

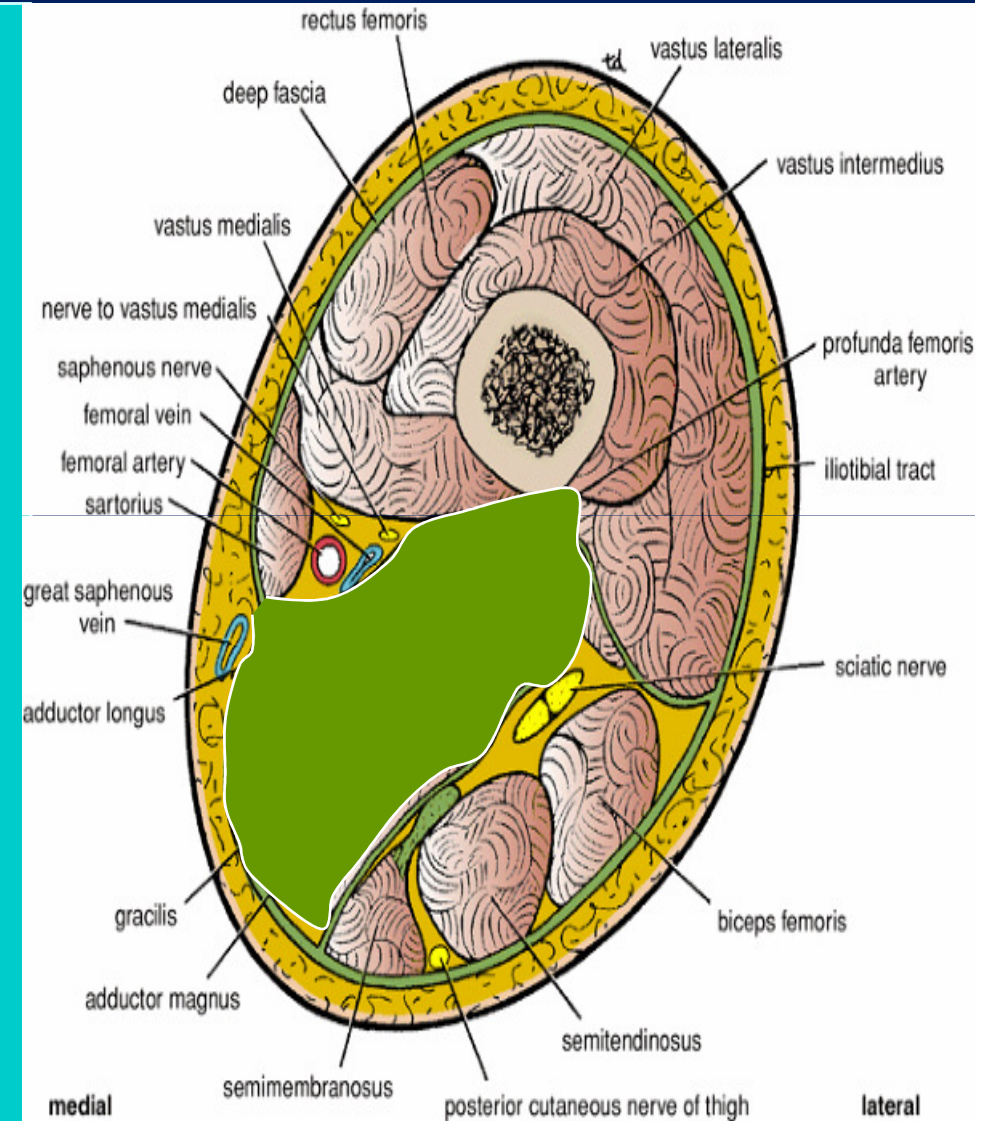


# Medial Compartment of Thigh



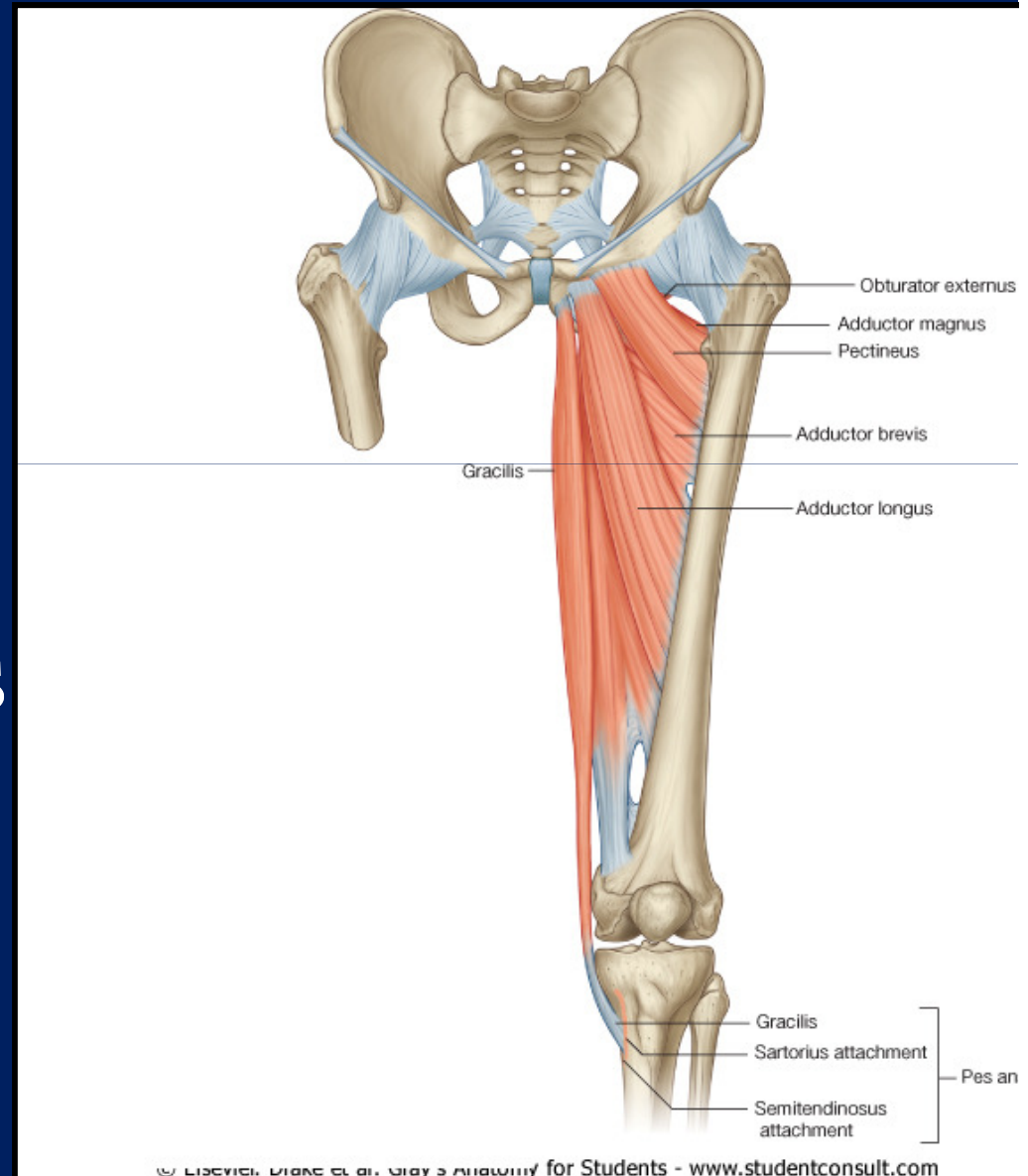
## ■ Contents of the Medial Fascial Compartment of the Thigh:

- ◆ Muscles
- ◆ Vessels
- ◆ Nerves



# Muscles of the Medial Fascial Compartment of the Thigh

- Gracilis
- adductor longus
- adductor brevis
- adductor magnus
- obturator externus



# Gracilis

## ■ Origin:

Inferior ramus of pubis,  
ramus of ischium

## ■ Insertion:

- ◆ Upper part of shaft of tibia  
on medial surface

## ■ Nerve supply:

- ◆ Obturator nerve
- ◆ L2, 3

## ■ Actions:

- ◆ Adducts thigh at hip joint;  
flexes leg at knee joint



# Adductor longus

- **Origin:**

Body of pubis, medial to pubic tubercle

- **Insertion:**

Posterior surface of shaft of femur  
(linea aspera)

- **Nerve supply:**

Obturator nerve

L2, 3 , 4

- **Action:**

Adducts thigh at hip joint and  
assists in lateral rotation



# Adductor brevis

- **Origin:**

Inferior ramus of pubis

- **Insertion:**

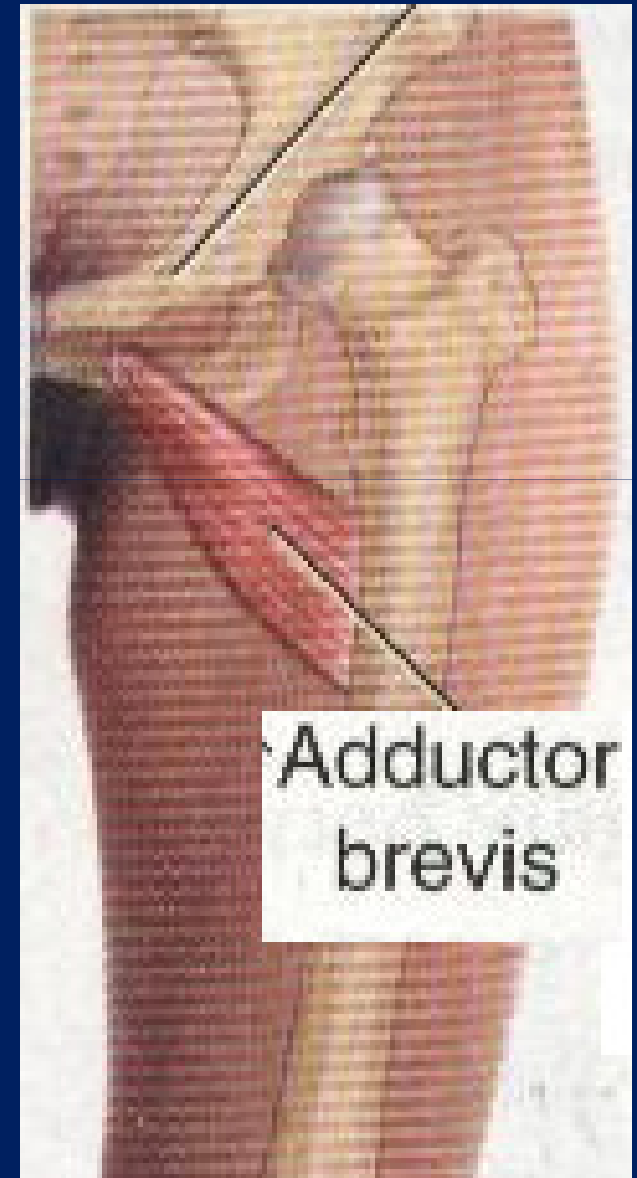
Posterior surface of shaft  
of femur (linea aspera)

- **Nerve supply:**

Obturator nerve

L2, 3, 4

- **Action:** Adducts thigh at hip joint  
and assists in lateral rotation





# Adductor magnus

## ■ Origin:

Inferior ramus of pubis, ramus of ischium, ischial tuberosity

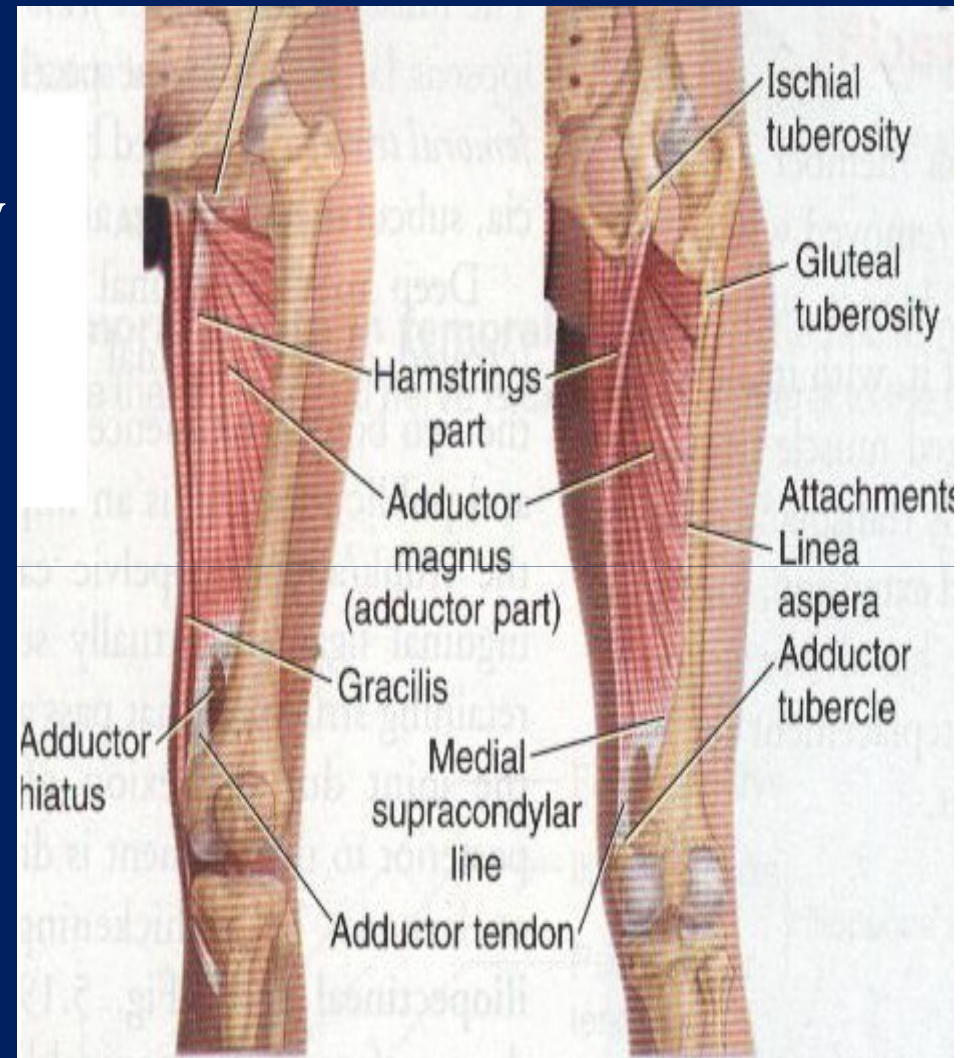
## ■ Insertion:

Posterior surface of shaft of femur, adductor tubercle of femur

## ■ Nerve supply:

Adductor portion: obturator N  
Hamstring portion: sciatic N  
L2, 3, 4

## ■ Action: Adducts thigh at hip joint and assists in lateral rotation; hamstring portion extends thigh at hip joint





# Obturator externus

## ■ Origin:

Outer surface of obturator membrane and pubic and ischial rami

## ■ Insertion:

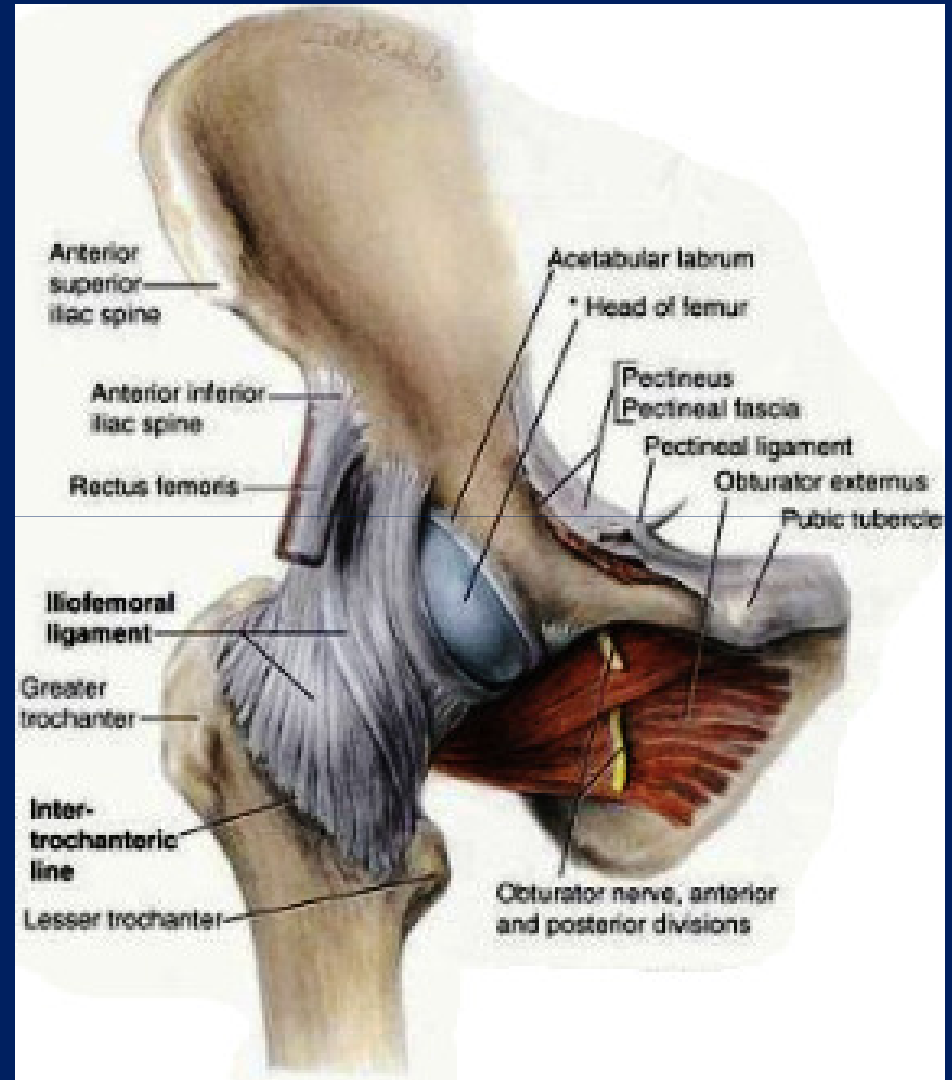
Medial surface of greater trochanter

## ■ Nerve supply:

Obturator nerve L3, 4

## ■ Action:

Laterally rotates thigh at hip joint



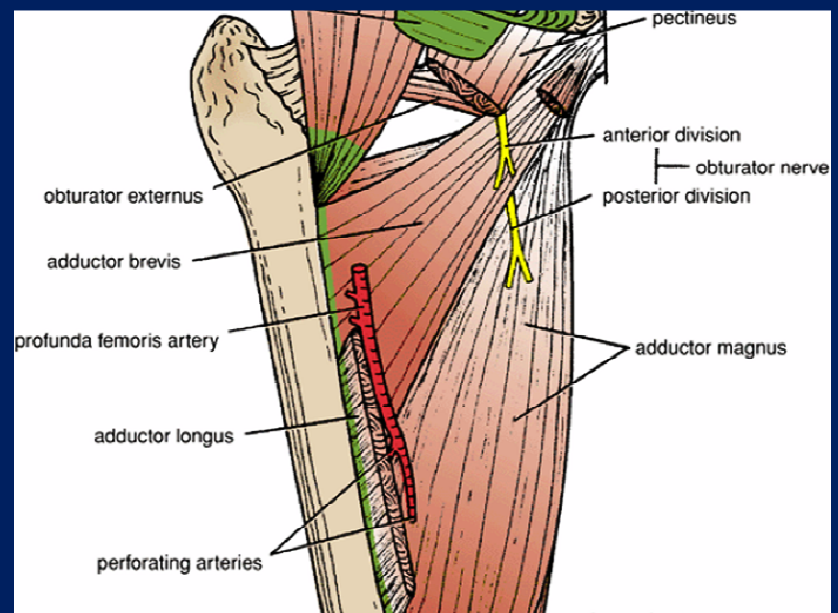
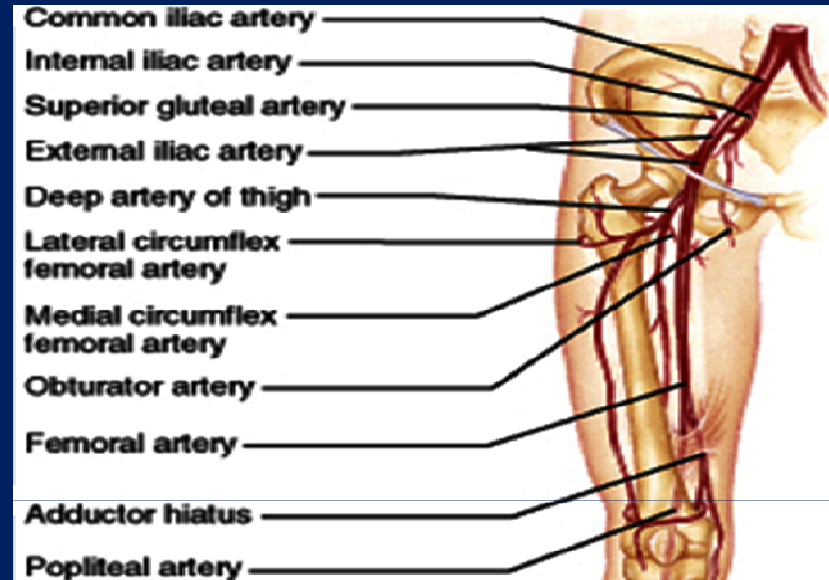
# Blood Supply of the Medial Fascial Compartment of the Thigh

## ■ Profunda Femoris Artery

The profunda femoris is a large artery that arises from the lateral side of the femoral artery in the femoral triangle, below the **inguinal ligament**.

## Relations

It descends in the interval **between** the **adductor longus** and **adductor brevis** and then **lies** on the **adductor magnus**, where it ends as the **fourth perforating artery**



# Profunda Femoris Artery

## Branches

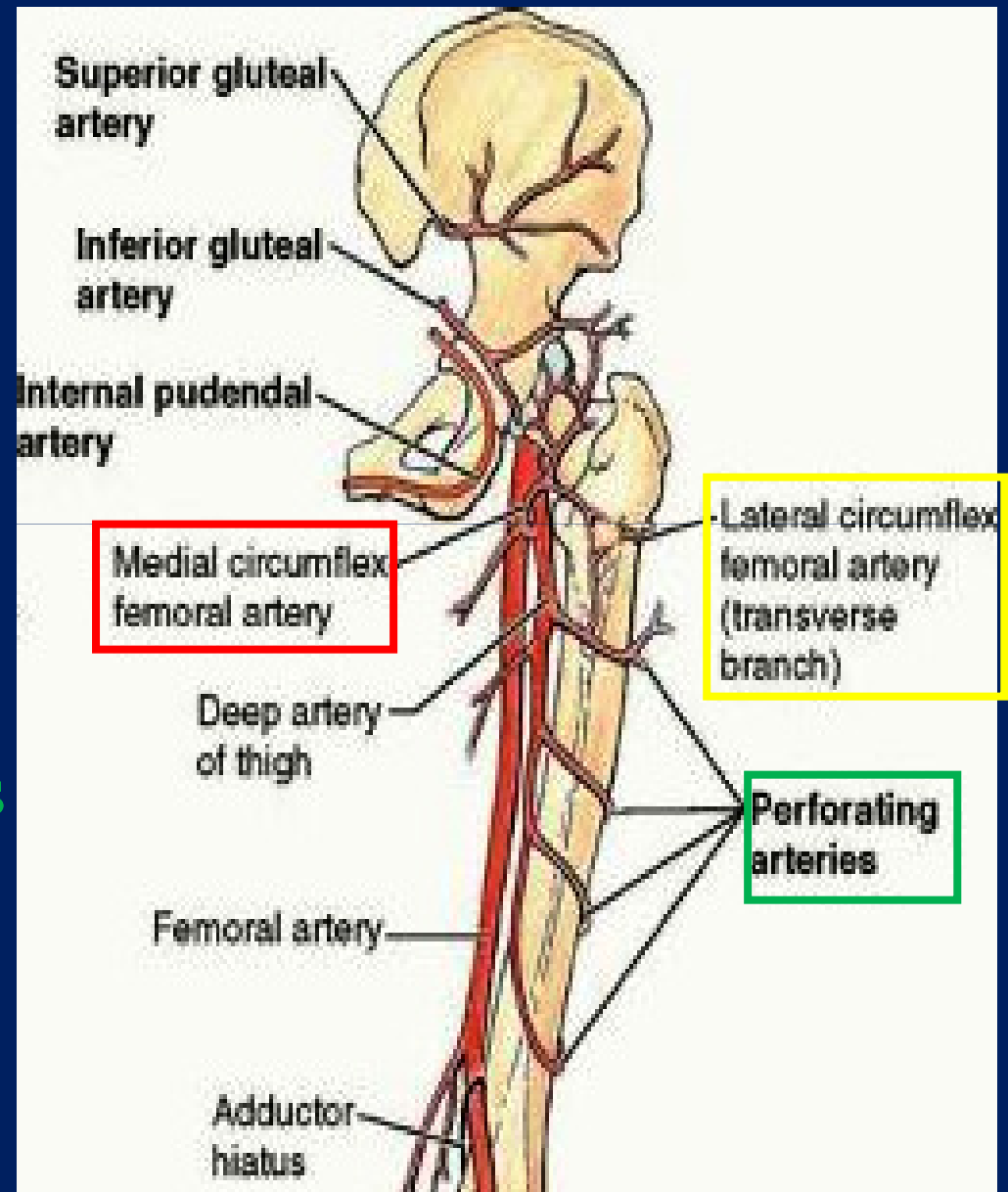
- Medial femoral circumflex artery

Give muscular branches to medial compartment  
Takes part cruciate anastomosis

- Lateral femoral circumflex artery

- Four perforating arteries

3 arise as branches of the profunda femoris artery; the fourth perforating artery is the terminal part of the profunda artery



## Profunda Femoris Vein

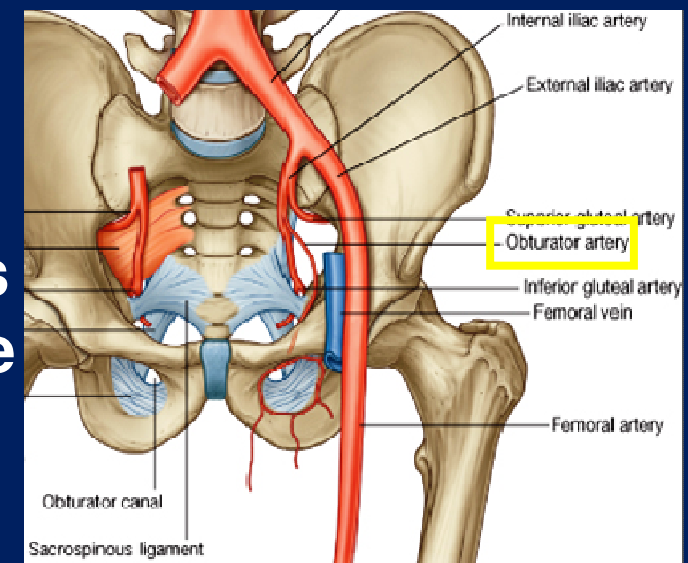
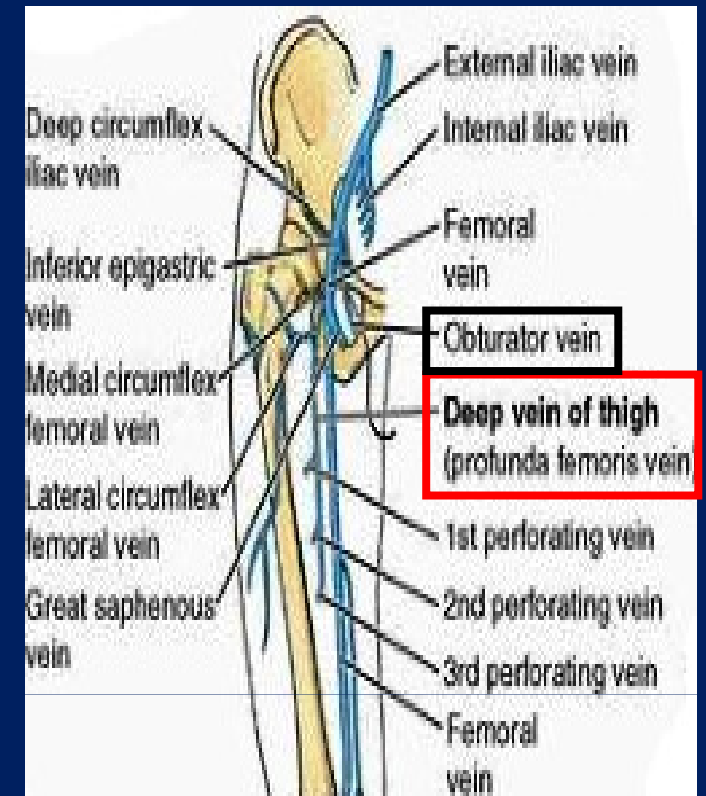
The profunda femoris vein receives tributaries that **correspond** to the branches of the artery. It drains into the **femoral** vein.

### The obturator artery

Is a branch of the internal iliac artery. On entering the medial fascial compartment of the thigh, it divides into **medial** and **lateral** branches. It gives off **muscular** branches and an **articular** branch to the hip joint.

### Obturator Vein

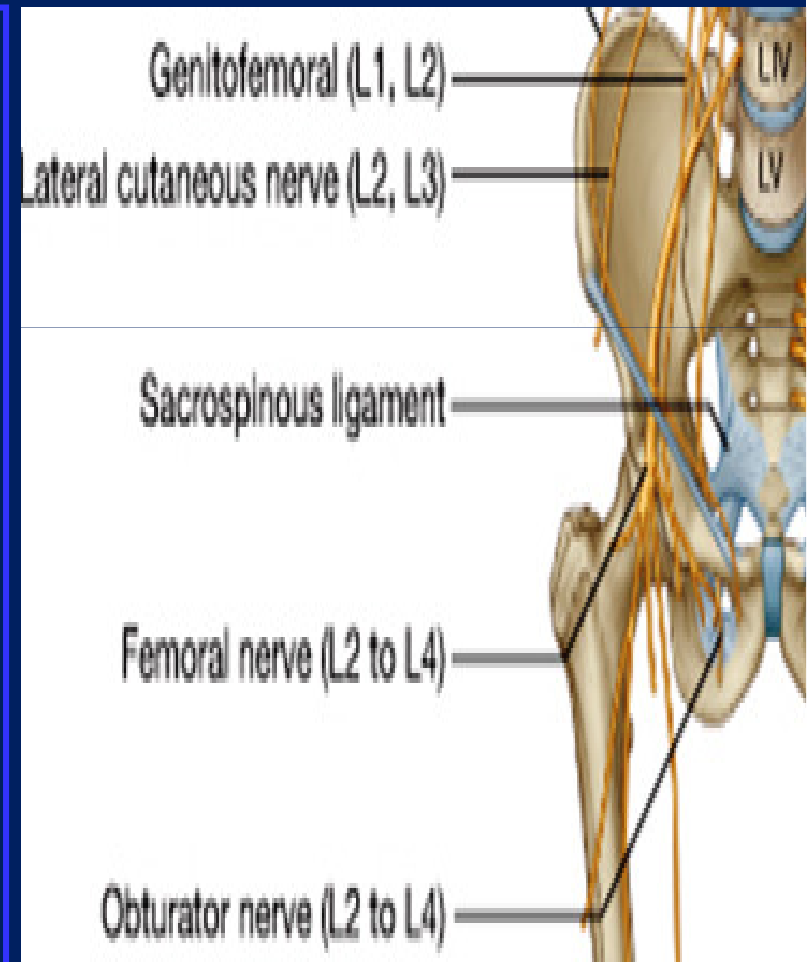
The obturator vein receives tributaries that **correspond** to the branches of the artery. It drains into the **internal iliac** vein.



# Nerve Supply of the Medial Fascial Compartment of the Thigh

## Obturator Nerve

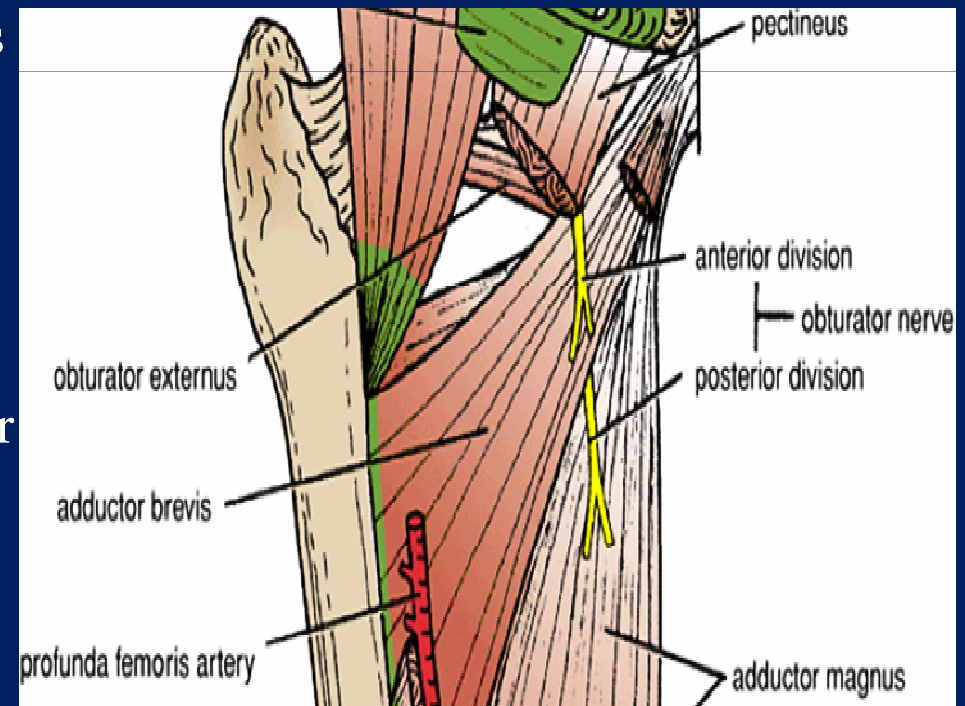
The obturator nerve arises from the lumbar plexus (L2, 3, and 4) and emerges on the medial border of the **psaos** muscle within the abdomen .It runs forward on the lateral wall of the pelvis to reach the upper part of the obturator foramen .where it divides into **anterior** and **posterior** divisions



# Branches of Obturator Nerve

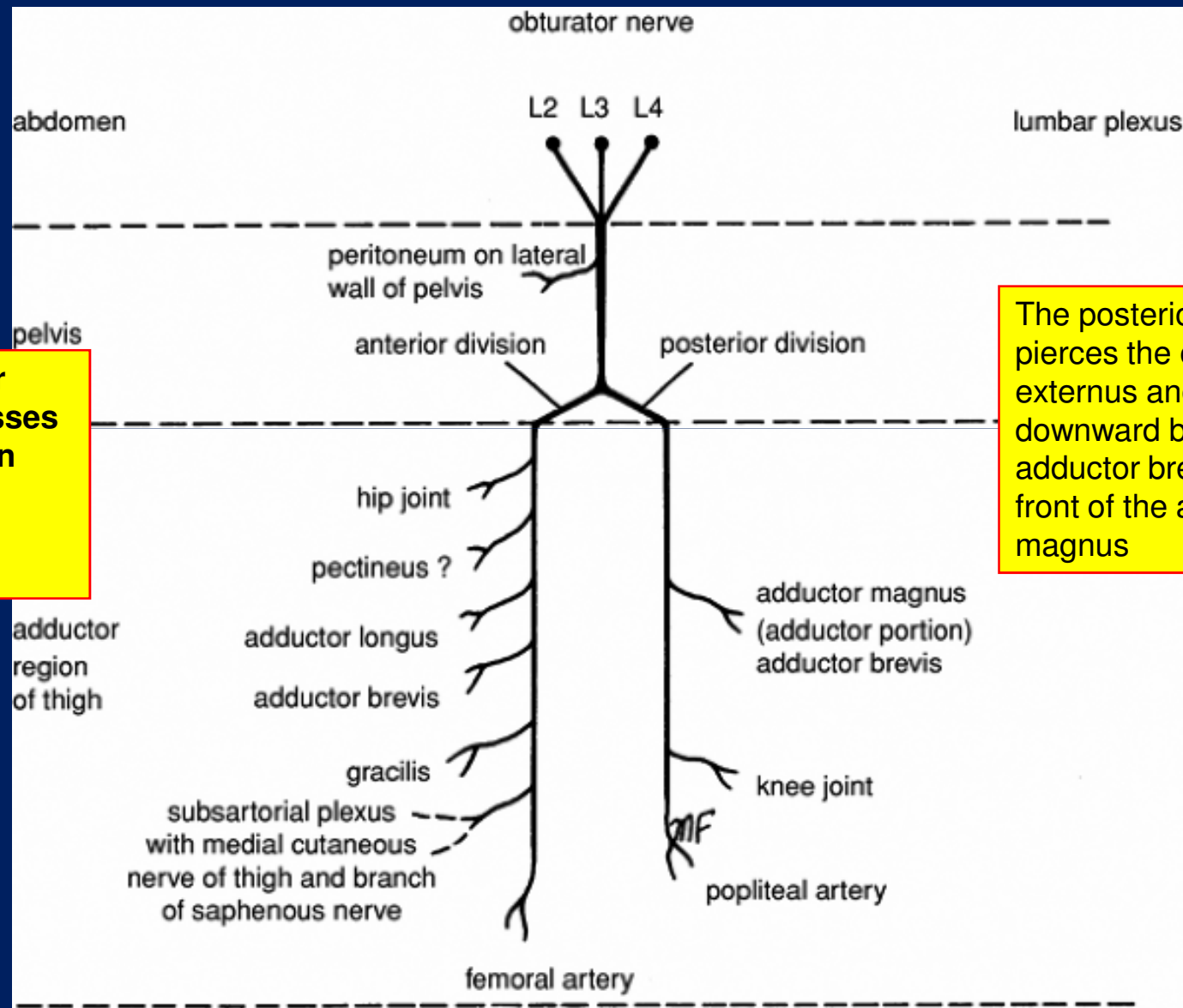
- The anterior division passes downward in front of the **obturator externus** and the **adductor brevis** and behind the **pectineus** and **adductor longus**. It gives muscular branches to the **gracilis**, **adductor brevis**, and **adductor longus**, and occasionally to the **pectineus**. It gives **articular** branches to the **hip** joint and terminates as a small nerve that supplies the **femoral** artery. It contributes a variable branch to the sub sartorial plexus and supplies the skin on the medial side of the thigh.

- The posterior division pierces the **obturator externus** and passes downward behind the **adductor brevis** and in front of the **adductor magnus**. It terminates by descending through the opening in the **adductor magnus** to supply the **knee** joint. It gives muscular branches to the **obturator externus**, to the adductor part of the **adductor magnus**, and occasionally to the **adductor brevis**.



# Obturator Nerve

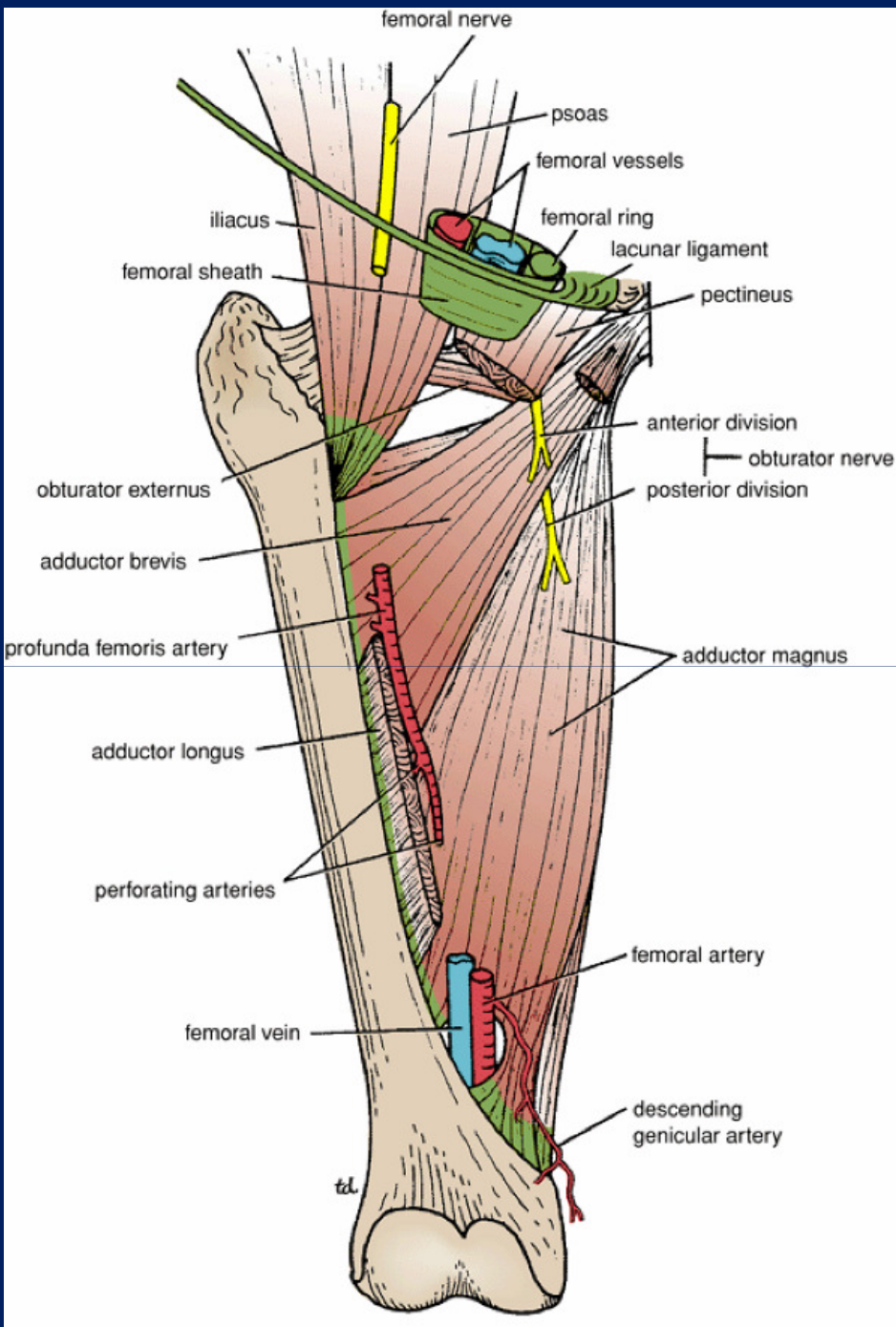
## Nerve of Medial Fascial Compartment of the Thigh



The anterior division passes downward in front of the obturator externus.

The posterior division pierces the obturator externus and passes downward behind the adductor brevis and in front of the adductor magnus





The **adductor hiatus** is a gap in the distal attachment of adductor magnus to the femur, which permits the femoral vessels to pass from the adductor canal downward into the popliteal space.

# The Back of the Thigh



# Skin of The Back of the Thigh

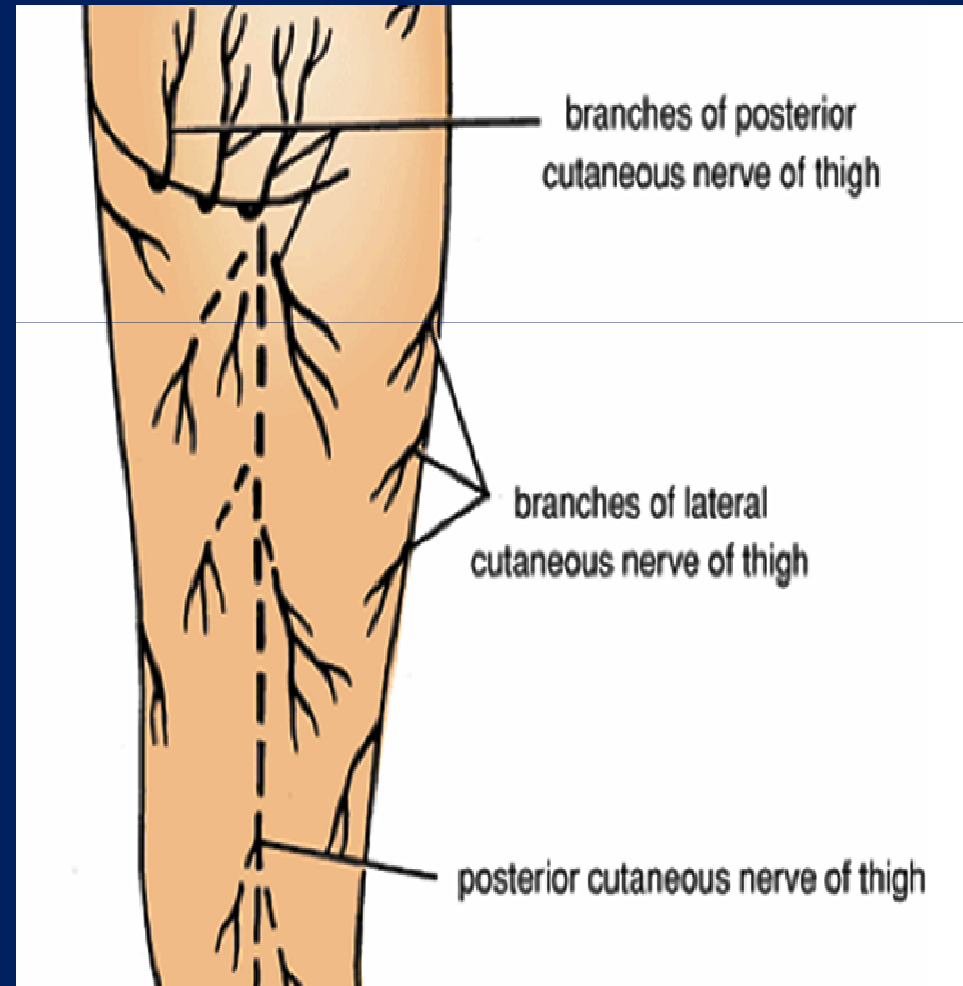
## Cutaneous Nerves

❑ The posterior cutaneous nerve of the thigh

a branch of the **sacral plexus**,

❑ It descends on the back of the thigh, and in the popliteal fossa it pierces the **deep fascia** and supplies the **skin**.

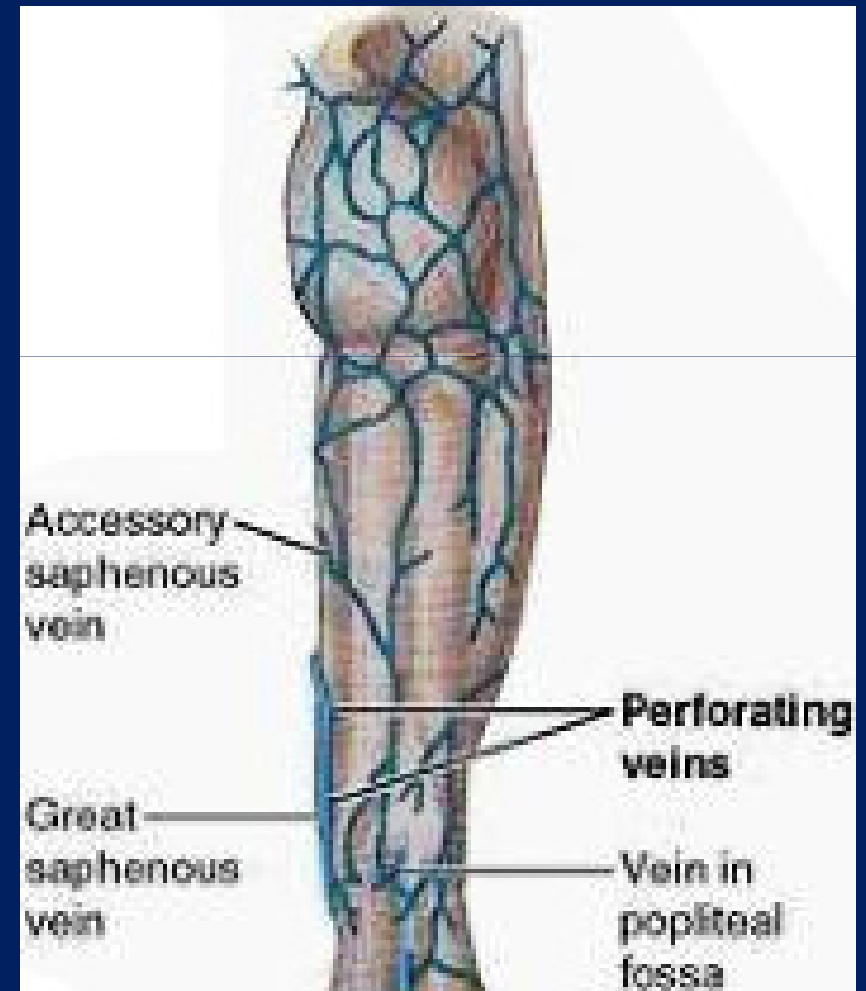
❑ It gives off numerous branches to the **skin** on the **back** of the **thigh** and the **upper part** of the **leg**



# Superficial Veins of The Back of the Thigh

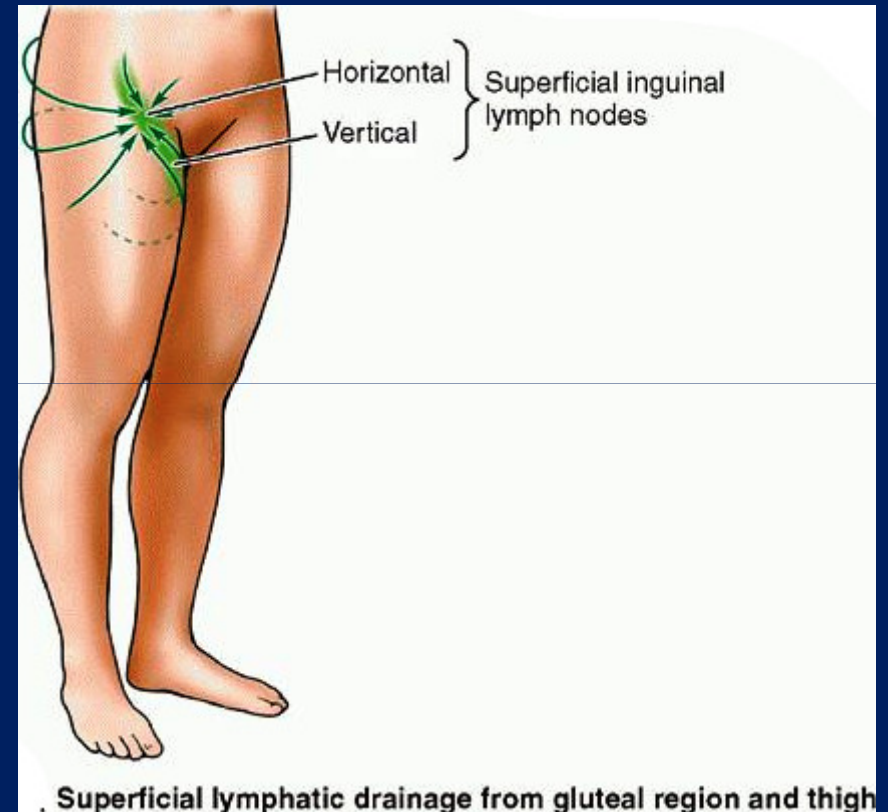
Many small veins curve around the medial and lateral aspects of the thigh and ultimately **drain** into the **great saphenous** vein .

**Superficial** veins from the lower part of the back of the thigh join the **small saphenous** vein in the **popliteal fossa**.



# Lymph Vessels of The Back

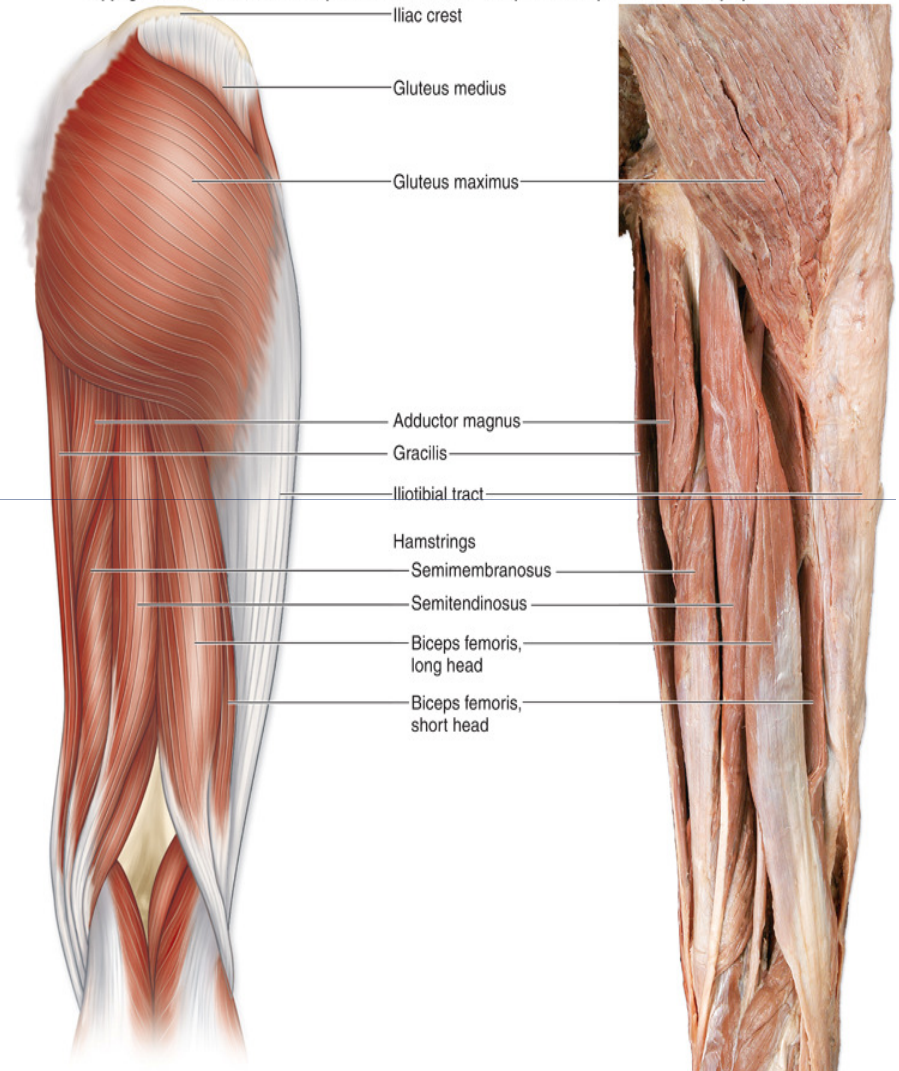
- Lymph from the skin and superficial fascia on the back of the thigh drains upward and forward into the **vertical** group of superficial inguinal lymph nodes .



## ■ Contents of the Posterior Fascial Compartment of the Thigh:

- ◆ Muscles
- ◆ Vessels
- ◆ Nerves

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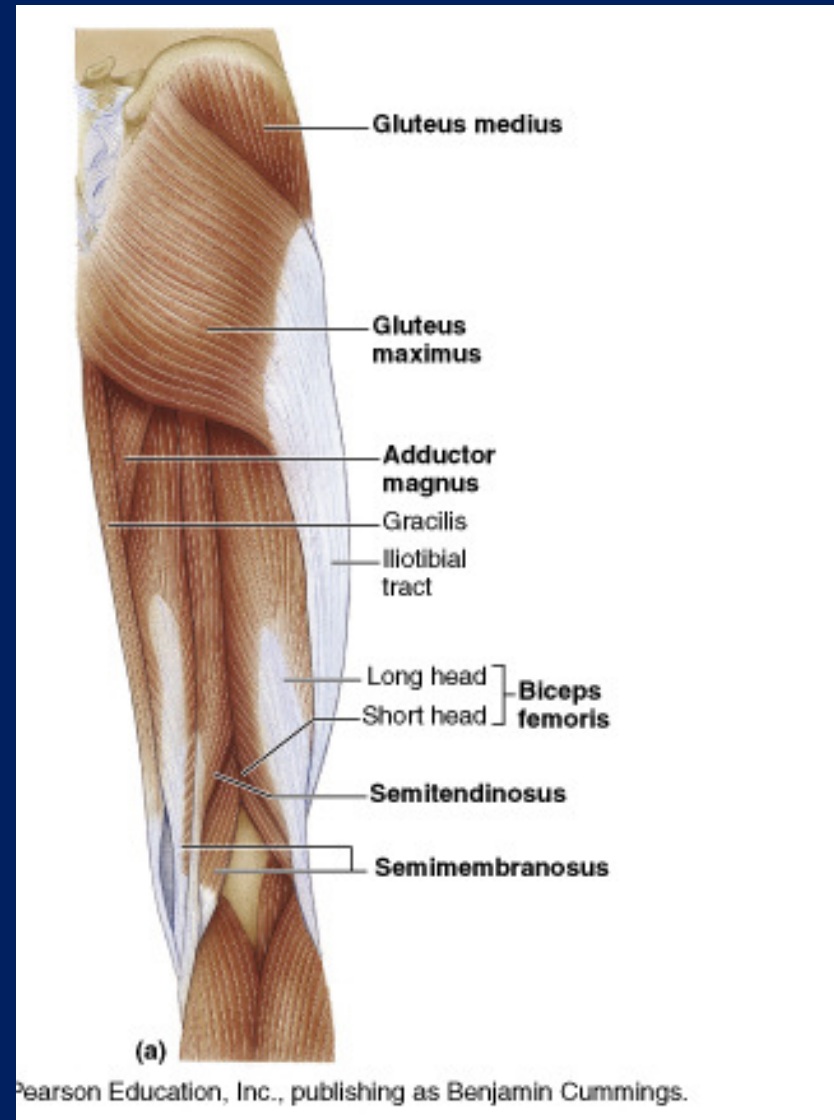


(a) Right thigh, posterior view



# Muscles of the Posterior Fascial Compartment of the Thigh

- Biceps femoris
  - Long head
  - Short head
- Semitendinosus
- Semimembranosus
- a small part of the adductor magnus (hamstring muscles)





# Biceps femoris

## ■ Origin:

- ◆ Long head: ischial tuberosity
- ◆ Short head: linea aspera, lateral supracondylar ridge of shaft of femur

## ■ Insertion:

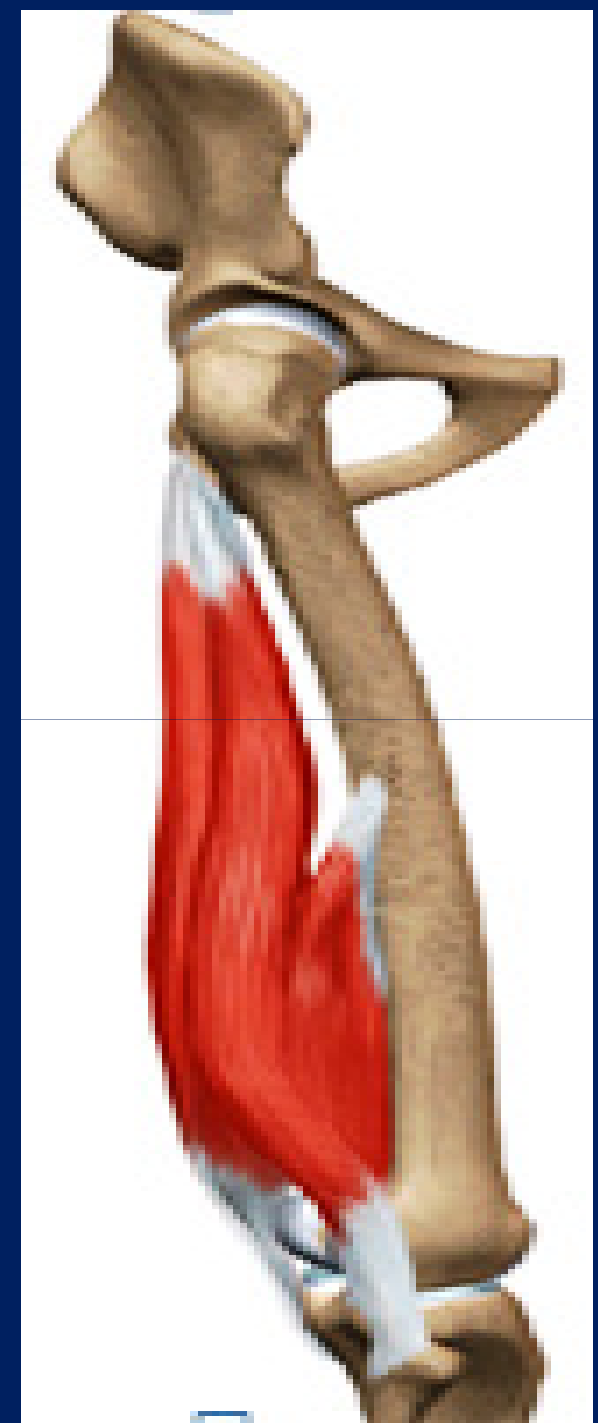
- ◆ Head of fibula

## ■ Nerve supply:

- ◆ Long head: tibial portion of sciatic nerve
- ◆ Short head: common peroneal portion of sciatic nerve
- ◆ L5; S1, 2

## ■ Actions:

- ◆ Flexes and laterally rotates leg at knee joint; long head also extends thigh at hip joint



# Semitendinosus

- **Origin:**

Ischial tuberosity

- **Insertion:**

Upper part of medial surface of shaft of tibia

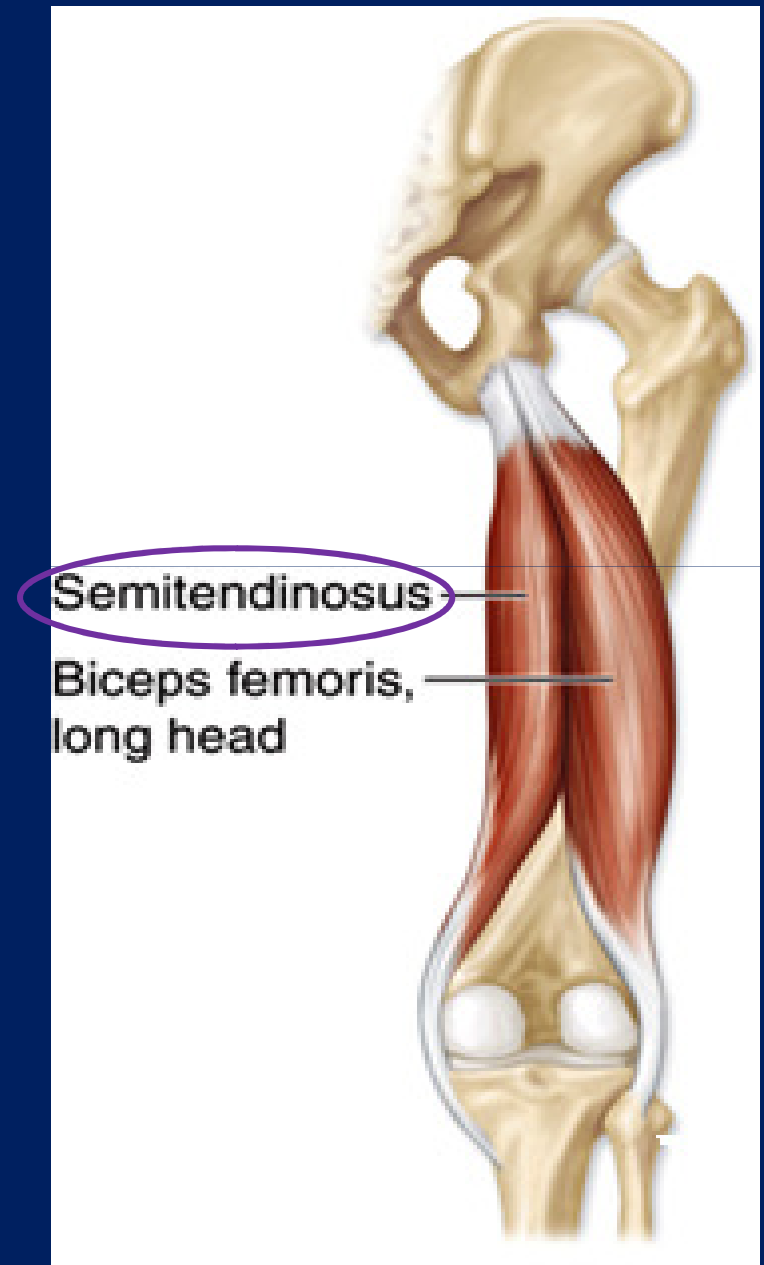
- **Nerve supply:**

Tibial portion of sciatic nerve

**L5; S1, 2**

- **Action:**

Flexes and medially rotates leg at knee joint; extends thigh at hip joint



# Semimembranosus

- **Origin:**

Ischial tuberosity

- **Insertion:**

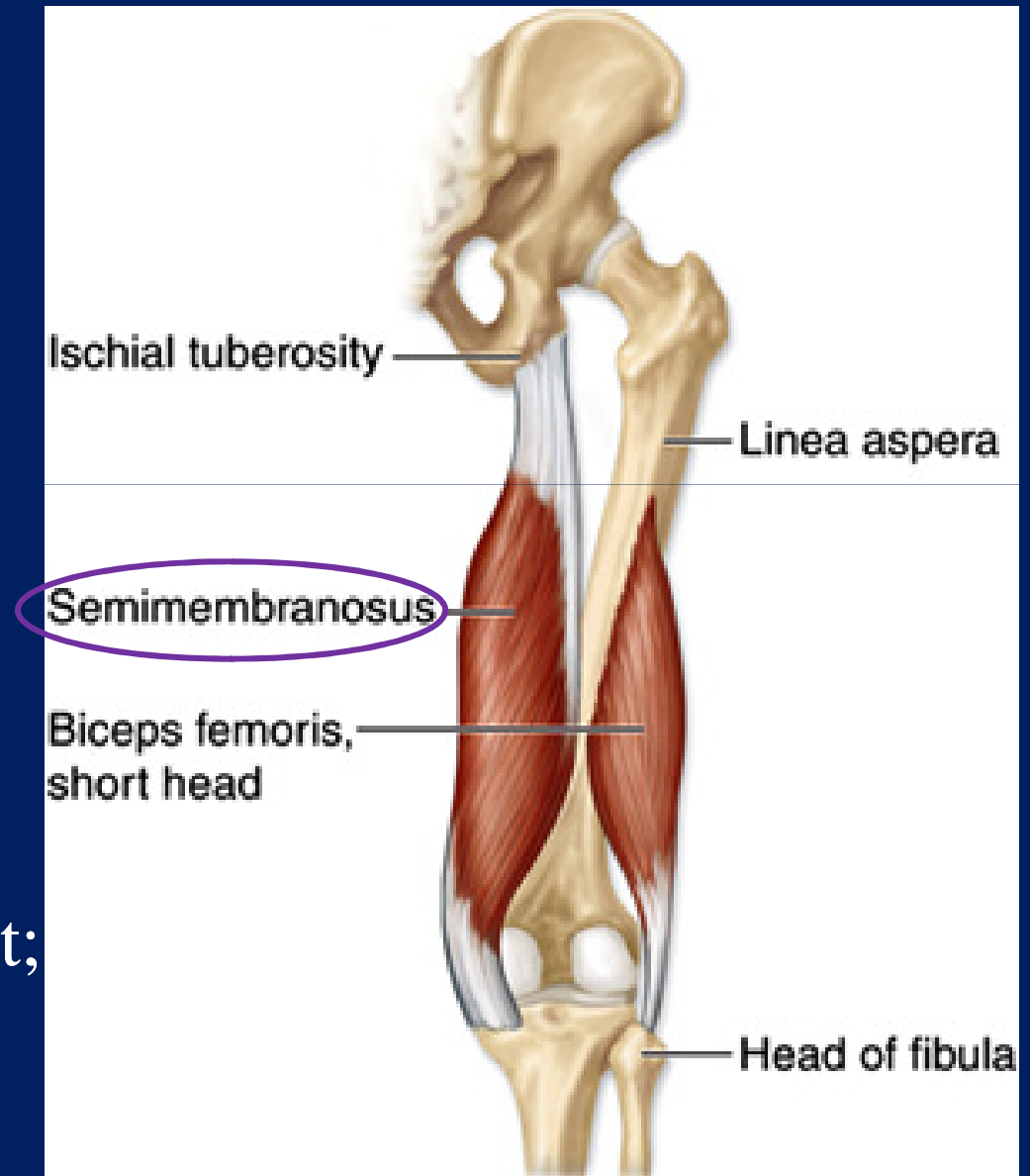
Medial condyle of tibia

- **Nerve supply:**

Tibial portion of sciatic nerve  
**L5; S1, 2**

- **Action:**

Flexes and medially  
rotates leg at knee joint;  
extends thigh at hip  
joint



# Adductor magnus (hamstring portion)

- **Origin:**

- Ischial tuberosity

- **Insertion:**

Adductor tubercle of femur

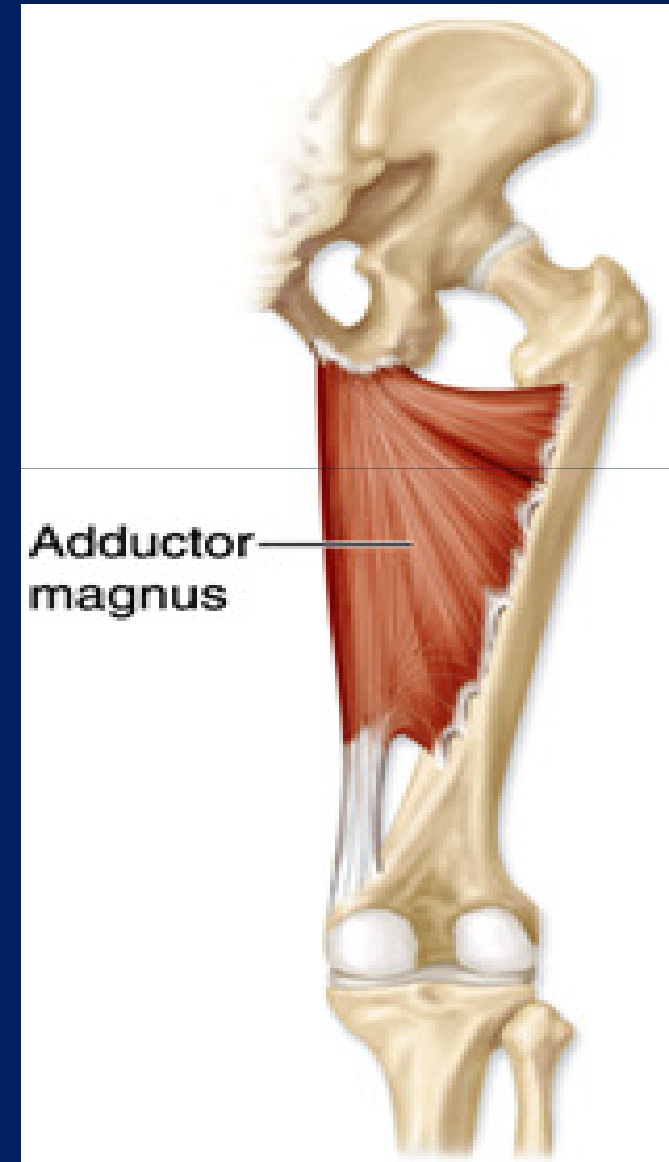
- **Nerve supply:**

Tibial portion of sciatic nerve

L2, 3, 4

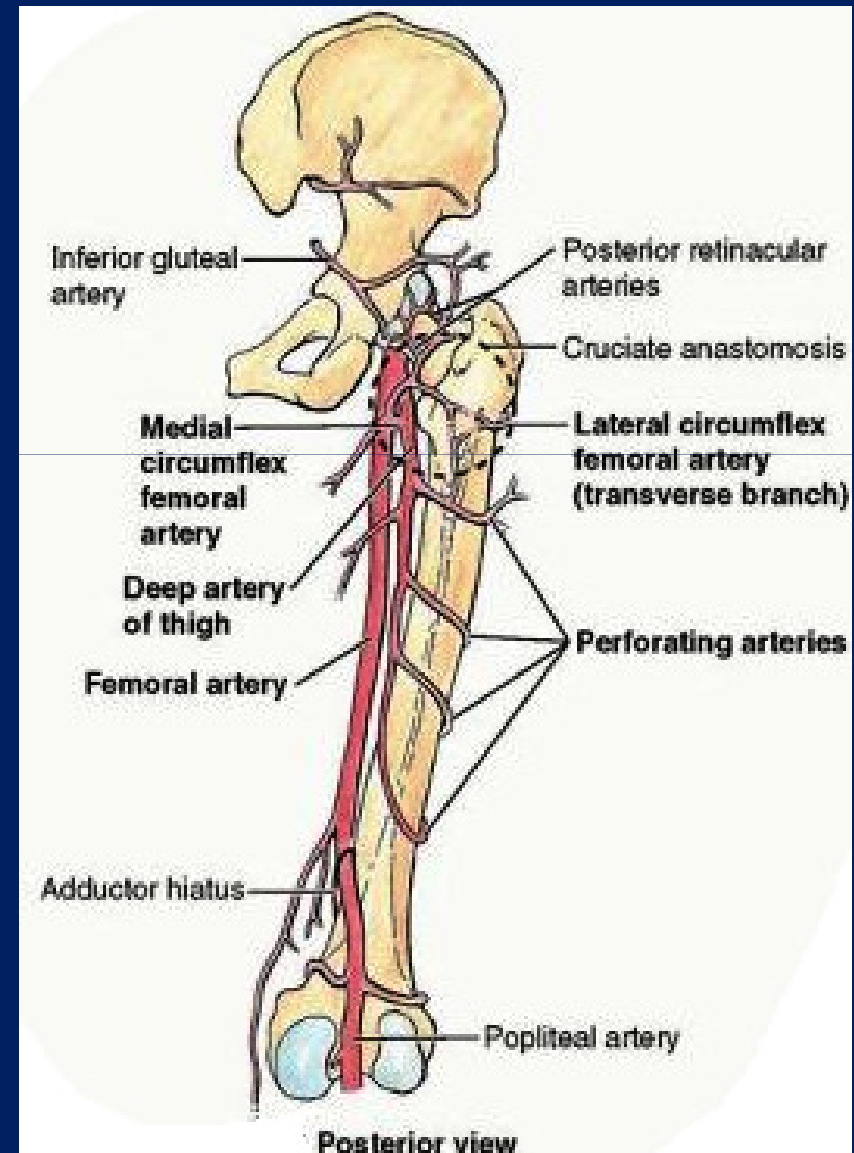
- **Action:**

Extends thigh at hip joint



# Blood Supply of the Posterior Compartment of the Thigh

- The **four perforating branches** of the **profunda femoris** artery provide a rich blood supply to this compartment .
- The **profunda femoris vein** drains the greater part of the blood from the compartment .



# Nerve Supply of the Posterior Compartment of the Thigh

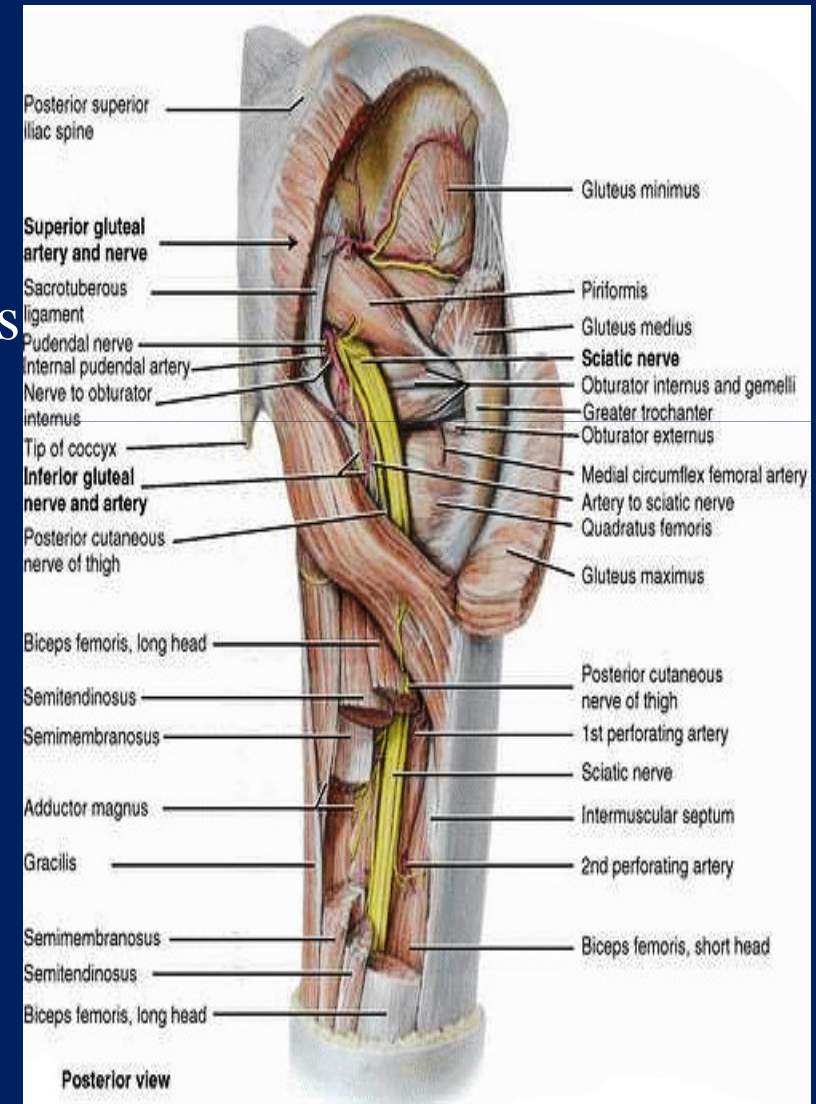
## Sciatic Nerve

A branch of the **sacral plexus** (L4 and 5; S1, 2, and 3), leaves the gluteal region as it descends in the midline of the thigh.

It is overlapped posteriorly by the adjacent margins of the **biceps femoris** and **semimembranosus** muscles.

It lies on the posterior aspect of the **adductor magnus** muscle.

In the lower third of the thigh it ends by dividing into the **tibial** and **common peroneal** nerves .



# Branches of Sciatic Nerve

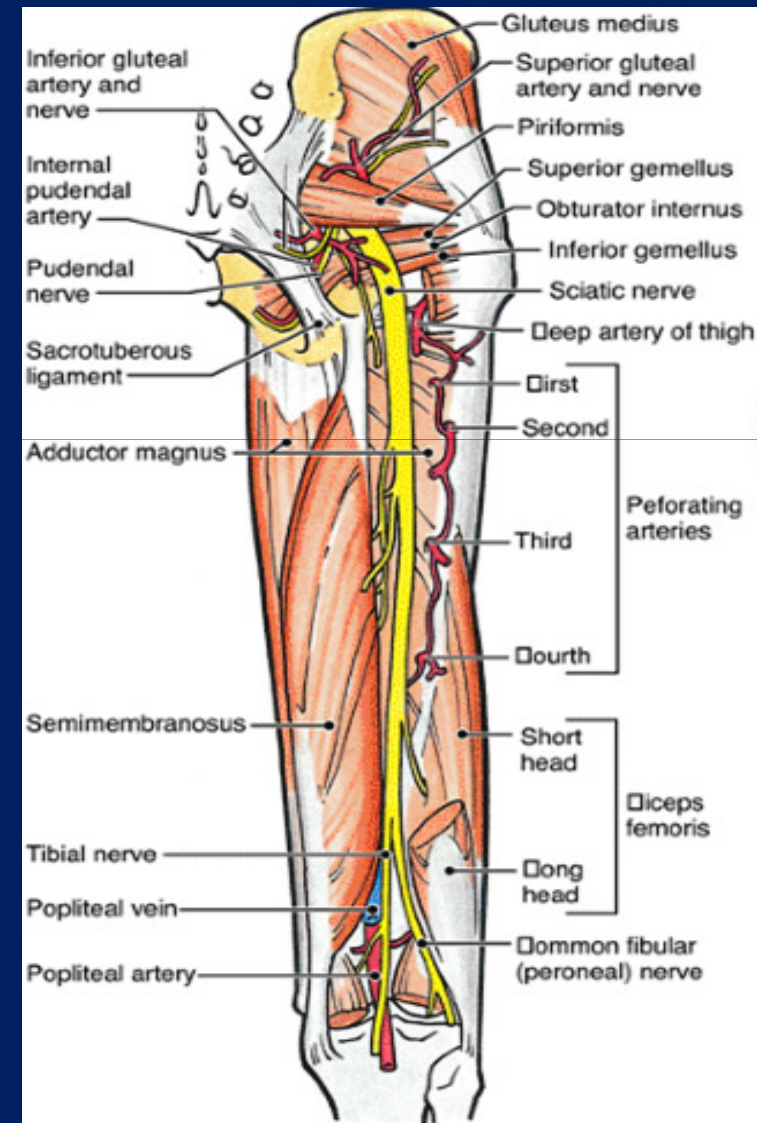
## ■ The tibial nerve:

a terminal branch of the sciatic nerve , enters the popliteal fossa.

## ■ The common peroneal nerve:

a terminal branch of the sciatic nerve, enters the popliteal fossa on the **lateral** side of the tibial nerve.

■ **Muscular branches** to the **long head of the biceps femoris**, the **semitendinosus**, the **semimembranosus**, and the **hamstring part of the adductor magnus**. These branches arise from the tibial component of the sciatic nerve and run medially to supply the muscles .





*Thank You & Good Luck*

