



ANATOMY TEAM

Lecture (17)

Art, Vein of the lower limb

Objectives:

List the main arteries of the lower limb.

Describe their origin, course distribution & branches.

List the main arterial anastomosis.

List the sites where you feel the arterial pulse.

Differentiate the veins of LL into superficial & deep

Describe their origin, course & termination and tributaries

تنويه : هذا الملف لا يعتبر مرجع أساسي للمذاكرة وإنما هو للمراجعة فقط ، المرجع الأساسي هو السلايد ولا يوجد أي اختلاف بين سلايد الاولاد والبنات "ماعدا بعض النقاط و تم ذكرها "

Artery of the lower limb :

1- **Mostly** from : **FEMORAL artery** " كان اسمه قبل لا ينزل تحت "External iliac artery)

, **Partially** from Superior gluteal artery & Inferior gluteal artery.

2- **FEMORAL artery:** It is the main arterial supply to the lower limb

* It enters the femoral triangle.

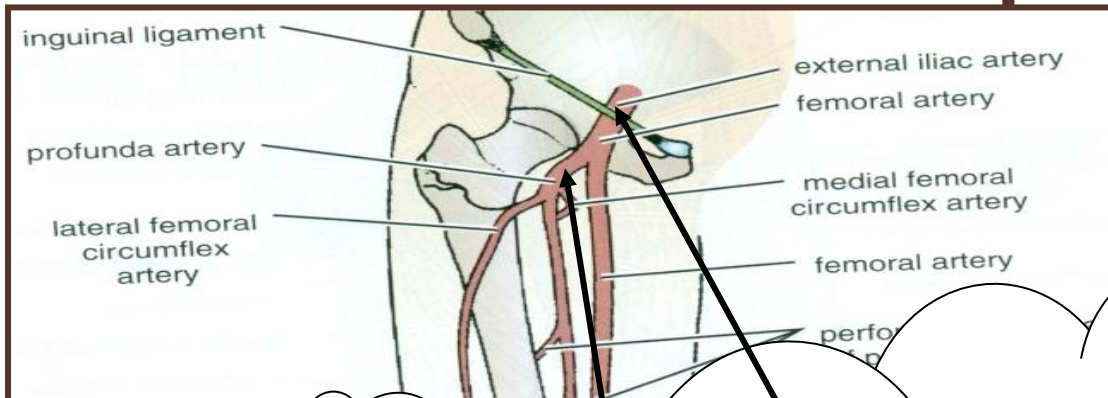
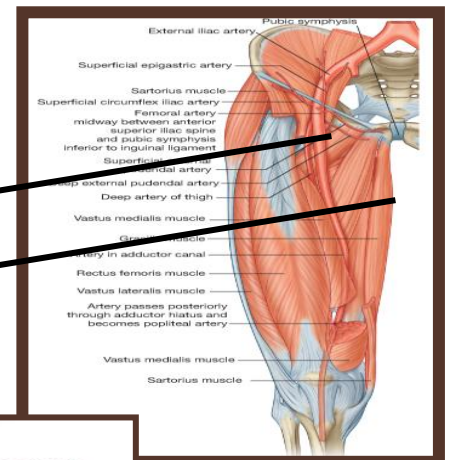
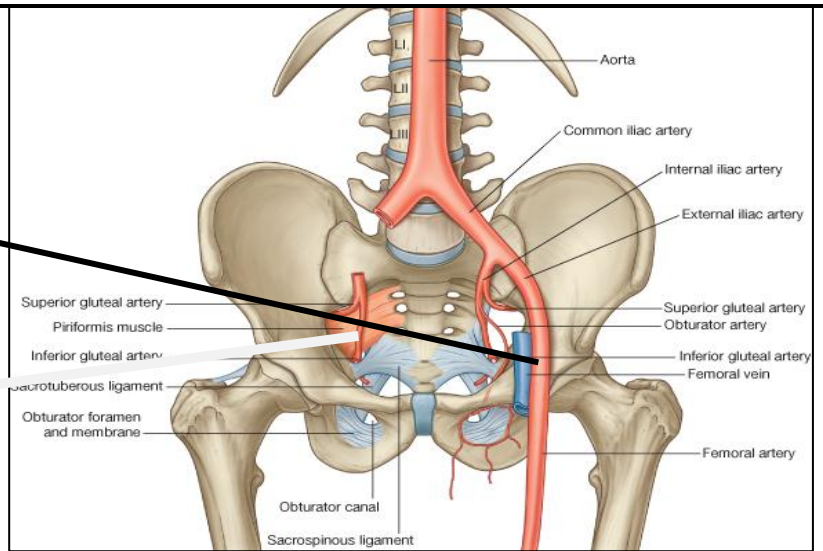
*it is separated from hip joint

* It exits the canal by passing through the adductor hiatus

* it becomes the Popliteal artery after it exits the canal .

*it gives 4 branches which **supply the lower abdominal wall & External Genitalia** "ثنين فوق ثنين تحت"

and **Profunda femoris artery (Deep artery of thigh)** supply the medial side of the thigh.



1 **External iliac artery** نفسها لما نزلت تحت صار اسمها FEMORAL artery.

2-FEMORAL artery سوتلي 5 فروع

* **supply the lower abdominal wall & External Genitalia.**

"Profunda femoris artery" **supply the medial side of the thigh** "وواحد راجع على ورا"

3- "**Profunda femoris**"

Medial & lateral circumflex femoral arteries&

Three Perforating arteries.

FEMORAL artery is used for cardiac **angiography**.

Angiography not specific for FEMORAL artery but just to know what is angiography .

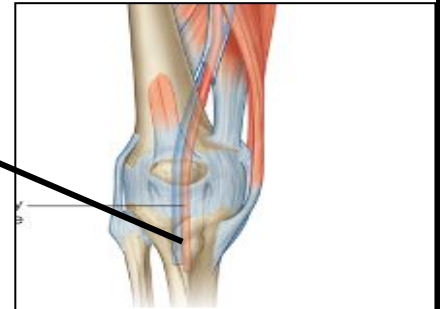
FEMORAL PULSE: It can be palpated just inferior to the midinguinal point

***POPLITEAL ARTERY** : Ends at the lower border of popliteus muscle by dividing into: Anterior and Posterior Tibial Arteries.

* **POSTERIOR TIBIAL ARTERY:** It terminates by dividing into:

*Medial & Lateral plantar arteries. *It has 3 Branche.*

For Palpation pulse POSTERIOR TIBIAL ARTERY " flexor retinaculum must be relaxed by inverting the foot"it is essential for examining patients with occlusive peripheral arterial diseases.



Remember Dorsalis pedis pulse:

Some people have congenitally non palpable DP pulse, the anomaly is usually bilateral.

A diminished or absent dorsalis pedis pulse usually suggests vascular insufficiency resulting from arterial disease. يعنى لو فى الجهتين ما قدرت احس النبض مو شرط يكون مو طبيعي ممكن انو هي وراثه في العائلة انه النبض ما بنحس ، لكن لو ما قدرت احسه بس في رجل وحدة غالبا يكون عنده مرض

VEINS OF THE LOWER LIMB :

superficial " SMALL SAPHENOUS VEIN & Great SAPHENOUS VEIN "& deep veins have valves which are numerous in the deep veins.

(saphenous cutdown) is used to insert a cannula for prolonged administration of blood, plasma or drugs.

Even when it is not visible in infants and obese persons or in patients in shock, the great saphenous vein can always be located Anterior to the Medial Malleolus. " في بعض حالات الطوارئ يسوون " كاتداون" عشان يدخلون محلول

<http://www.youtube.com/watch?v=uaPRXZdP2qA>

موجود عند البنات فقط

ARTERIAL SUPPLY OF LOWER LIMB

It is derived

Mostly from : FEMORAL artery (from External iliac artery)

Partially from

Superior gluteal artery &

Inferior gluteal artery (from Internal iliac artery)

الجدول هذا فى اختلاف بسيط بين الاولاد والبنات فحطينا الاثنين حتى تكونوا على اطلاع

<u>Dorsal pedis artery</u> <u>عند البنات</u>	<u>Dorsal pedis artery</u> <u>عند الأولاد</u>
<u>It passes to the 1st interosseous space where it divides into a deep plantar artery to the sole and the first dorsal metatarsal artery.</u>	<ul style="list-style-type: none">▣ <u>It passes to the 1st interosseous space where it gives;</u>▣ <u>lateral tarsal</u>▣ <u>Arcuate artery</u> <small>الدكتور قال هذى أهم نقطه</small>▣ <u>First dorsal metatarsal artery.</u>▣ <u>Joins the lateral planter to form the planter arch</u>

عند الأولاد فقط

▣ Lateral PA → It supplies mainly the sole

1- contain valves:

1- superficial veins.

2- deep veins

3-both

2-VARICOSE VEINS:

1-Allows the passage of high pressure blood from the deep to the superficial veins

2-common in the posterior medial part of the lower limb

3-both

3-GREAT SAPHENOUS VEIN:

1-The Longest Superficial vein of the body.

2-The Longest deep vein of the body.

3-1&2

4-The Plantar Arch supplies the :

1-skin

2-fascia and muscles in the sole

3-1&2

5-Lateral PLANTAR Arteries are the:

1-larger terminal branch.

2-smaller terminal branch.

3-smaller branch

6-the main source of blood supply to the Toes:

- 1-Dorsial Pedis artery
- 2-FEMORAL artery
- 3-Inferior gluteal artery.

7-Peroneal (fibular) artery is The :

- 1-largest and most important branch
- 2-one of the POSTERIOR TIBIAL ARTERY branches
- 3-1&2

8-The blood supply to the knee comes from popliteal artery called:

- 1-Genicular Anastomosis
- 2-Superior gluteal artery
- 3-Inferior gluteal artery.

9-pulsations are best felt in thepart of the popliteal fossa:

- 1-inferior
- 2-anterior
- 3-both

10-ANTERIOR TIBIAL ARTERY passing through an opening in the upper part of the interosseous membrane, in company with the :

- 1-Deep Peroneal nerve
- 2-Superior Peroneal nerve
- 3-1&2

11-provides the main blood supply to the Foot:

1-ANTERIOR TIBIAL ARTERY

2-POSTERIOR TIBIAL ARTERY

3-Inferior gluteal artery.

12-In case of ligation of the femoral artery:

1-Cruciate anastomosis supplies blood to the lower limb

2-Nothing will happen

3- necrosis

13-It is used for left cardiac angiography:

1-Superior gluteal artery

2-Inferior gluteal artery.

3-Femoral artery

14-It is the deepest structure in the Popliteal Fossa:

1-Inferior gluteal artery.

2- Femoral artery

3- Popliteal artery

15-The main arterial supply to the lower limb:

1-Superior gluteal artery

2-Inferior gluteal artery.

3- Femoral artery

16-The continuation of the External Iliac artery.

- 1-Superior gluteal artery
- 2- Femoral artery
- 3-Inferior gluteal artery.

17-FEMORAL artery exits the canal by passing through the :

- 1-adductor hiatus
- 2-abductor hiatus
- 3-between1&2

18-FEMORAL artery become the.....after exits the canal

- 1-Popliteal artery.
- 2- Femoral artery
- 3-Inferior gluteal artery.

19-It arises from the lateral side of the femoral artery.

- 1-Superficial circumflex iliac.
- 2-Deep external pudental.
- 3-Profunda femoris artery

Q	A
1	3
2	3
3	1
4	3
5	1
6	1
7	3
8	1
9	1
10	1
11	2
12	1
13	3
14	3
15	3
16	2
17	1
18	1
19	3

GOOD LUCK ;)