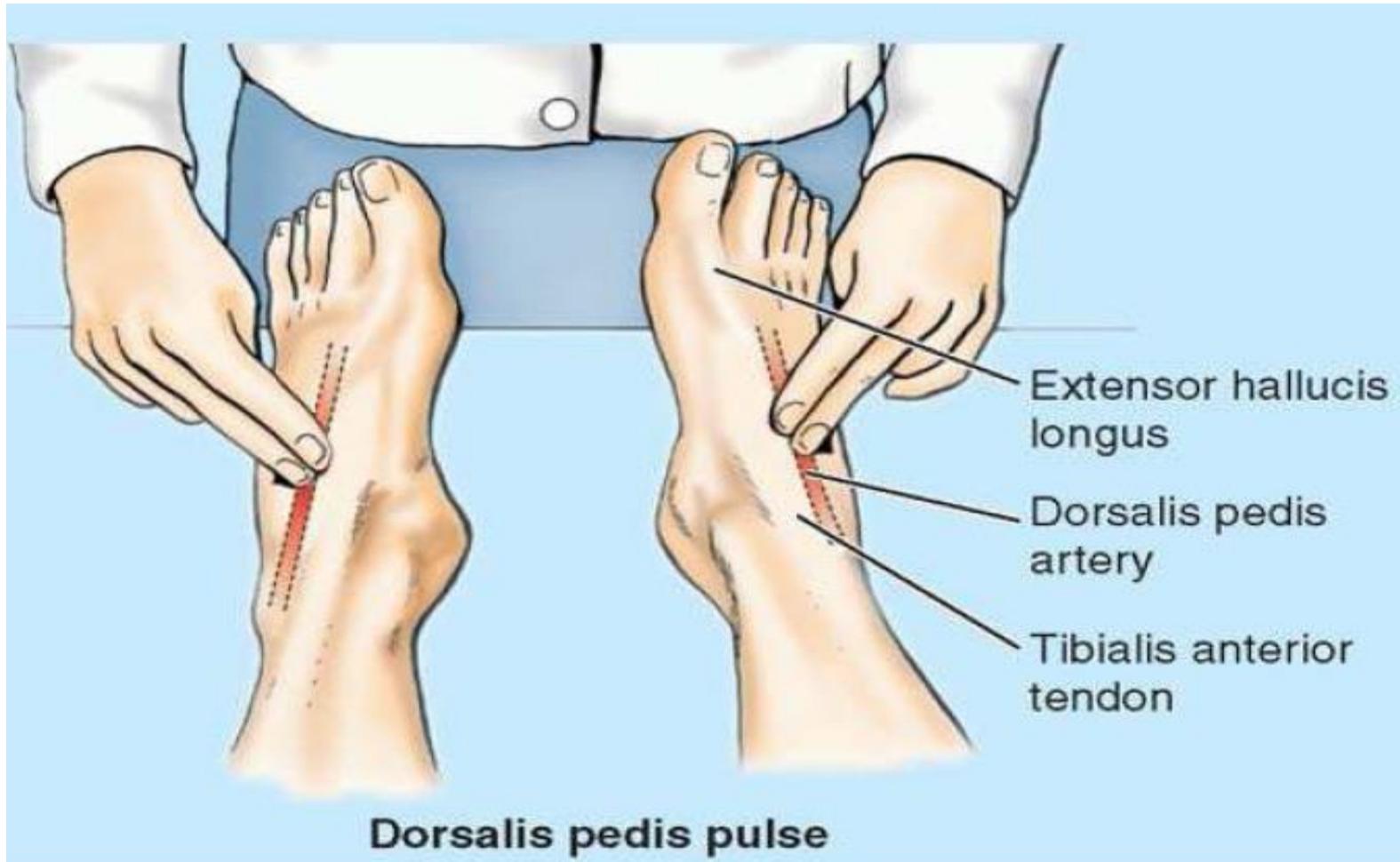


The artery may be absent in around 15% of people

Some healthy

adults (and even children) have *congenitally nonpalpable dorsalis pedis pulses*; the variation is usually bilateral. In these cases,

the dorsal artery of the foot is replaced by an enlarged perforating fibular artery.



The posterior tibial artery

Is palpable just
posteroinferior to the
medial malleolus
between the heel and
medial malleolus.

