

# **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)

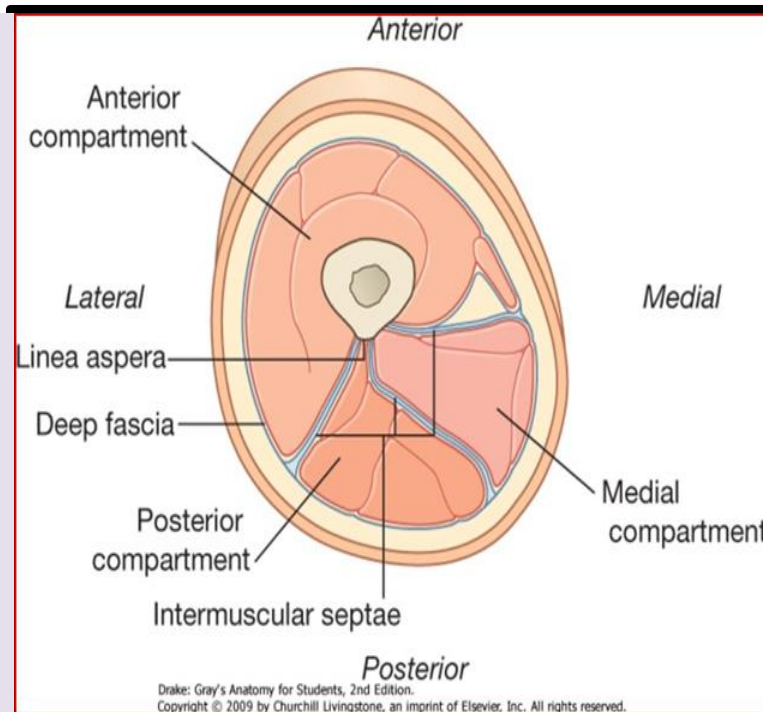
## Anterior Compartment

❑ 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)

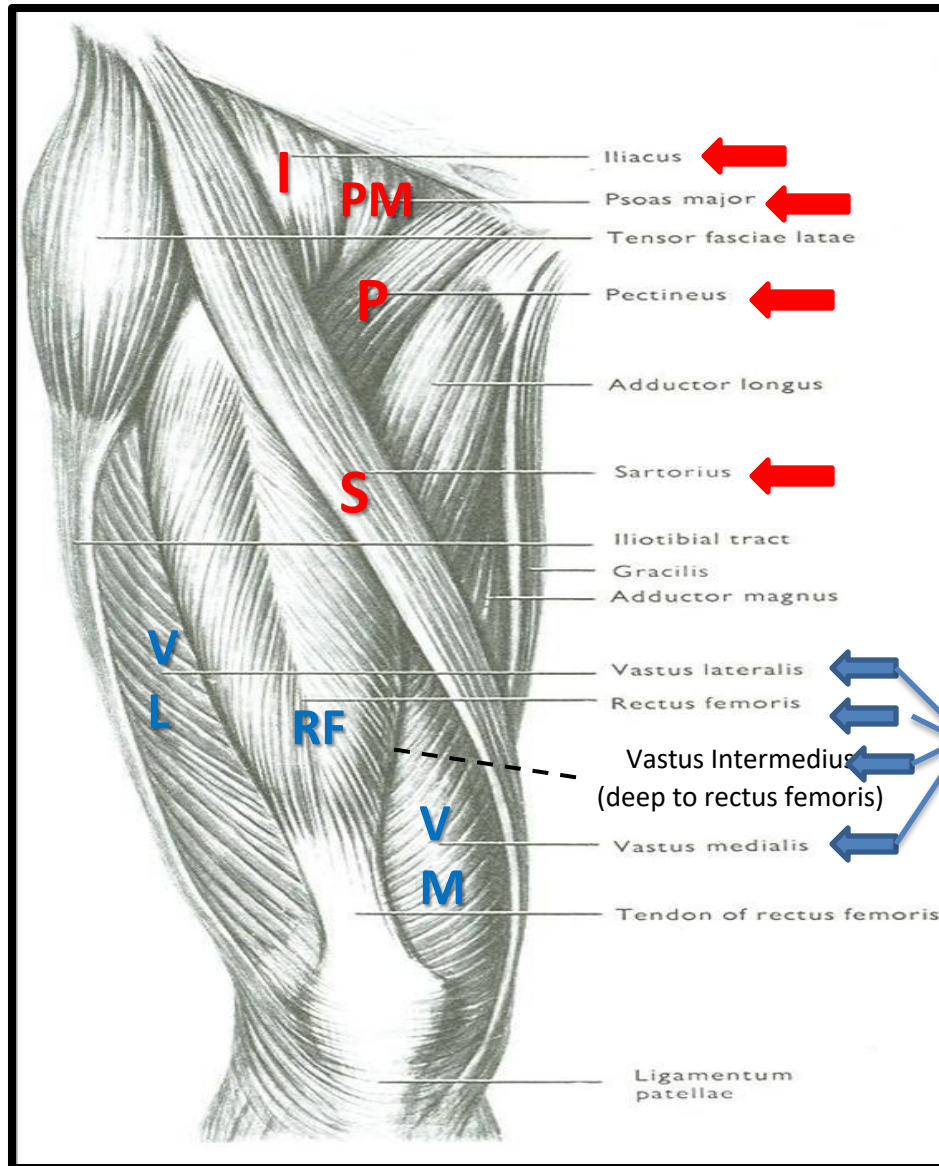
## Posterior Compartment

❑ 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:

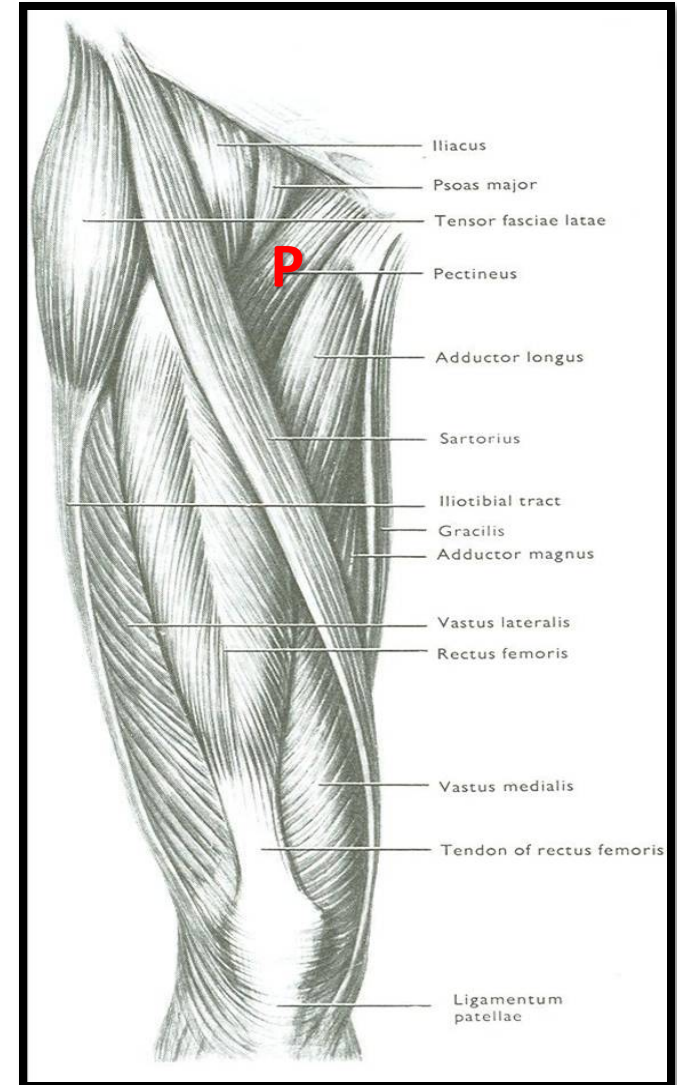
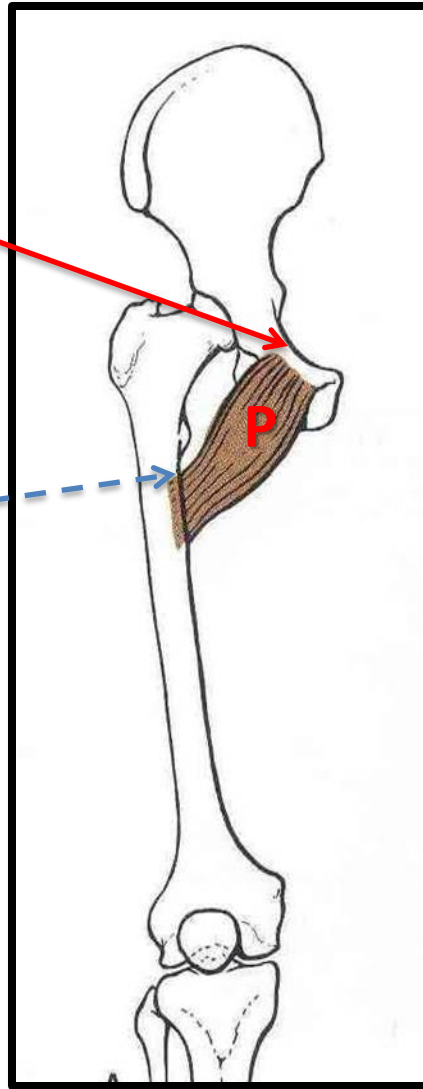
Superior pubic ramus

## INSERTION:

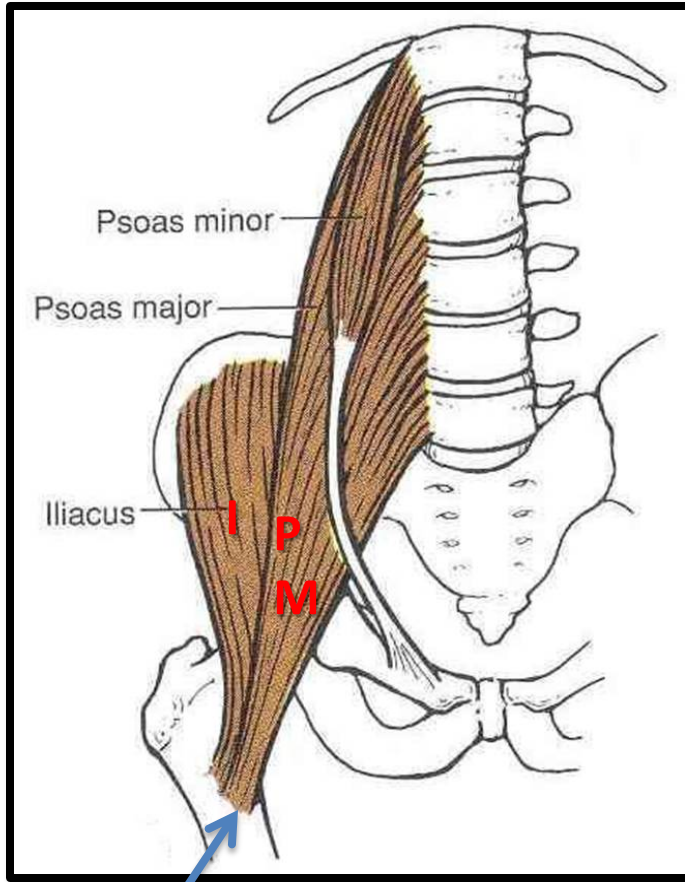
Back of femur  
(below lesser trochanter)

## ACTION:

□ Flexion & adduction of hip joint

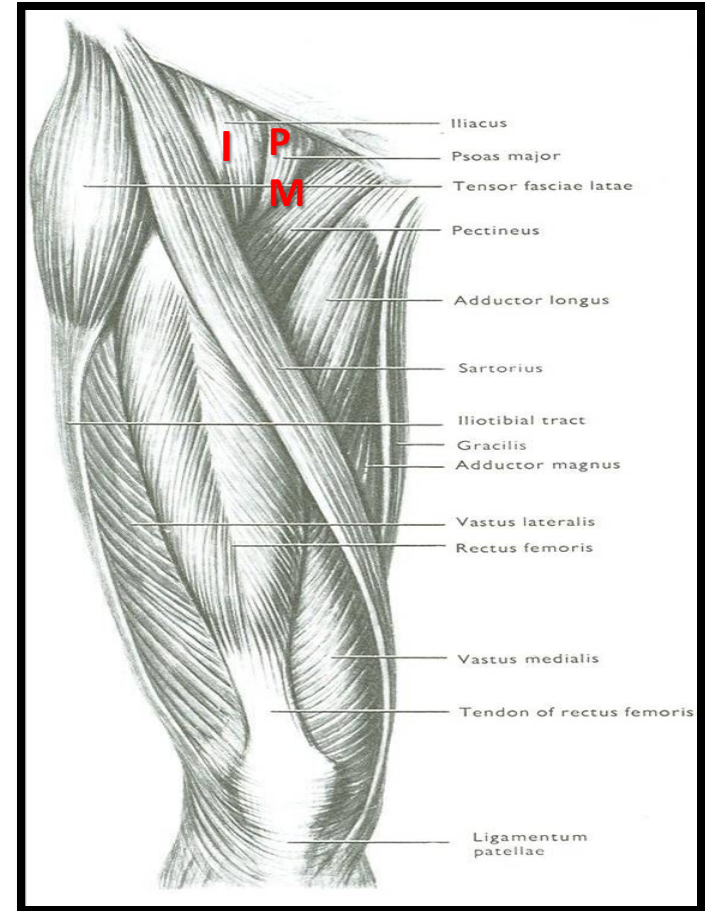


# ILIOPSOAS: ILIACUS & PSOAS MAJOR



**INSERTION:**

**Lesser trochanter of femur**



**ACTION:**

**Flexion of hip joint**

# QUADRICEPS FEMORIS

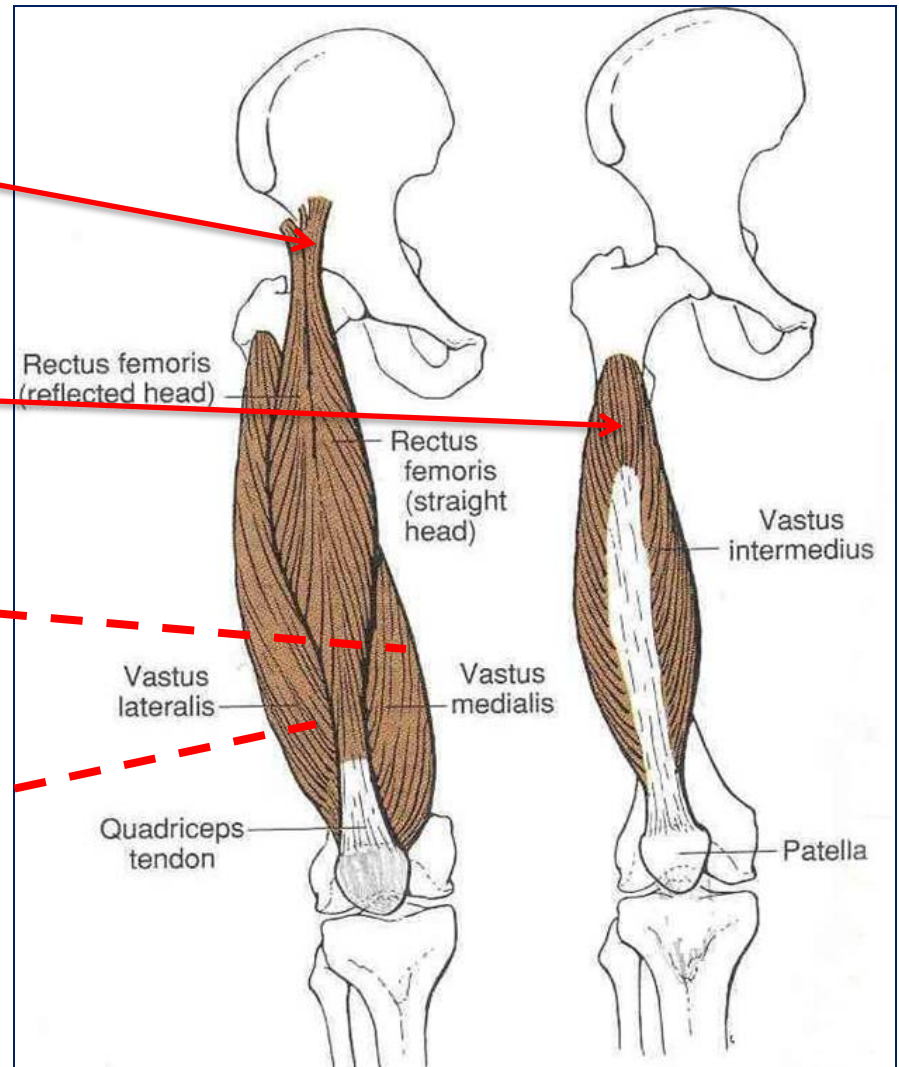
## ORIGIN:

❑ **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:

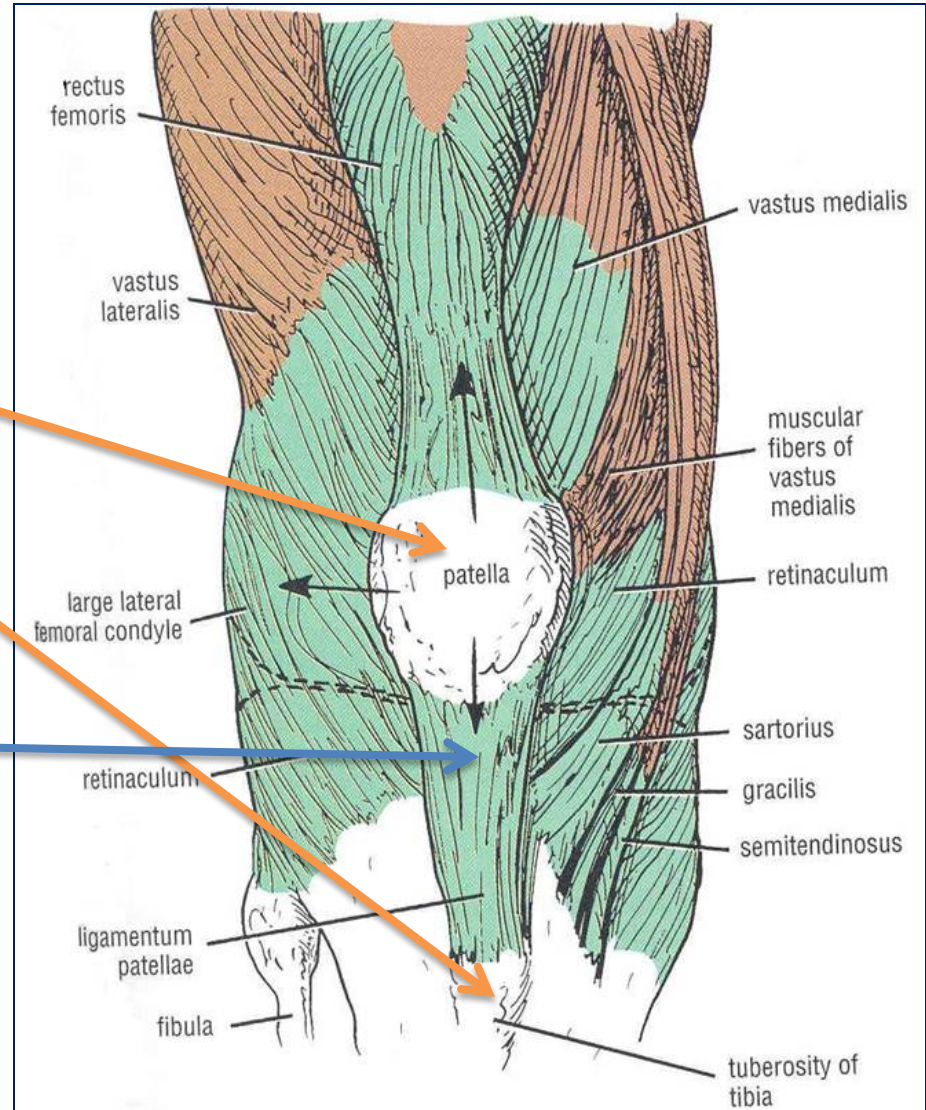
□ Into **PATELLA**

(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:

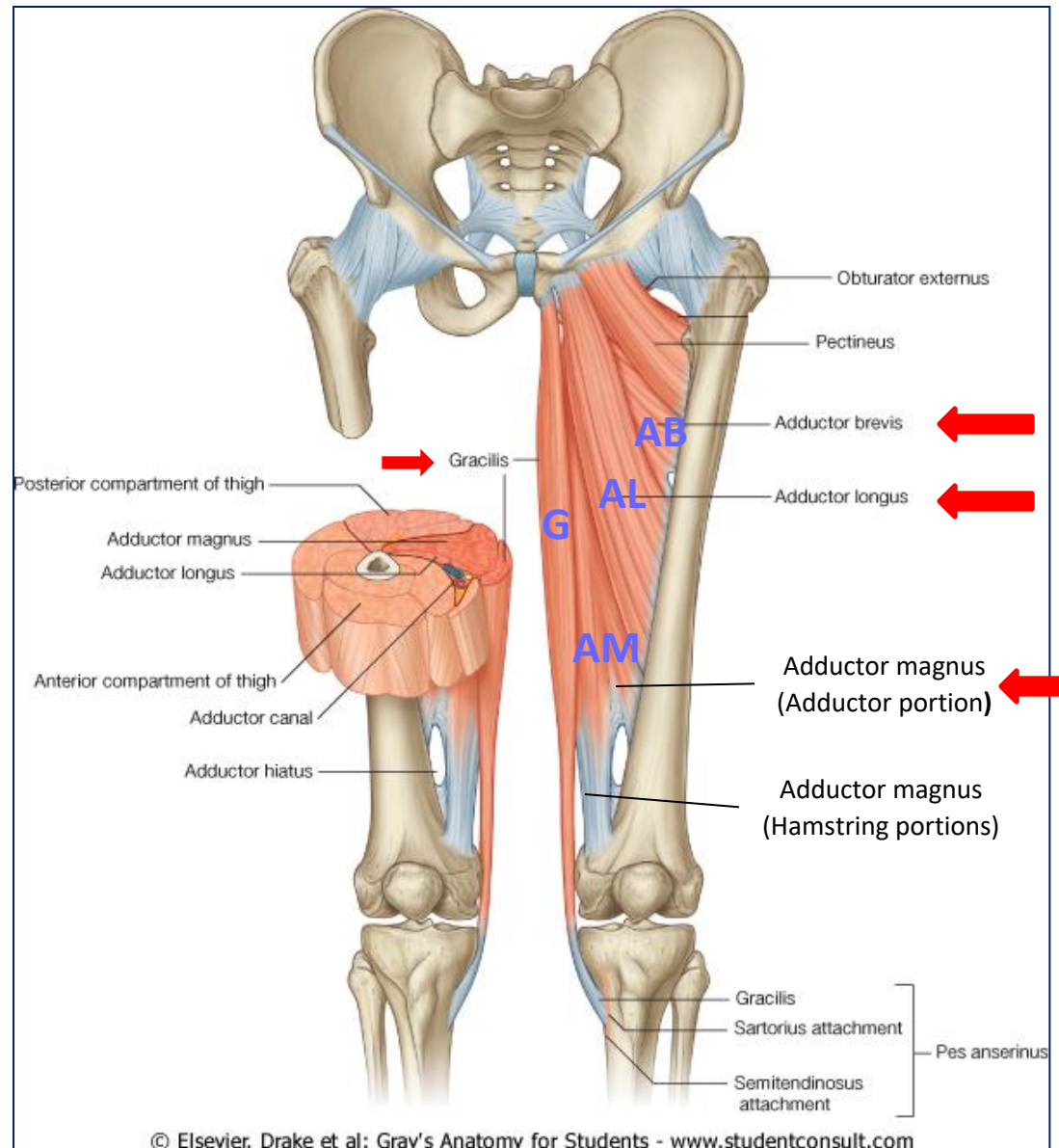
1. Adductor longus
2. Adductor brevis
3. Adductor magnus (Adductor part)
4. Gracilis

## □ ACTION:

**ADDUCTION OF HIP JOINT**

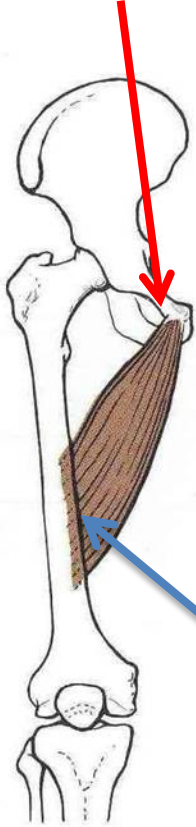
**N.B.: Gracilis also flexes knee joint + adduction of thigh**

□ NERVE SUPPLY:  
**OBTURATOR NERVE**



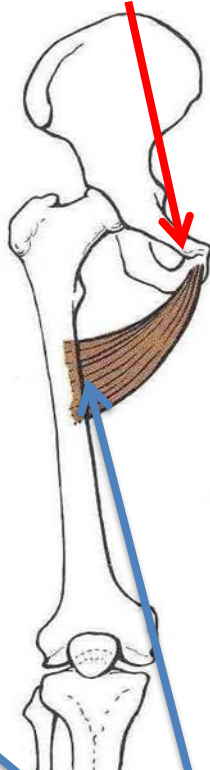
# Origin

- Body of pubis



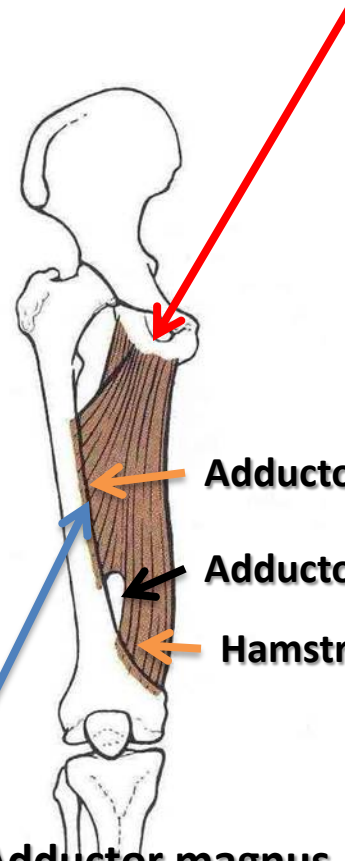
Adductor longus

- Body of pubis
- Inferior pubic ramus



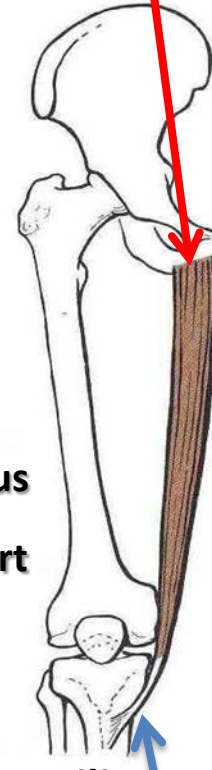
Adductor brevis

- 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*

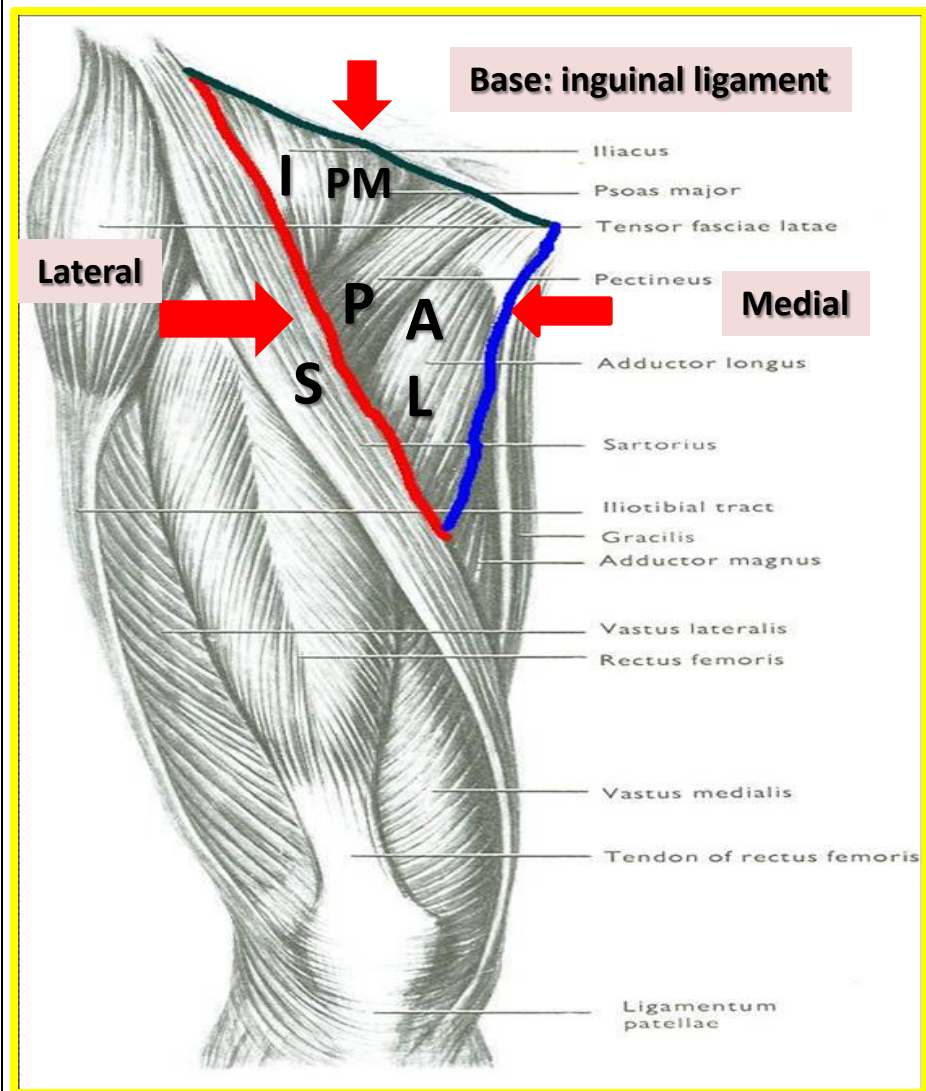
Adductor longus

Pectineus

Psoas major

Iliacus

# FEMORAL TRIANGLE



# FEMORAL TRIANGLE

## CONTENTS:

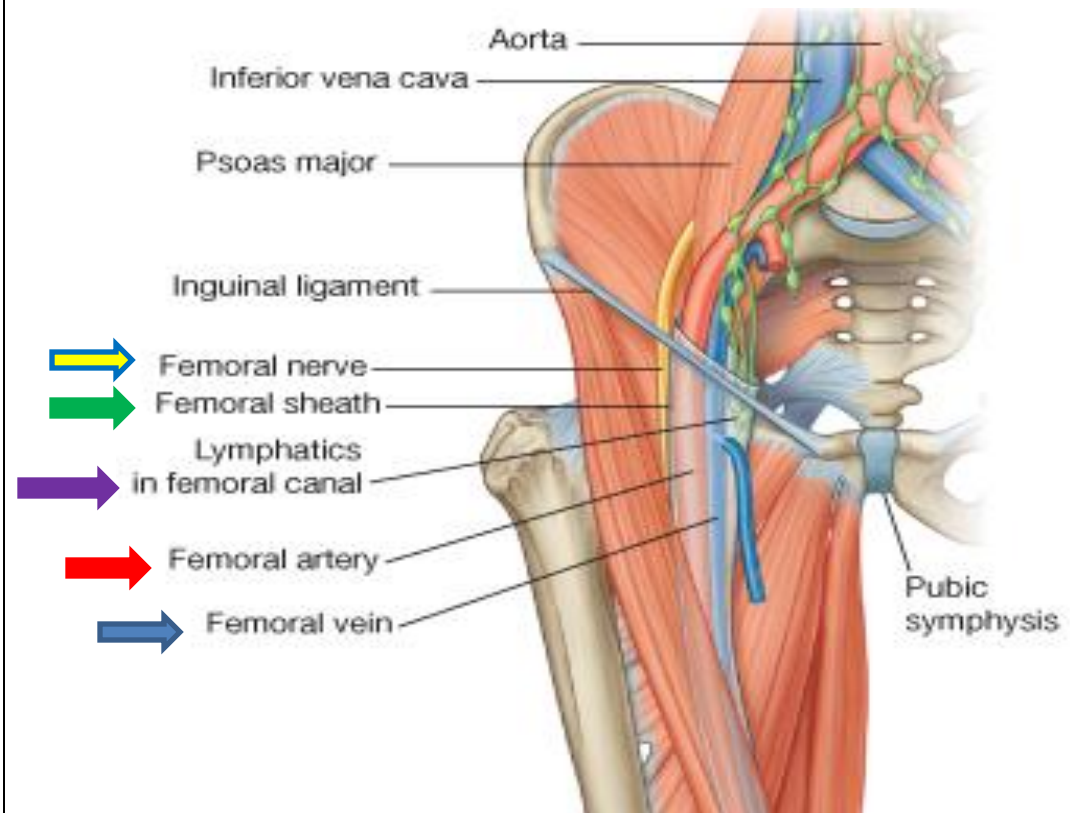
□ Femoral vein

□ Femoral artery

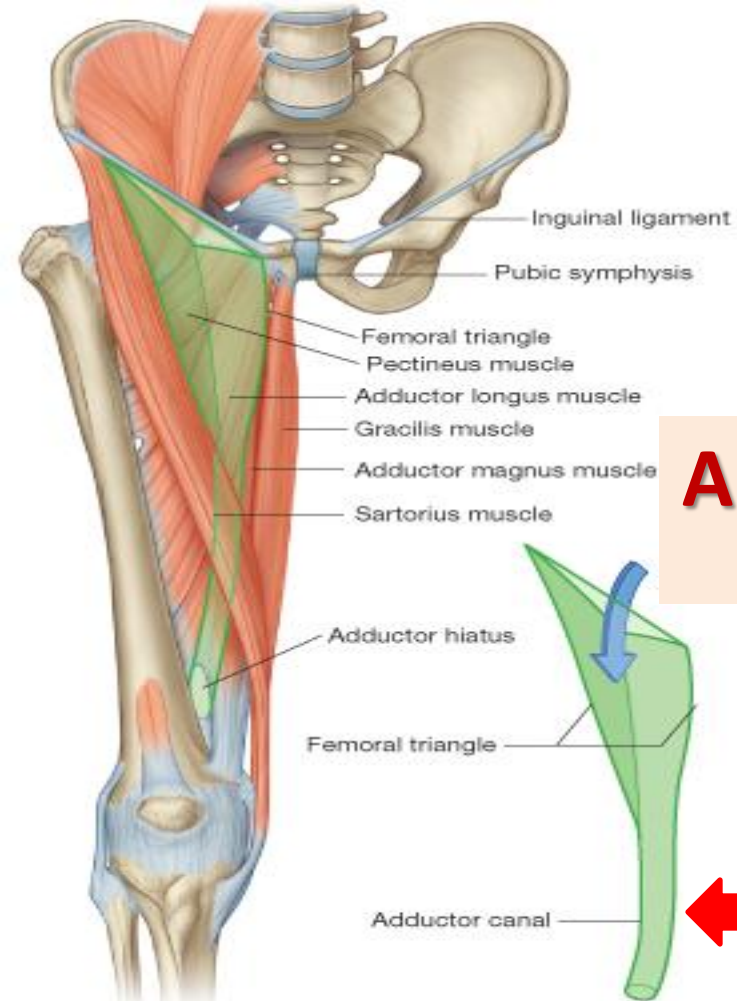
Both vein & artery are enclosed in a fascial envelope (Femoral sheath)

□ Femoral nerve

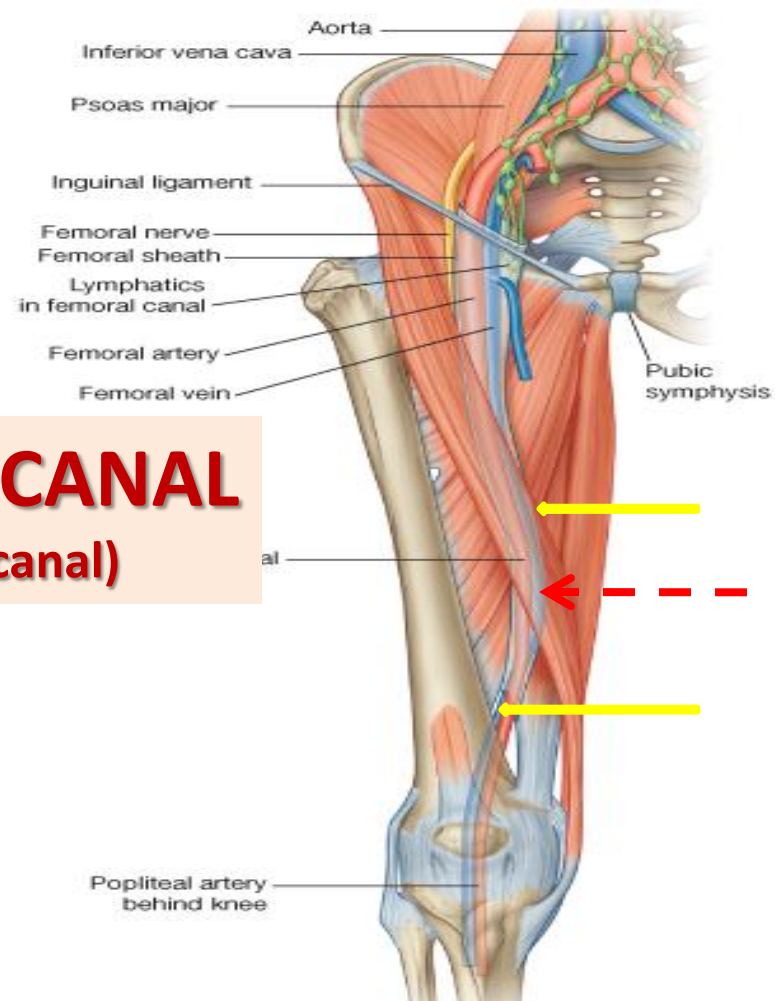
□ Deep inguinal lymph nodes







## 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