

# **ANTERIOR & MEDIAL COMPARTMENTS OF THIGH**

# OBJECTIVES

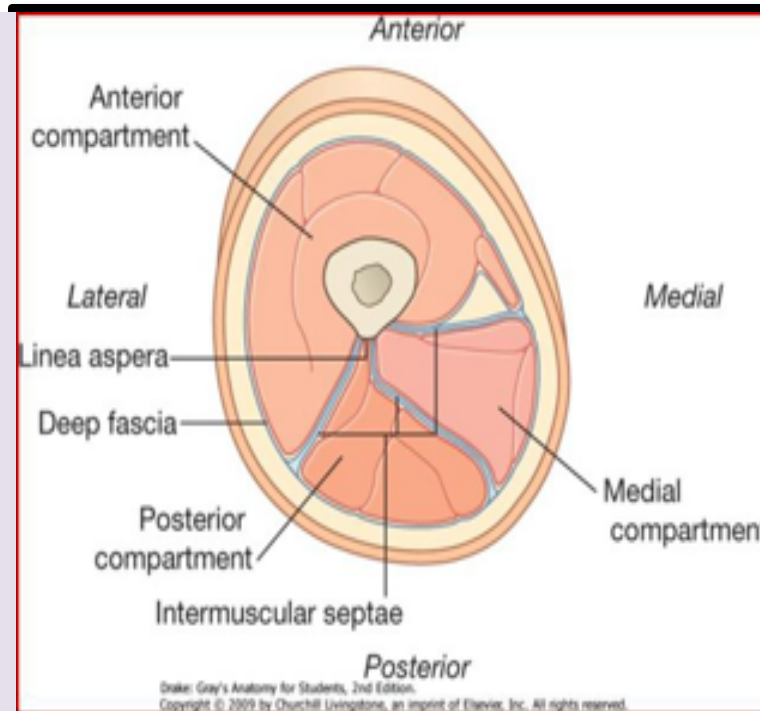
**At the end of the lecture, students should:**

- *List the name of muscles of anterior compartment of thigh.*
- *Describe the anatomy of muscles of anterior compartment of thigh regarding: origin, insertion, nerve supply and actions.*
- *List the name of muscles of medial compartment of thigh.*
- *Describe the anatomy of muscles of medial compartment of thigh regarding: origin, insertion, nerve supply and actions.*
- *Describe the anatomy of femoral triangle & adductor canal regarding: site, boundaries and contents.*

# The thigh is divided into 3 compartments by 3 intermuscular septa (extending from deep fascia into femur)

## Anterior Compartment

- ❑ Extensors of knee:  
Quadriceps femoris
- ❑ Flexors of hip:
  1. Sartorius
  2. Pectineus
  3. psoas major
  4. Iliacus
- ❖ Nerve supply:  
Femoral nerve((L2,3,4))



## Medial Compartment

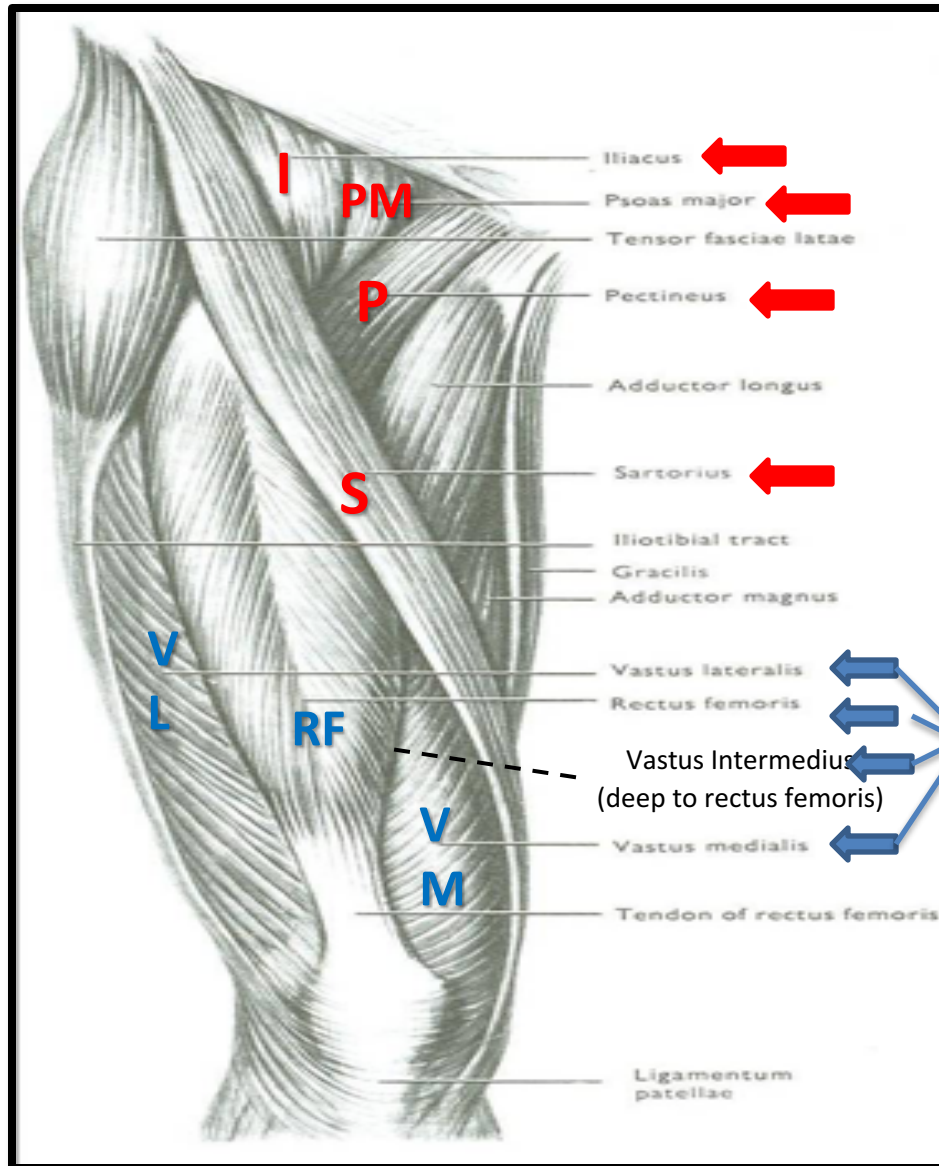
- ❑ Adductors of hip:
  1. Adductor longus
  2. Adductor brevis
  3. Adductor magnus (adductor part)
  4. Gracilis
- ❖ Nerve supply:  
Obturator nerve (L2,3,4)

## Posterior Compartment

- ❑ Flexors of knee & extensors of hip:  
Hamstrings
- ❖ Nerve supply:  
Sciatic nerve(L4,5,S1,2,3)

# ANTERIOR COMPARTMENT OF THIGH

**NERVE SUPPLY:**  
**Femoral nerve**



**Quadriceps femoris**

# SARTORIUS

## ORIGIN

Anterior superior iliac spine

## INSERTION

Upper part of medial surface of tibia

## ACTION

(TAILOR'S POSITION)

□ Flexion, abduction & lateral rotation of hip joint

□ Flexion of knee joint



# PECTINEUS

## ORIGIN:

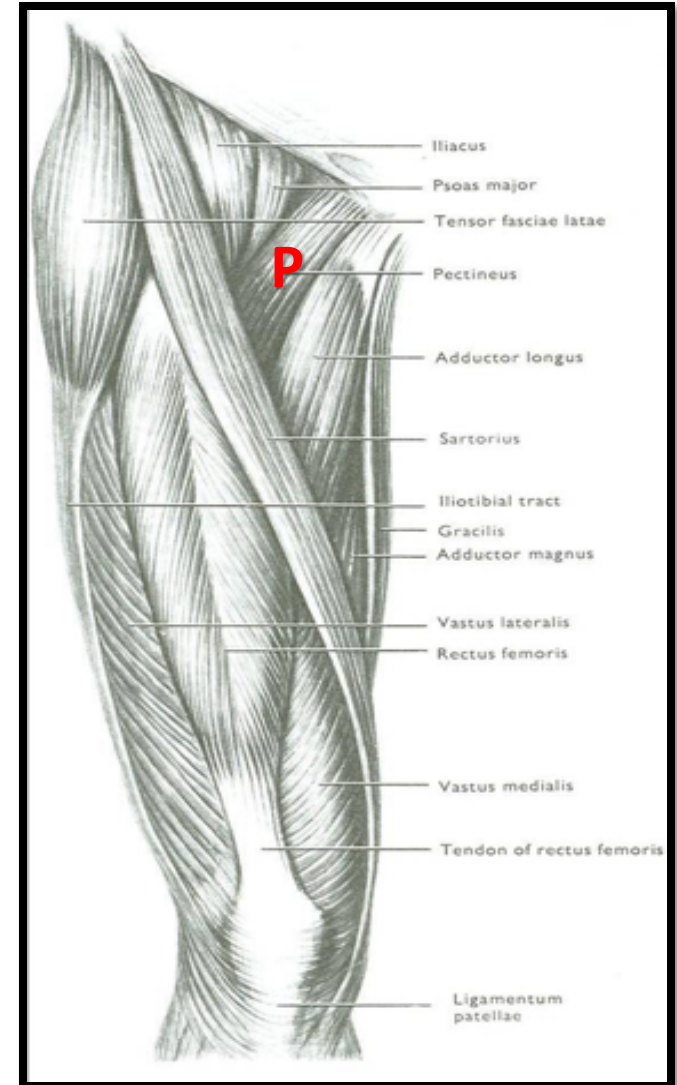
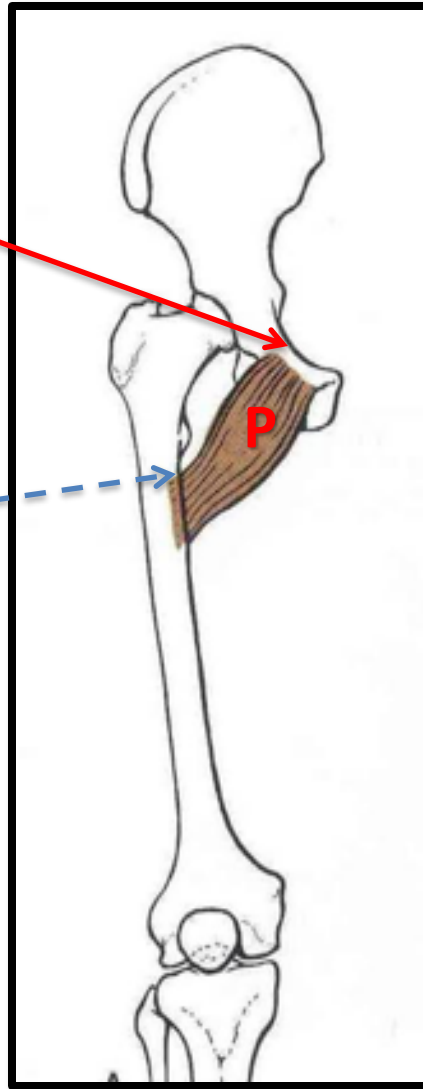
Superior pubic ramus

## INSERTION:

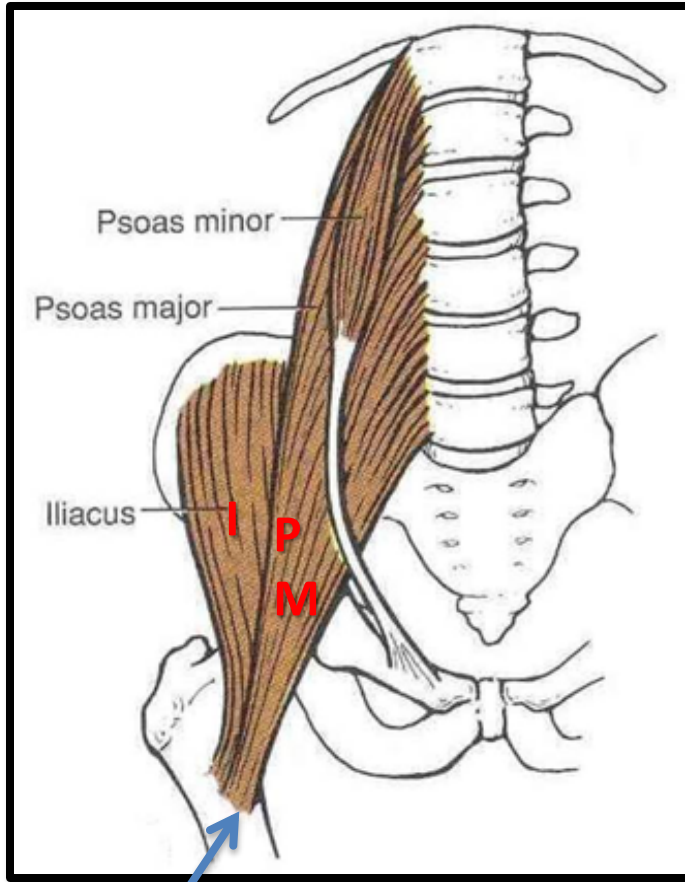
Back of femur  
(below lesser trochanter)

## ACTION:

□ Flexion & adduction of hip joint

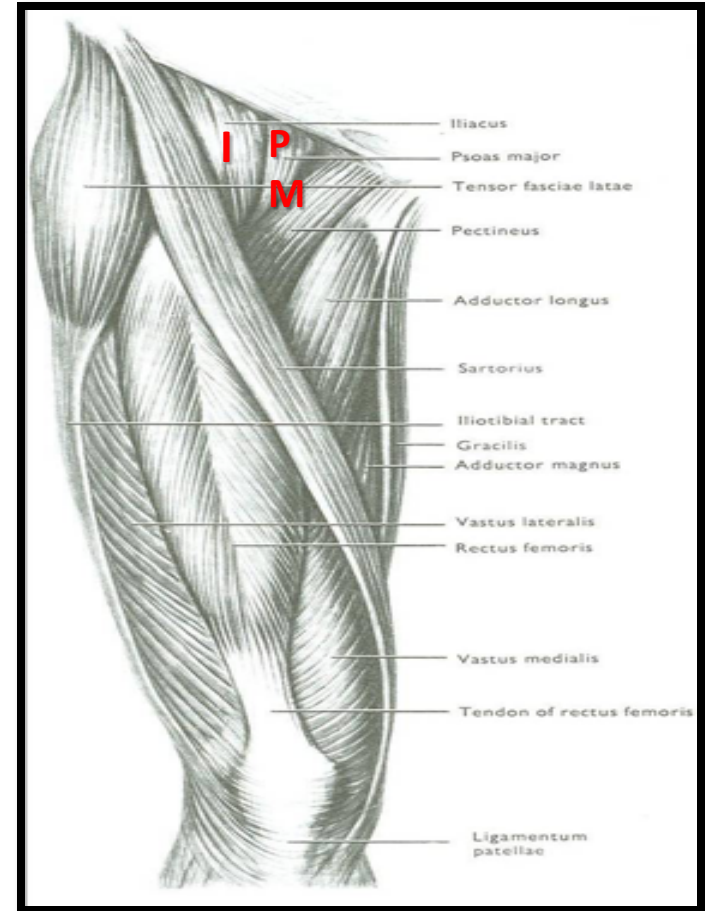


# ILIOPSOAS: ILIACUS & PSOAS MAJOR



**INSERTION:**

**Lesser trochanter of femur**



**ACTION:**

**Flexion of hip joint**

# QUADRICEPS FEMORIS

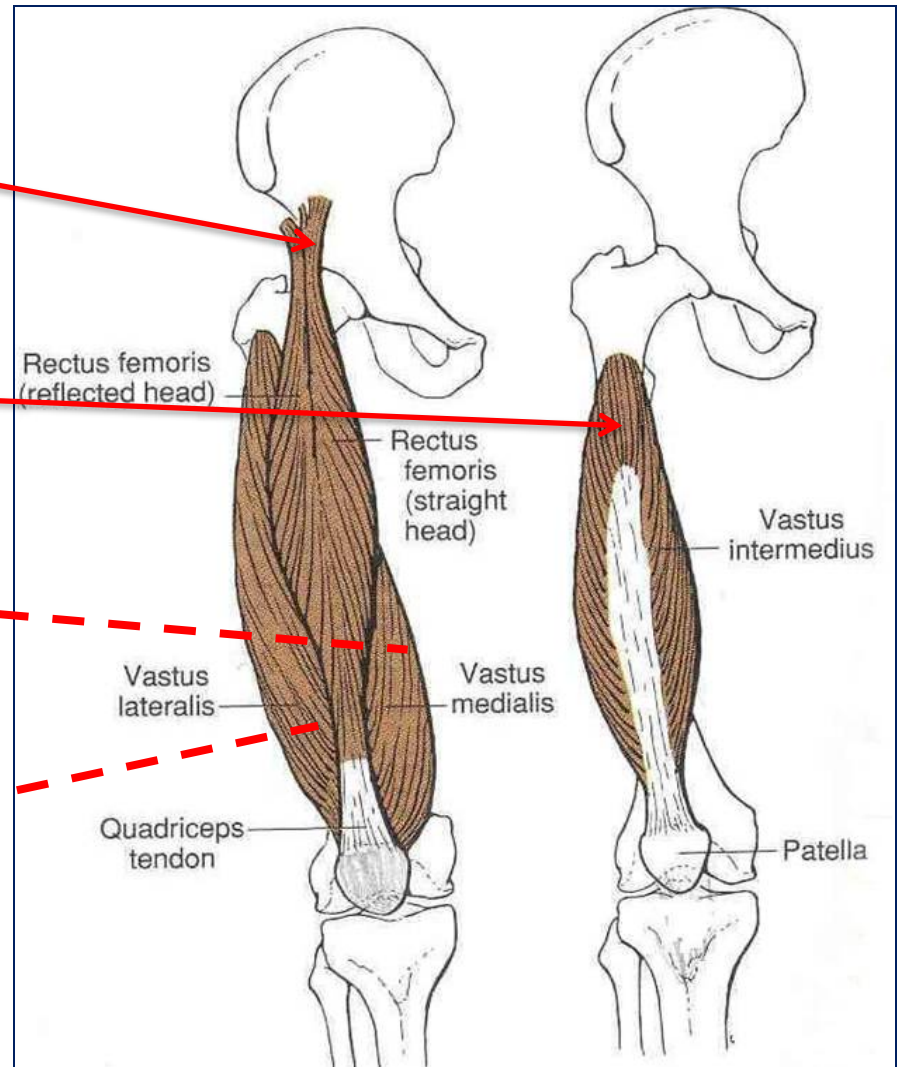
## ORIGIN:

❑ **Rectus femoris:** Anterior inferior iliac spine (Hip bone)

❑ **Vastus intermedius:**  
Front of shaft of femur (Ant.&Lat.)

❑ **Vastus medialis:**  
Posterior border of femur (upper end and shaft of femur)

❑ **Vastus lateralis:**  
Posterior border of femur (upper end and shaft of femur)





# QUADRICEPS FEMORIS

## INSERTION:

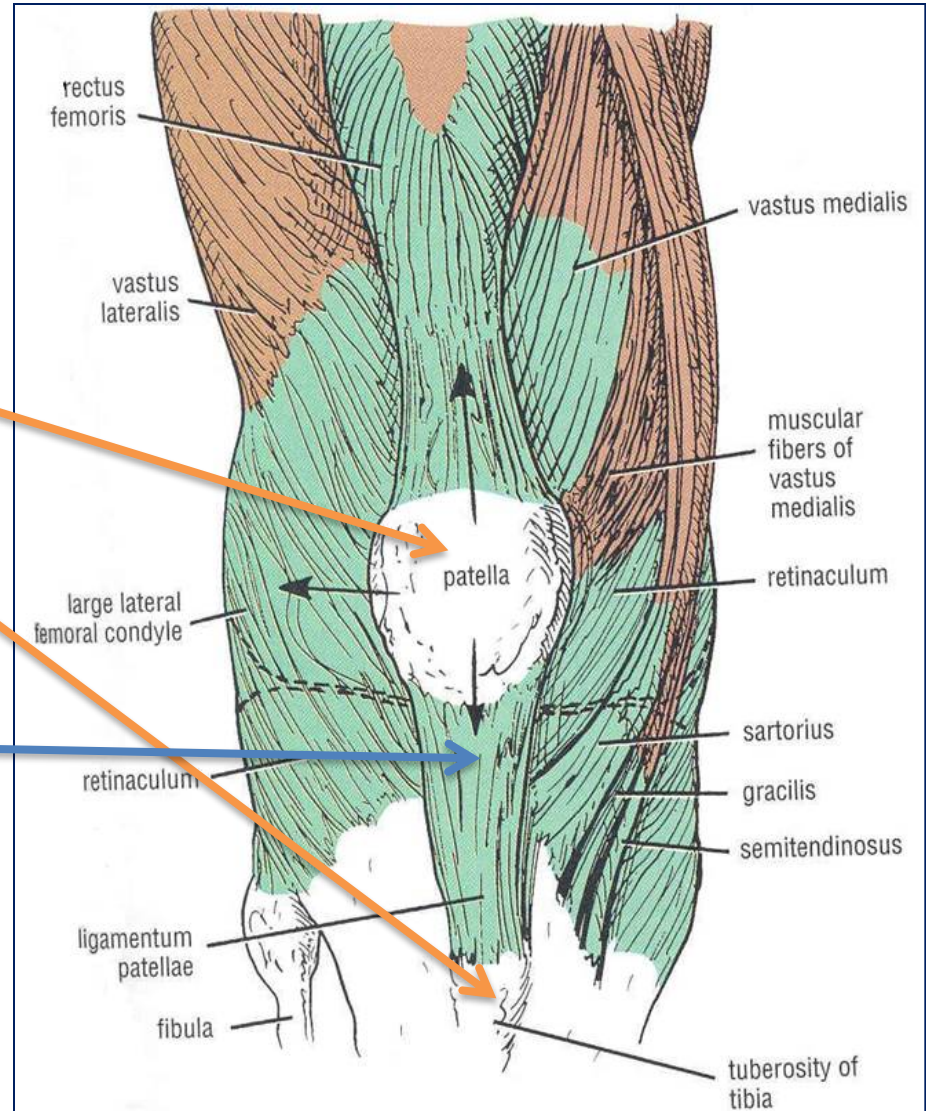
□ Into **PATELLA**

(Patella is a sesamoid bone)

□ From patella into **TUBEROSITY OF TIBIA** through **LIGAMENTUM PATELLAE (PATELLAR LIGAMENT)**

## ACTION:

□ **Extension** of knee joint



# MEDIAL COMPARTMENT OF THIGH

## □ MUSCLES:

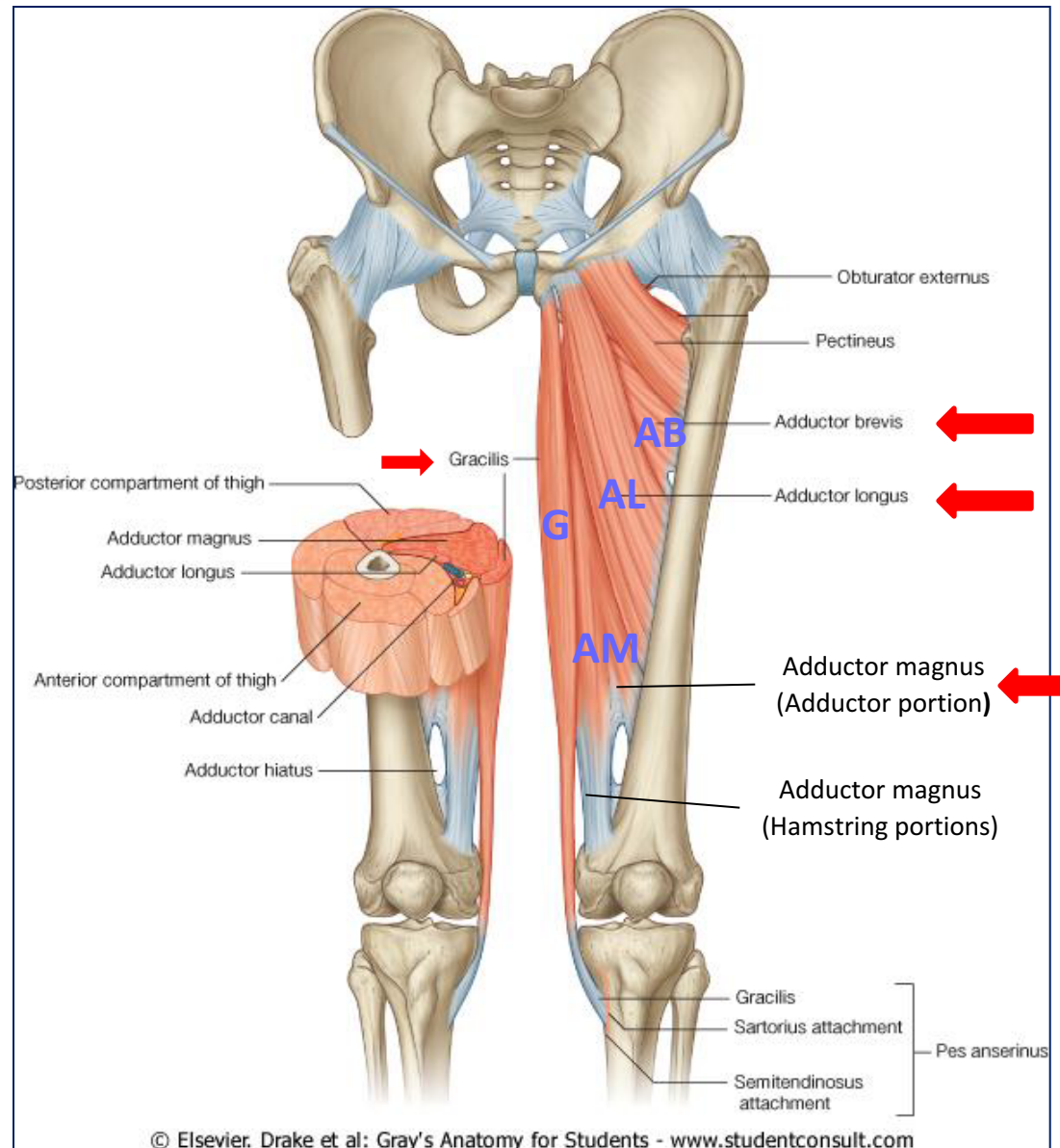
1. Adductor longus
2. Adductor brevis
3. Adductor magnus (Adductor part)
4. Gracilis

## □ ACTION:

**ADDUCTION OF HIP JOINT**

**N.B.: Gracilis also flexes knee joint + adduction of thigh**

□ NERVE SUPPLY:  
**OBTURATOR NERVE**



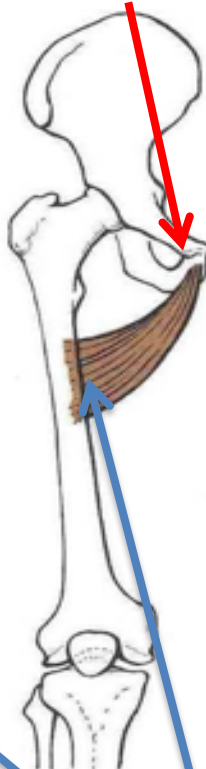
# Origin

▪ Body of pubis



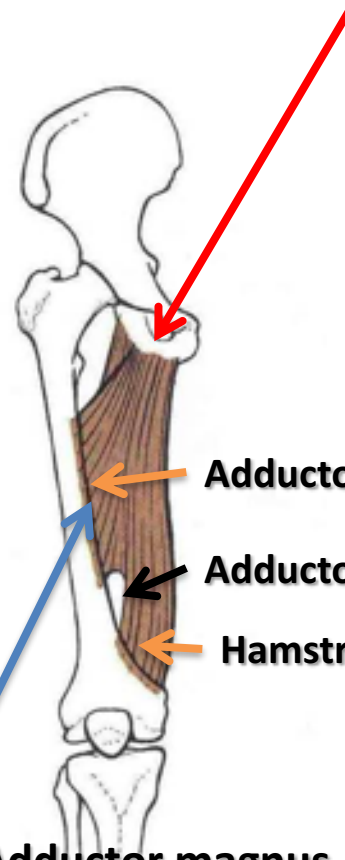
Adductor longus

▪ Body of pubis  
▪ Inferior pubic ramus



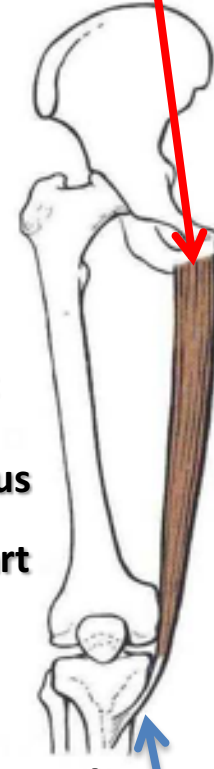
Adductor brevis

▪ Inferior pubic ramus  
▪ Ischial ramus



Adductor magnus  
(adductor part)

▪ Inferior pubic ramus  
▪ Ischial ramus.



Gracilis

# Insertion

▪ Posterior border of femur (Linea Aspera)

▪ Upper part of medial surface of tibia (behind sartorius)

## SITE:

□ Upper 1/3 of front of thigh

## BOUNDARIES:

□ **Base:** inguinal ligament

□ **Lateral:** medial border of sartorius

□ **Medial:** medial border of adductor longus

## ROOF:

□ Skin

□ Fasciae: superficial & deep

**FLOOR:** *From medial to lateral*

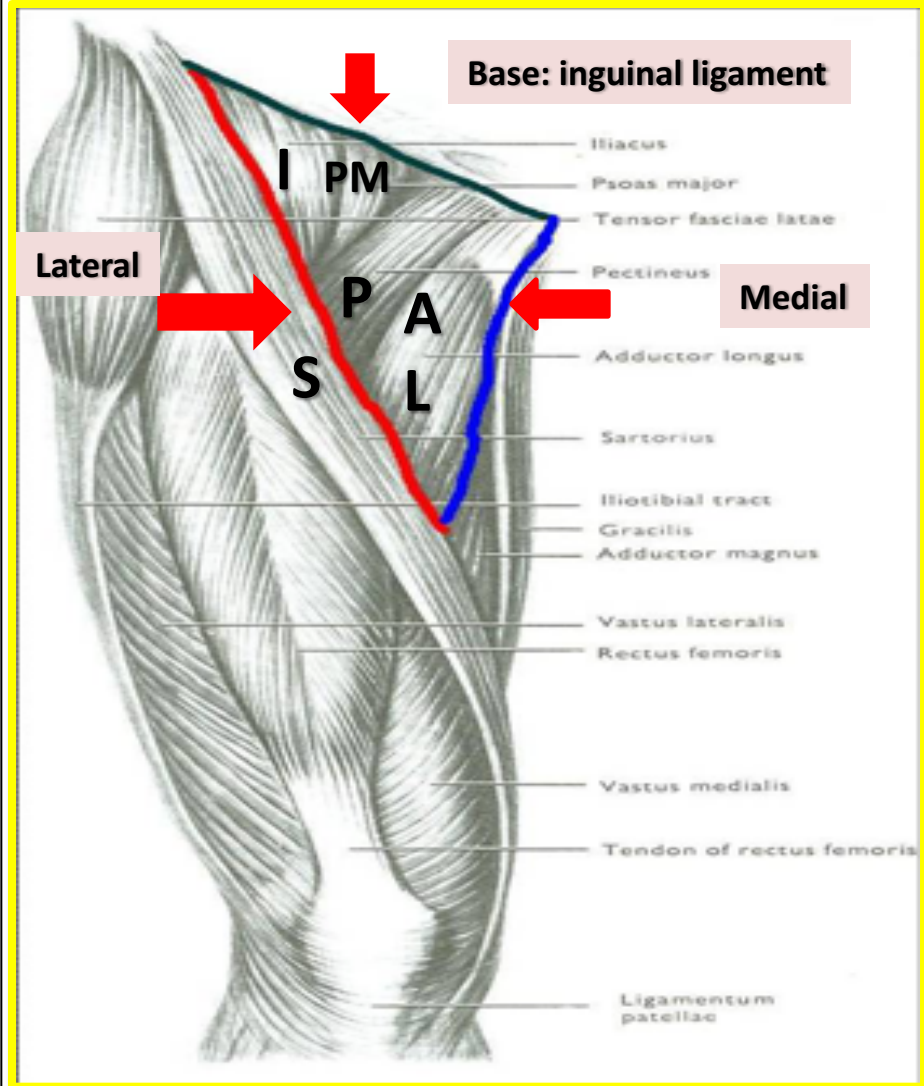
□ Adductor longus

□ Pectineus

□ Psoas major

□ Iliacus

# FEMORAL TRIANGLE



# FEMORAL TRIANGLE

## CONTENTS:

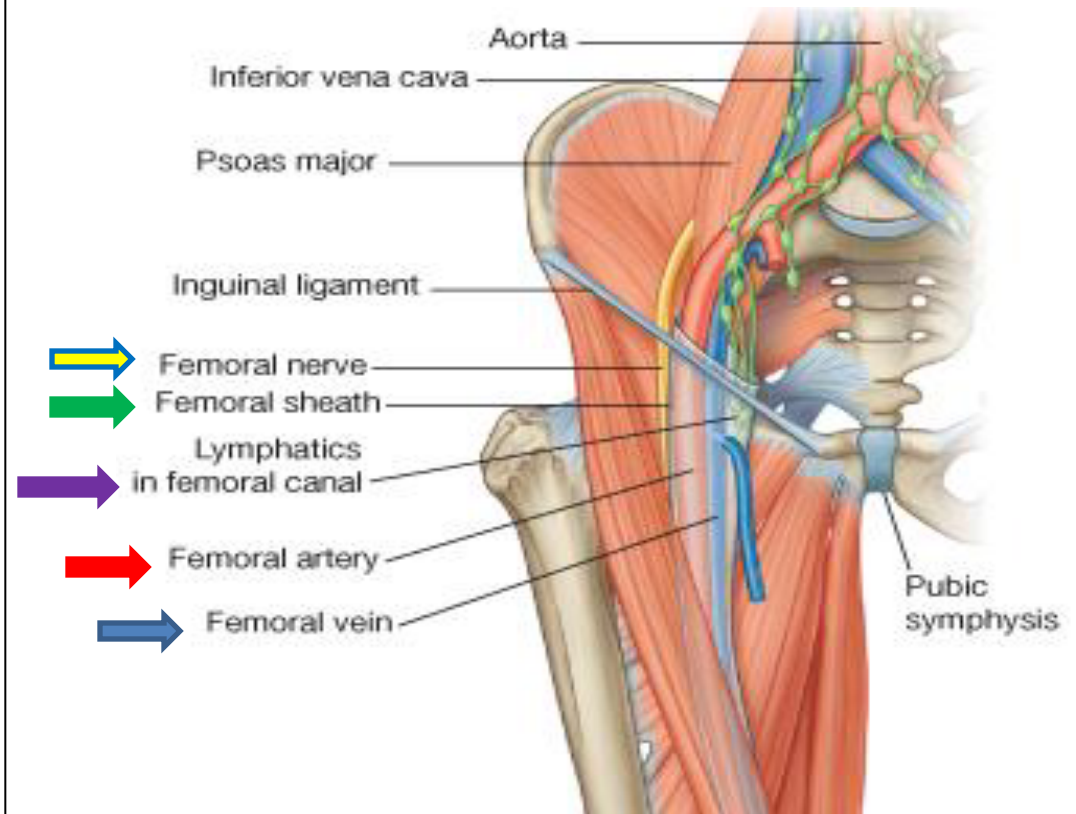
□ Femoral vein

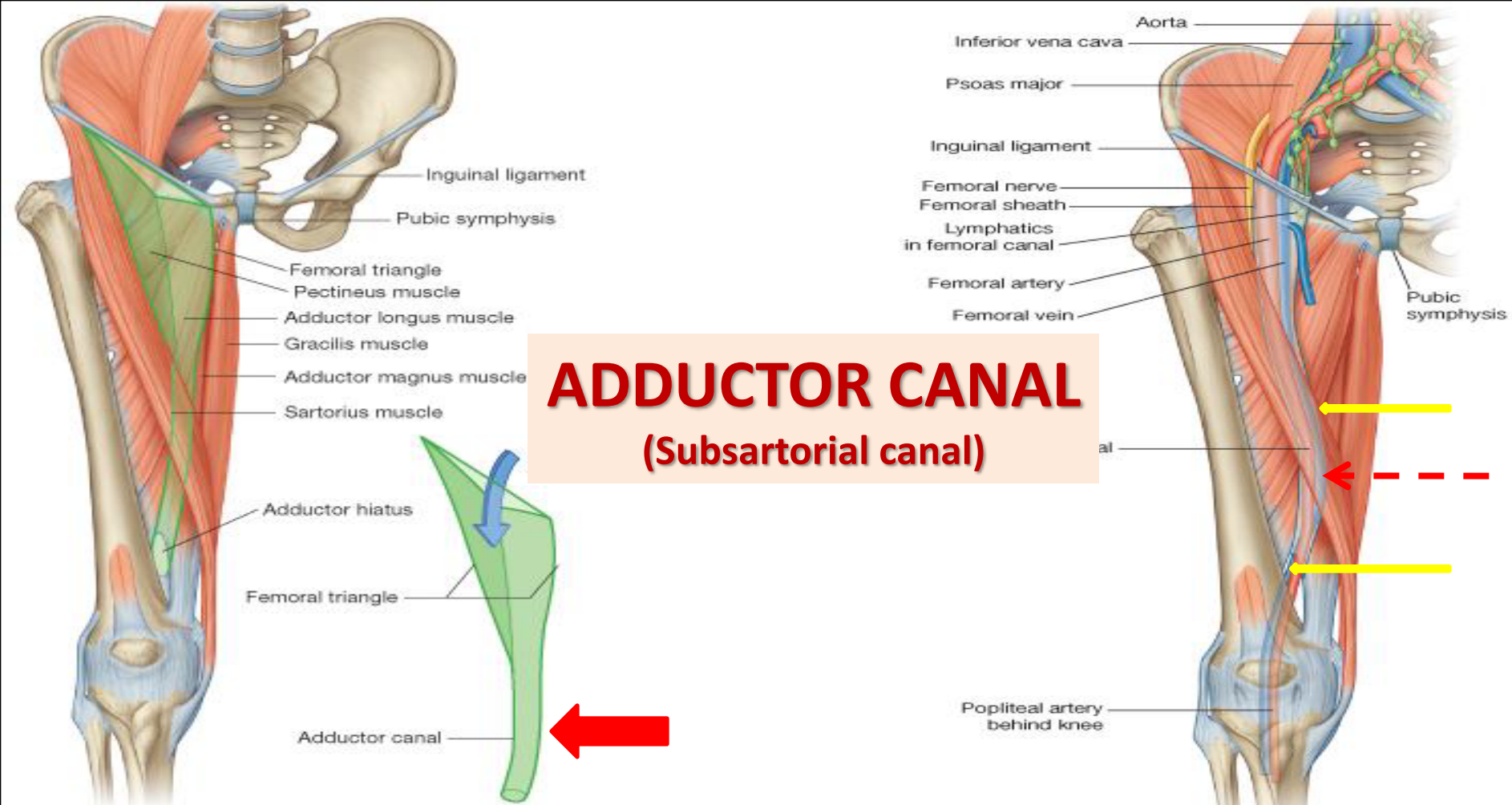
□ Femoral artery

Both vein & artery are enclosed in a fascial envelope (Femoral sheath)

□ Femoral nerve

□ Deep inguinal lymph nodes





## ADDUCTOR CANAL (Subsartorial canal)

- ❑ **DEFINITION:** intermuscular passage of A fascial envelope for femoral artery & vein to become the popliteal vessels in the popliteal fossa at the back of knee.
- ❑ **SITE:** In middle 1/3 of front of thigh
- ❑ **EXTENT:** From apex of femoral triangle to adductor hiatus (in adductor magnus)
- ❑ **BOUNDARIES:** \*Roof: Sartorius  
\*Floor: Adductor longus & magnus