

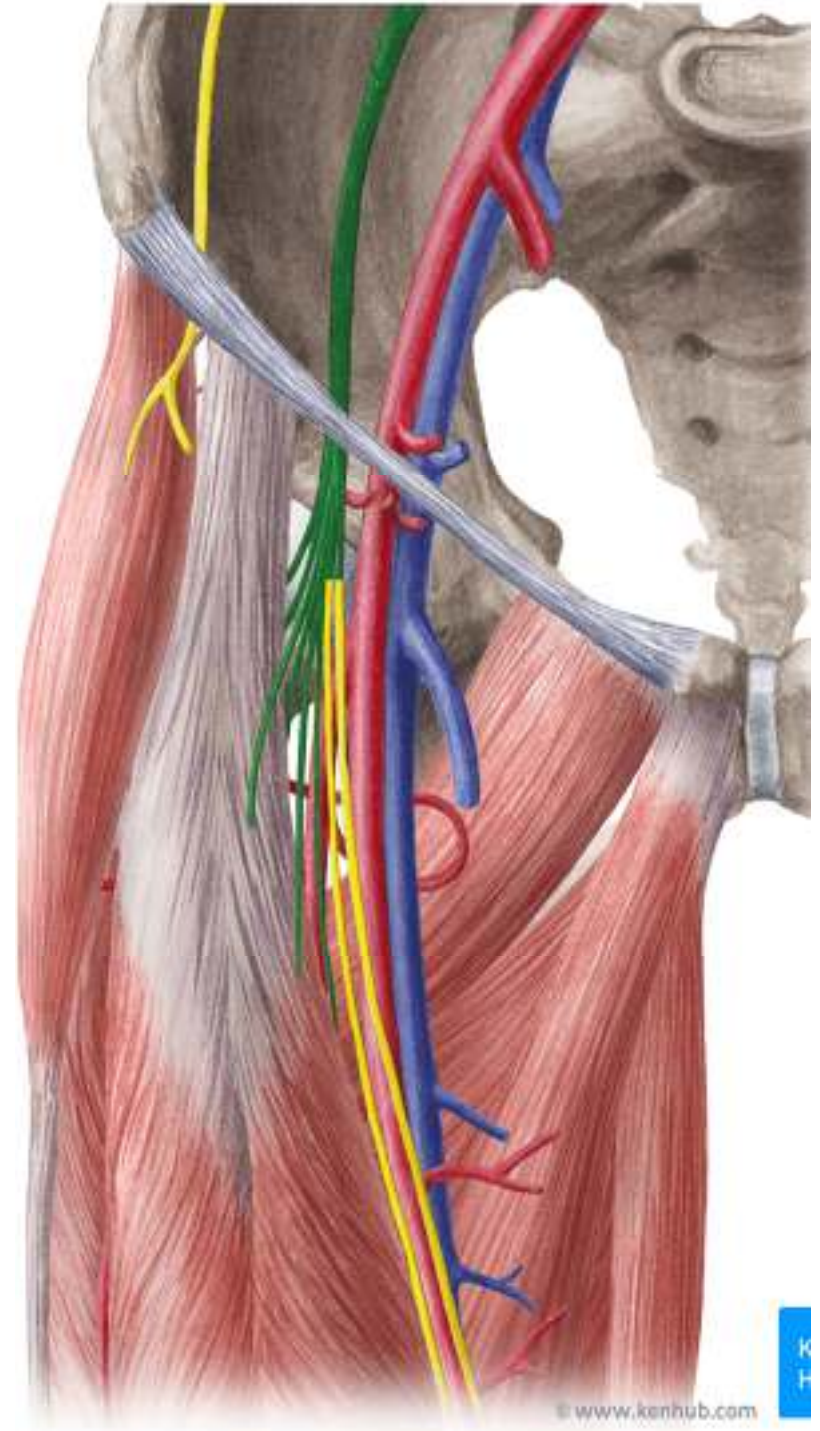


Inguinal canal

Inguinal Ligament:

It's a folding of external oblique aponeurosis which extending between anterior superior iliac spine & pubic tubercle.

- ❖ The lateral part of inguinal ligament gives origin to internal oblique & transversus abdominis.
- ❖ Its inferior rounded border is attached to the deep fascia of the thigh.

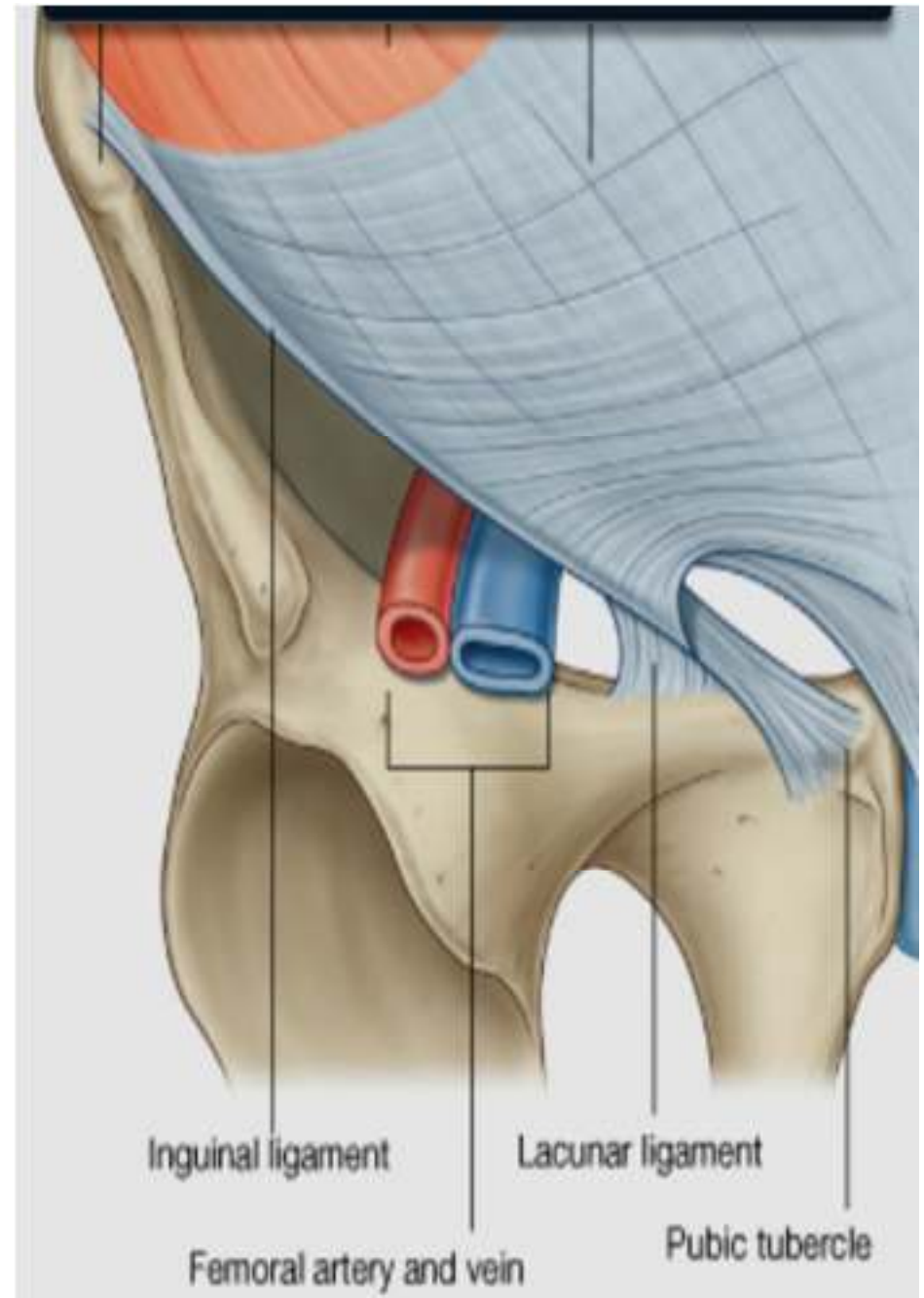


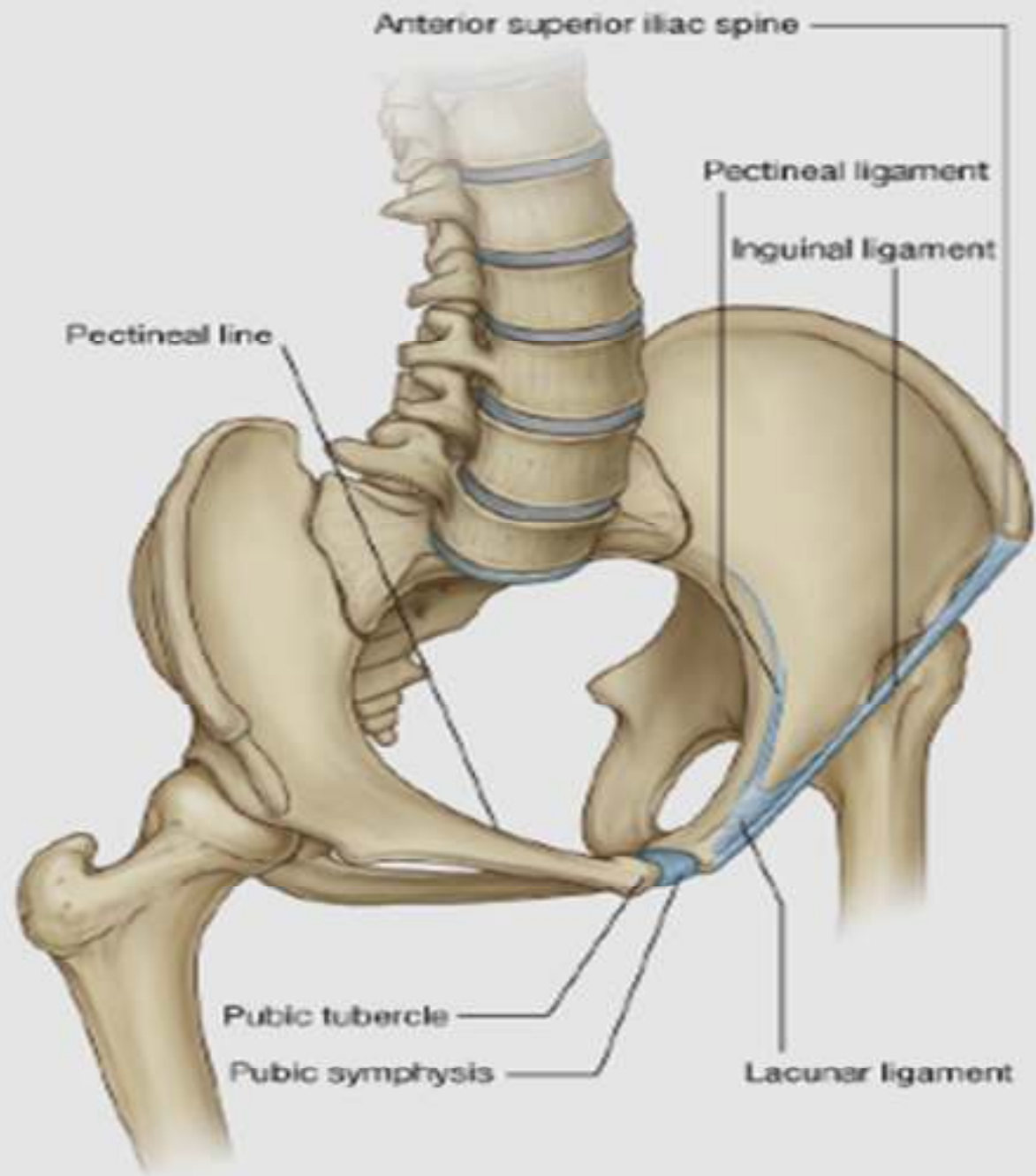
Lacunar ligament:

It arise from medial end of inguinal ligament. It extend to superior ramus of pubis.

Its free crescentic edge forms medial margin of femoral ring.

Pectineal ligament :Its attachment of lacunar ligament to periosteum of pectineal line.

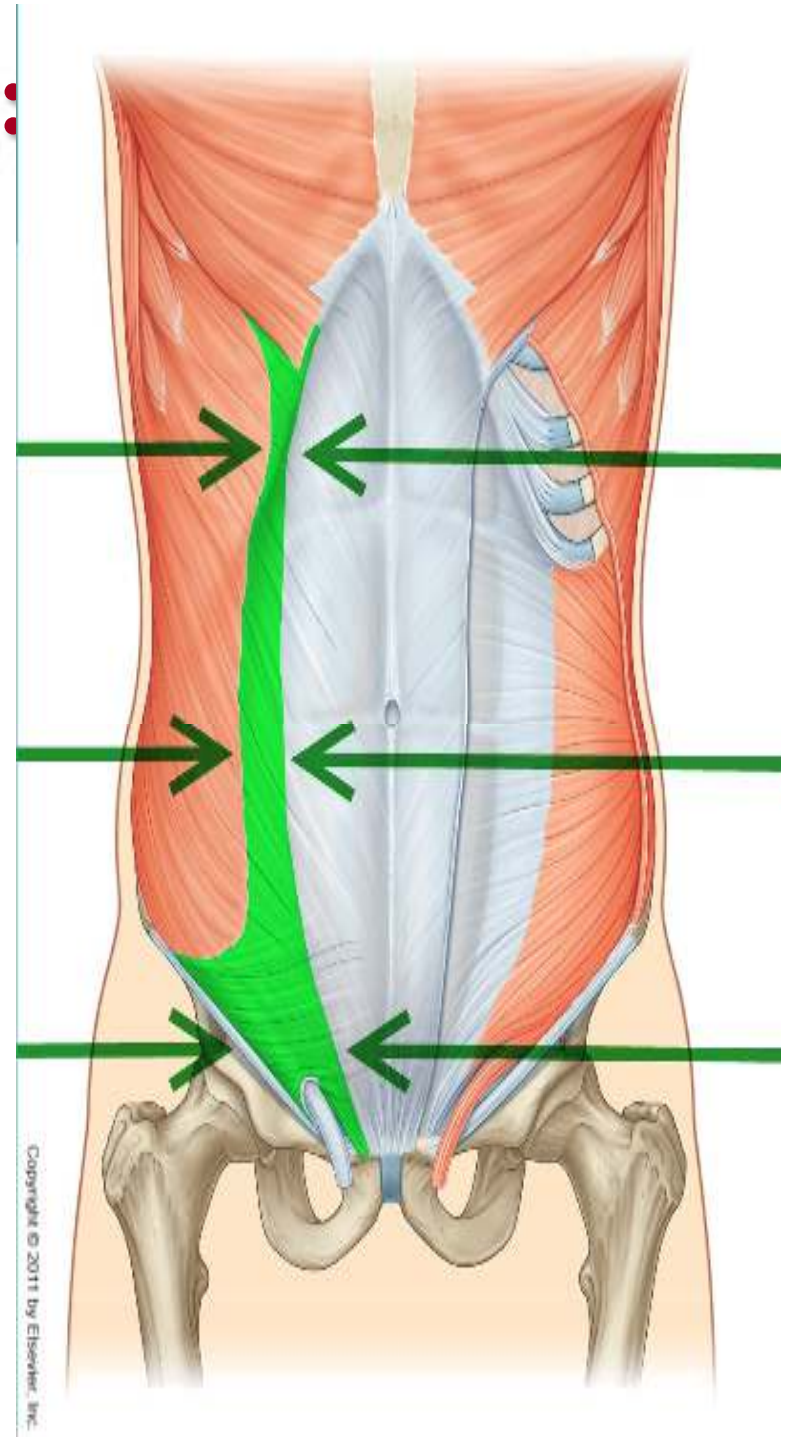




Superficial inguinal ring:

A triangular shape defect in external oblique aponeurosis above & medial to pubic tubercle.

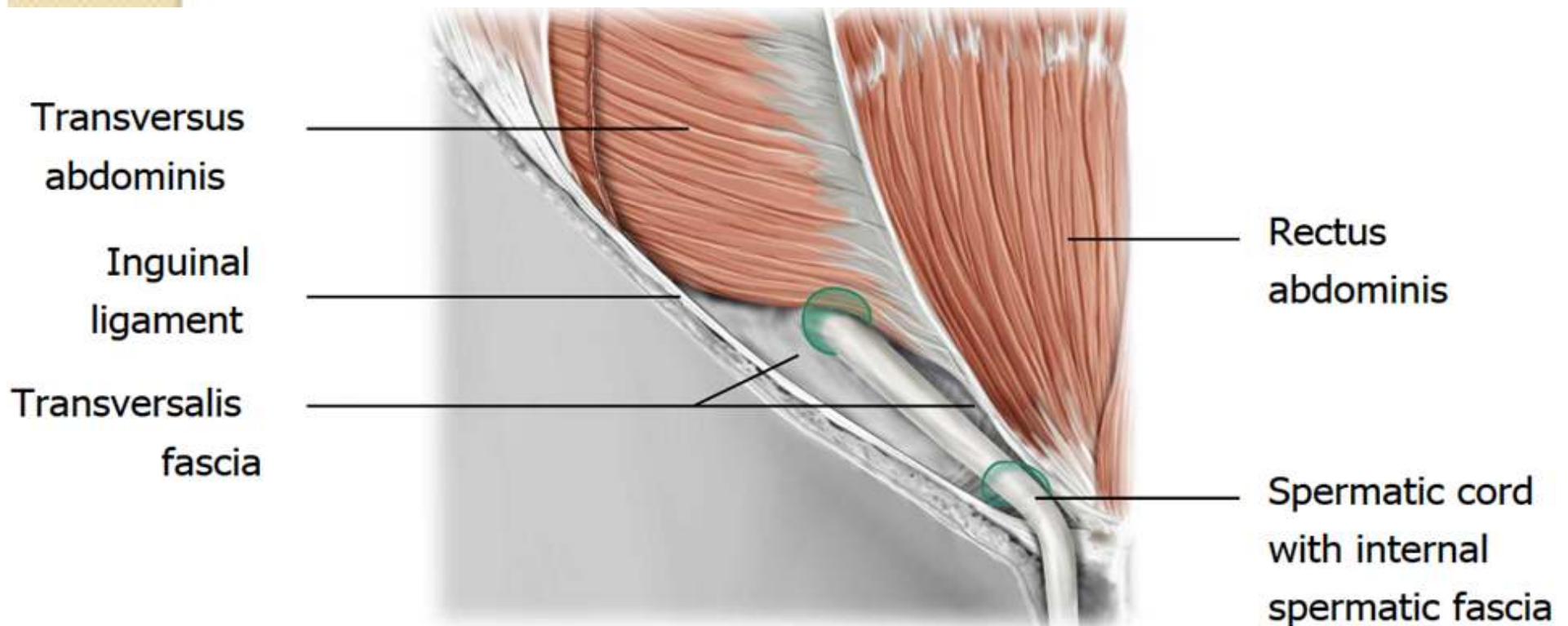
Through it pass **spermatic cord** (or **round ligament of uterus**) carrying with it a covering called **external spermatic fascia** (or **external covering of round ligament of uterus**).

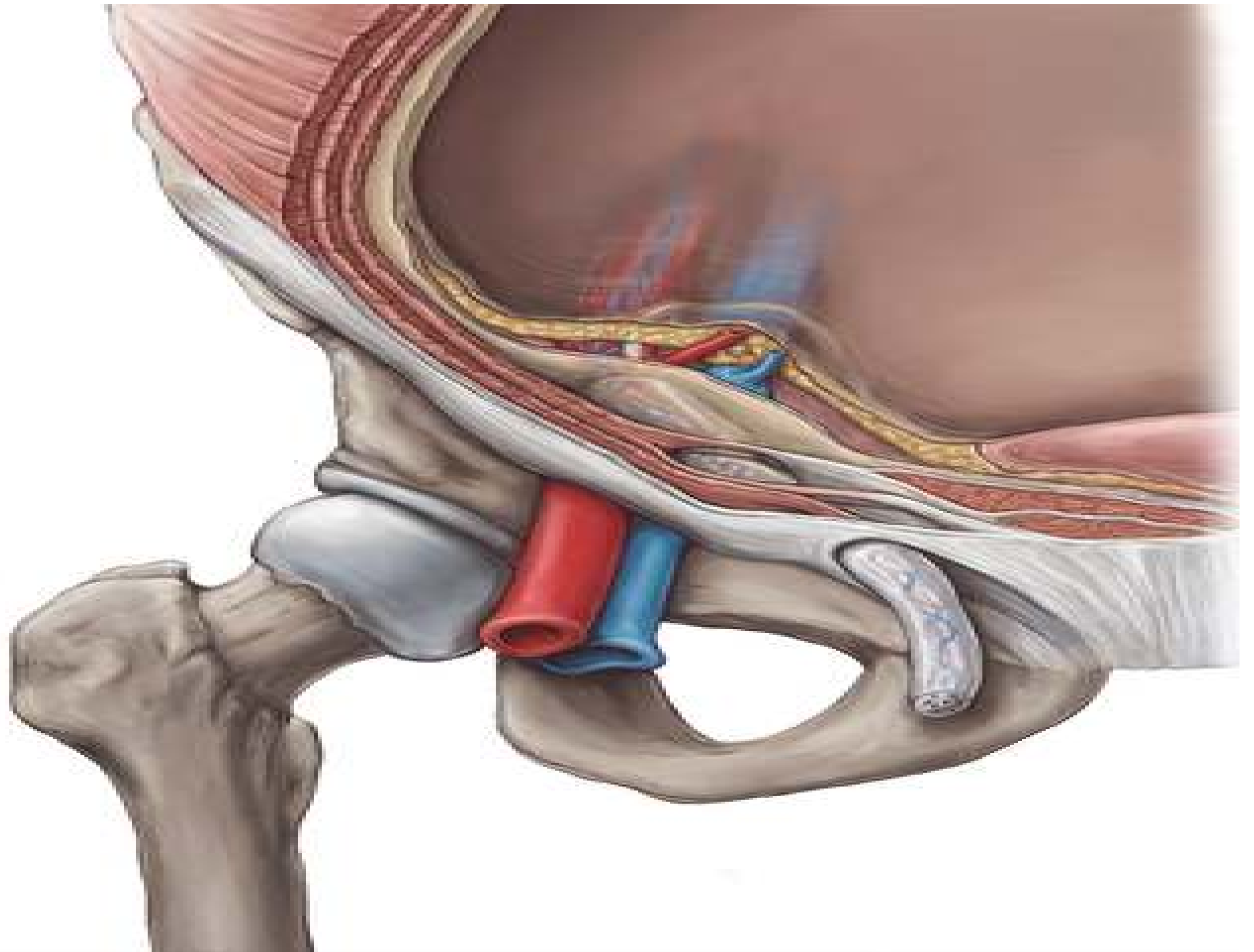


Deep inguinal ring:

It lying 1.3 cm above inguinal ligament midway. Its an oval opening in transversalis fascia.

From deep ring margin the spermatic cord gain a covering called internal spermatic fascia.





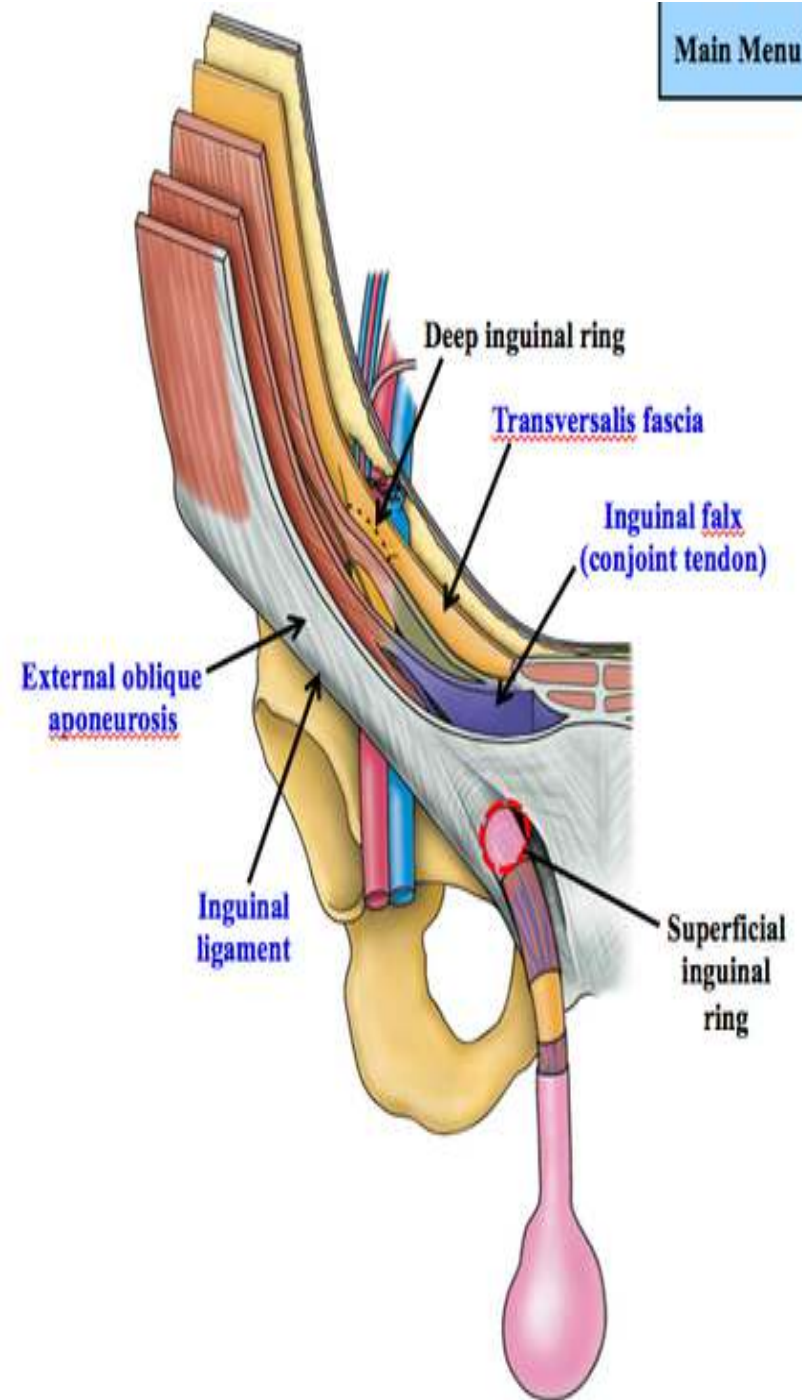
Inguinal canal:

- ❑ It is a intramuscular slit lying above medial half of the inguinal ligament, it is **4 cm long** .
- ❑ It starts at deep inguinal ring to superficial inguinal ring.

Inguinal Canal Walls:

Anterior wall:

EO aponeurosis & helped laterally by IO.



Floor:

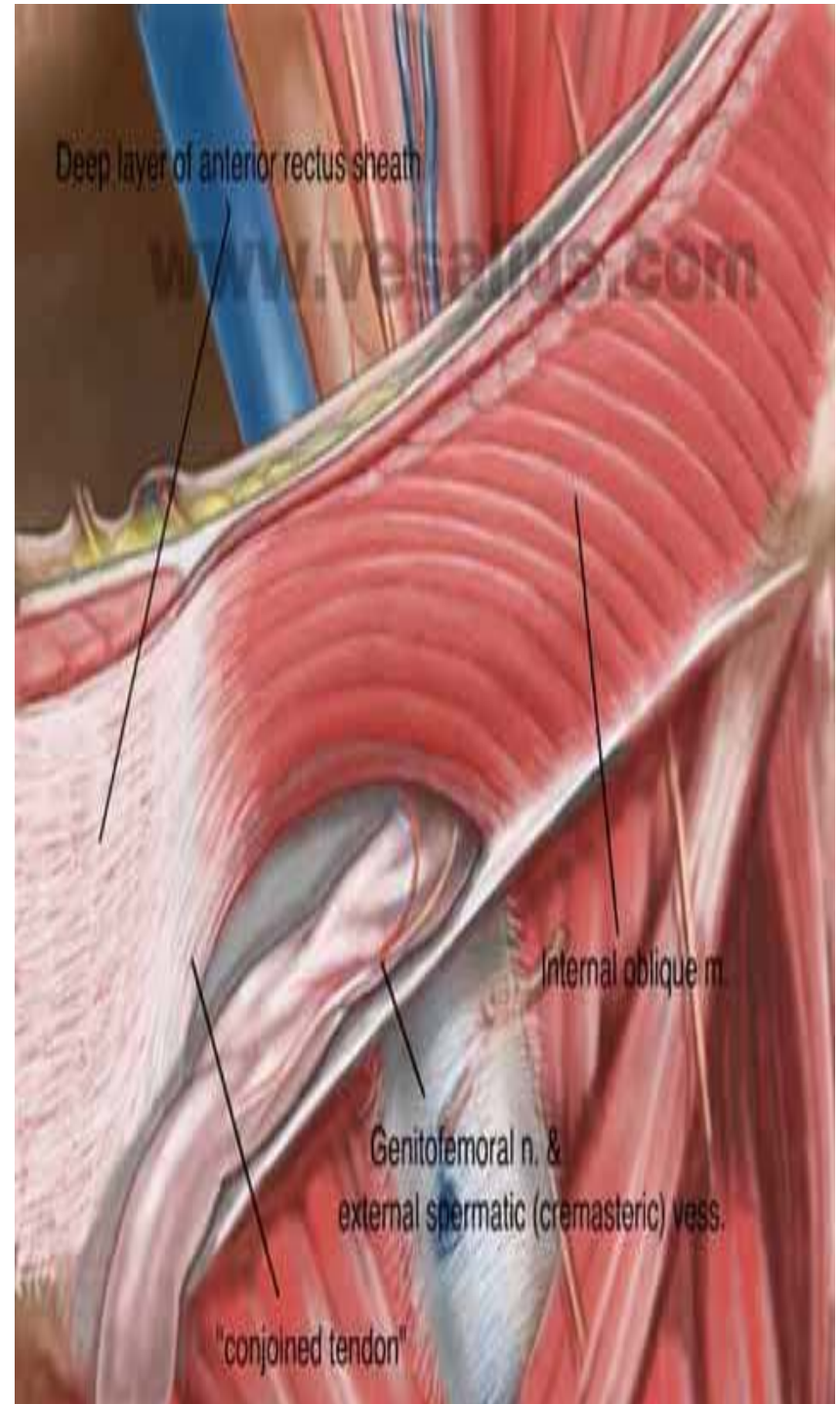
The inguinal ligament reinforced medially by lacunar ligament.

Roof:

IO & TA muscles laterally
conjoint tendon medially

Posterior wall:

medially conjoint tendon, while
laterally it's the weak transversalis
fascia

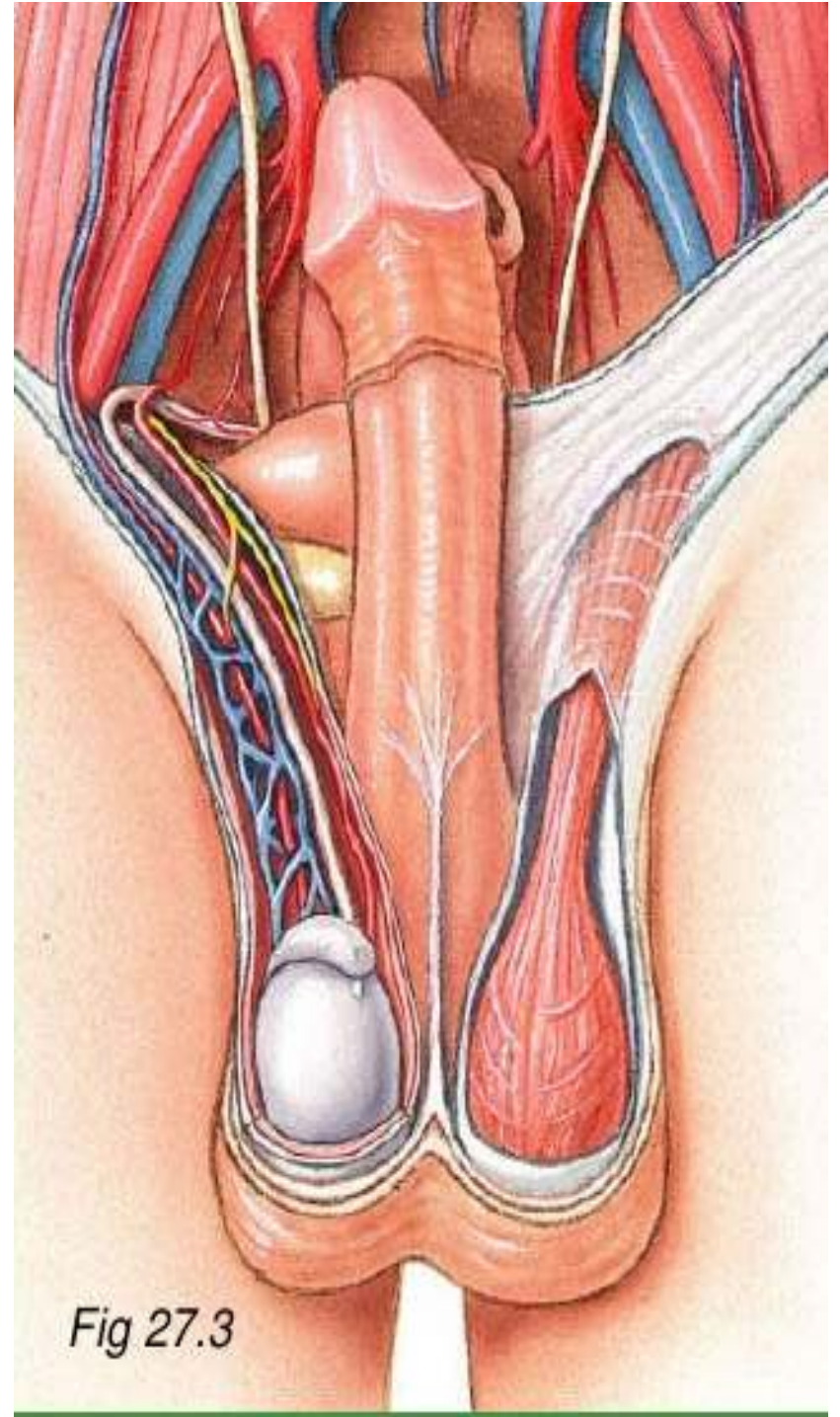


Contents of Inguinal canal:

- **In males:** spermatic cord
- **In females:** it's a **smaller canal**, permit passage of round ligament of uterus
- **In both sexes:** it also transmits ilio inguinal nerve.

Spermatic cord:

- ❖ It is collection of structures that traverse inguinal canal & pass to and from testis.



Coverings of Spermatic Cord (Spermatic Fasciae):

1) External spermatic fascia

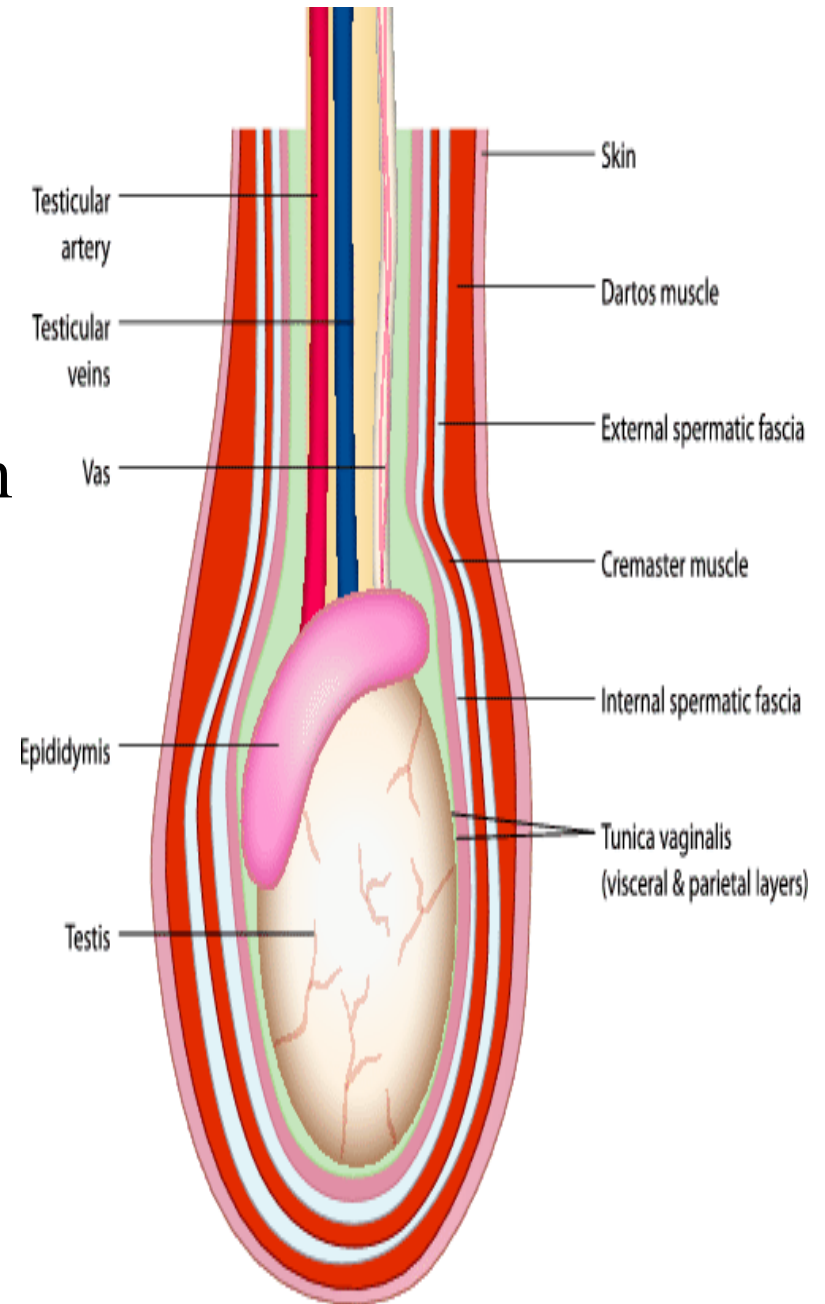
derived from EO aponeurosis.

2) Cremasteric fascia derived from

IO muscle.

3) Internal spermatic fascia

derived from transversalis fascia

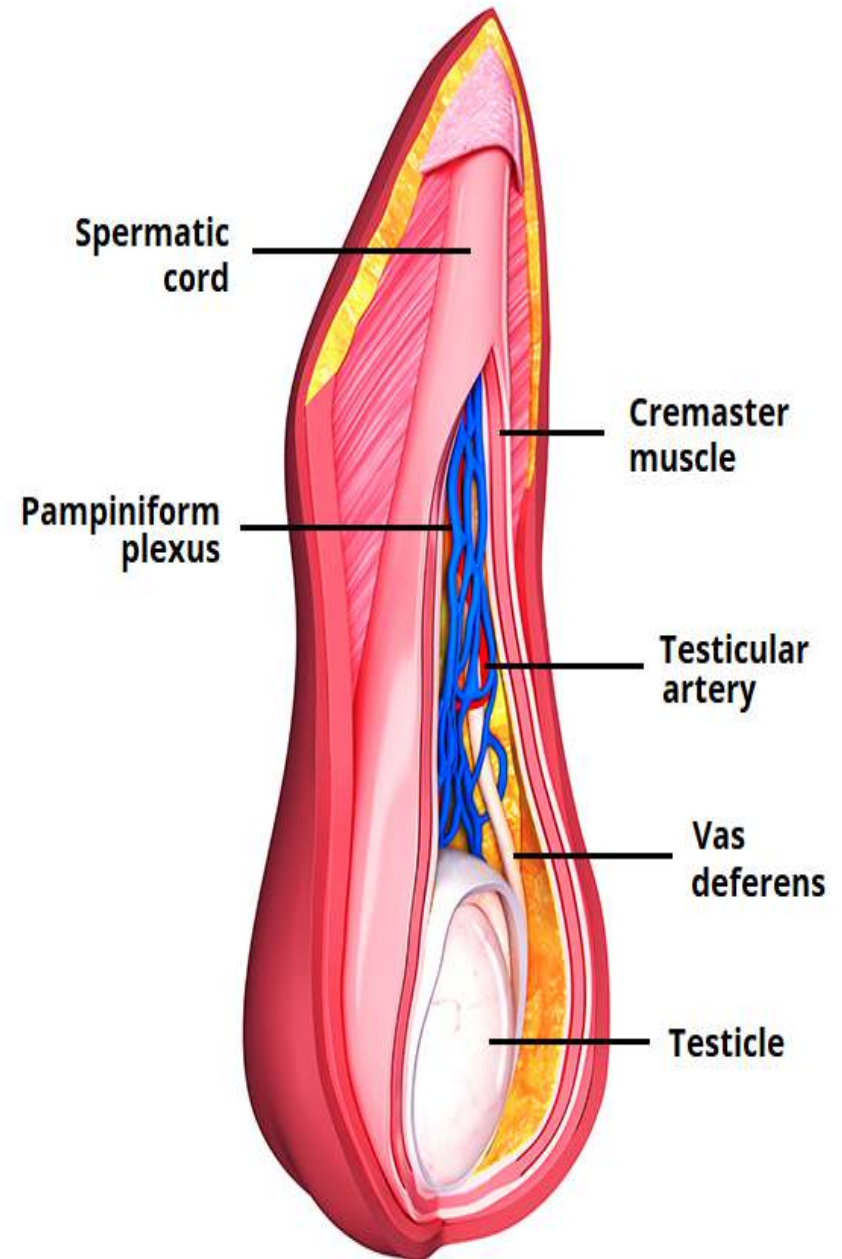


Structures of spermatic cord:

1) Vas deference.

2) Testicular artery: branch of abdominal aorta.

3) Pampiniform plexus” : as it ascend it becomes single vein to end at renal vein on left side & inferior vena cava on right side.

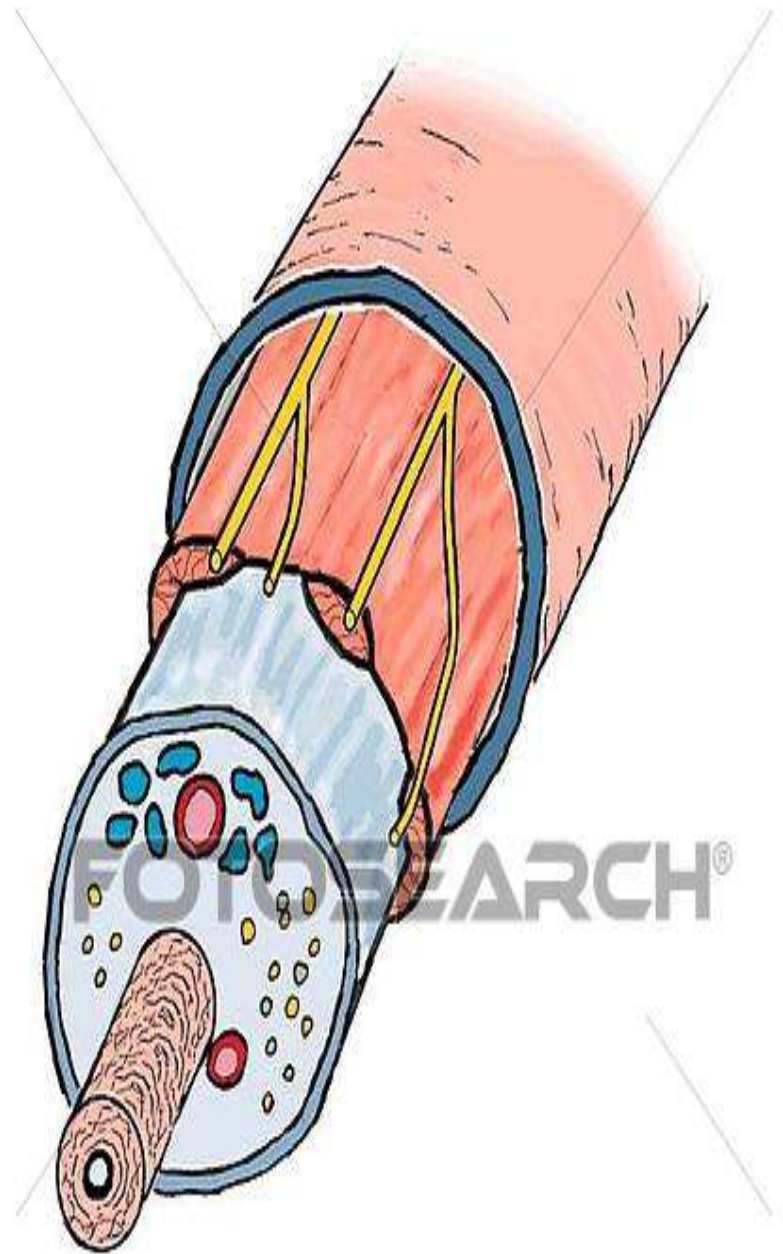


4) Lymph vessels: testicular lymph vessels ----Para aortic lymph nodes.

5) Autonomic nerves: sympathetic fibers along testicular artery.

6) Remnant of processus vaginali.

7) Genital branch of genitofemoral nerve : supply cremaster muscle.



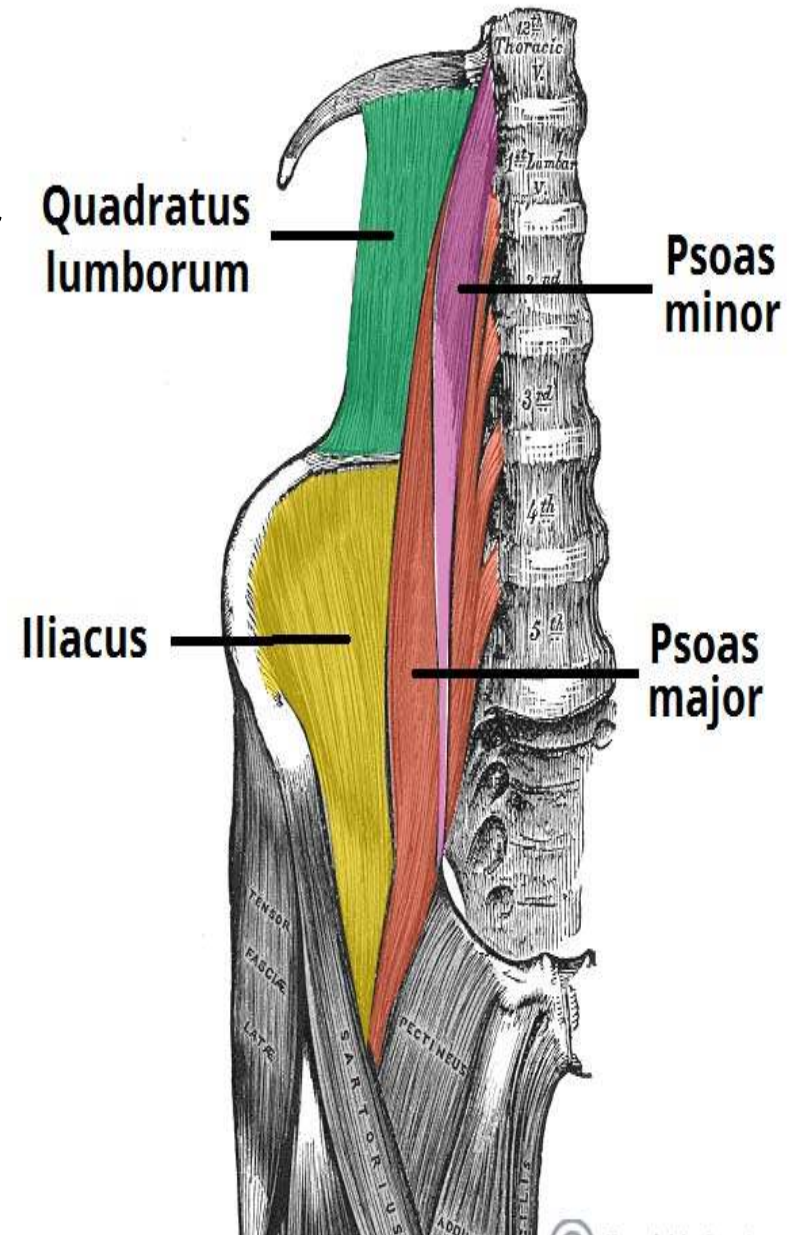
Posterior abdominal wall:

It is formed by :

In mid line: 5 lumbar vertebrae & their discs.

Laterally: 12th rib, upper part of bony pelvis +

- 1) **Psoas major muscle .**
- 2) **Psoas minor muscle.**
- 3) **Quadratus lumborum.**
- 4) **Ilicus muscle.**
- 5) **Transversus abdominis.**



Psoas major muscle :

Origin:

T12 - L5 lumbar vertebrae.

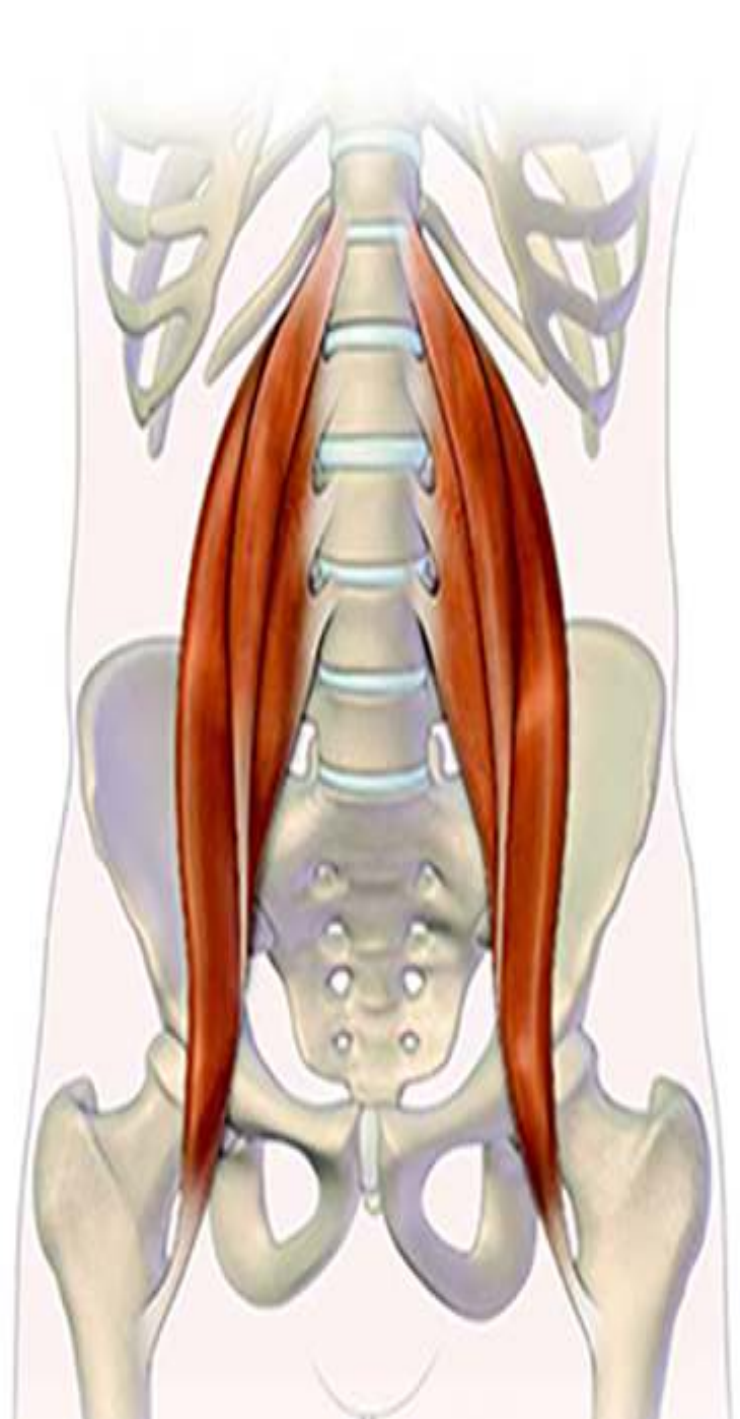
Insertion:

lesser trochanter of femur.

Nerve supply: lumbar plexus

Action:

1. Flex thigh at hip joint on trunk.
2. If thigh is fixed, it flex trunk on thigh.



Psoas minor muscle:

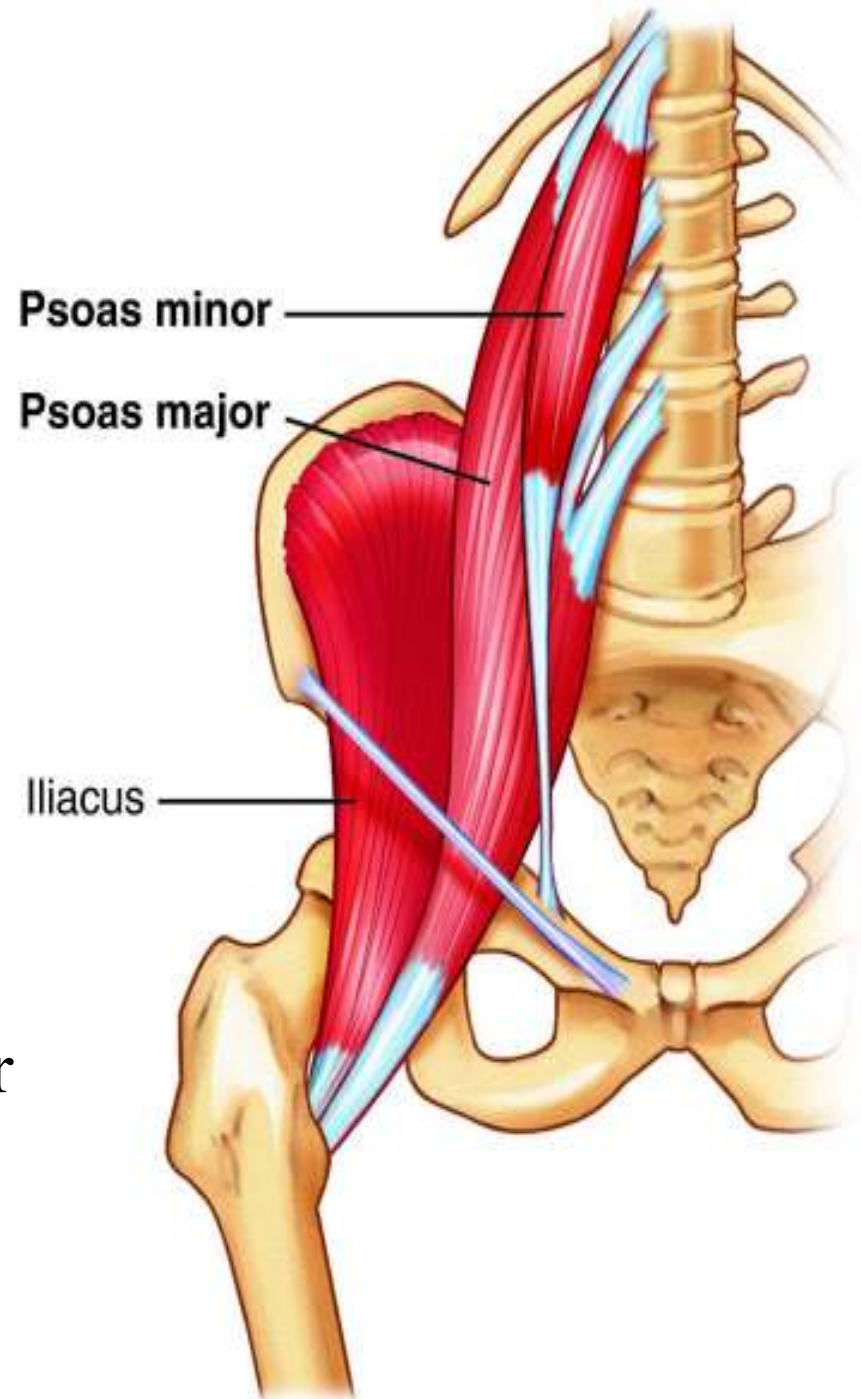
Origin :

T12 – L1 vertebrae. Its small muscle with long tendon.

Insertion: pectineal line & iliopubic eminence.

N.S.: lumbar plexus.

Action : Weak flexion of lumbar vertebral column



Quadratus lumborum:

Origin:

Iliolumbar ligament , iliac crest
, Transverse processes of L5.

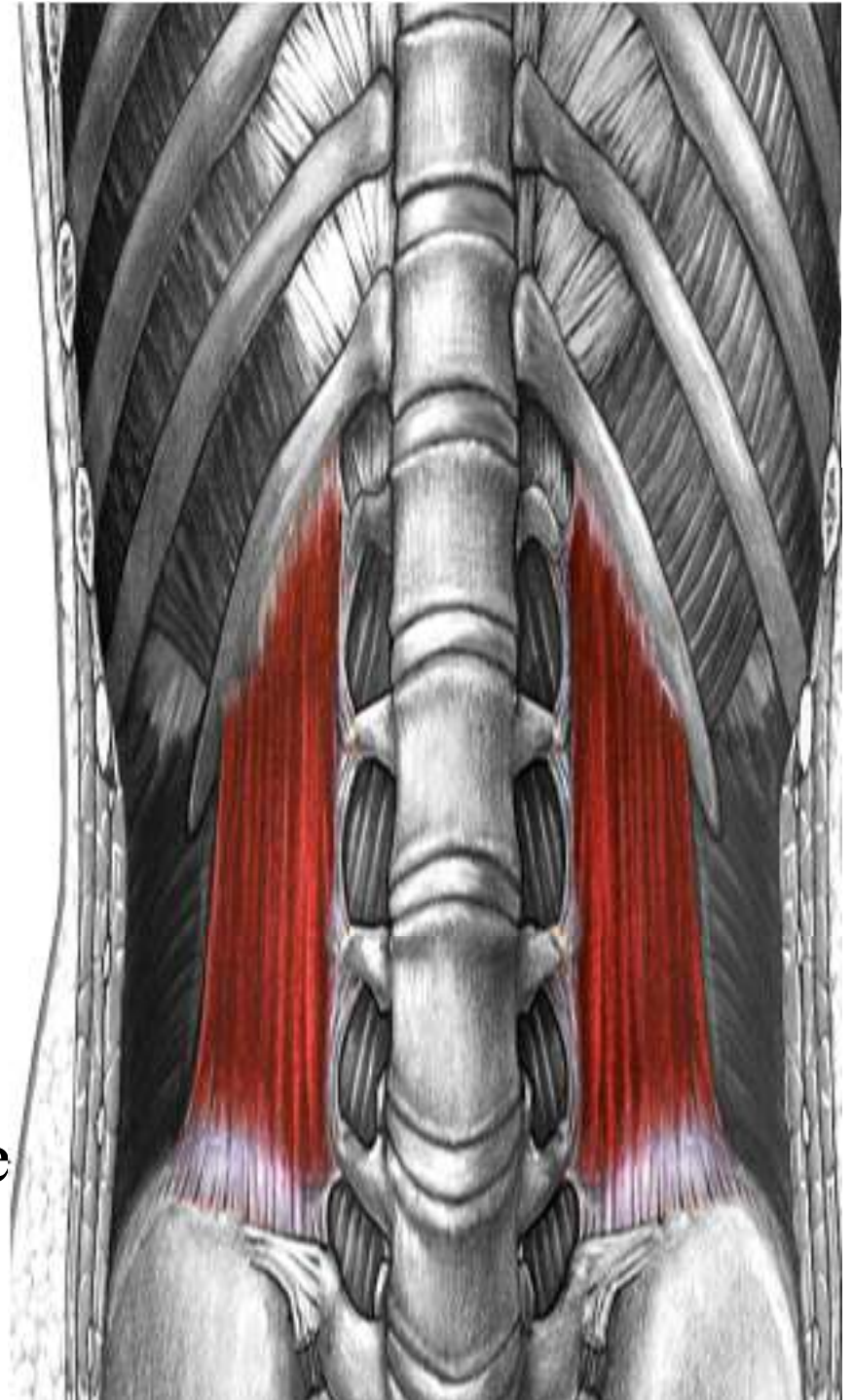
Insertion:

Transverse processes of L1 to L4
vertebrae, Lower border of 12th
rib.

N.S.: lumbar plexus.

Action:

Depress , stabilize 12th rib & some
lateral bending of trunk



Lumbar fascia:

Three layers of tough fibrous tissue enclosing two muscle compartments.

Anterior compartment: enclosed quadratus lumborum muscle, psoas muscles.

Posterior compartment: enclosed erector spinae muscle.

These layers are:

Anterior & middle lamella: found only in lumbar region.

Posterior lamella : whole length of back.

