THE FRONT OF THE THIGH

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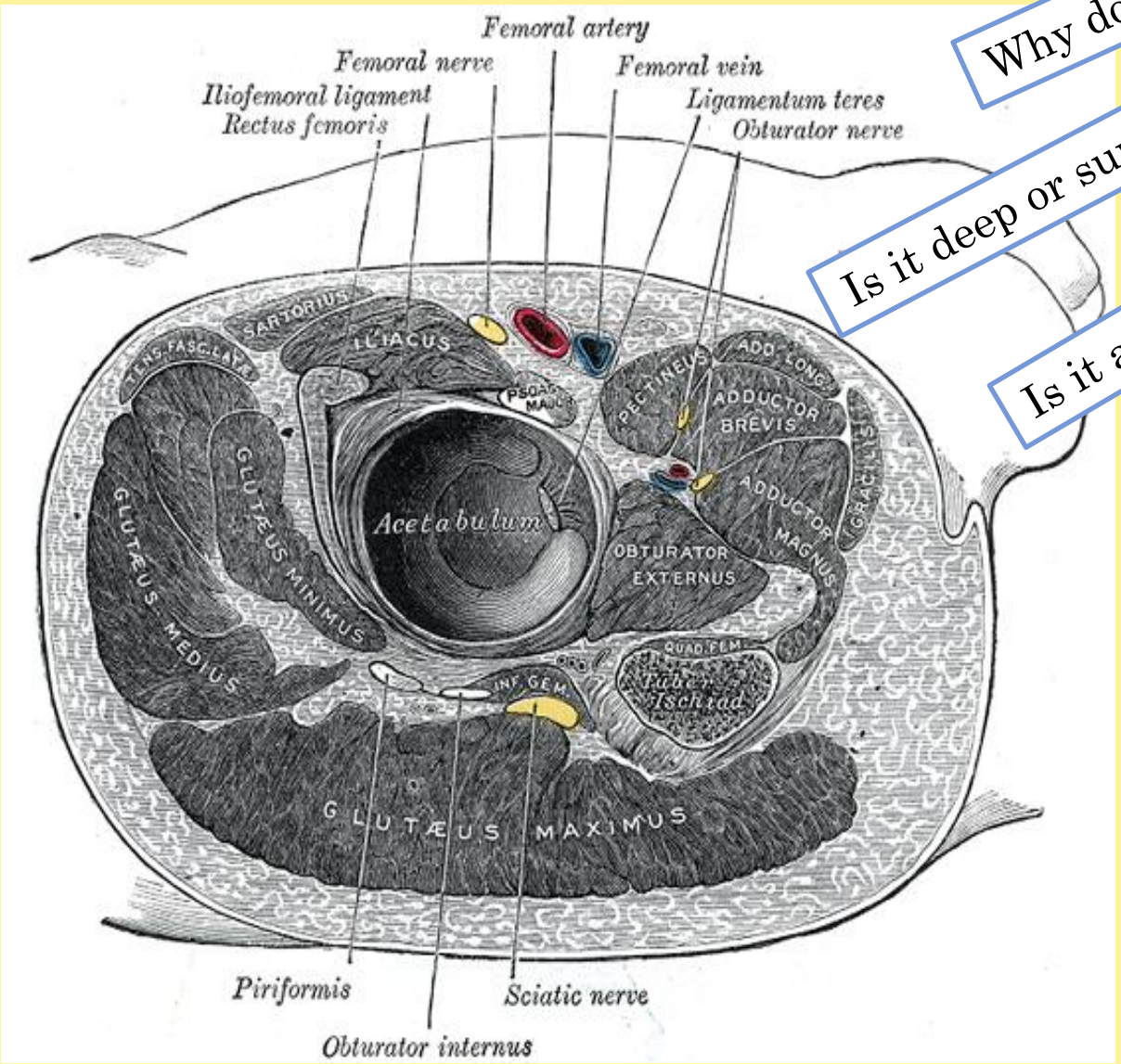
Femoral triangle (Scarpa's triangle)

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>*.**



Why do need it?

Is it deep or superficial?

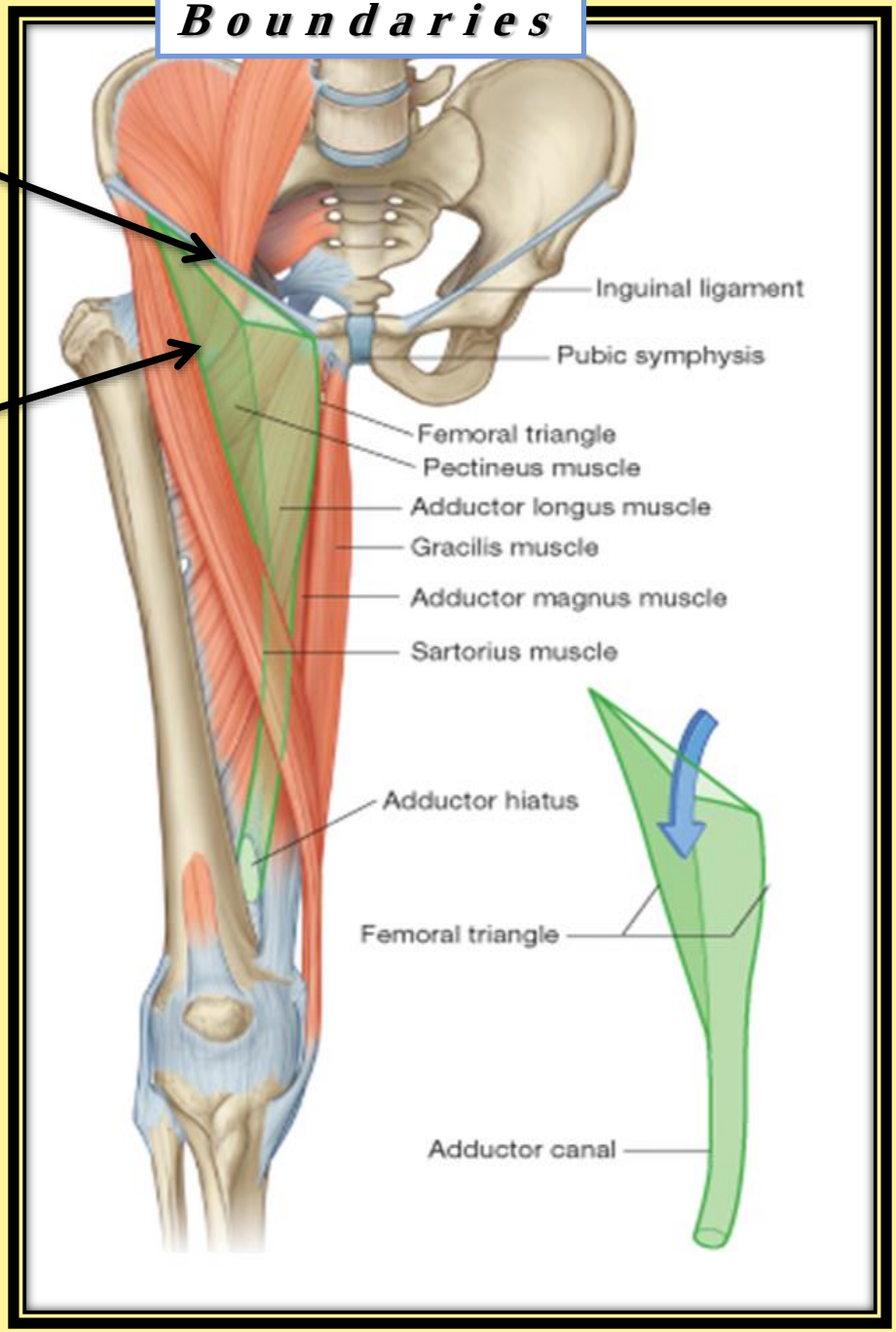
Is it a 3D space?

Dr.Amjad shatarat

Boundaries

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

Laterally: The *medial border of sartorius muscle*



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

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

Roof :

Formed by

1- skin

2- superficial fascia which contains:

A-superficial inguinal lymph nodes

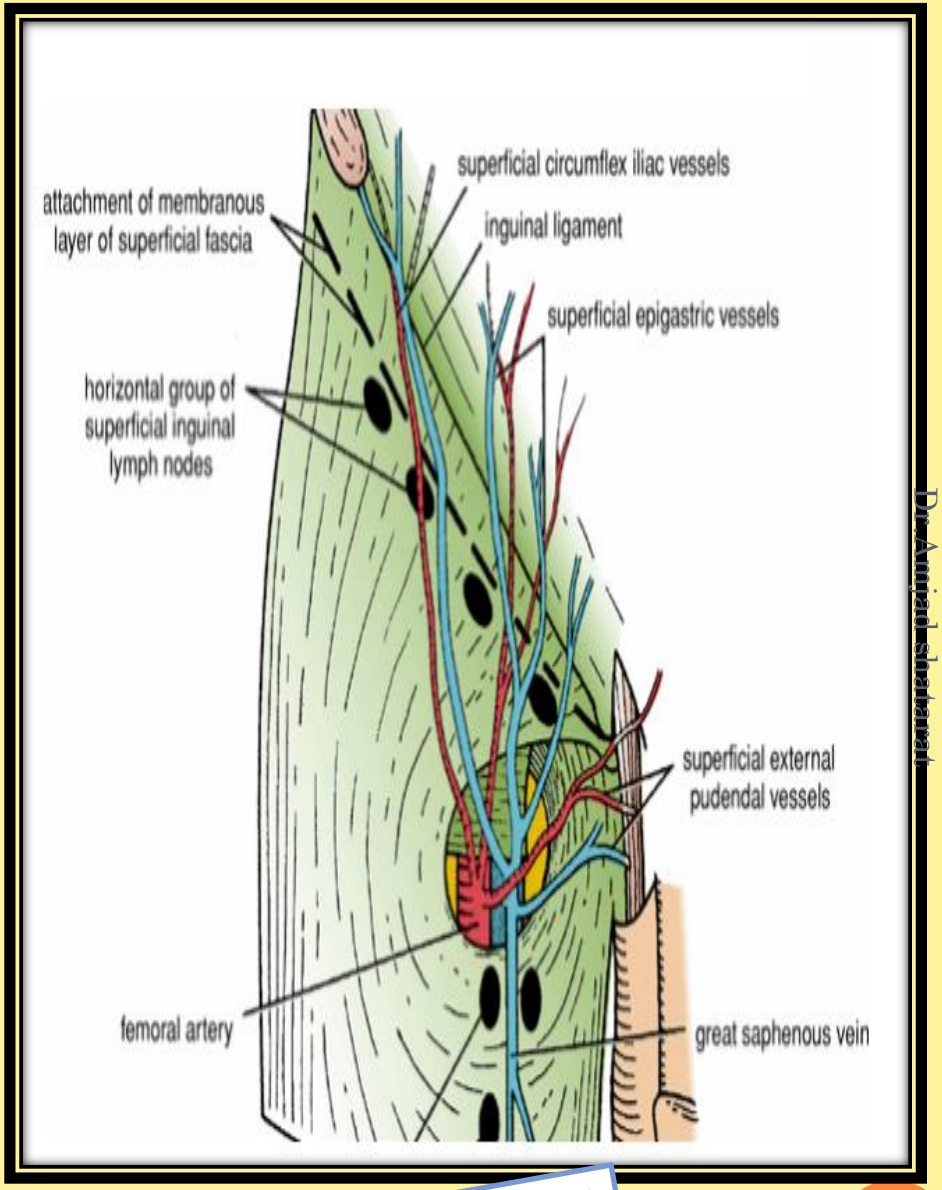
B-femoral branch of the genitofemoral nerve

C- branches of ilioinguinal nerve

D-superficial branches of the femoral artery and corresponding veins

E- terminal part of the great saphenous vien

3- deep fascia containing the Saphenous opining



You should know this by know!!!

Contents of the femoral triangle

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

2- The **femoral sheath!!!**

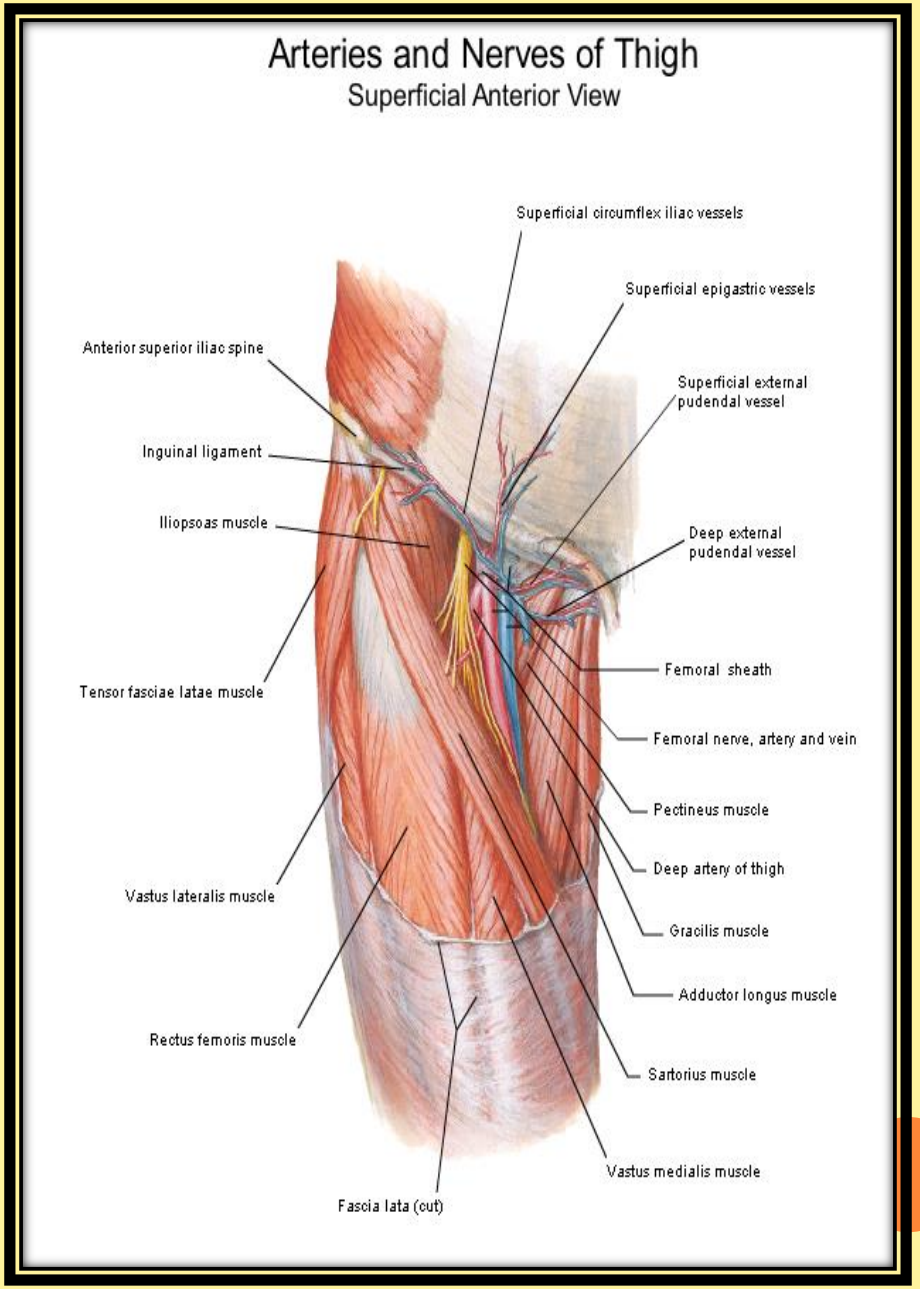
3- The femoral artery and its branches.

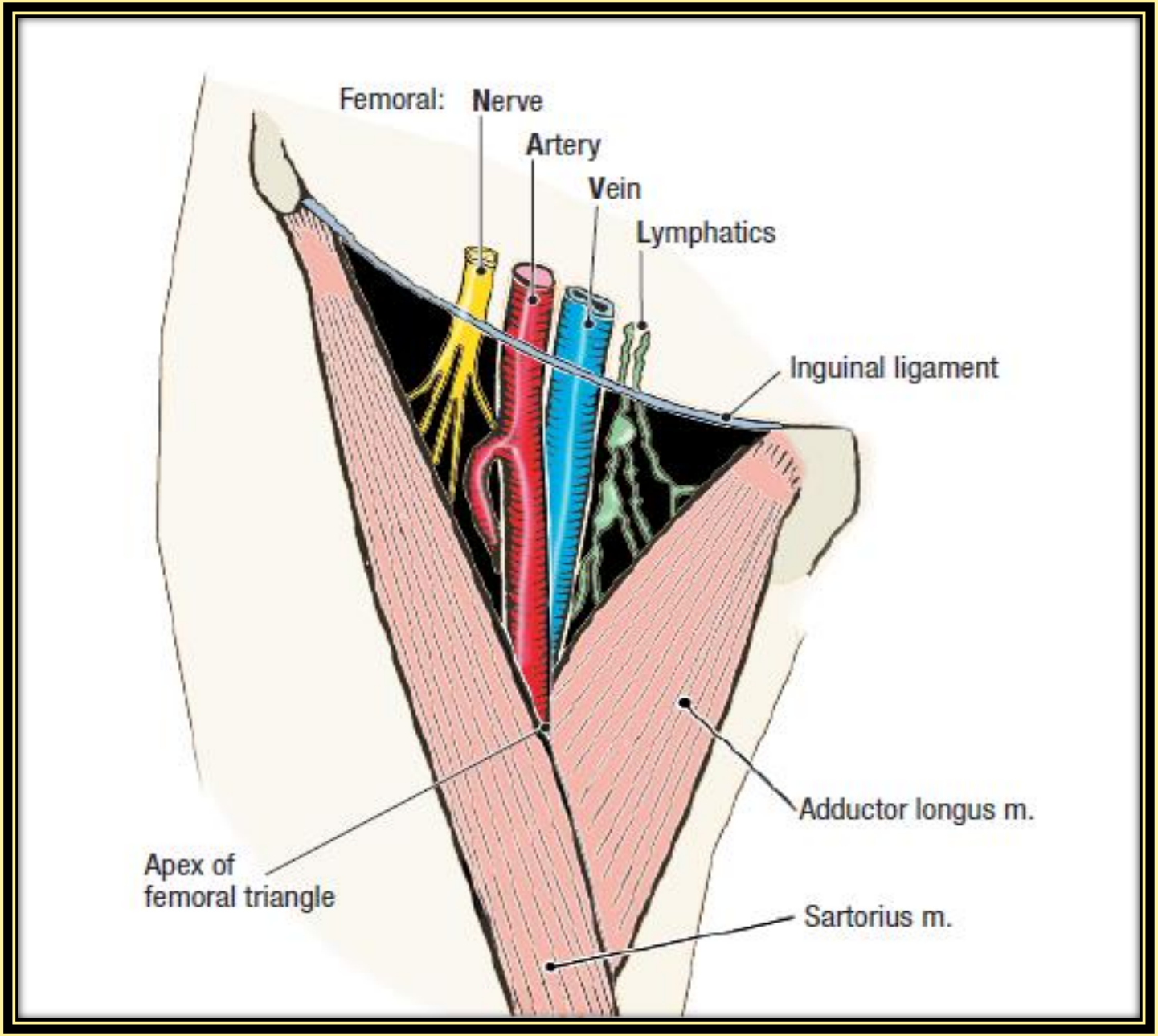
4- The femoral vein and its tributaries.

5- Deep inguinal lymph nodes

6- femoral branch of genitofemoral nerve

7- lateral cutaneous nerve of the thigh





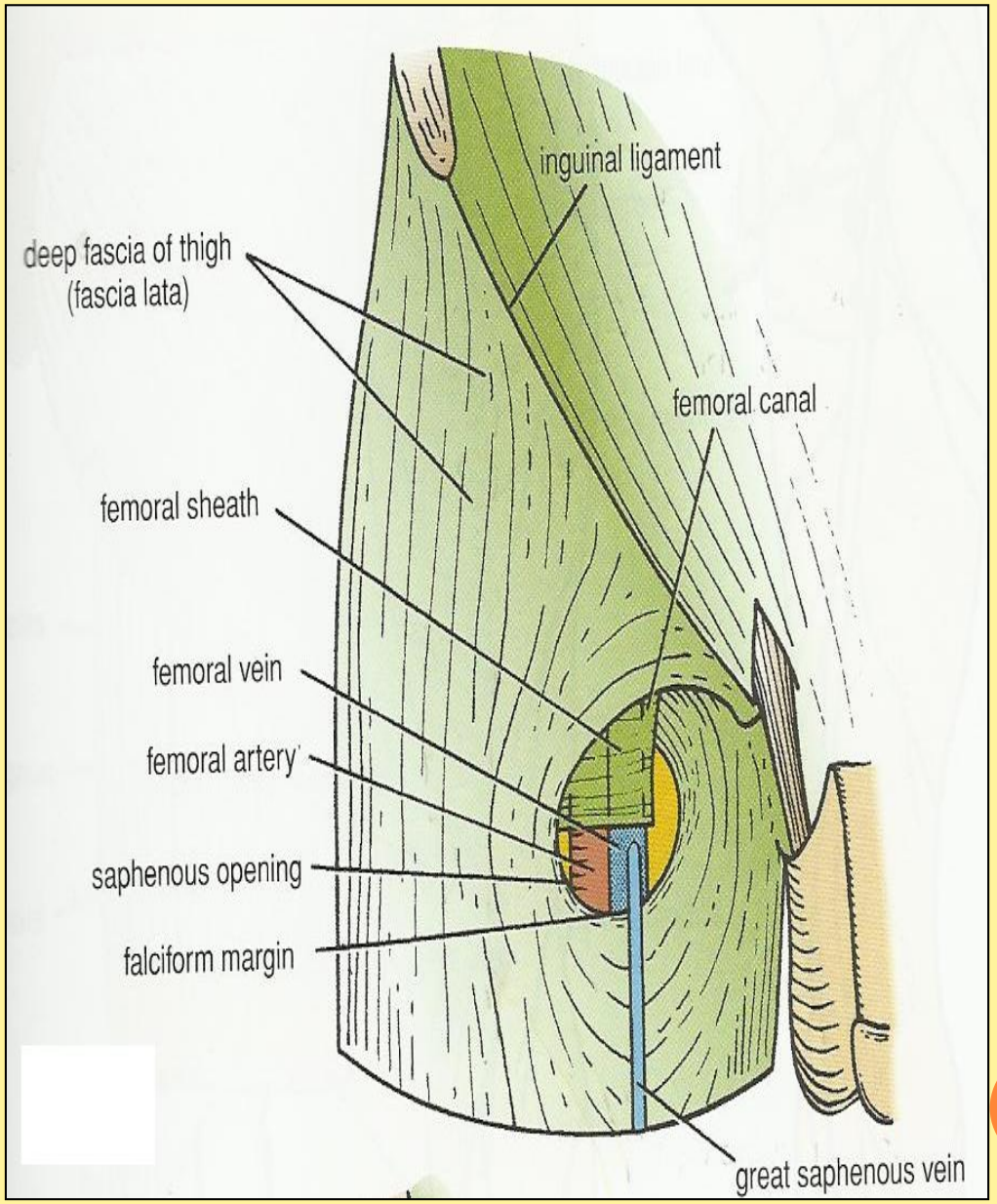
The femoral sheath

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 **(arterial)**

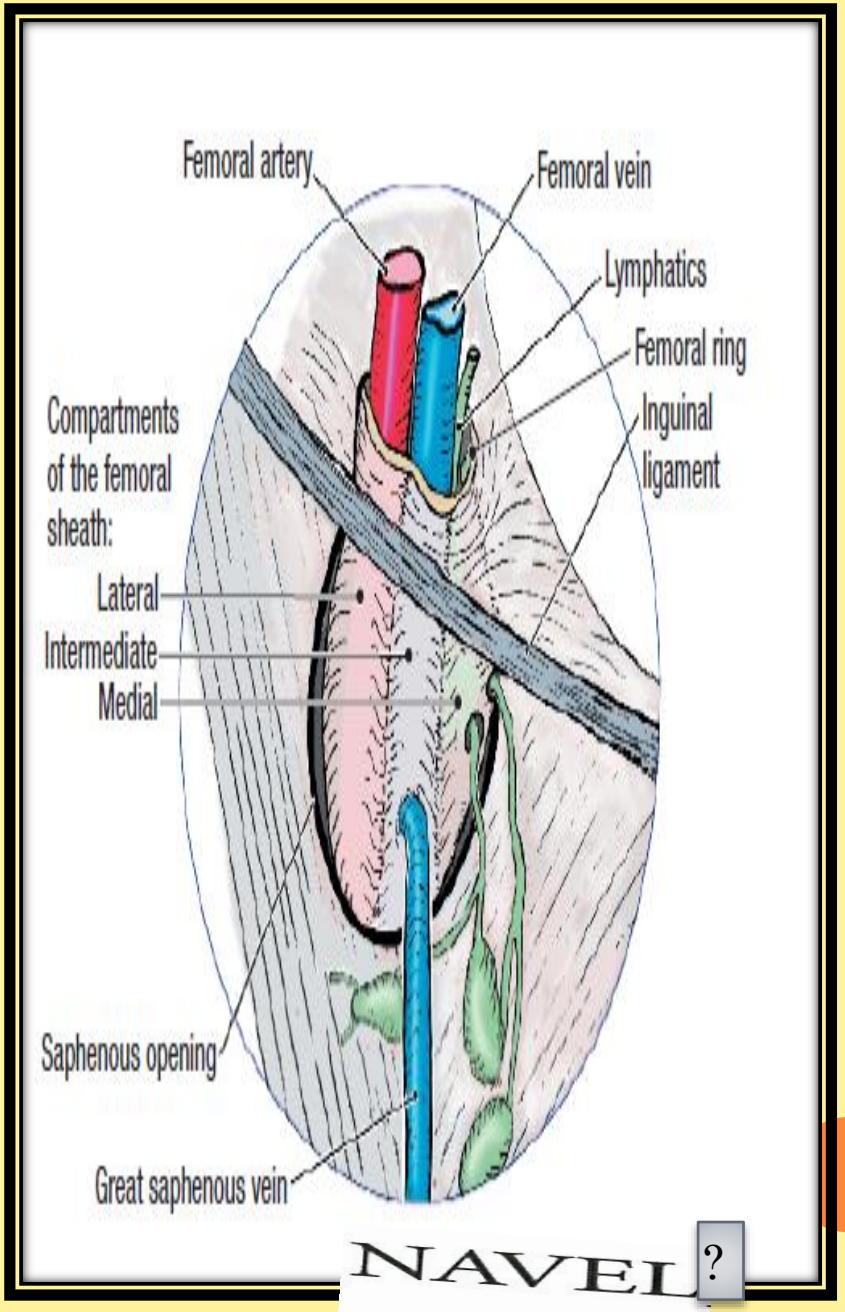
occupied by the ***femoral artery and femoral branch of the genitofemoral nerve***

2-Intermediate compartment (venous)

occupied by the ***femoral vein***

3-Medial compartment (lymphatic)
occupied by the ***lymph vessels***

(also Called
f e m o r a l c a n a l



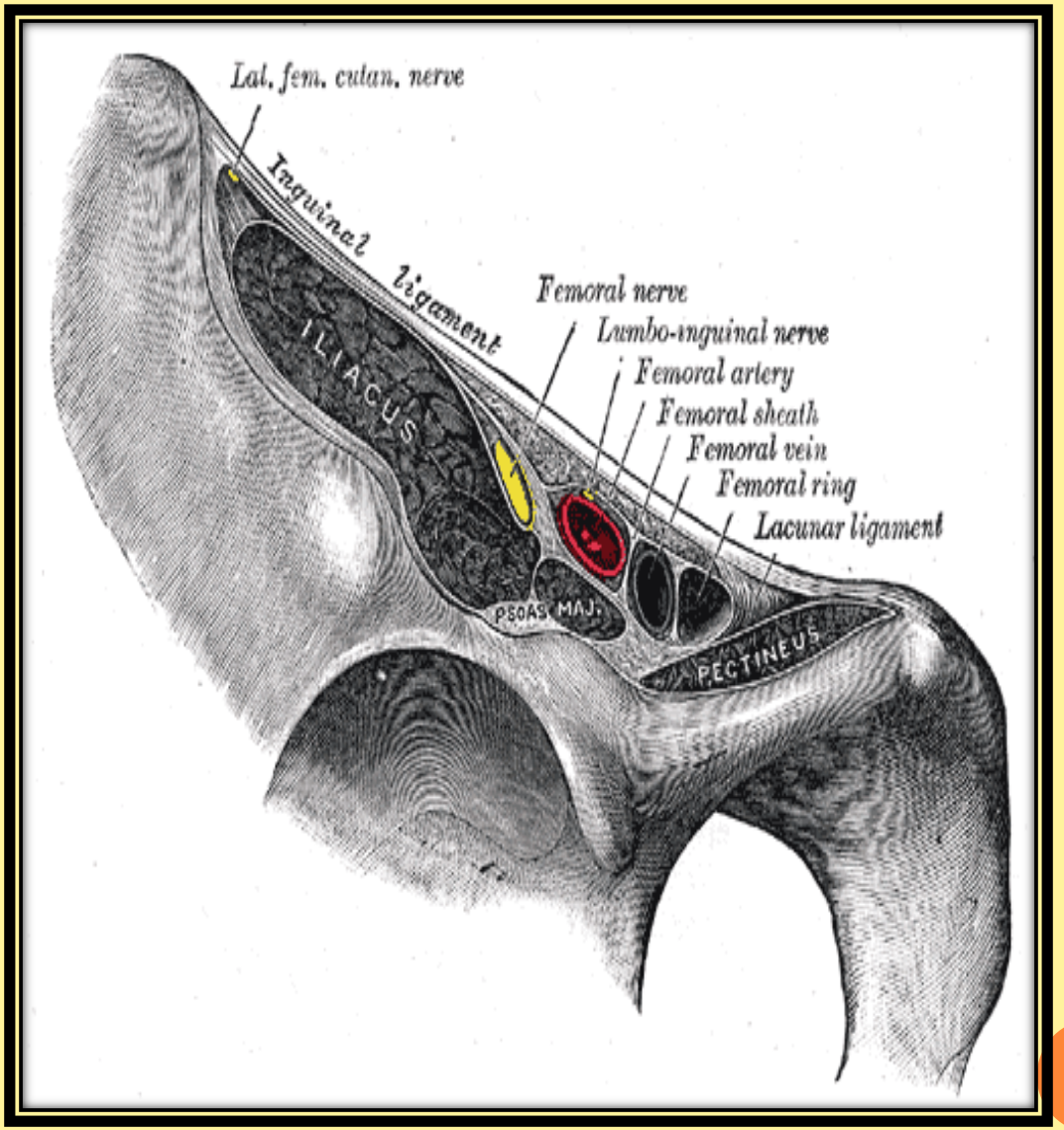
Femoral canal

- 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.**

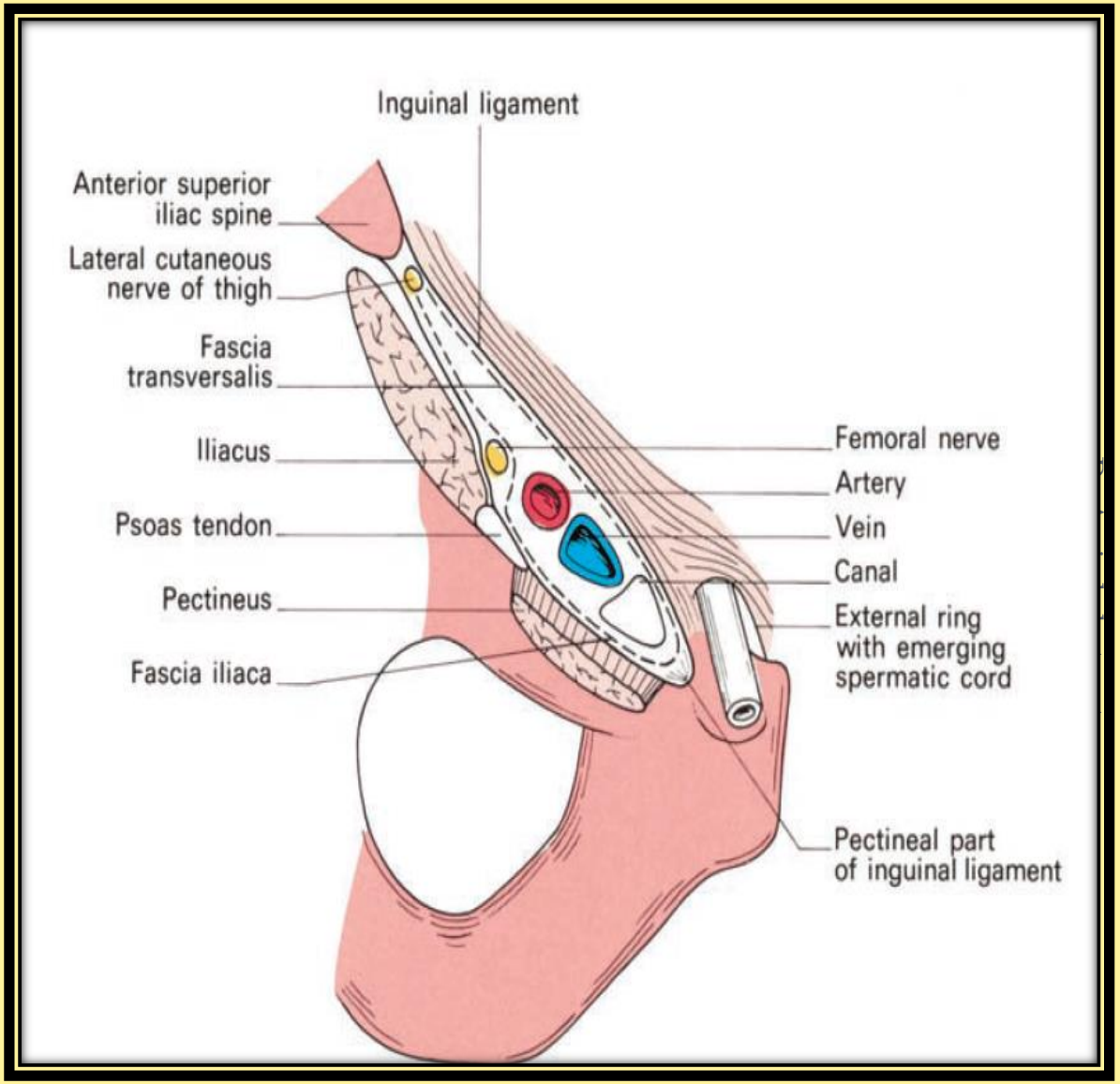
- **The femoral septum (is a condensation of extraperitoneal tissue), closes the ring.**

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

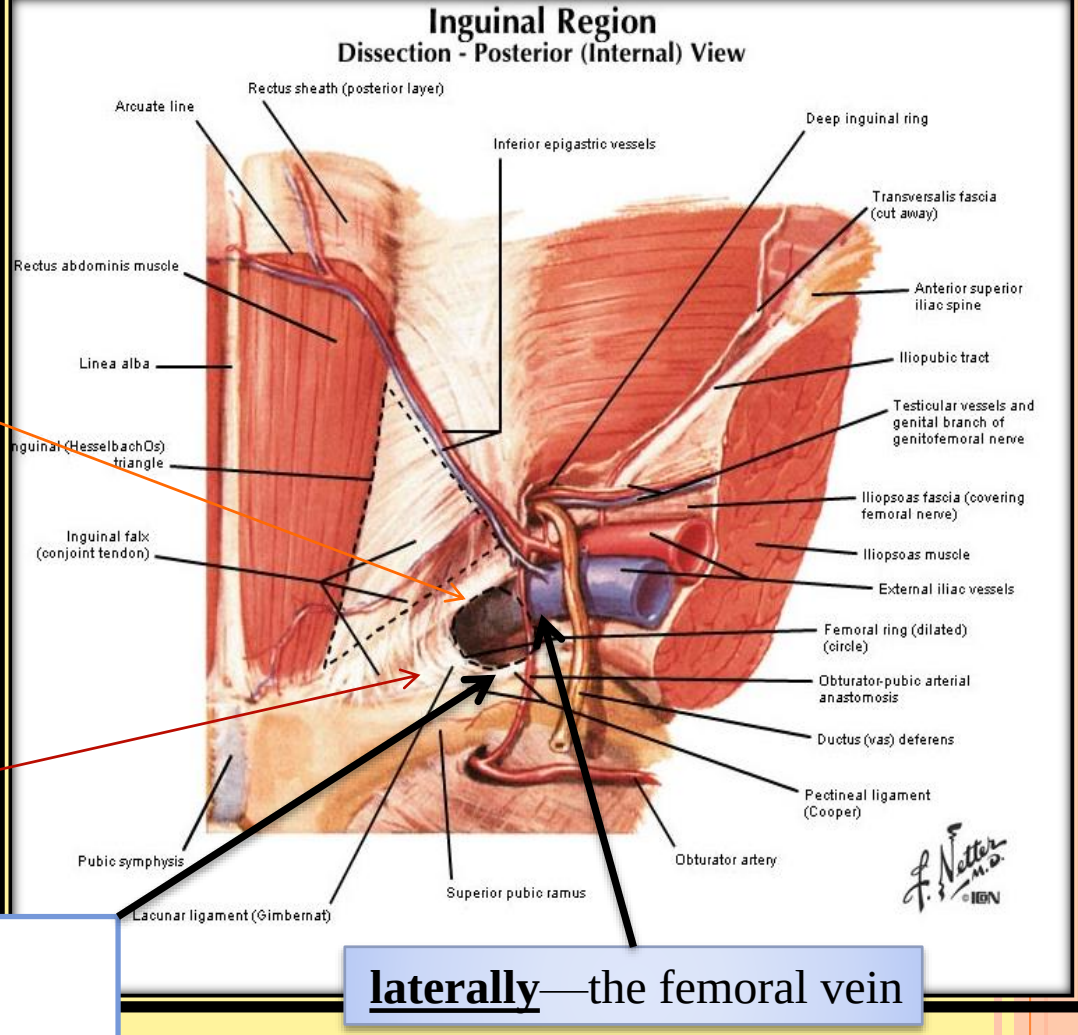


The boundaries of the femoral canal (ring) are:

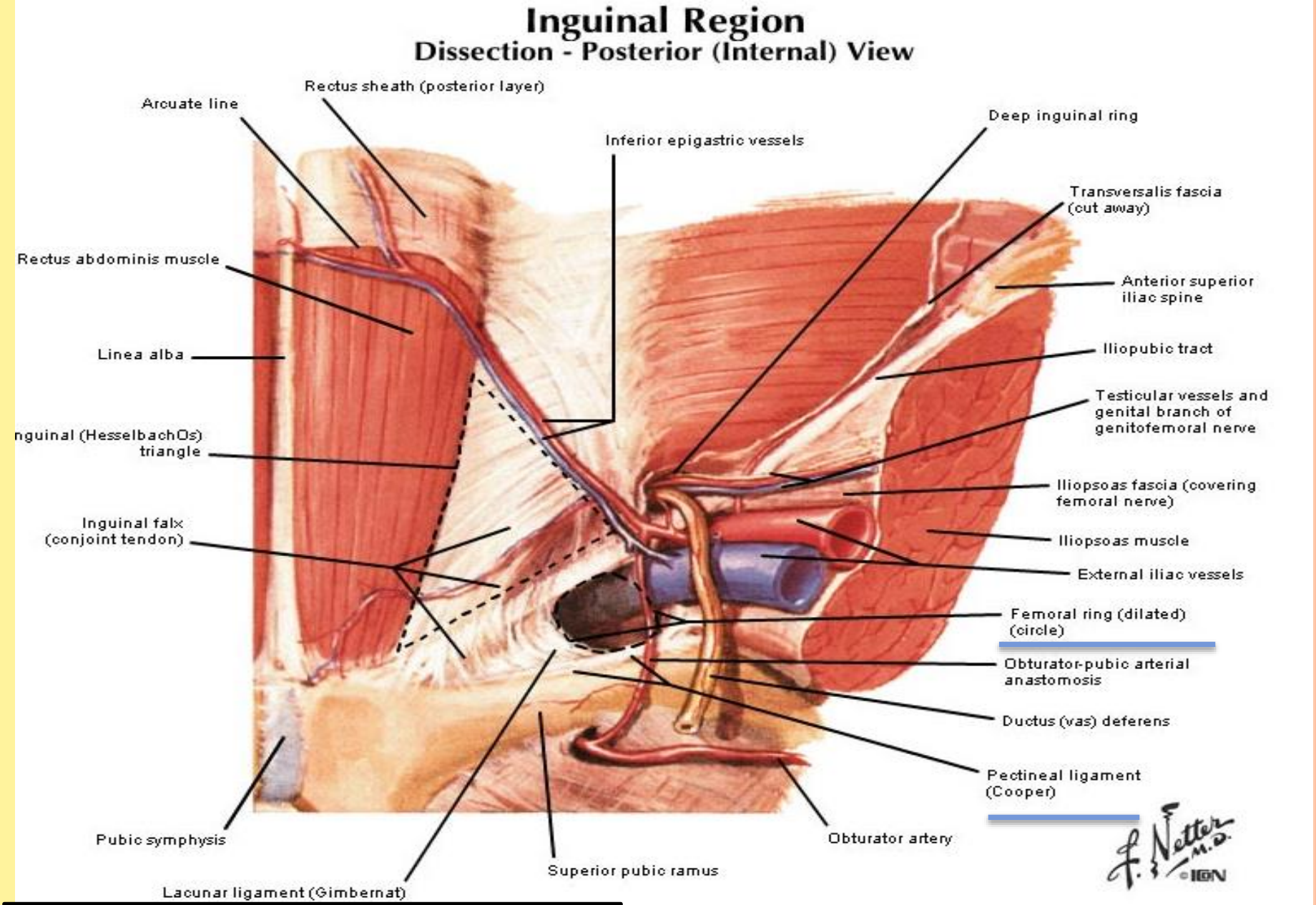
Anteriorly: ***the inguinal ligament***

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

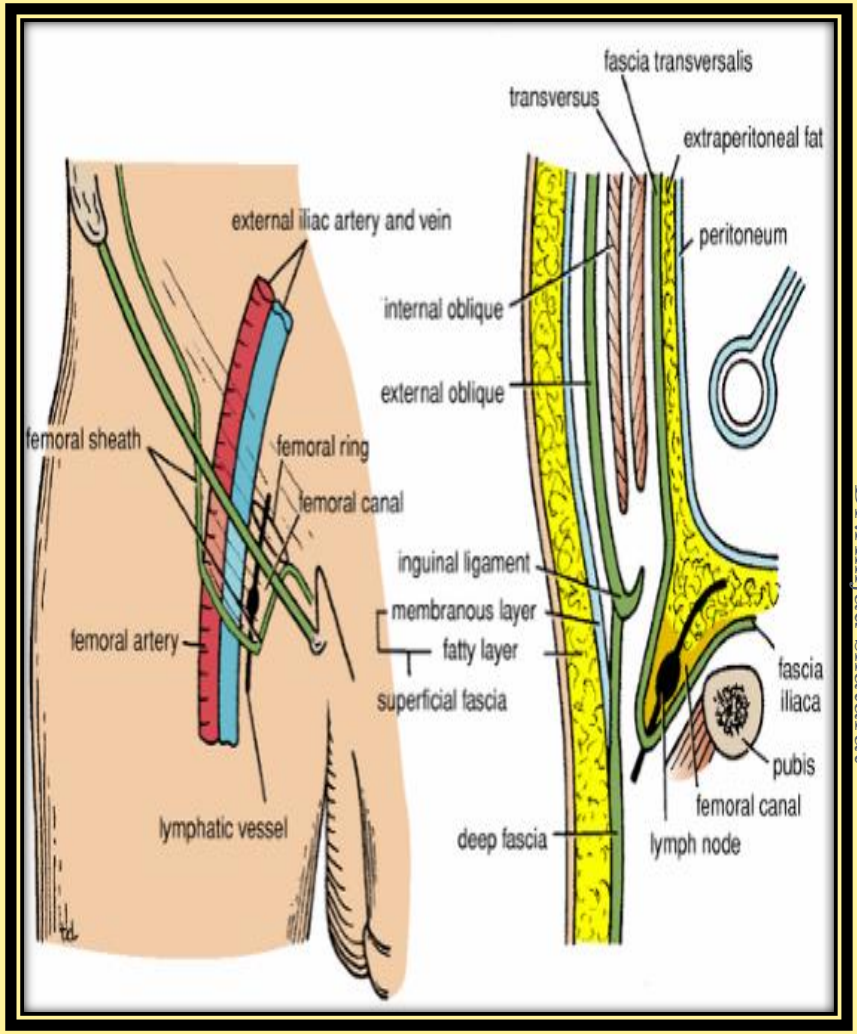


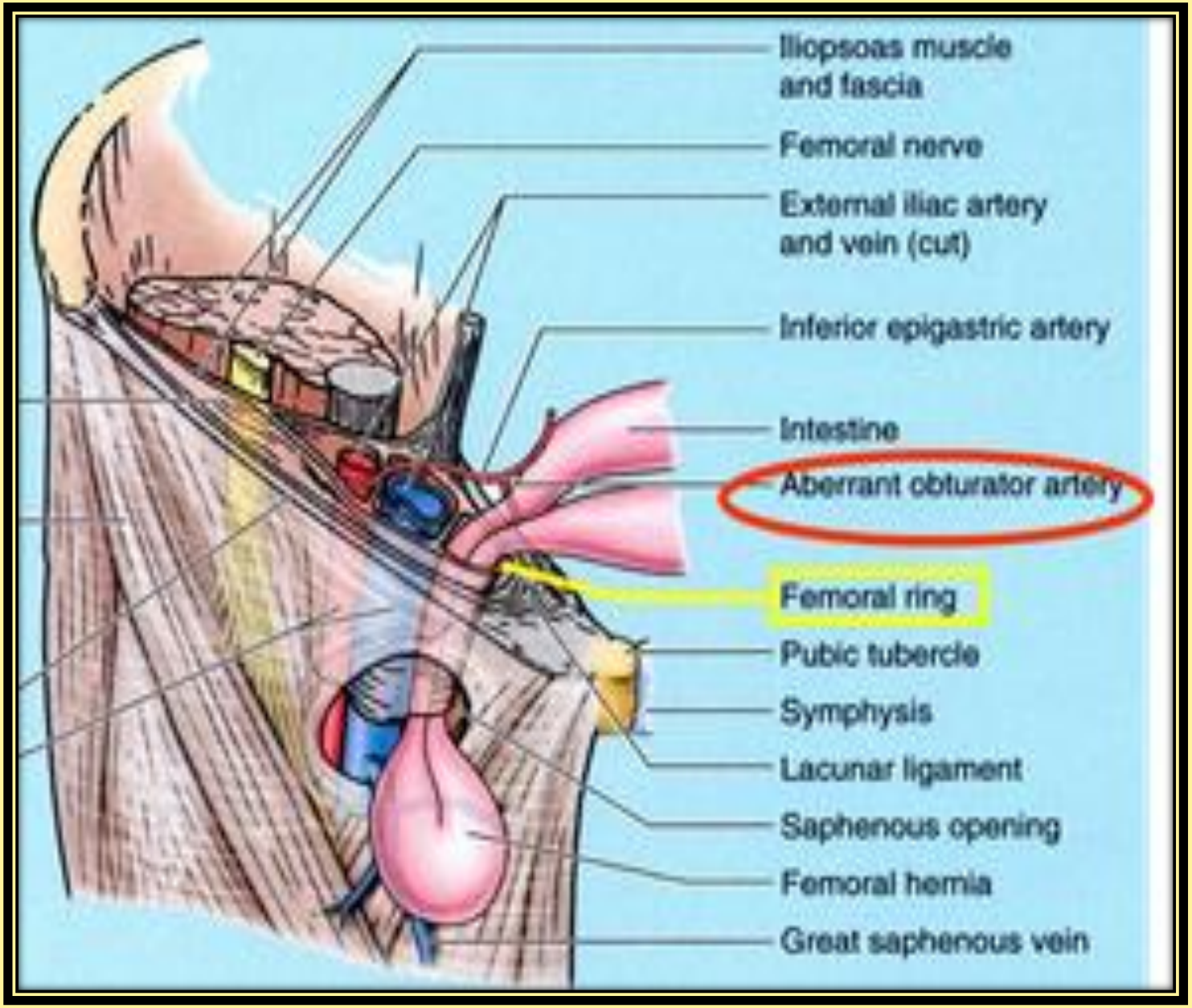
lacunar ligament ***(Gimbernat's ligament)***

➢ **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.**

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

➢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 abdominal parietal **peritoneum down through the femoral canal to form hernial sac**

In femoral hernia

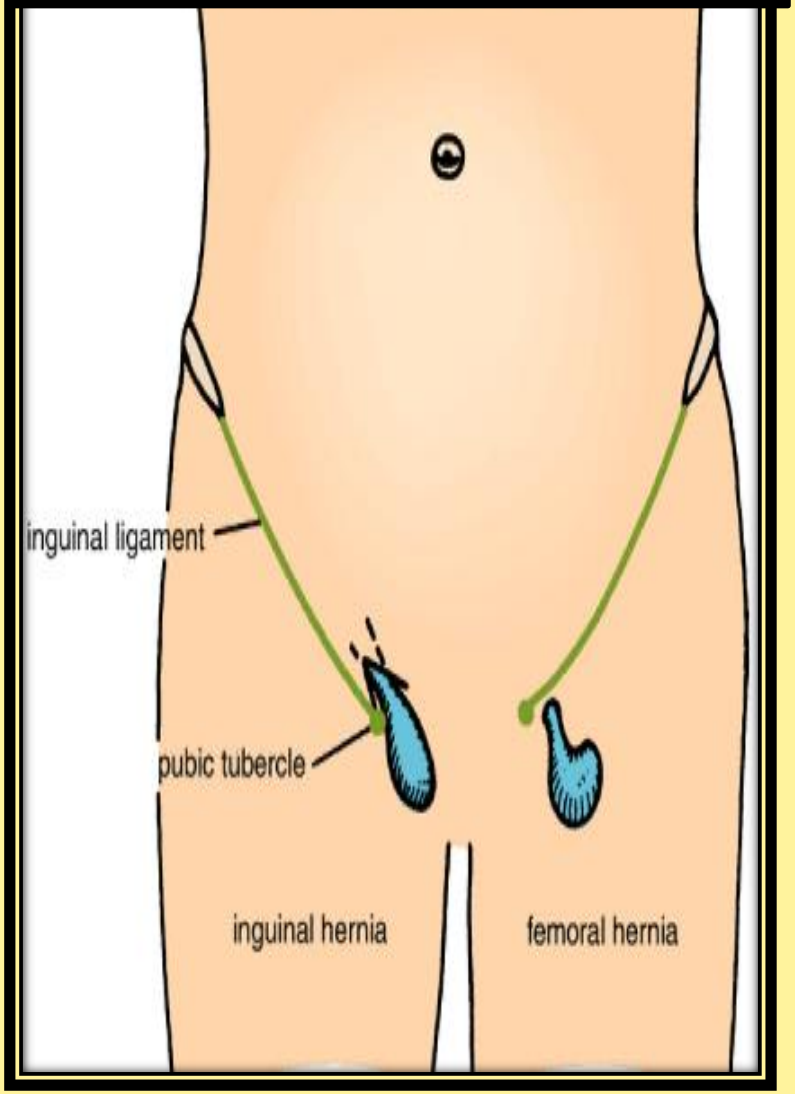
The neck of the hernial sac is located **below and lateral** to the ***pubic tubercle***

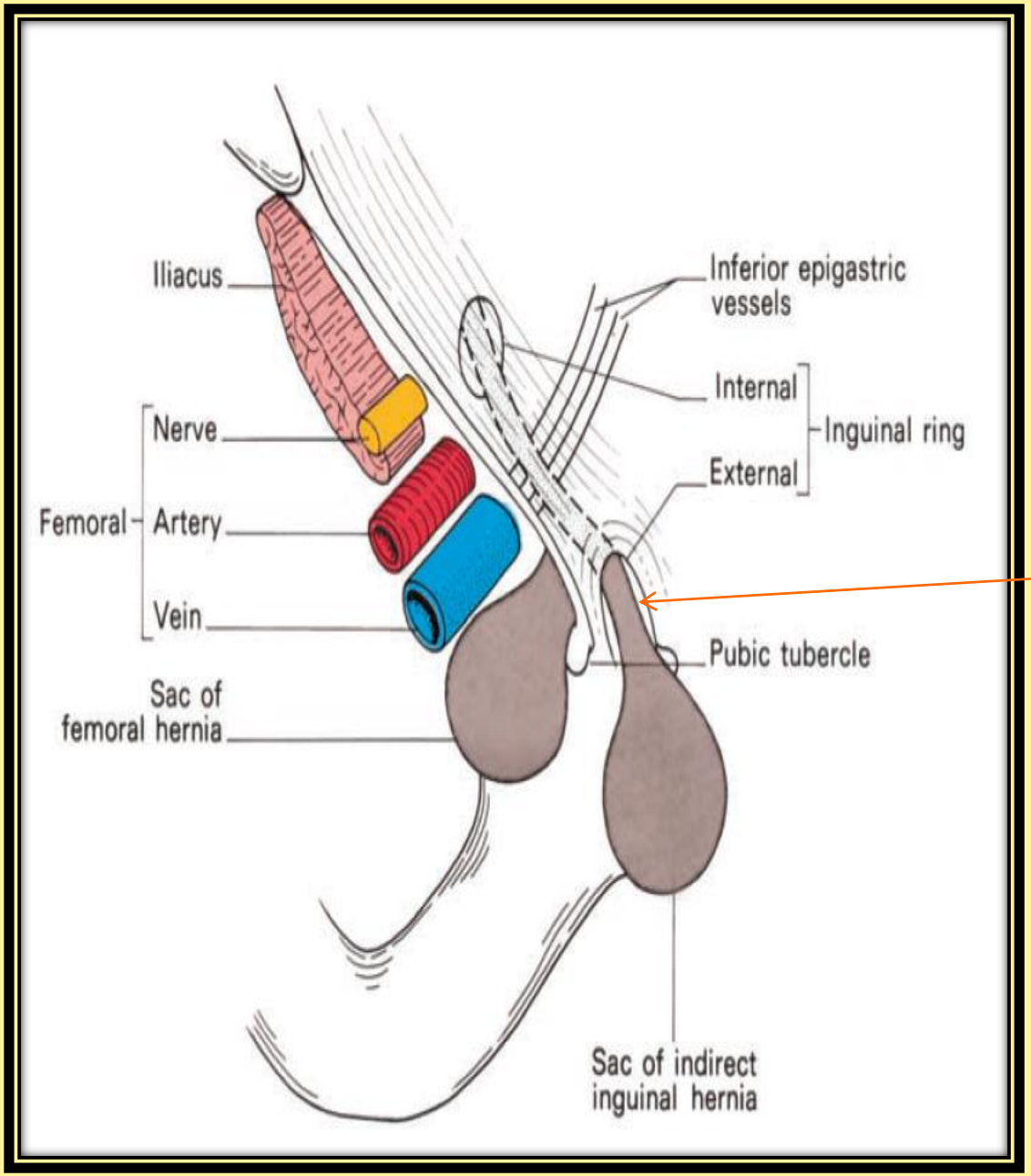
While in the inguinal hernia

The neck of the hernial sac is located

above and medial to the pubic tubercle

Femoral hernia

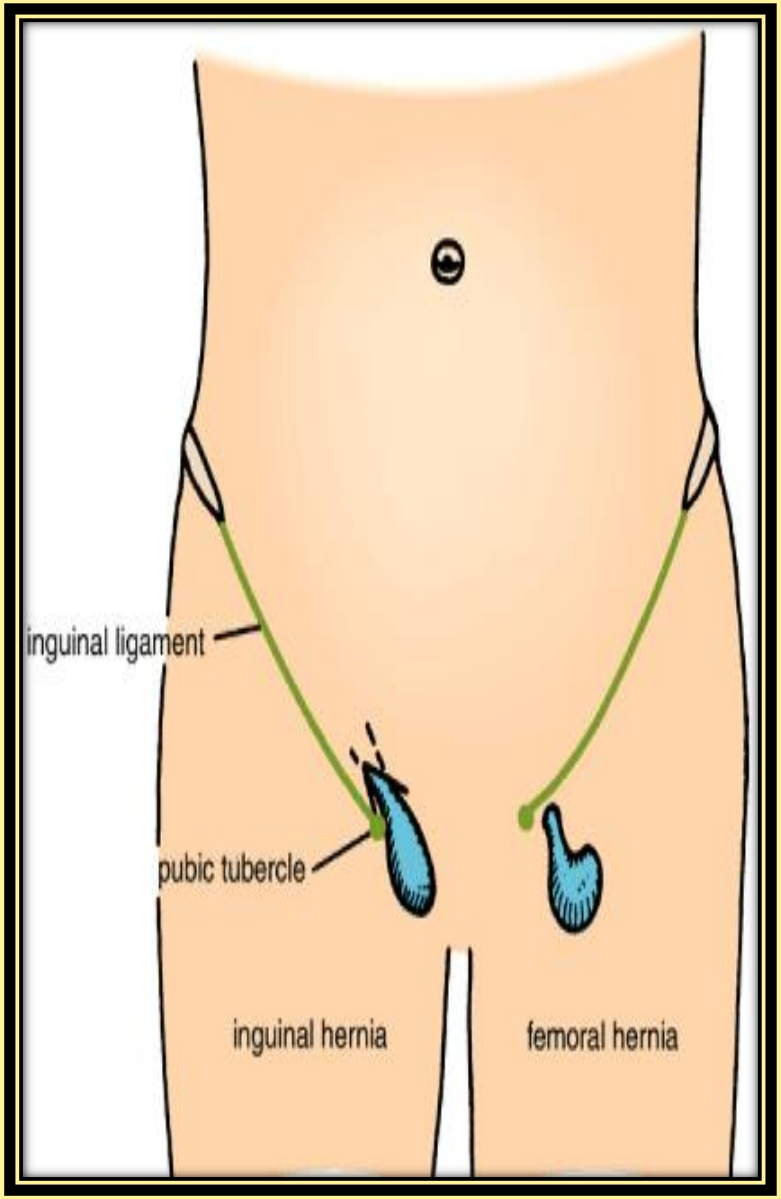




NECK OF HERNIAL SAC, CAN YOU SEE THE DIFFERENCE BETWEEN THE TWO?POSITION, SHAPE

As the hernia **sac** enlarges, it emerges through ***the saphenous opening*** then turns upwards along the pathway presented by the superficial epigastric and superficial circumflex iliac vessels so that it may come to project above the inguinal ligament.

There should not, however, be any difficulty in differentiating between an irreducible femoral and inguinal hernia; the neck of the former must always lie below and lateral to the pubic tubercle whereas the sac of the latter extends above and medial to this landmark



The **neck** of the femoral canal is narrow and bears a particular sharp medial border; for this reason, irreducibility and strangulation occur more commonly at this site than at any other. In order to enlarge the opening of the canal at operation on a strangulated case, this sharp edge of Gimbernat's lacunar ligament may require incision;

there is a slight risk

of damage to the abnormal obturator artery in this manoeuvre and it is

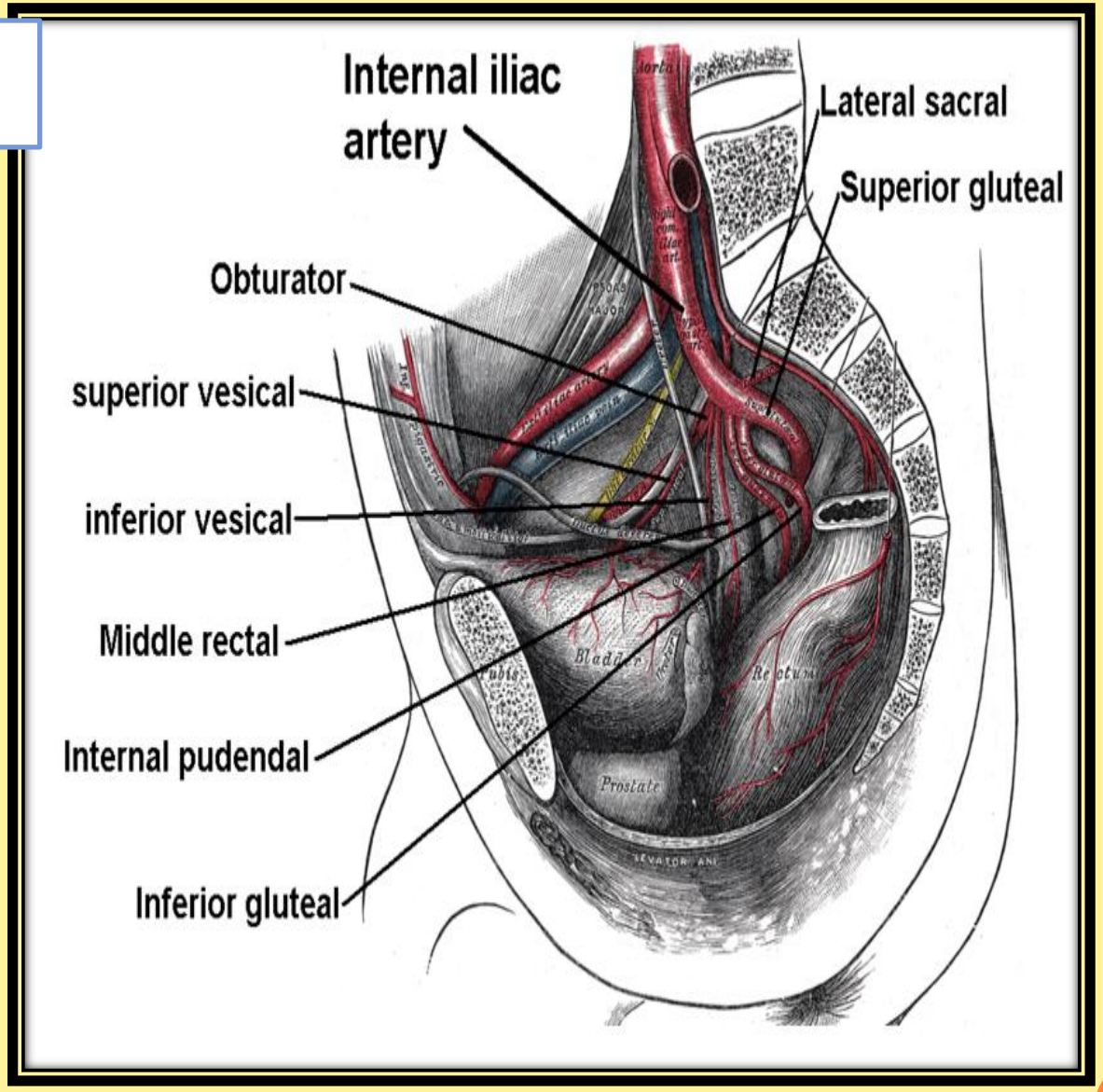
safer to enlarge the opening by making several small nicks into the ligament. The safe alternative is to divide the inguinal ligament, which can then be repaired.

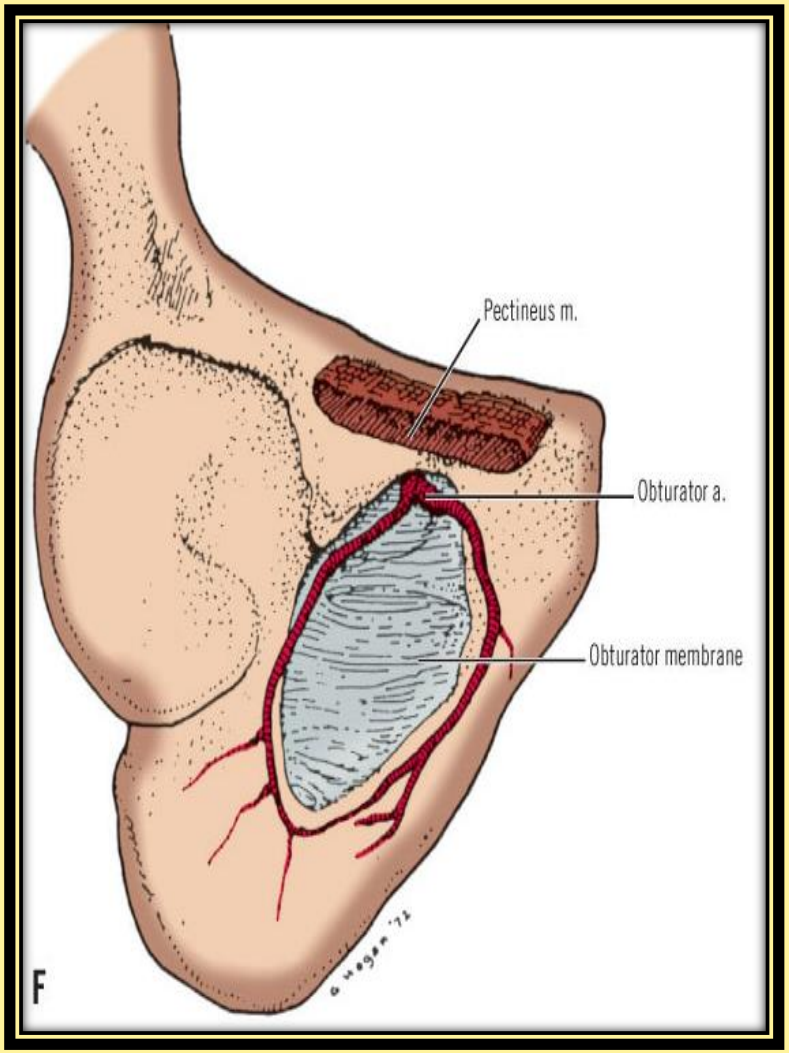
Note.

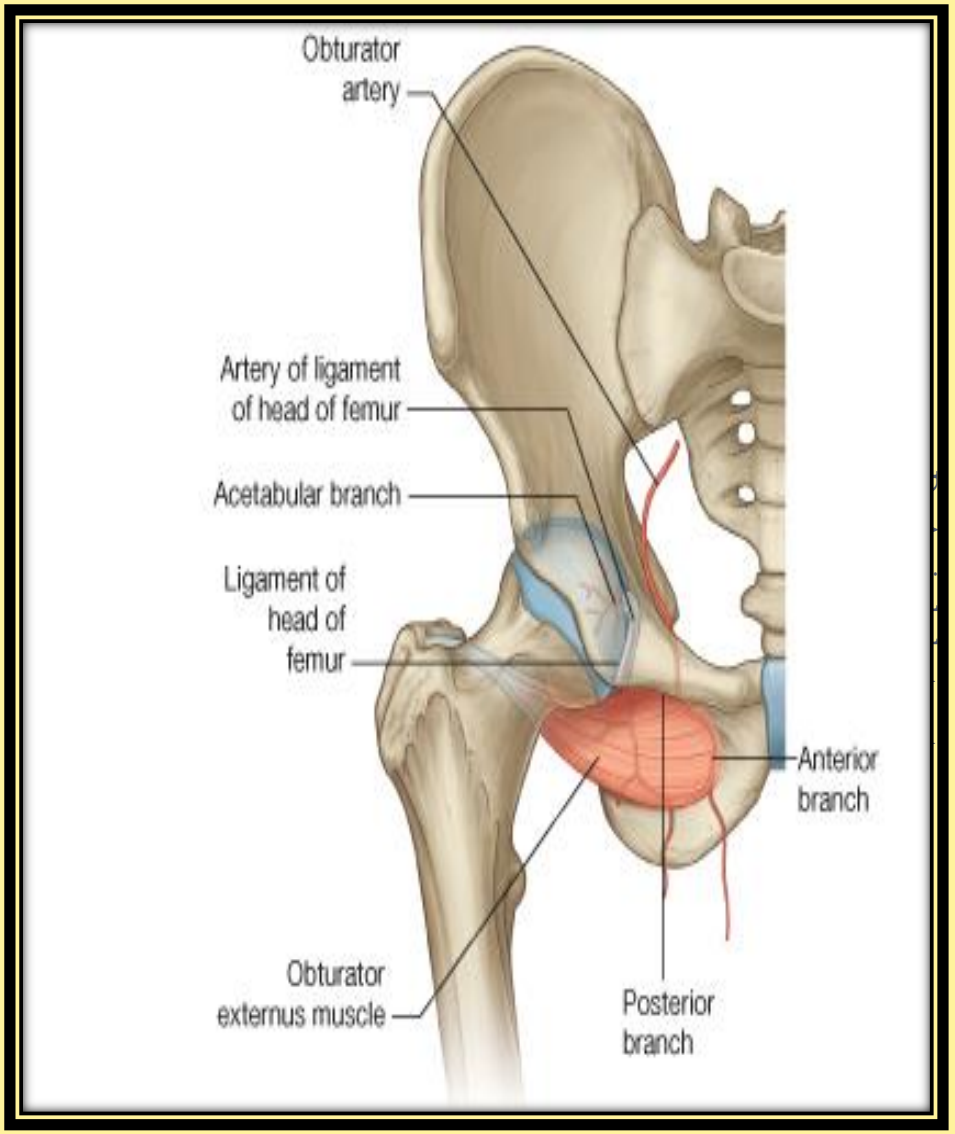
the obturator artery.

Obturator Artery

- **The obturator artery is a branch of the internal iliac artery**
- **It passes forward on the lateral wall of the pelvis and accompanies the obturator nerve**

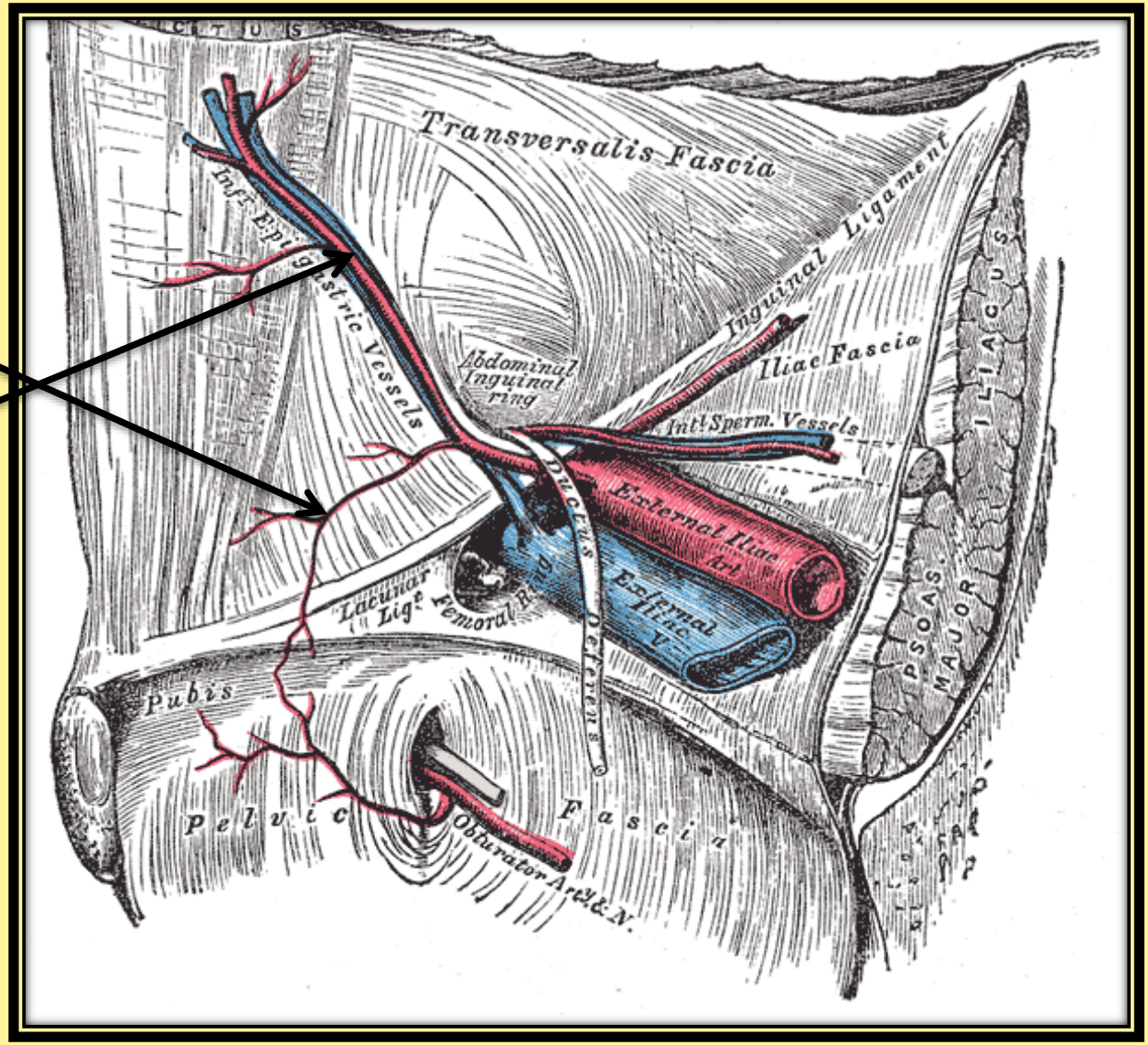






It gives off muscular branches and an ➢ articular branch to the hip joint

Note.
Normally there is an anastomosis between **the pubic branch of the inferior epigastric artery** and **the pubic branch of the obturator artery.**



A view from inside the abdomen

Occasionally
the obturator artery is entirely replaced by this branch from the inferior epigastric—the *abnormal obturator artery.*;

This aberrant vessel usually passes laterally to the femoral canal and is out of harm's way

rarely, it passes behind Gimbernat's ligament and it is then in surgical danger.