THE FRONT OF THE THIGH

Dr.Amjad shatarat

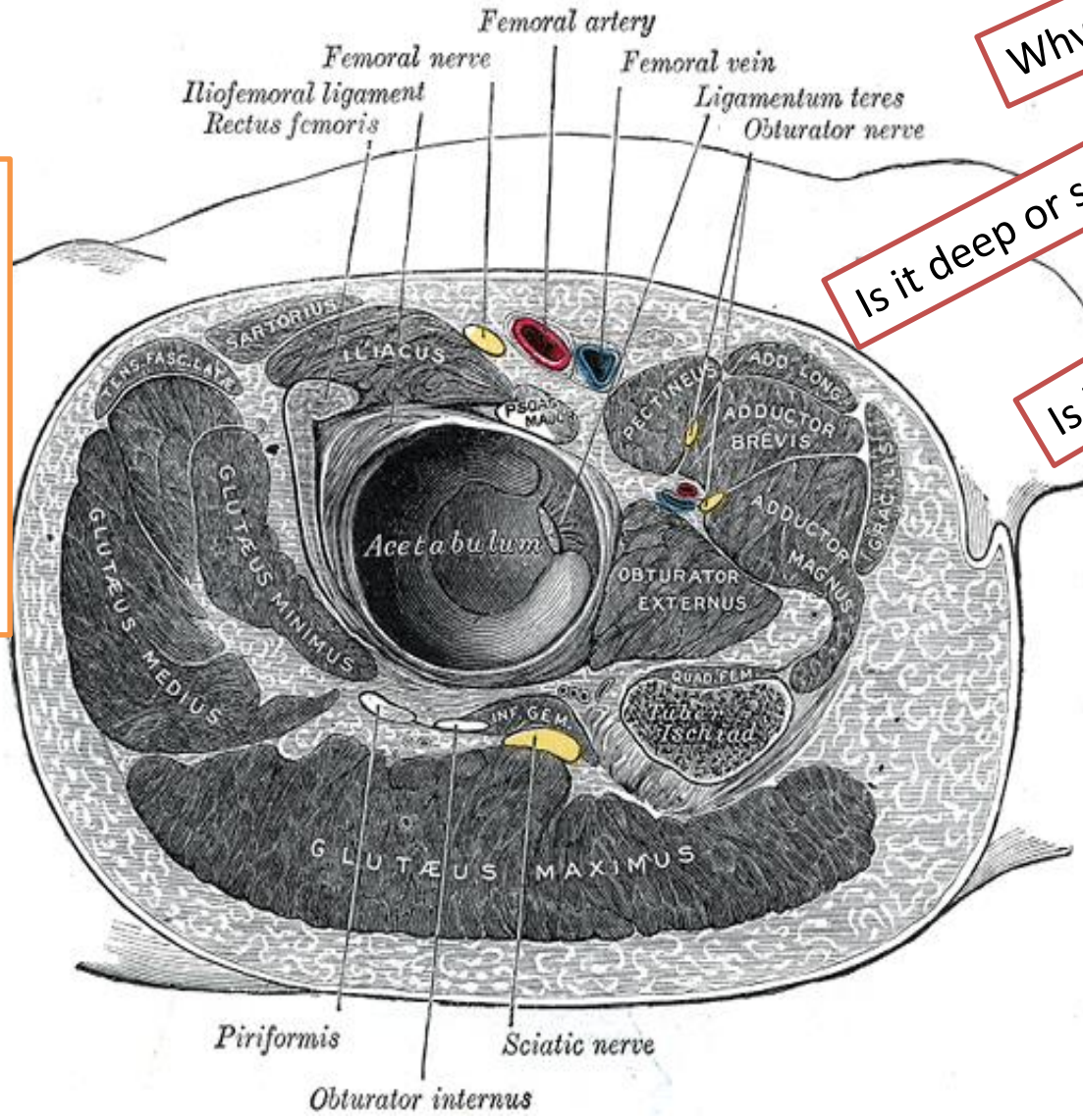
Femoral triangle (Scarpa's triangle)

Why do need it?

Is it deep or superficial?

Is it a 3D space?

Is *a triangular* depressed area located *in the upper part <u>of the medial aspect</u> of the thigh* immediately *<u>below the inguinal ligament</u>*.



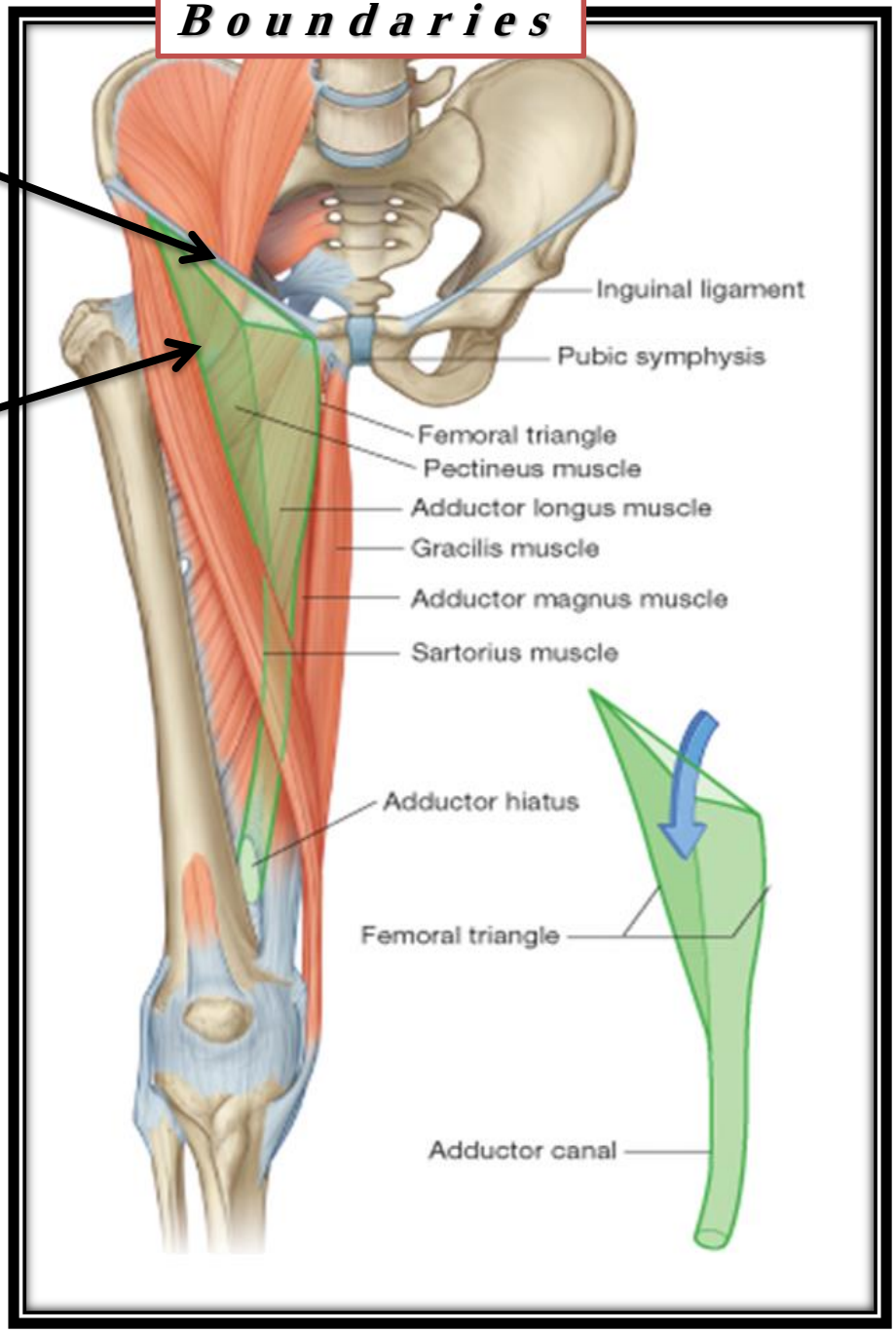
Dr.Amjad shatarat

Boundaries

Superiorly: The *inguinal ligament (the base of the triangle)*

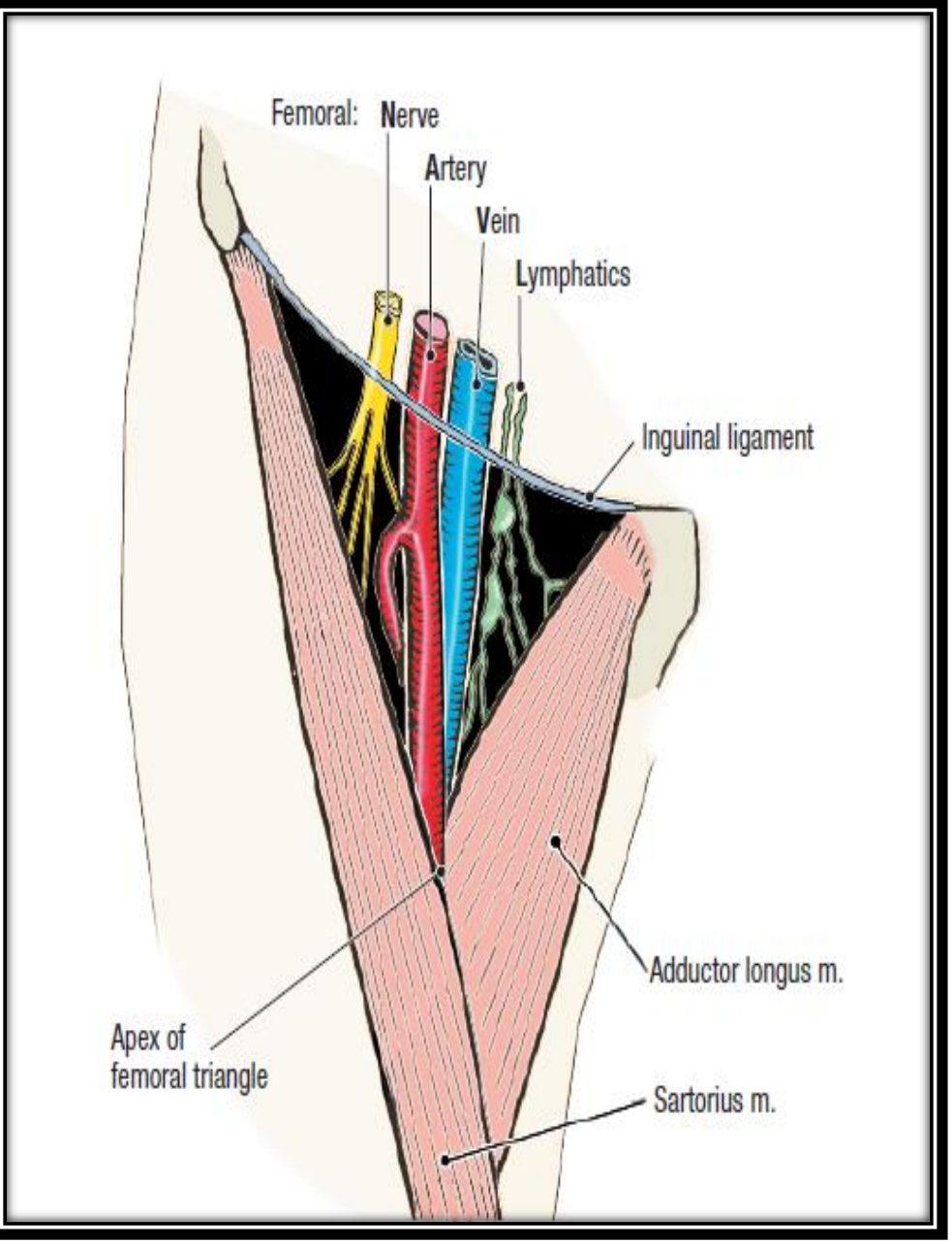
Laterally: The *medial border of sartorius muscle*

Floor: gutter shaped from lateral to medial is made by
The iliopsoas muscle
The pectineus muscle
The adductor longus



Medially: The medial border of *adductor longus muscle*

The apex: directed downwards and is formed by the meeting point of Sartorius and adductor longus muscles



Contents of the femoral triangle

1-Terminal part of the femoral nerve and its branches.

2- The femoral sheath!!!

3- The femoral artery and its branches.

4- The femoral vein and its tributaries.

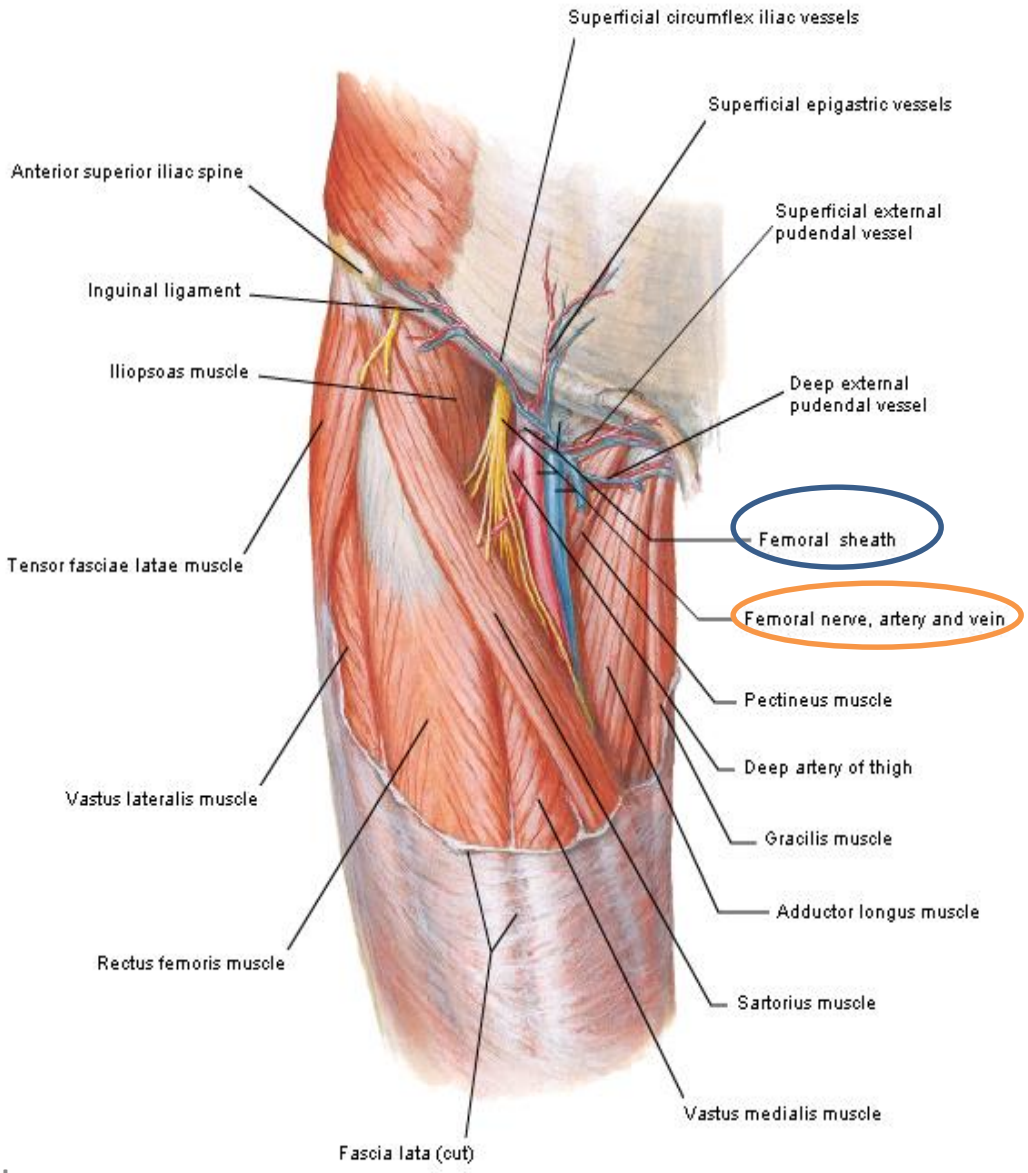
5- Deep inguinal lymph nodes

6- femoral branch of genitofemoral nerve

7- lateral cutaneous nerve of the thigh

Arteries and Nerves of Thigh

Superficial Anterior View



Dr.Amjad shatarat

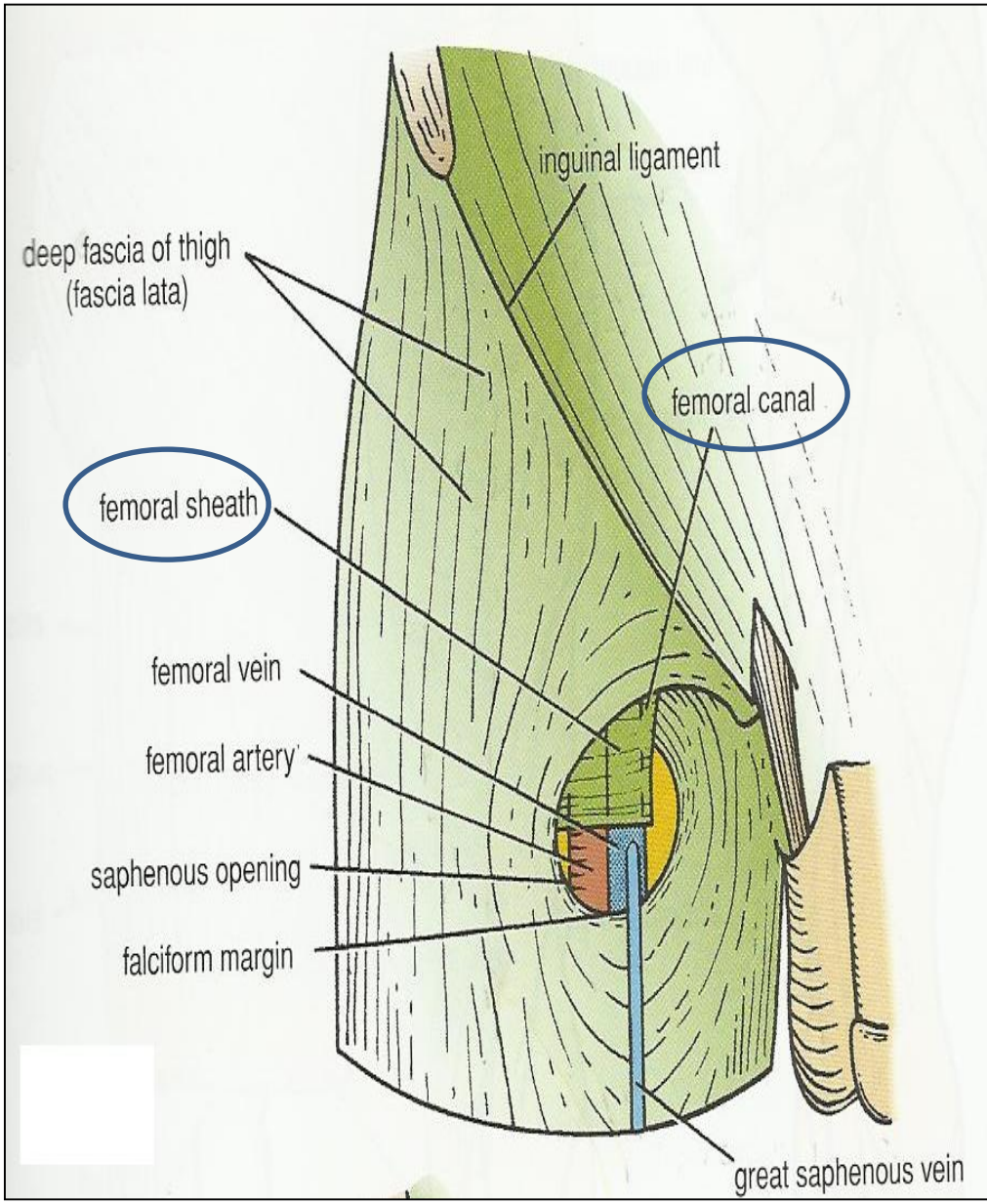
The femoral sheath

Is a funnel-shaped sleeve of fascia surrounded the **femoral artery , vein and the associated lymphatic vessels in the *femoral triangle* for 2.5 cm below the inguinal ligament.**

➢The femoral sheath is formed by a downwards extension of the ***abdominal fascia***

Anterior wall: *fascia transversalis*
Posterior wall: *fascia iliaca*

➢**Two Anterio-posterior septa** divide the sheath into **3 compartments:**



1-Lateral compartment **(<u>arterial</u>)**

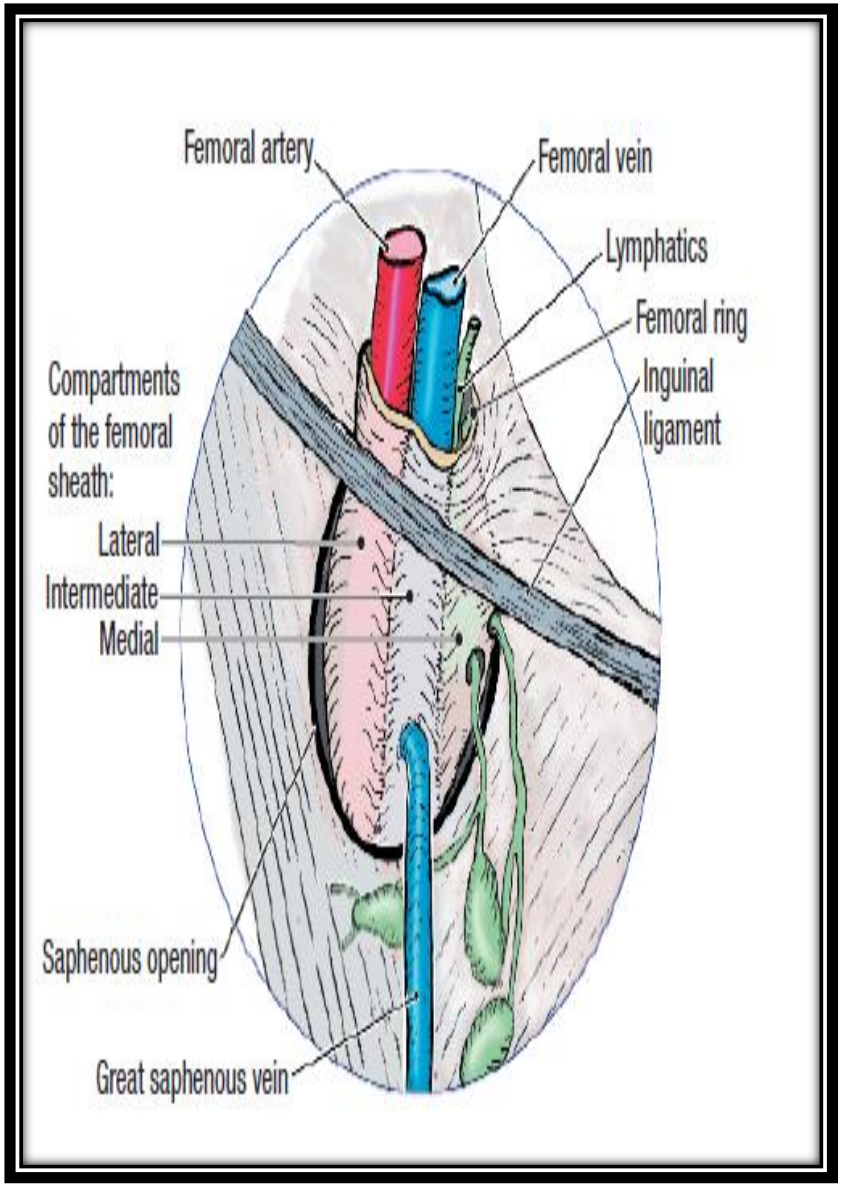
occupied by the ***femoral artery and <u>femoral branch of the genitofemoral nerve</u>***

2-Intermediate compartment (<u>venous</u>)

occupied by the ***femoral vein***

3-Medial compartment (<u>lymphatic</u>)
occupied by the ***lymph vessels***

(also Called
<u>f e m o r a l c a n a l</u>



NAVEL ?

Dr.Amjad shatarat

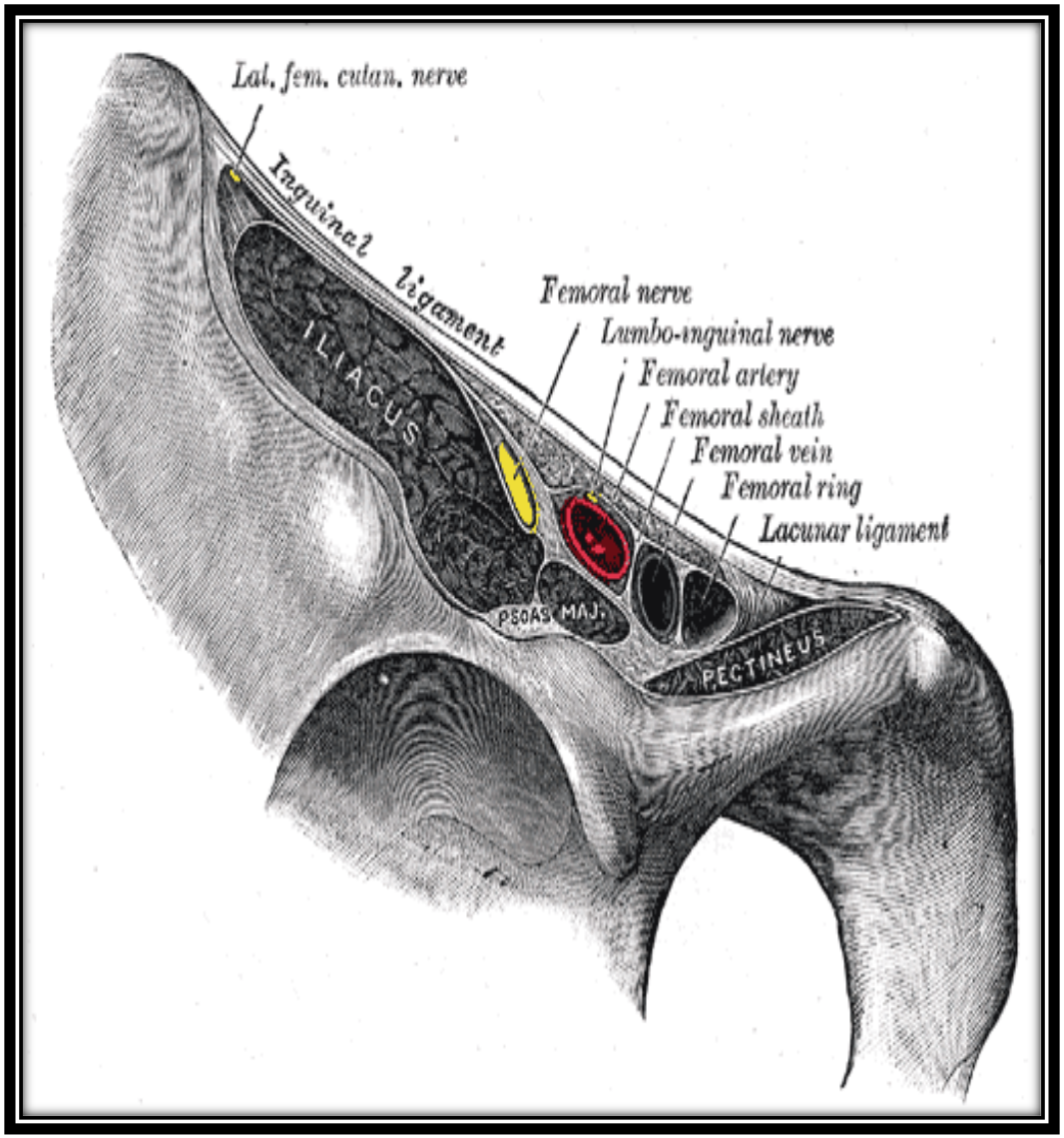
Femoral canal

- Is the small **medial compartment for the lymph** vessels. **1.3 cm** In length. just admits the tip of the little finger.

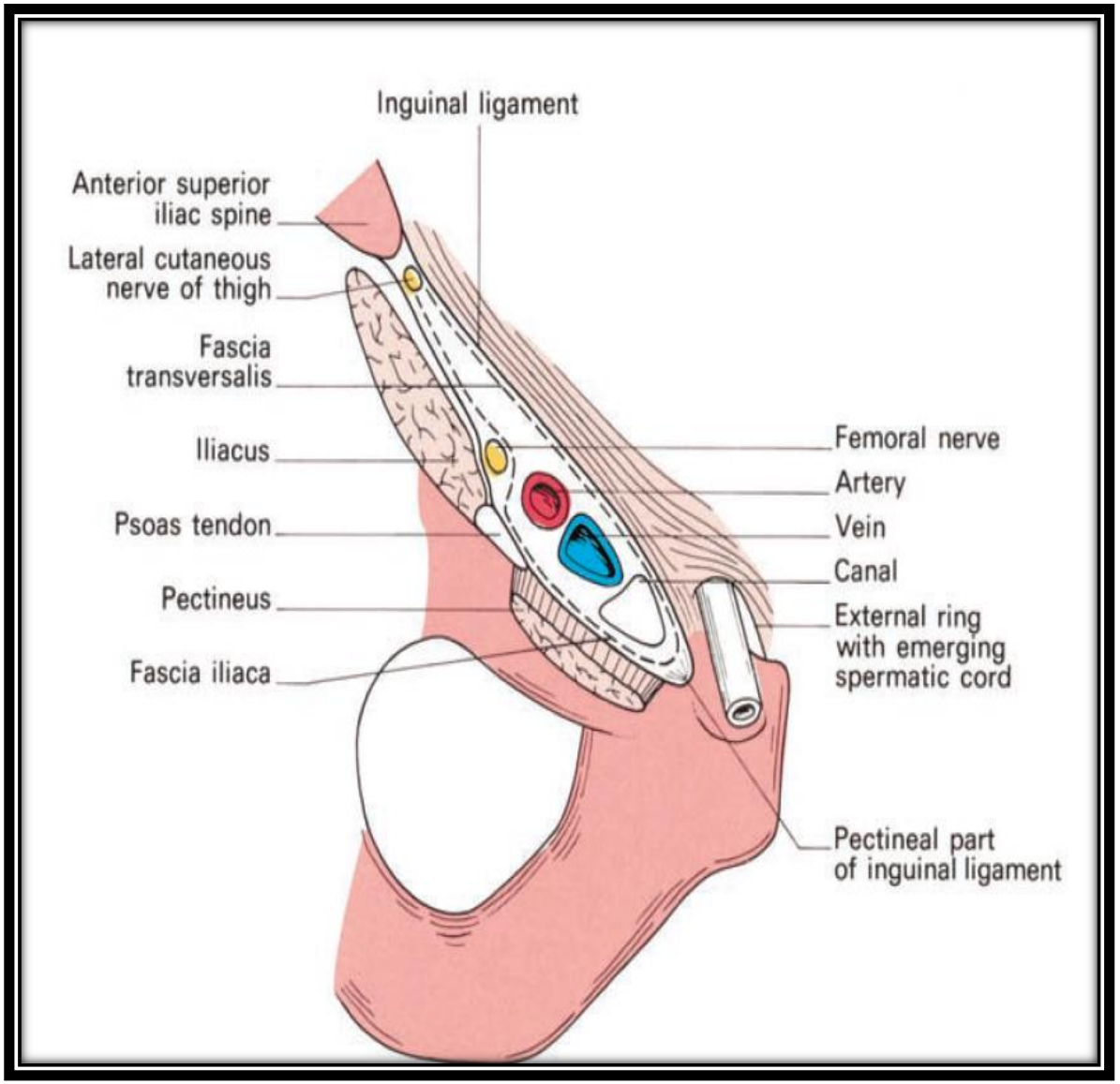
- **Its upper opening is called the femoral ring.**

- **The femoral septum (is a condensation of extraperitoneal tissue), closes the ring.**

Note: the femoral ring is wider in femals because of their wider pelvis and therefore, femoral hernia is commoner in femals than in males



The canal contains:
1-a plug of fat
2-a constant lymph node—the *node of the femoral canal or Cloquet's gland.*
3-all the efferent lymph vessels from the deep inguinal lymph nodes



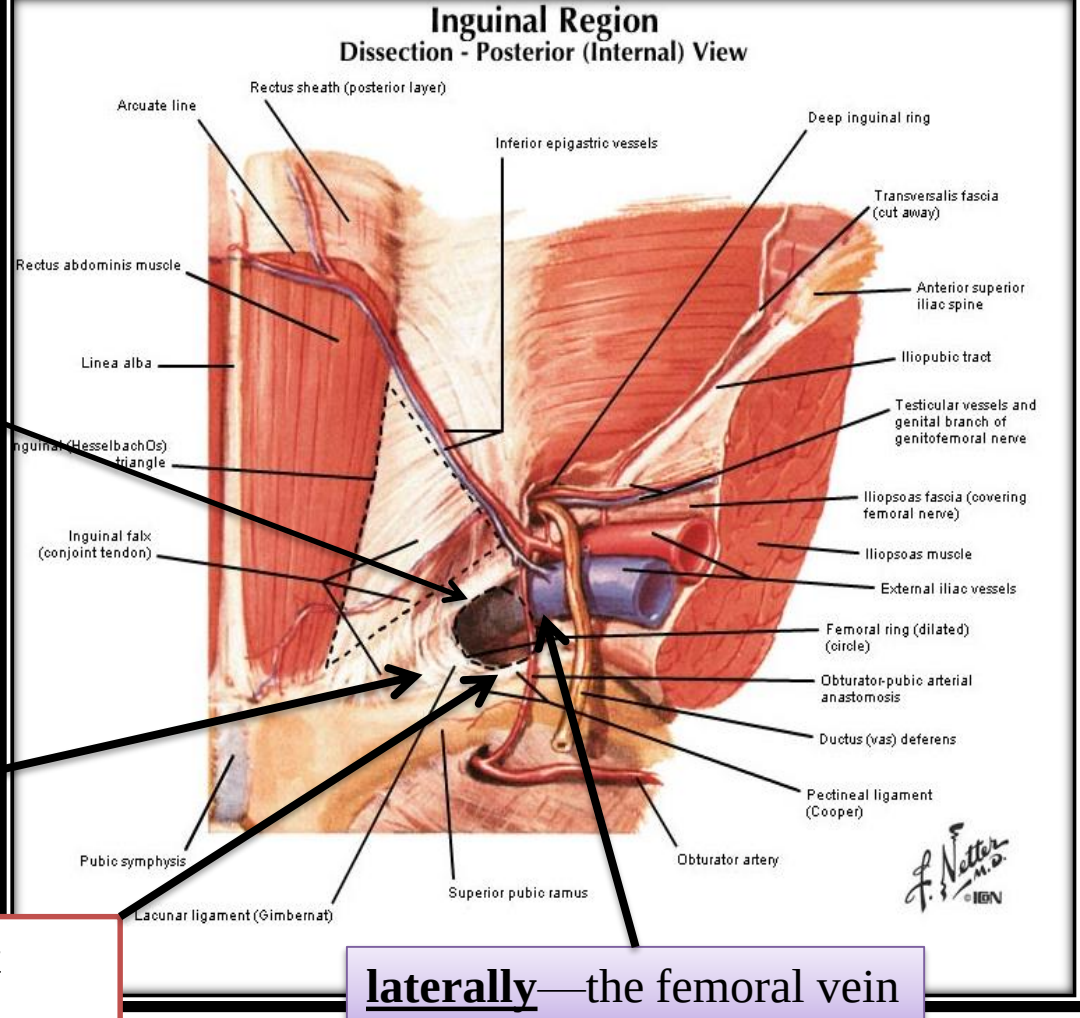
The canal has two ***functions:*** first, as a dead space for expansion of the distended femoral vein and, second, as a lymphatic pathway from the lower limb to the external iliac nodes

The boundaries of the femoral canal (ring) are:

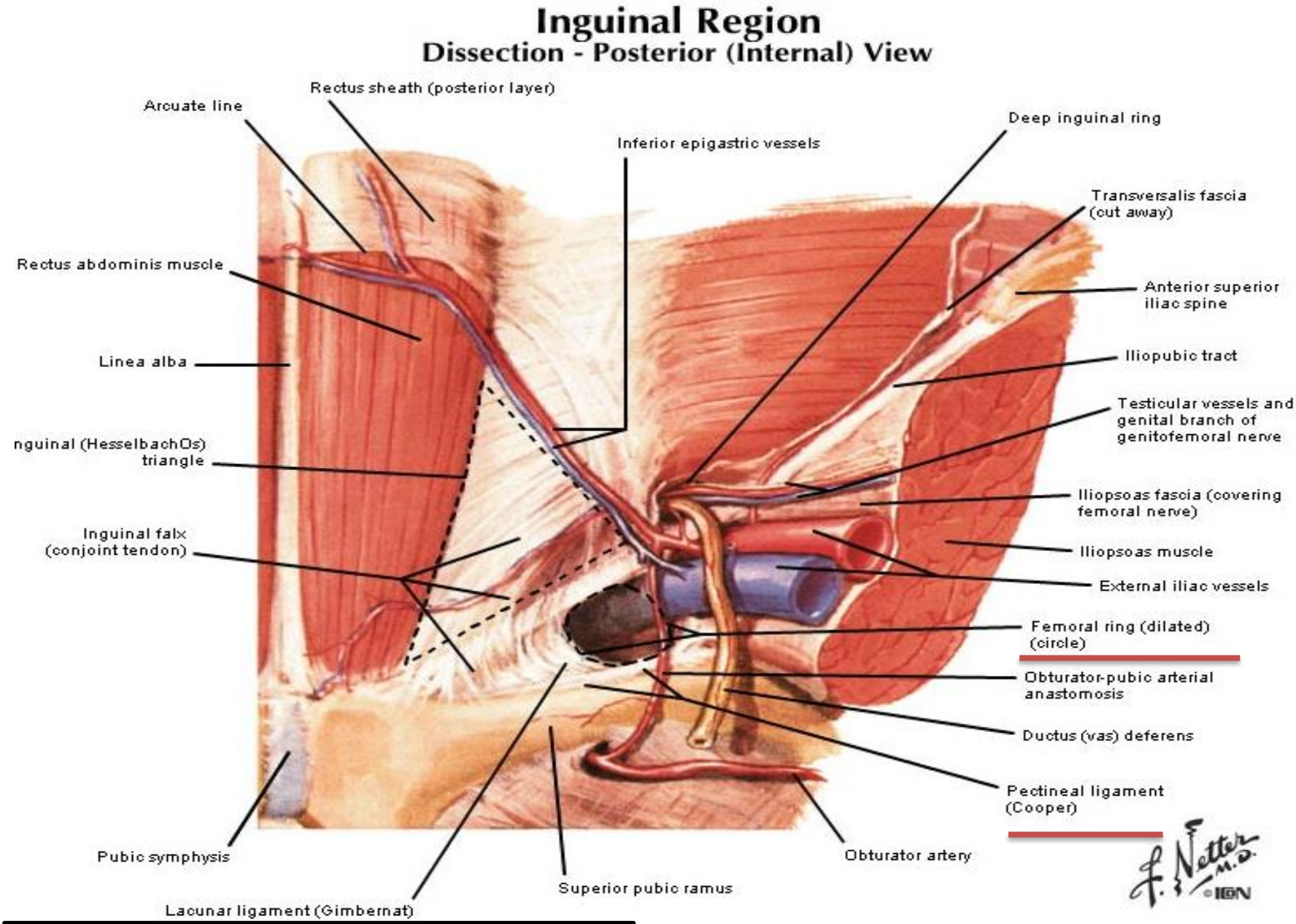
Anteriorly: ***the inguinal ligament***

Medially: the sharp free edge of the pectineal part of the inguinal ligament,termed the *lacunar ligament* ***(Gimbernat's ligament)***

Posteriorly — the pectineal ligament (of Astley Cooper), which is the thickened periosteum along the pectineal border of the superior pubic ramus and which continues medially with the pectineal part of the inguinal ligament.



laterally—the femoral vein



lacunar ligament ***(Gimbernat's ligament)***

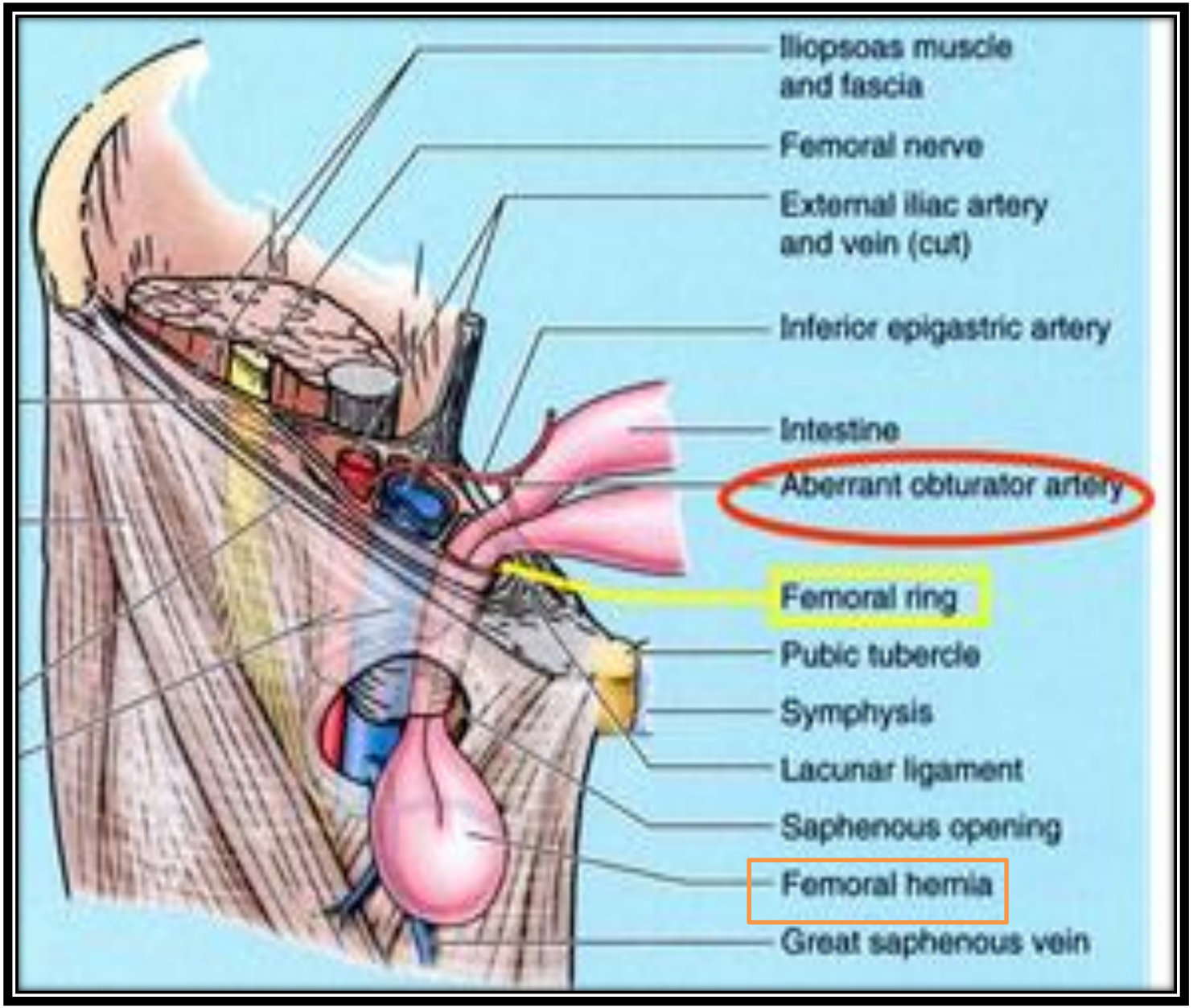
➢ **The part of the femoral sheath that forms the femoral canal *is not adherent to the walls of the small lymph vessels*; it is this site that forms a potentially weak area in the abdomen.**

➢The lower end of the canal is normally **closed** **by the adherence of its medial wall to the tunica adventitia of the femoral vein.**

A protrusion of **peritoneum (see below)** could be forced down the femoral canal, pushing the femoral septum. Such a condition is known **as a femoral hernia.**

Read only

Peritoneum:
Is simple squamous epithelium which covers the walls and the contents of the abdomen


Iliopsoas muscle and fascia
Femoral nerve
External iliac artery and vein (cut)
Inferior epigastric artery
Intestine
Aberrant obturator artery
Femoral ring
Pubic tubercle
Symphysis
Lacunar ligament
Saphenous opening
Femoral hernia
Great saphenous vein

Femoral hernia

A protrusion of abdominal parietal **peritoneum down through the femoral canal to form hernial sac**

In femoral hernia

The neck of the hernial sac is located **below and lateral** to the ***pubic tubercle***

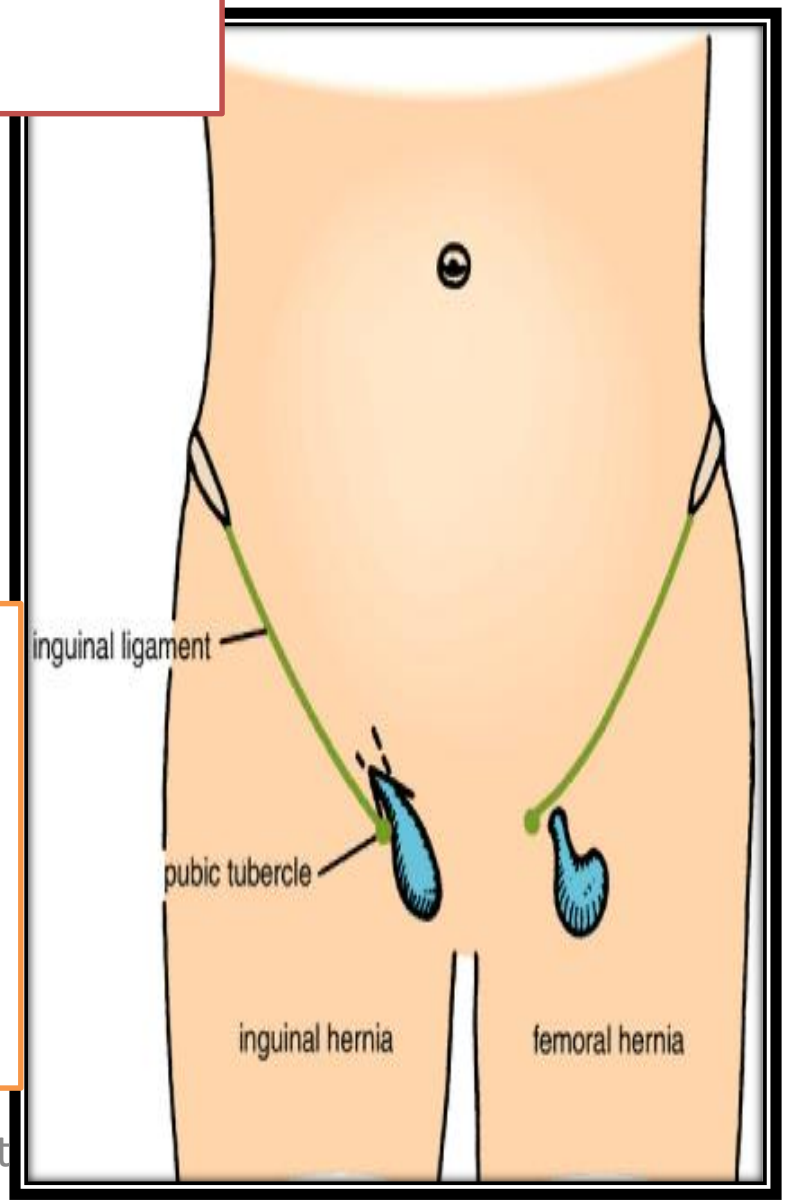
Read only

While in the inguinal hernia

The neck of the hernial sac is located

above and medial to the pubic tubercle

Inguinal hernia will be explained to you in details next year in the GI system



Dr.Amjad shatarat

Adductor canal (Subsartorial) or Hunter's canal

John **Hunter** described the exposure and ligation of the femoral artery in this canal for aneurysm of the popliteal artery; this method has the advantage that the artery at this site is healthy and will not tear when tied, as may happen if ligation is attempted immediately above the aneurysm.

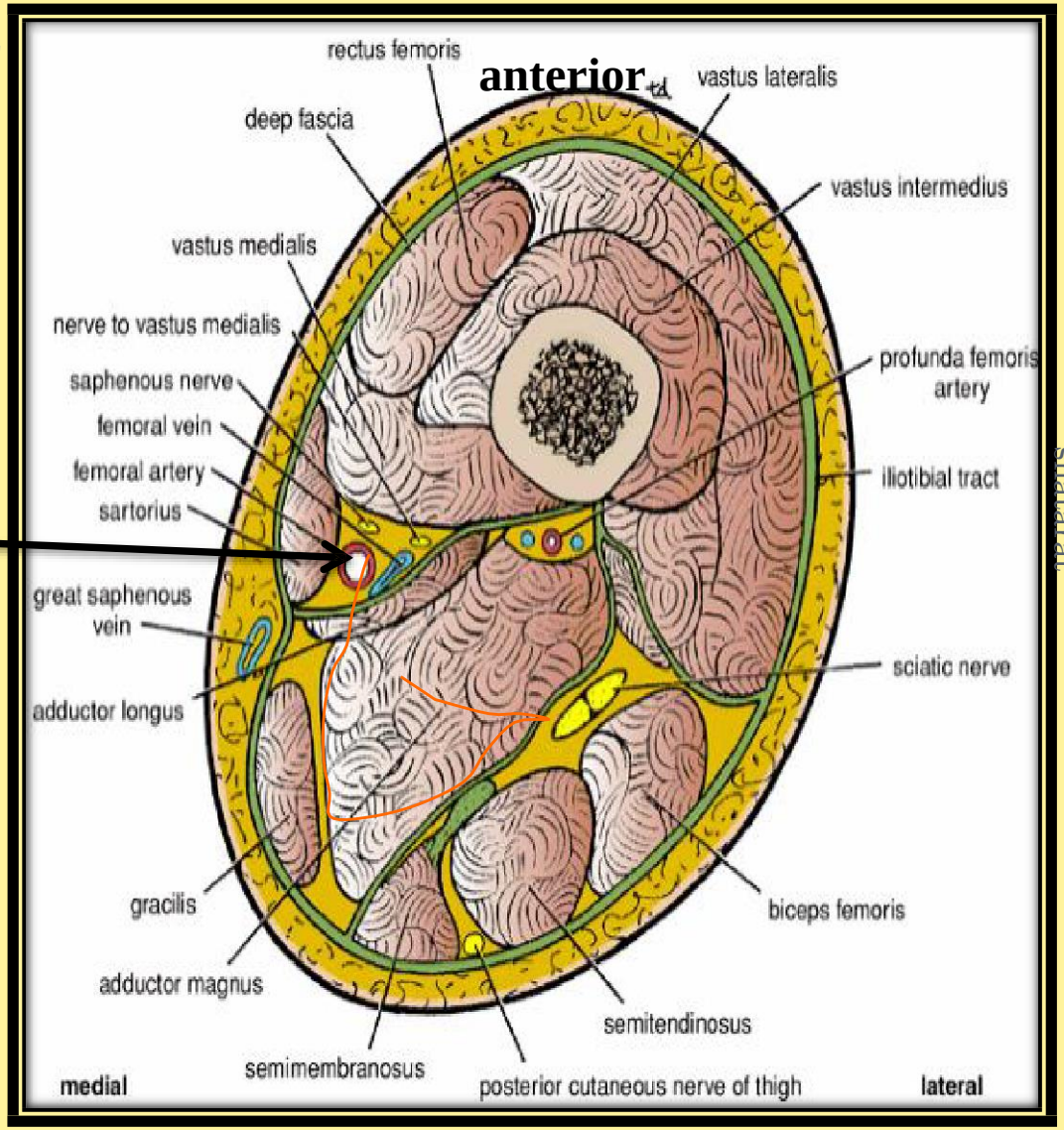
Dr.Amjad shatarat

Adductor (Subsartorial) Canal

➢**is an intermuscular cleft situated on *the medial aspect of the middle third of the thigh beneath the sartorius muscle***

➢**It commences above at the apex of the femoral triangle and ends below at the opening in the adductor magnus.**

➢**In cross section it is triangular, having**



Transverse section through the middle of the right thigh as seen from above

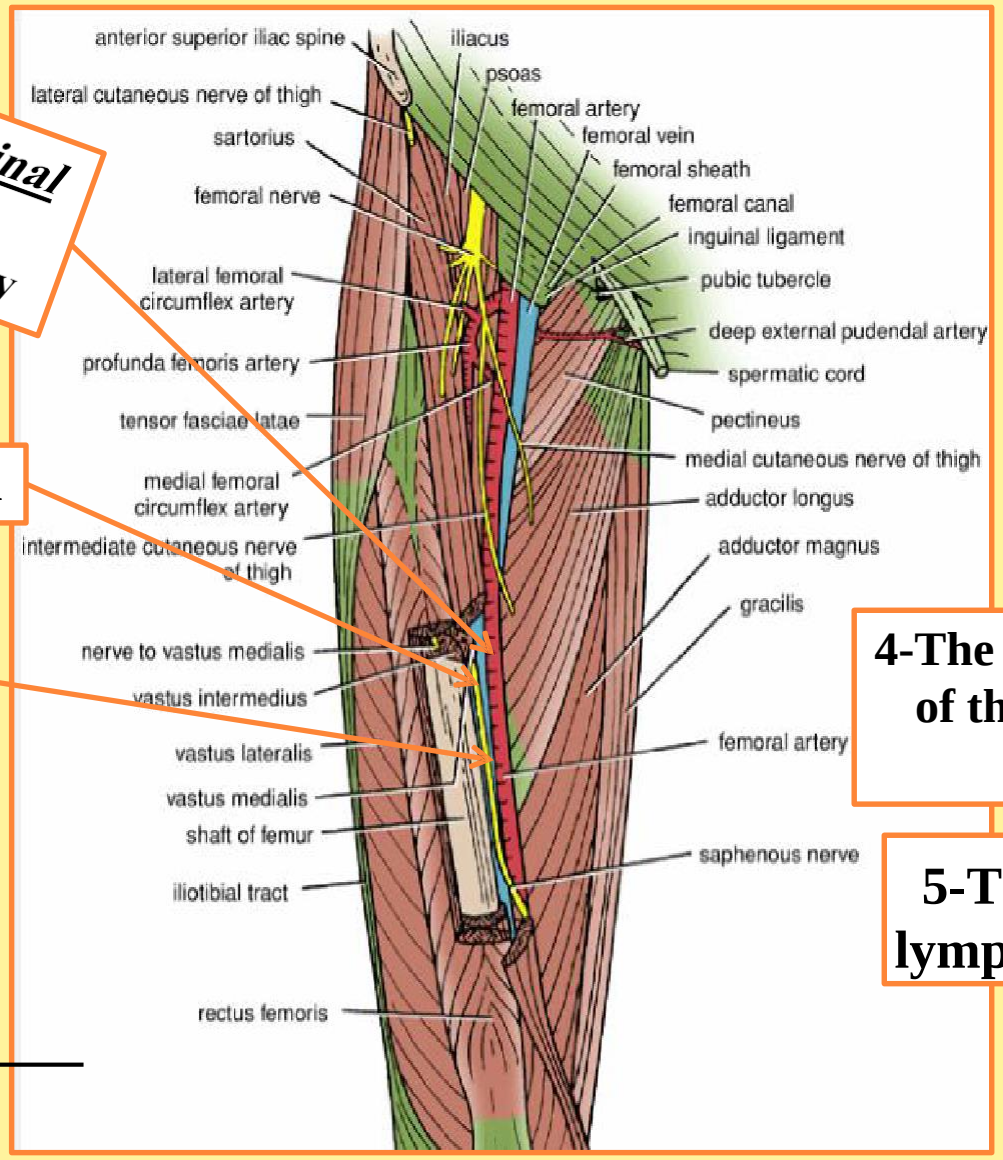
Dr.Amjad shatarat

The adductor canal contains

1-The *terminal* part of the femoral artery

2-The femoral vein

3-The saphenous nerve



4-The terminal part of the obturator nerve

5-The deep lymph vessels

Dr.Amjad shatarat