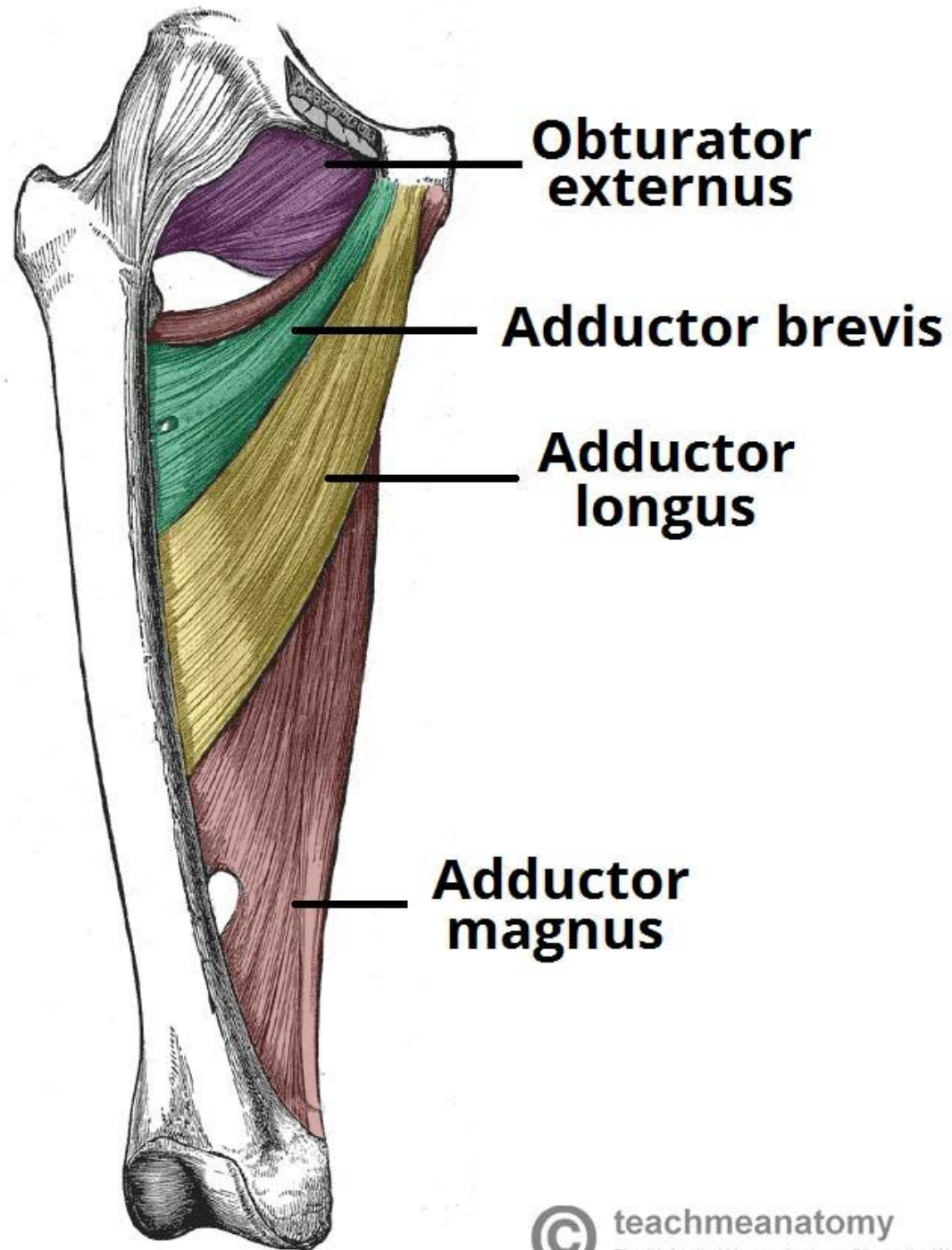


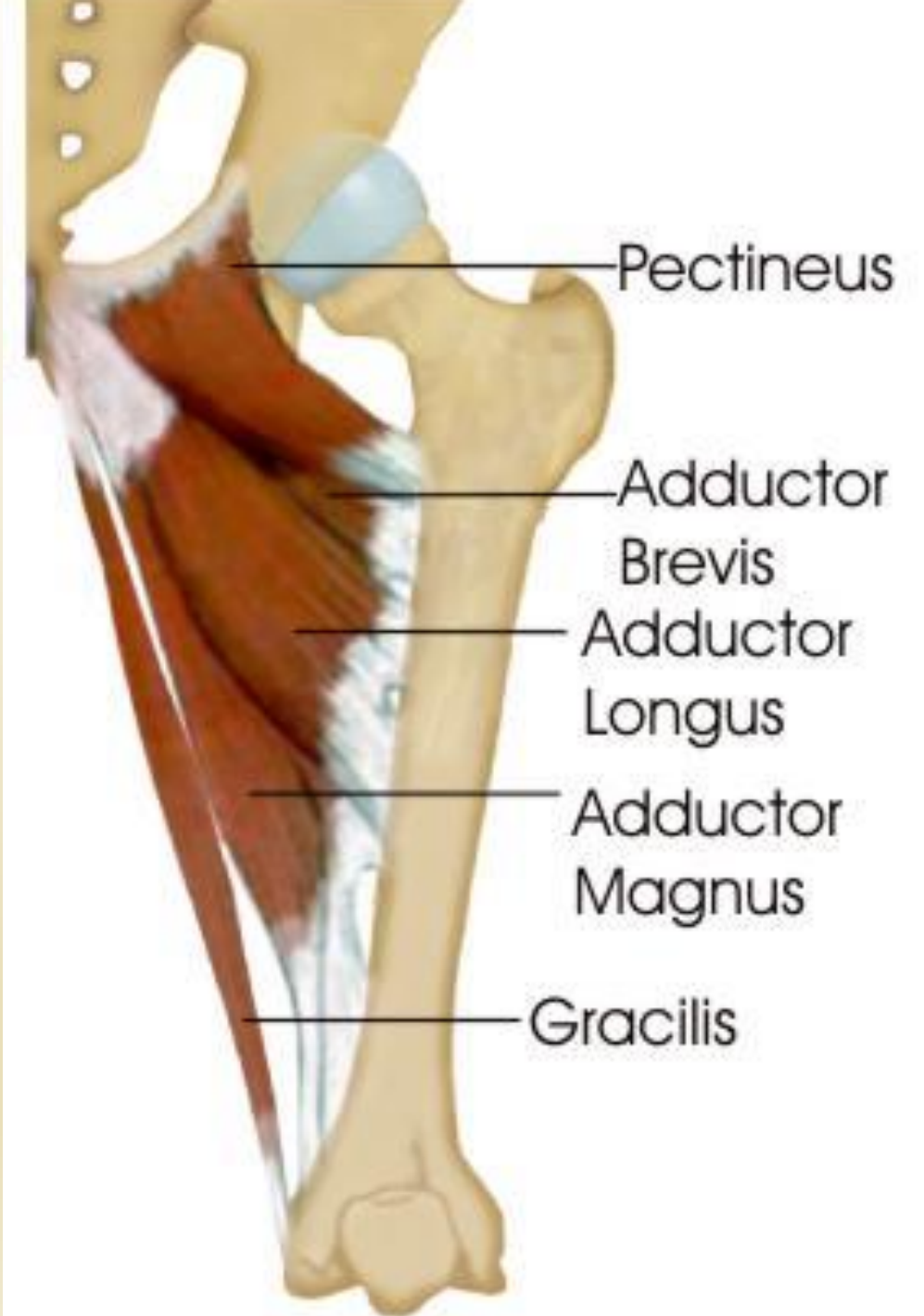
Medial Compartment of the thigh

DR. DALIA M. BIRAM



Adductor muscles

- ▣ There are 3 adductor muscles arranged from anterior to posterior:
 1. *Adductor longus.*
 2. *Adductor brevis.*
 3. *Adductor magnus.*
- ▣ More superficial to the 3 adductors there is a *gracilis muscle.*



Adductor longus

ORIGIN

Front of body of pubis just below pubic tubercle

INSERTION

Middle third of Linea aspera

NERVE SUPPLY

Anterior branch of obturator nerve

ACTIONs

Adduction, flexion, Lateral rotation of the hip joint



Adductor brevis

ORIGIN

Lateral (outer) surface of inferior ramus of pubis

INSERTION

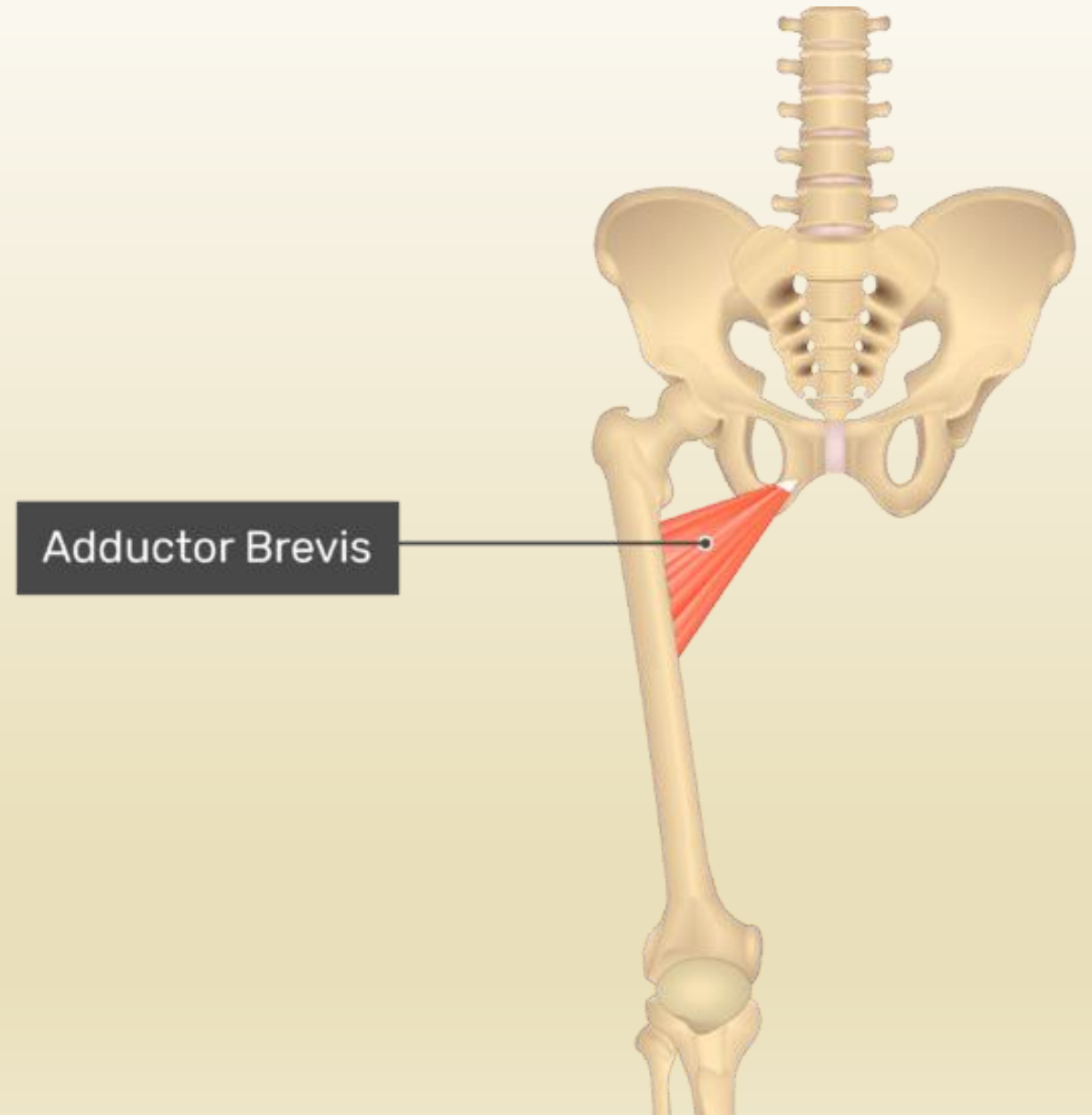
Proximal portion of linea aspera.

NERVE SUPPLY

Anterior branch of obturator nerve

ACTIONs

Adduction, Flexion, Lateral rotation of the hip joint



Adductor Magnus

ORIGIN

- Pubic part, (Oblique head)– inferior ramus of pubis & ischial ramus.*
- Ischial part(Vertical head) – ischial tuberosity.*

INSERTION

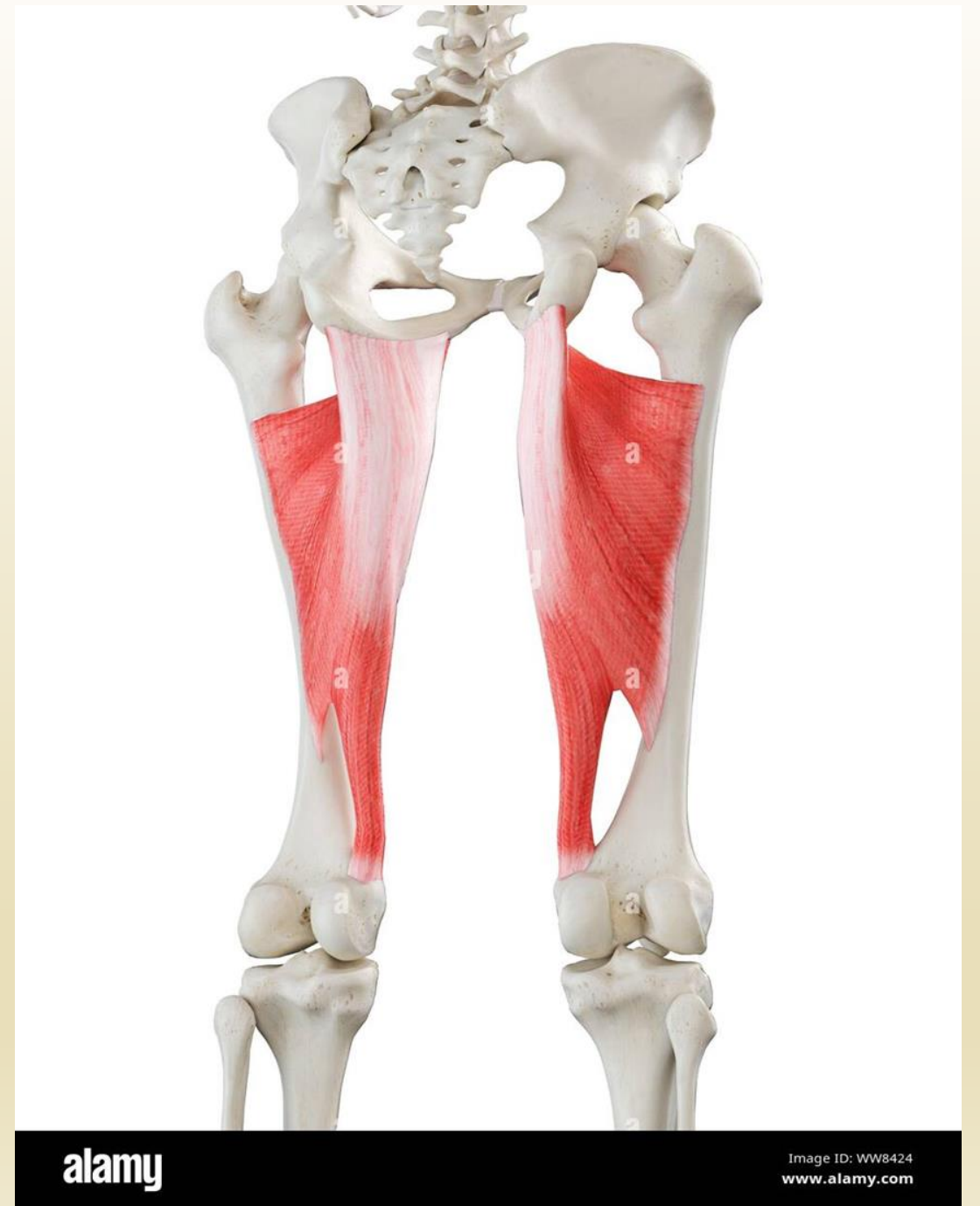
- a. Oblique head – gluteal tuberosity, linea aspera and proximal supracondylar line of femur.*
- b. Vertical head – adductor tubercle of femur.*

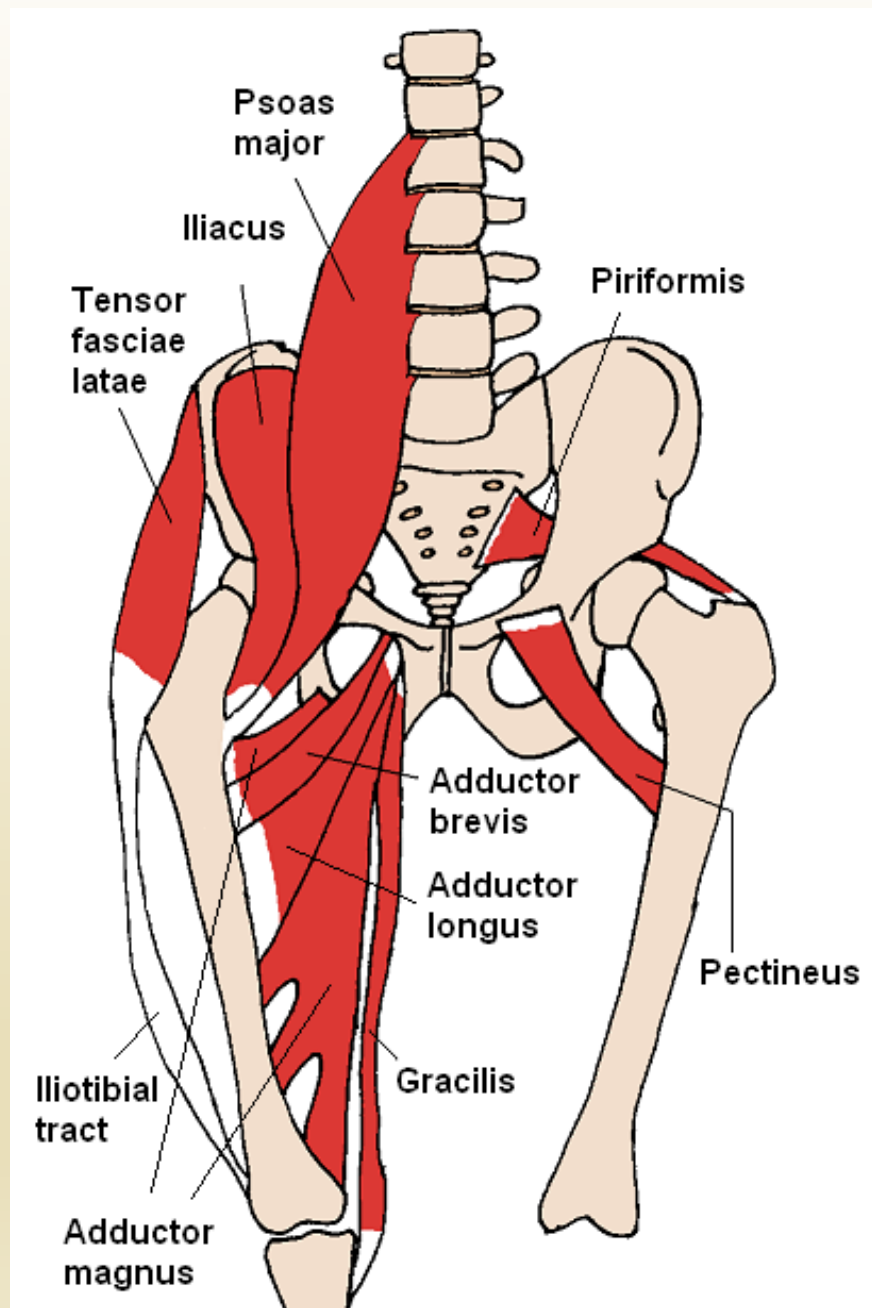
NERVE SUPPLY

- Pubic part (posterior Branch of obturator nerve).*
- Ischial part (sciatic n.)*

ACTIONs

- Pub.part; hip adduction, flexion, lateral rotation*
- Ischial part; extension of hip*





Gracilis

ORIGIN

Anterior part of body of pubis, inferior pubic ramus, ischial ramus.

INSERTION

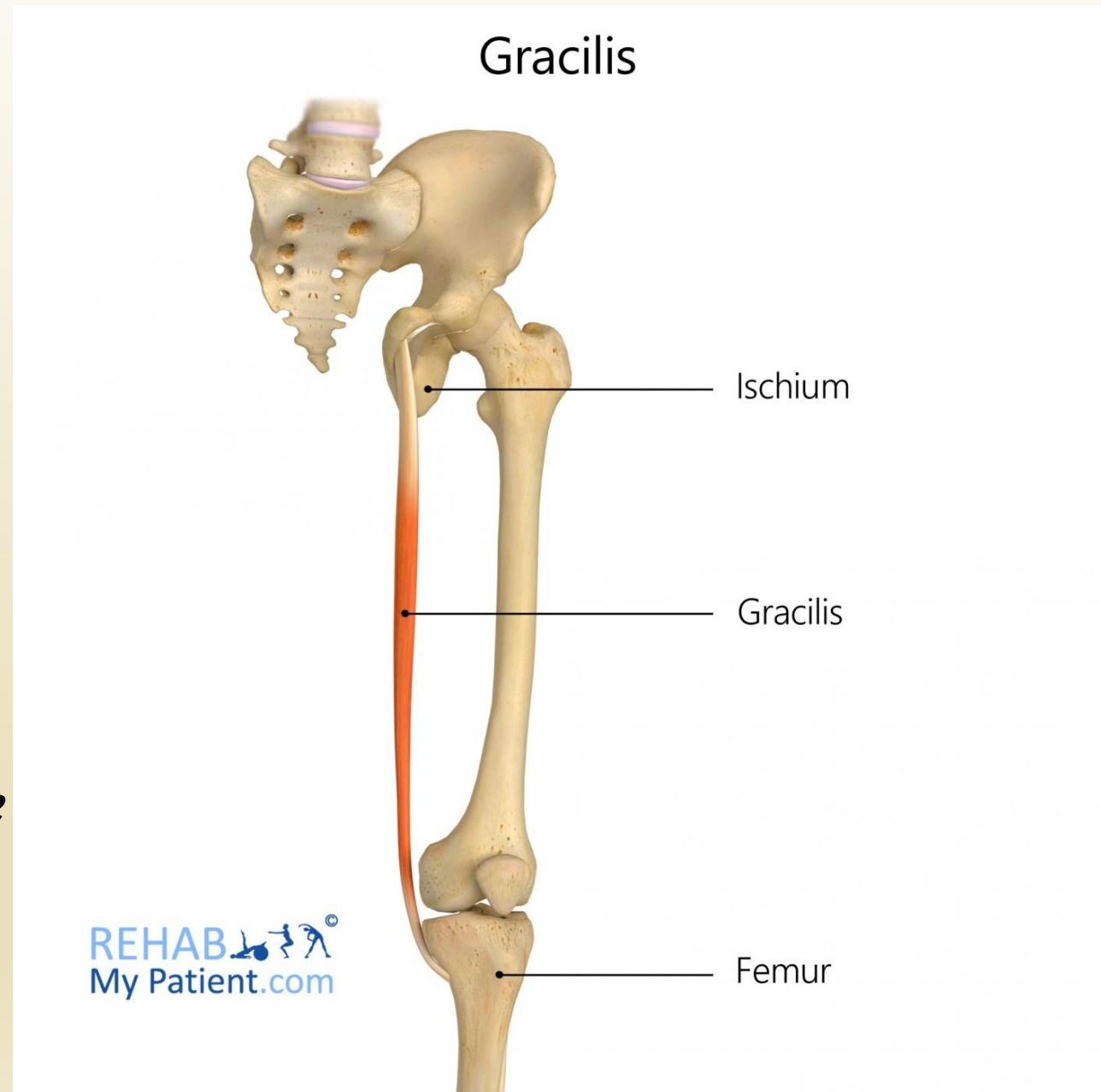
*Upper part of medial surface of tibia **SGS***

NERVE SUPPLY

Anterior branch of obturator nerve

ACTIONs

Hip joint: Thigh flexion, thigh adduction;
Knee joint: leg flexion, leg internal rotation



Obturator externus

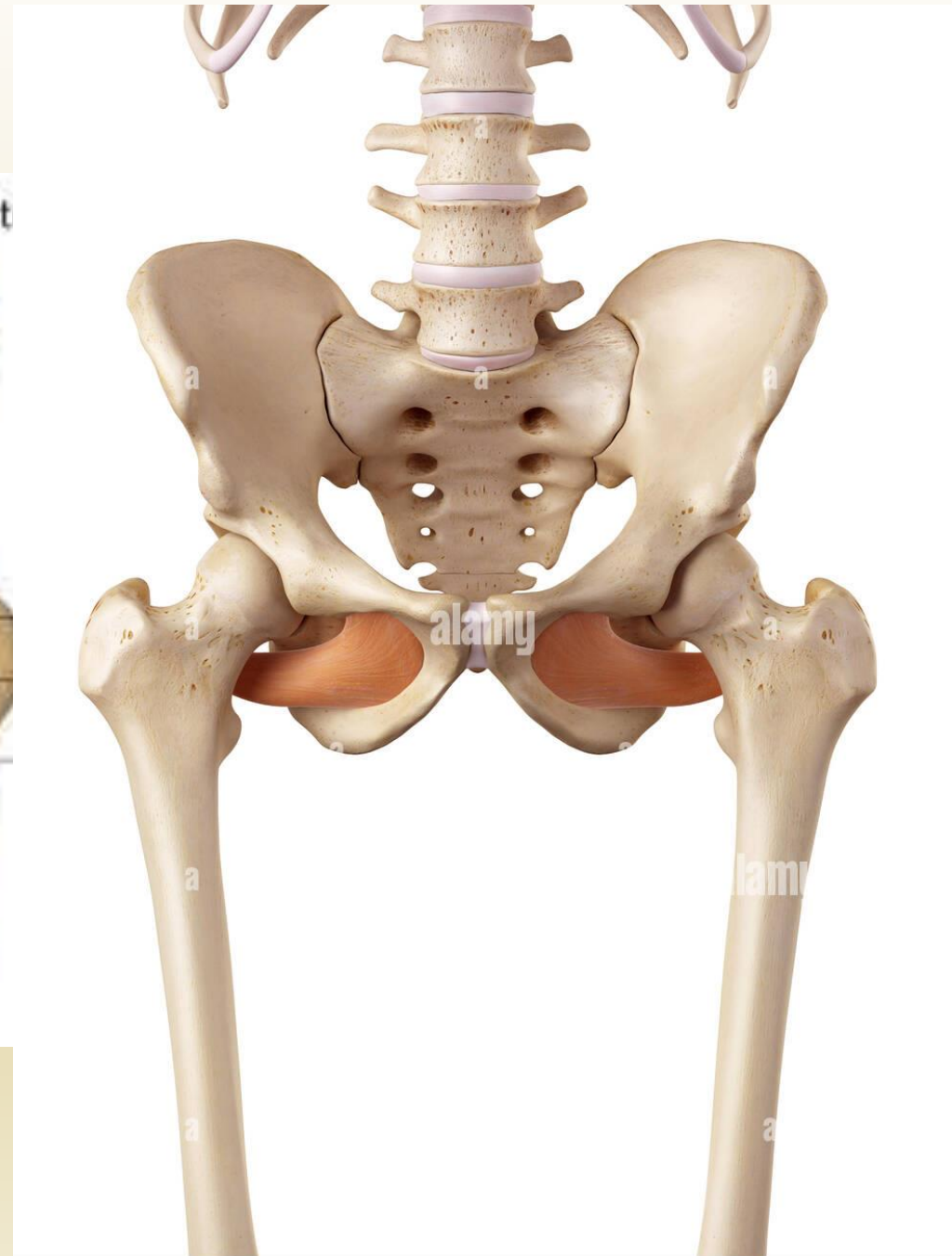
▣ **Origin**

Anterior surface of obturator membrane, bony boundaries of obturator foramen

▣ **Insertion** Trochanteric fossa of femur

▣ **Action** Hip joint: Thigh lateral rotation, adduction (from flexed hip); Stabilizes head of femur in acetabulum

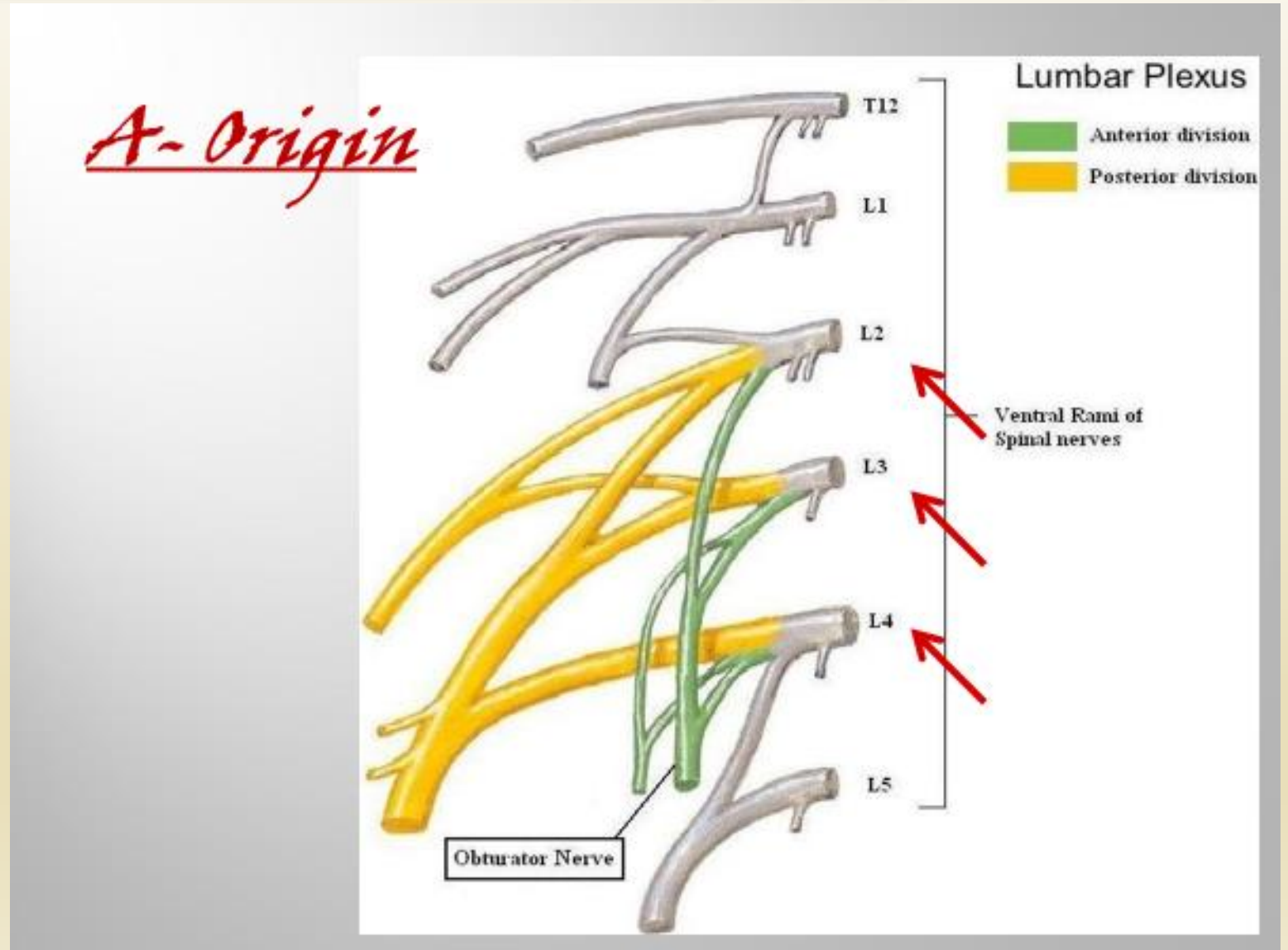
▣ **Innervation** posterior division of Obturator nerve (L3, L4)



Obturator nerve (L2,3,4)

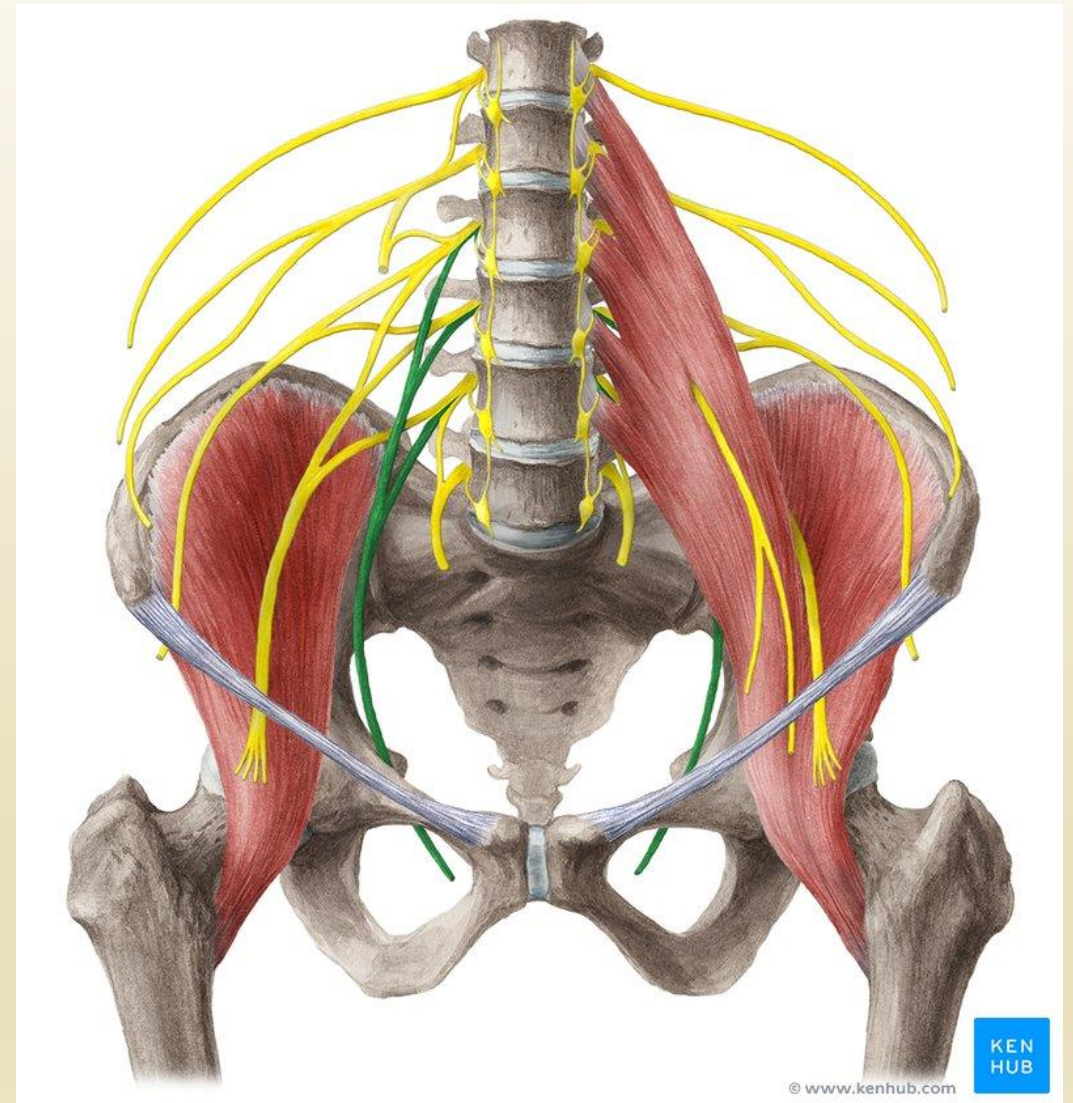
Origin:

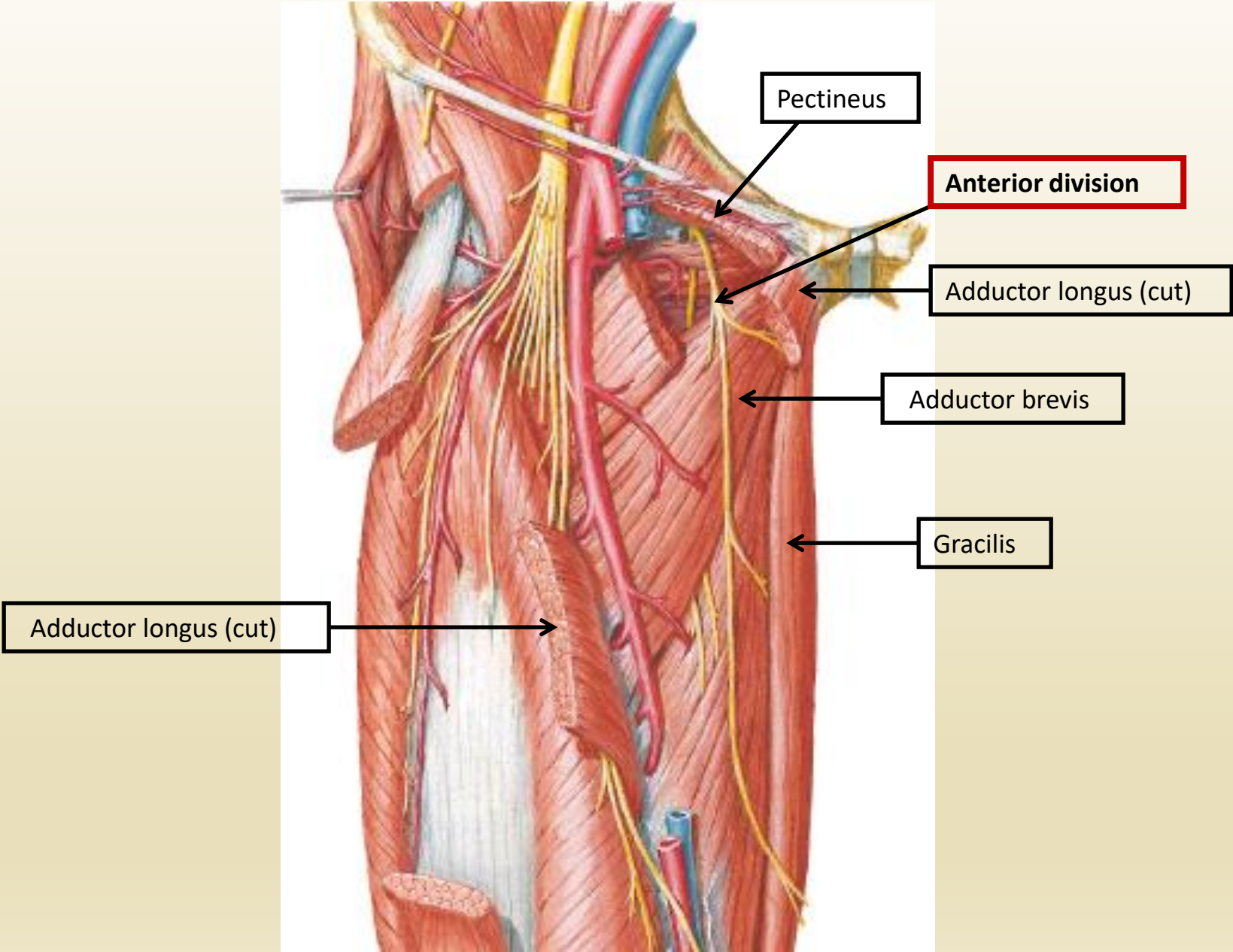
- ▣ It is a branch of the lumbar plexus.
- ▣ It arises from the ventral divisions of the ventral rami of L2,3,4.



Course & relations:

- ▣ It reaches the thigh by passing through the obturator canal.
- ▣ Immediately it divides into anterior and posterior branches. The anterior branch descends in front of the adductor brevis and behind adductor longus and pectineus.
- ▣ The posterior branch passes *through* the obturator externus and then behind adductor brevis and in front of adductor magnus.



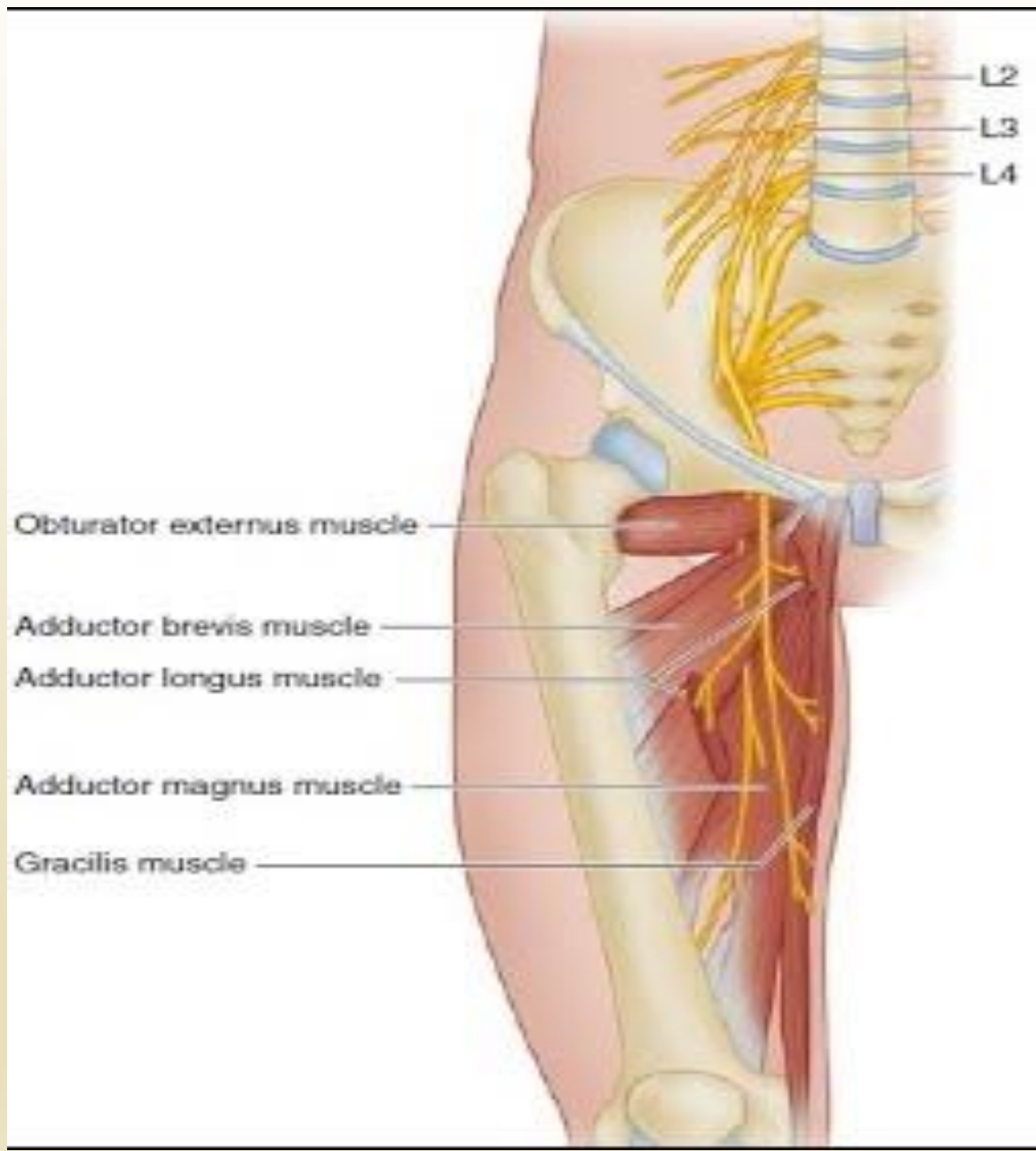


Anterior branch:

- ▣ It gives the following branches:
 1. Articular branch to the hip.
 2. Muscular branch to adductor brevis.
 3. Muscular branch to adductor longus.
 4. Muscular branch to Gracilis.
 5. Cutaneous branch which supplies the skin on the middle 1/3 of the medial side of the thigh.

Posterior branch:

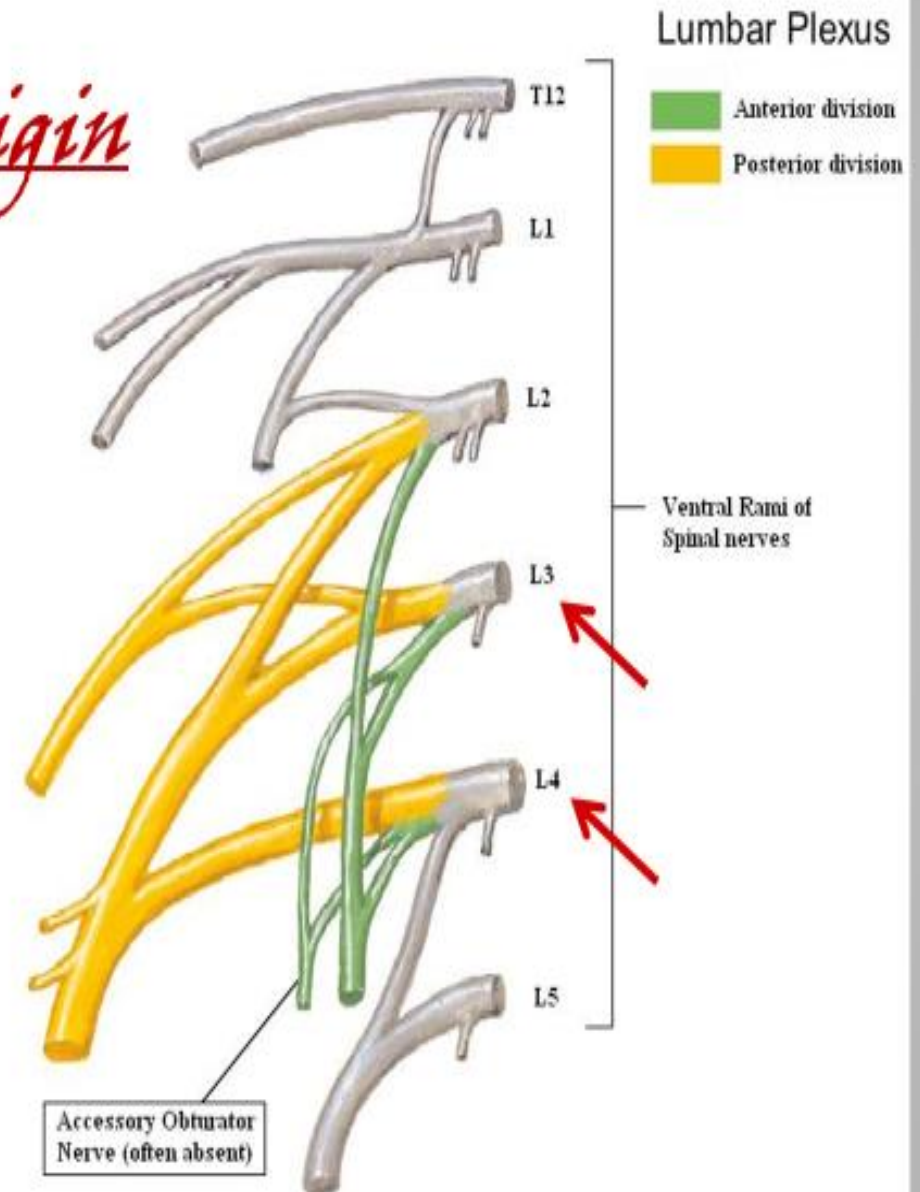
- ▣ It gives the following branches:
 1. Muscular branch to obturator externus.
 2. Muscular branch to pubic part of adductor magnus.
 3. Genicular branch.
 - ▣ Injury of obturator nerve: It leads to marked **weakness** of adduction of thigh however slight degree of adduction can be done by pectineus.



Accessory obturator nerve:

- ▣ An occasional branch of the lumbar plexus.
- ▣ Only found in 12% of subjects.
- ▣ It descends close to medial side of psoas major muscle behind inguinal ligament.
- ▣ It gives branches to pectineus and hip joint.

A- Origin



The Femoral Triangle

It is a triangular area in the anterior aspect of the thigh just below the inguinal ligament.

Boundaries:

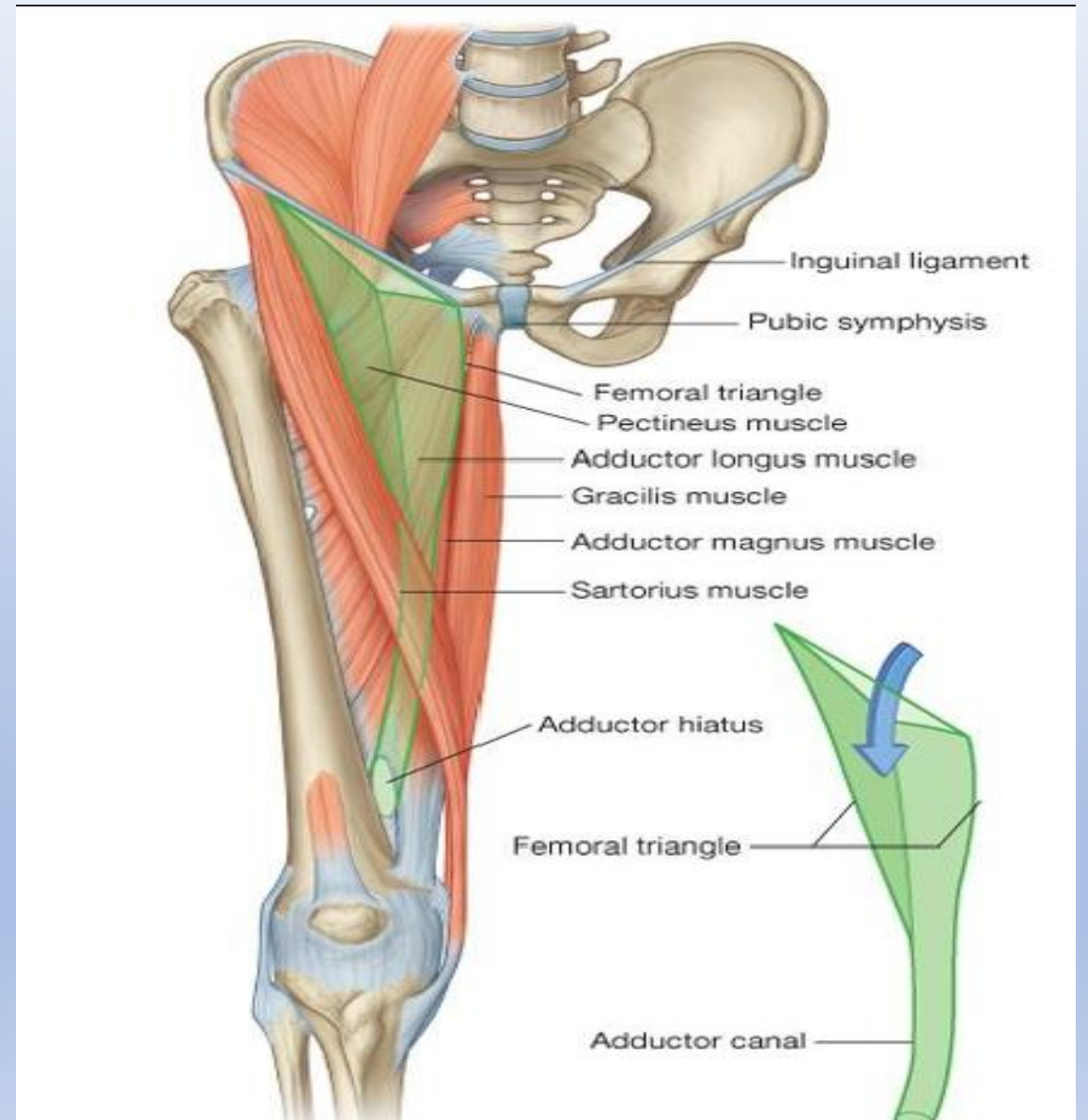
Superiorly (base): Inguinal ligament

Laterally: Medial border of sartorius

Medially: Medial border of adductor longus muscle

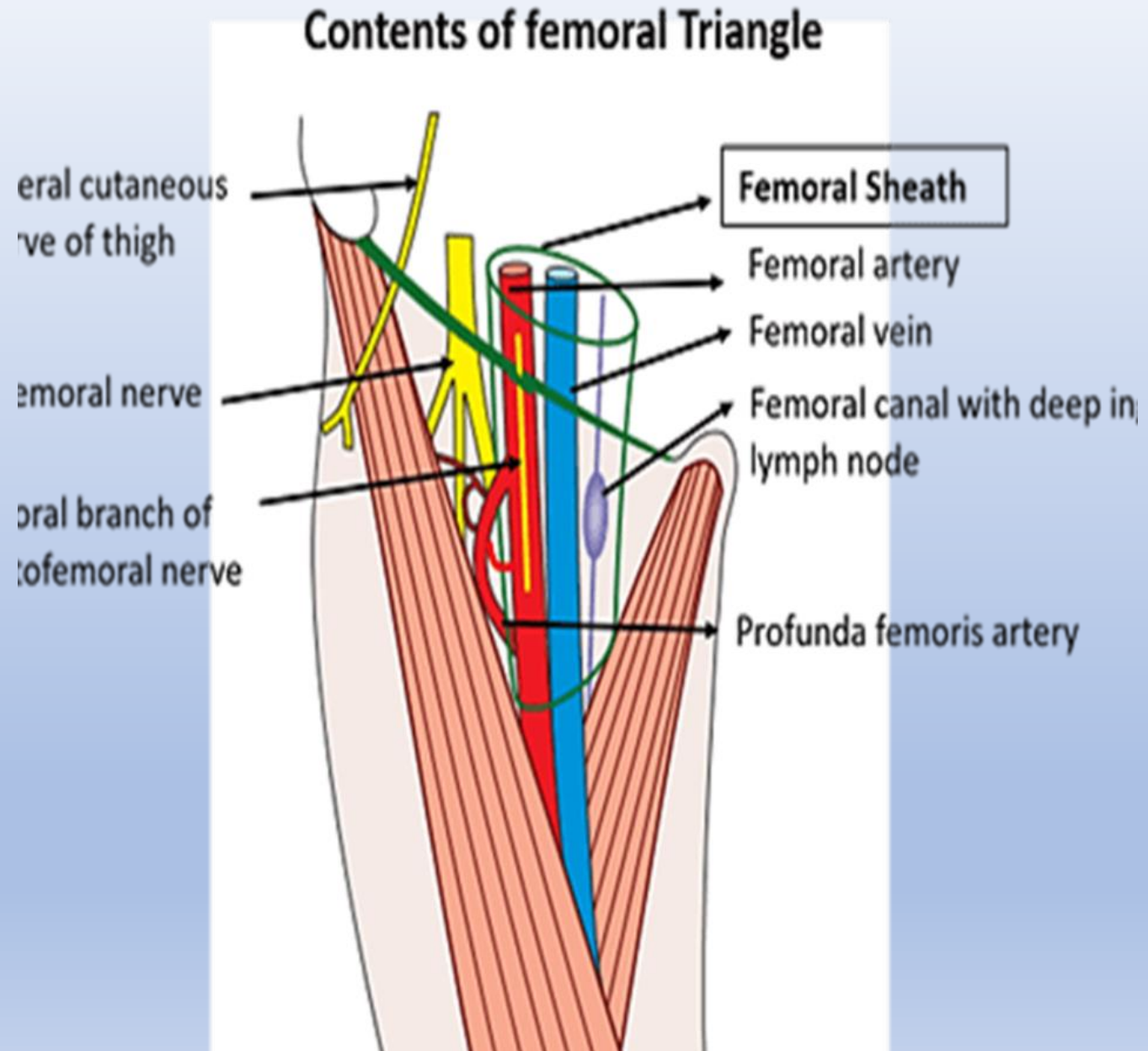
Floor: formed of iliopsoas, pectineus and adductor longus (from lateral to medial).

Roof: Skin and fascia of the thigh

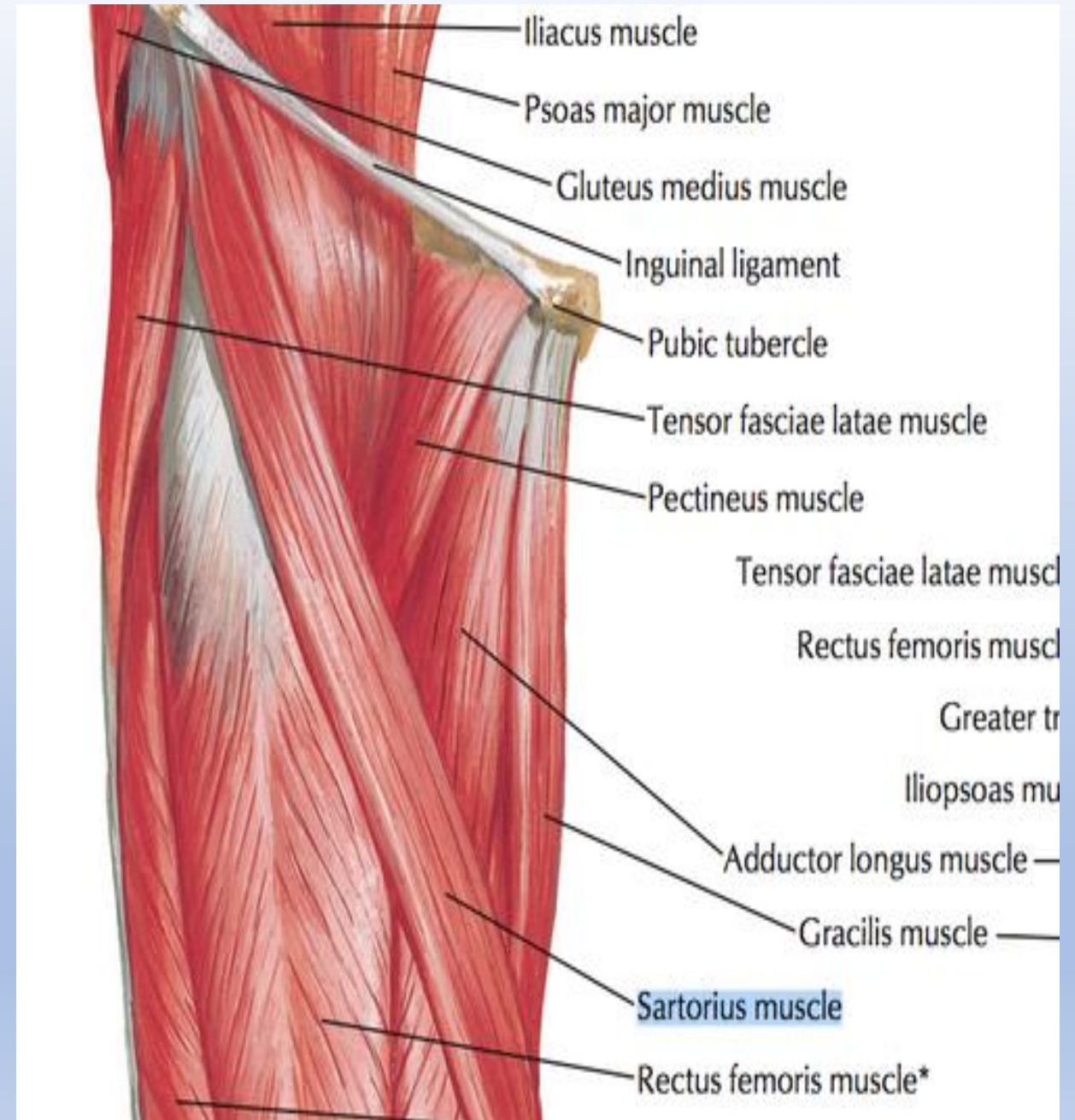


Contents: •

- 1- Femoral nerve and its • branches
- 2- Femoral sheath •
- 3- Femoral artery and its • branches
- 4- Femoral vein and its • tributaries
- 5- Femoral branch of the • genitofemoral nerve.
- 6- Deep inguinal lymph nodes •
- 7- Lateral cutaneous nerve of • the thigh



Floor: formed of iliopsoas, •
pectineus and adductor longus
(from lateral to medial).



Femoral Sheath

It is a downward protrusion into the thigh of the fascial envelope lining the abdominal walls.

Anteriorly: It is formed by fascia transversalis

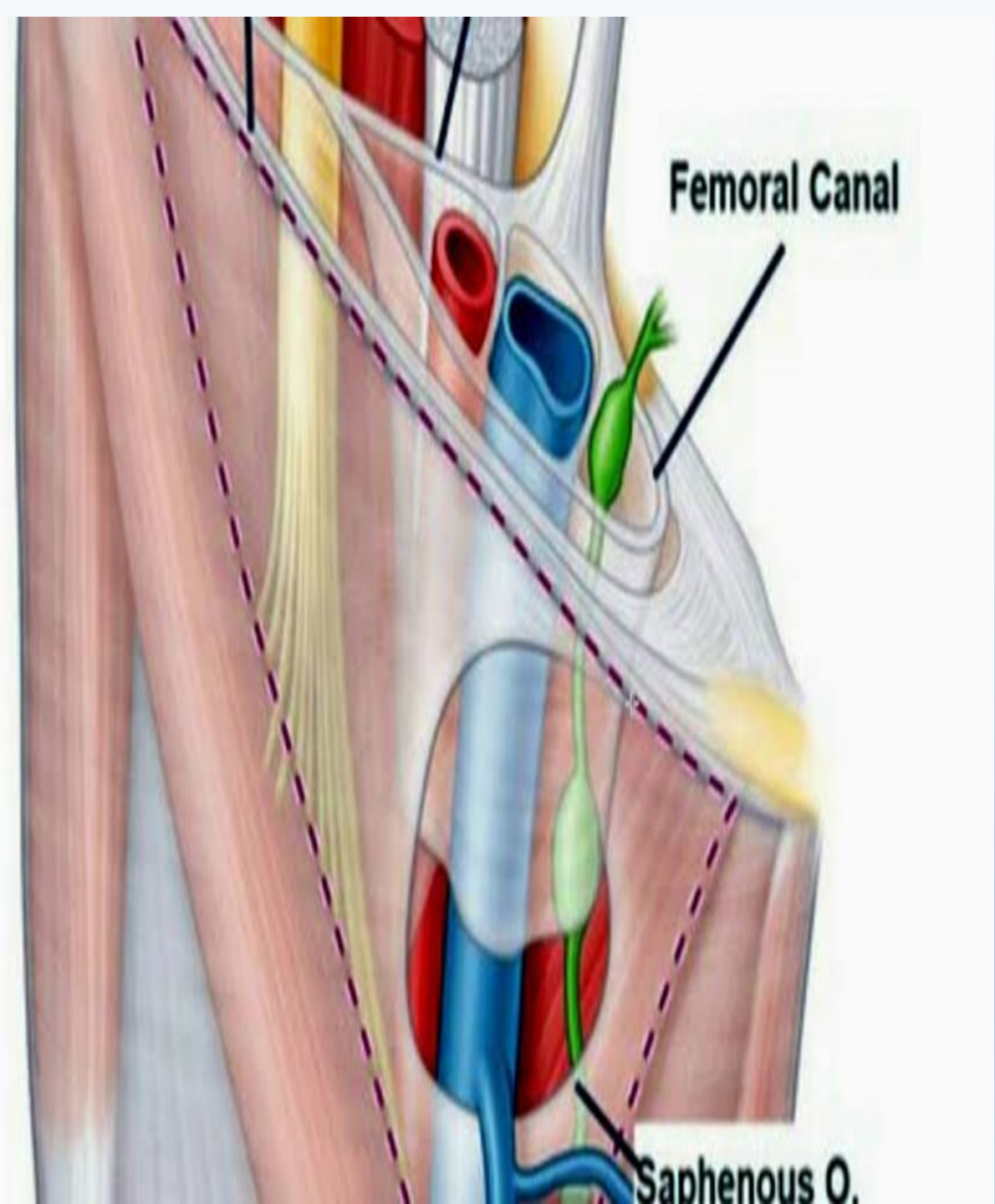
Posteriorly: It is formed by fascia iliaca

The femoral sheath is composed of three compartments:

1- Lateral compartment: Contains the femoral artery and femoral branch of genitofemoral nerve.

2-Intermediate compartment: Contains the femoral vein.

3-Medial compartment (the femoral canal): Contains lymph node (called node of Cloquet). The upper opening of the femoral canal is the femoral ring. The Femoral septum is a condensation of extraperitoneal tissue closing the ring.



Boundaries of the femoral ring

- Inguinal ligament (anteriorly),
- Superior pubic ramus (posteriorly),
- Lacunar ligament (medially),
- Femoral vein (laterally).

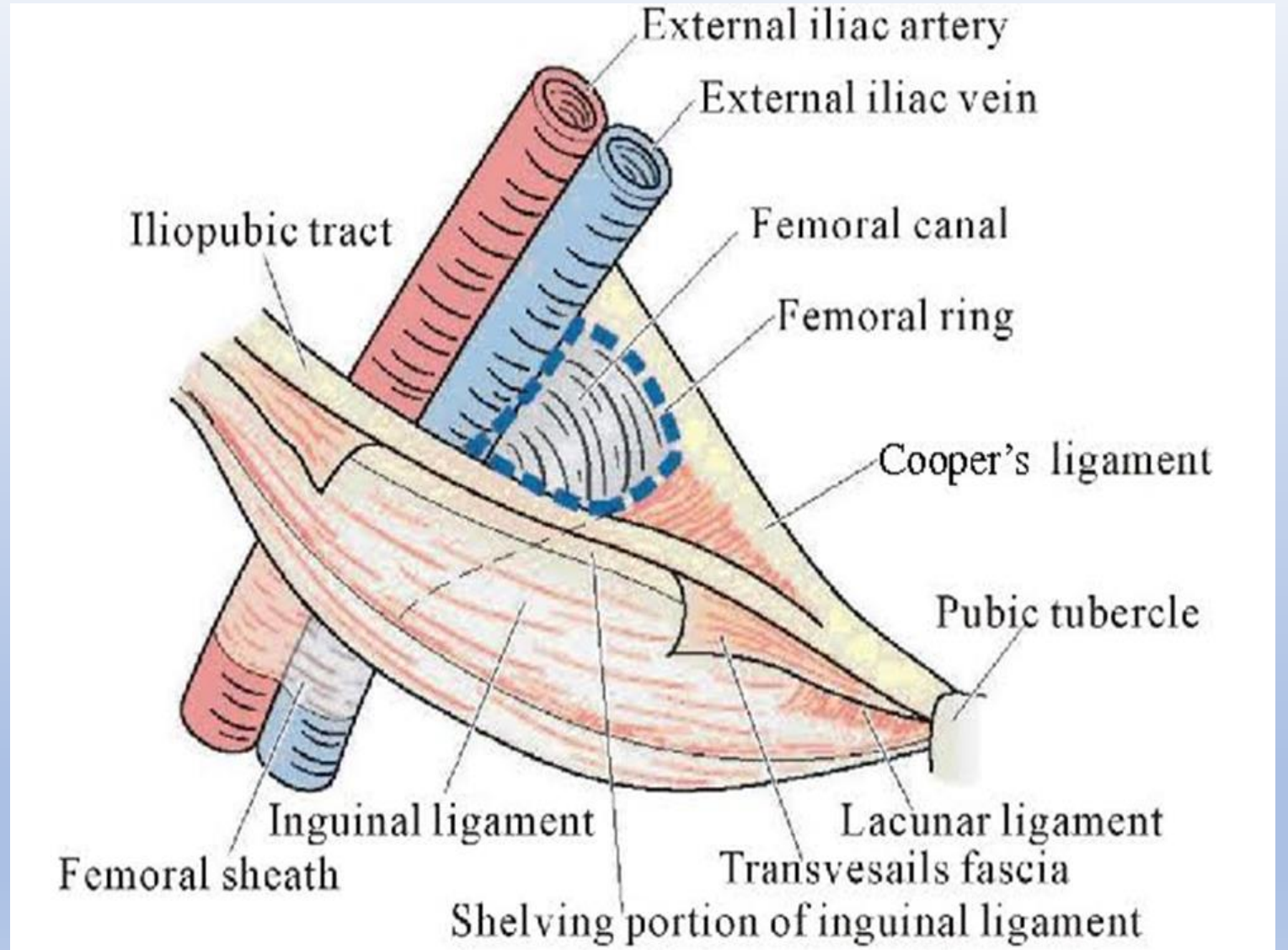
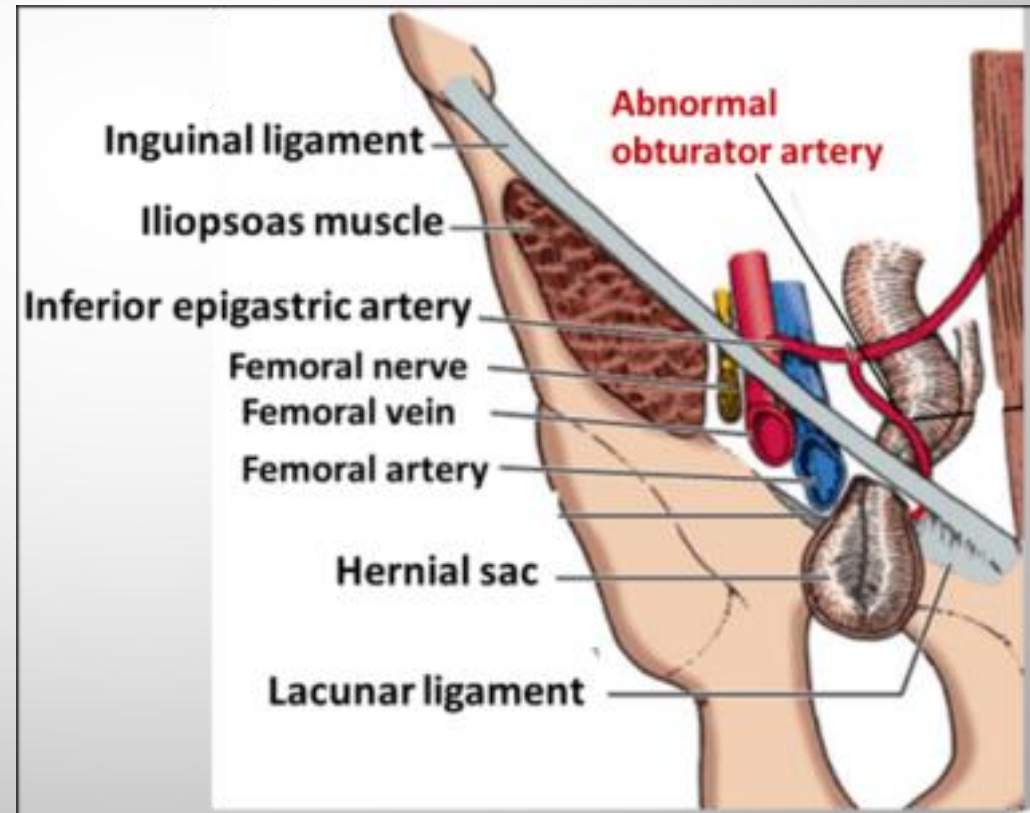
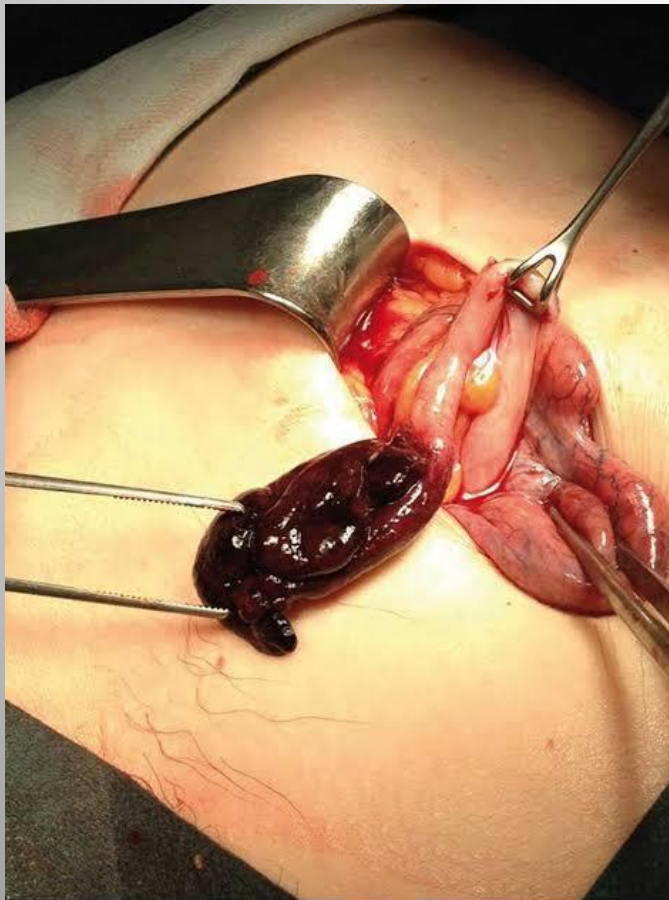


Figure 2 Anatomy around the femoral ring. The femoral

Femoral Hernia

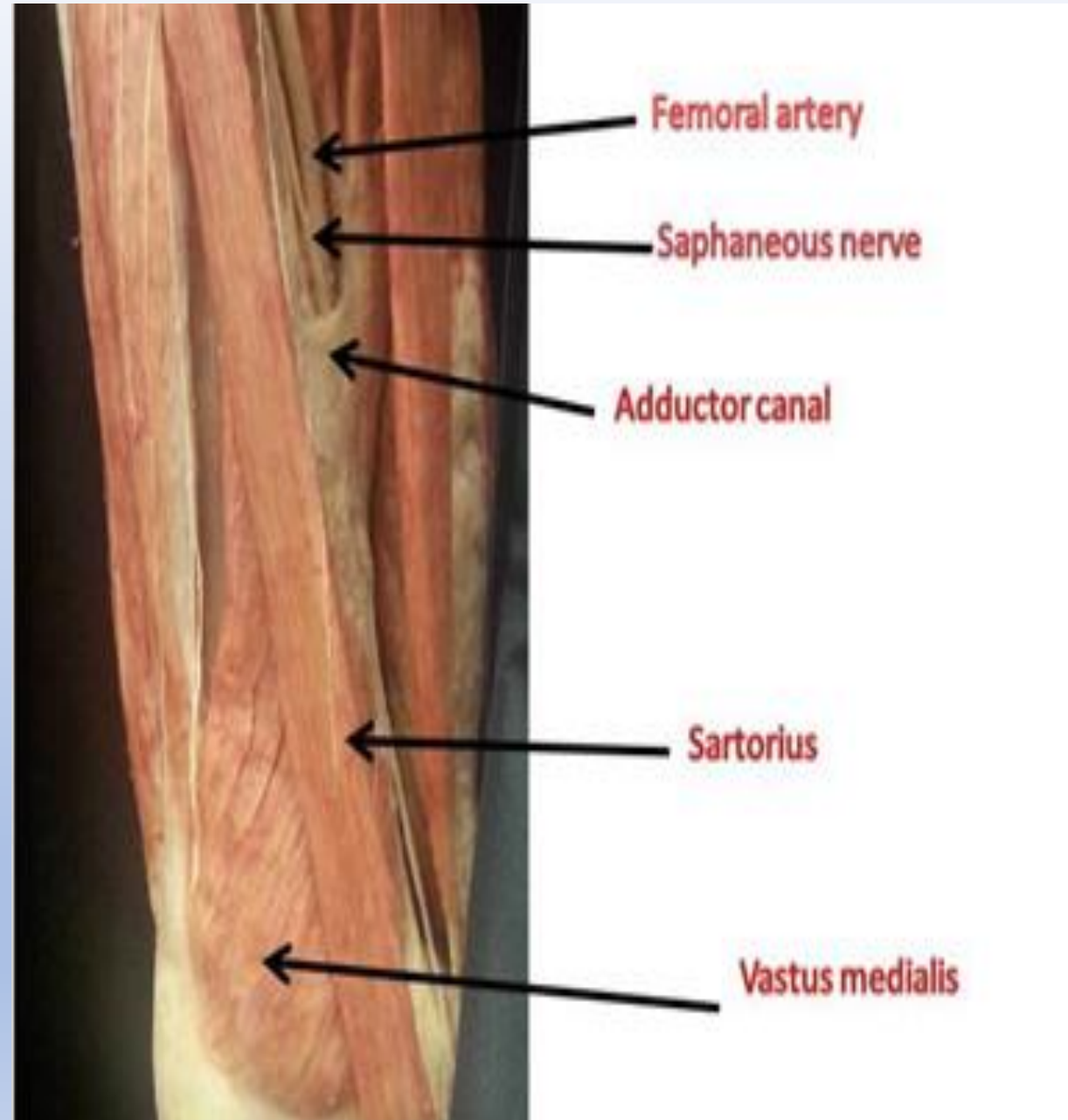
The femoral ring is a site of potential herniation. A femoral hernia is a protrusion of abdominal viscera through the femoral ring into the femoral canal. A femoral hernia may become strangulated due to the inflexibility of the inguinal ligament.



Adductor (Sub sartorial) canal

- The adductor canal is an intermuscular cleft situated on the medial aspect of the middle third of the thigh beneath the sartorius muscle. It **begins** above at the apex of the femoral triangle and **ends** below at the opening in the adductor magnus. In cross section it is triangular.
 - **The anteromedial wall** is formed by sartorius muscle and fascia.
 - **The posterior wall** is formed by adductor longus and magnus
 - **The lateral wall** is formed by vastus medialis.

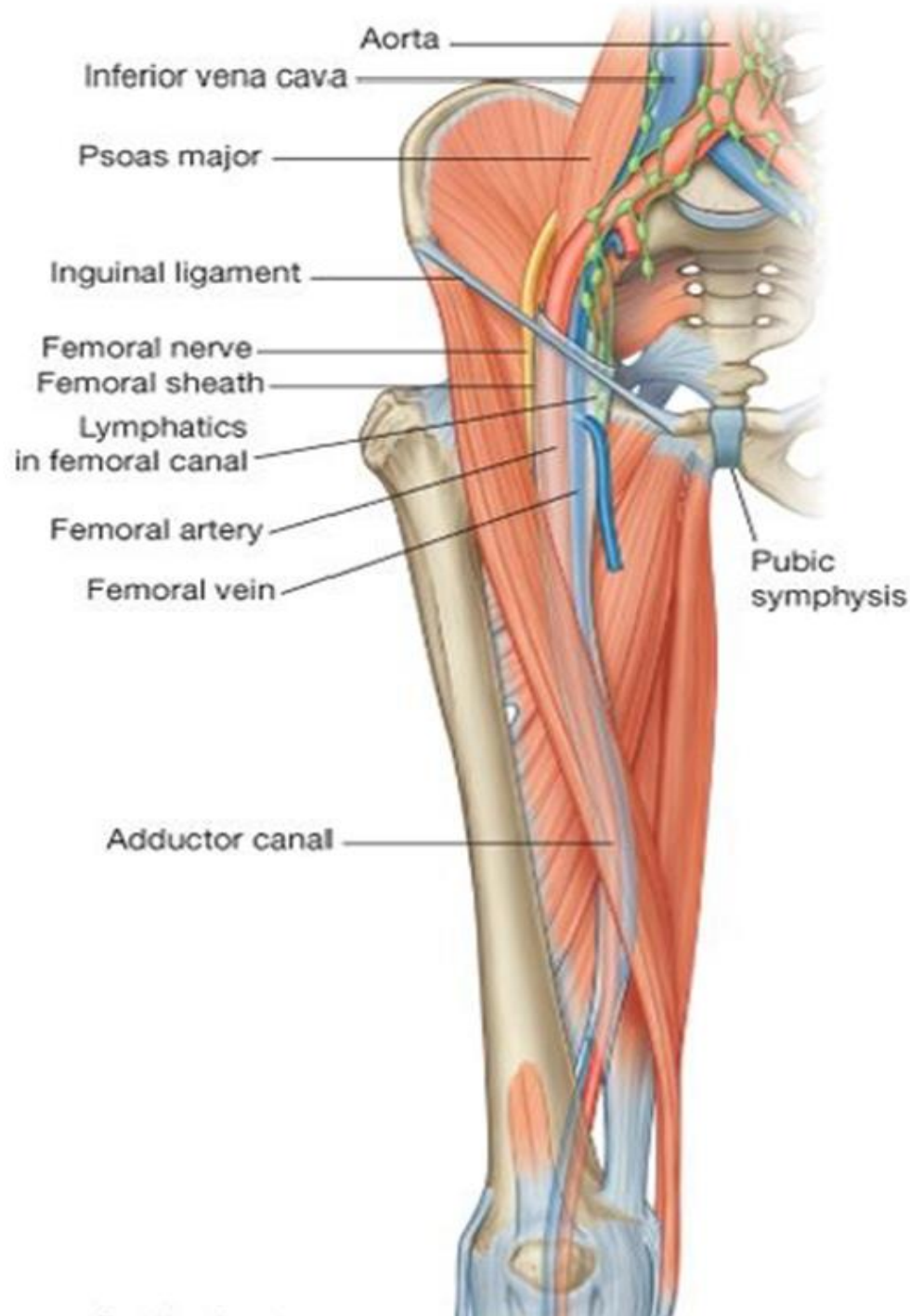
- The adductor **canal contains**
 - the terminal part of the femoral artery,
 - the femoral vein,
 - deep lymph vessels,
 - the saphenous nerve,
 - the nerve to the vastus medialis,





ADDUCTOR CANAL

(Subsartorial/Hunter's canal)



❑ **DEFINITION:** an aponeurotic tunnel for femoral artery & vein

❑ **SITE:** In middle third of front of thigh deep to sartorius

❑ **EXTENT:** From apex of femoral triangle to adductor hiatus

❑ **BOUNDARIES:**

❑ **Roof (Anterior):** Sartorius (medially) and vastus medialis (laterally)

❑ **Floor (Posterior):** Adductor longus & magnus