

ANTERIOR & MEDIAL COMPARTMENTS OF THIGH

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OBJECTIVES

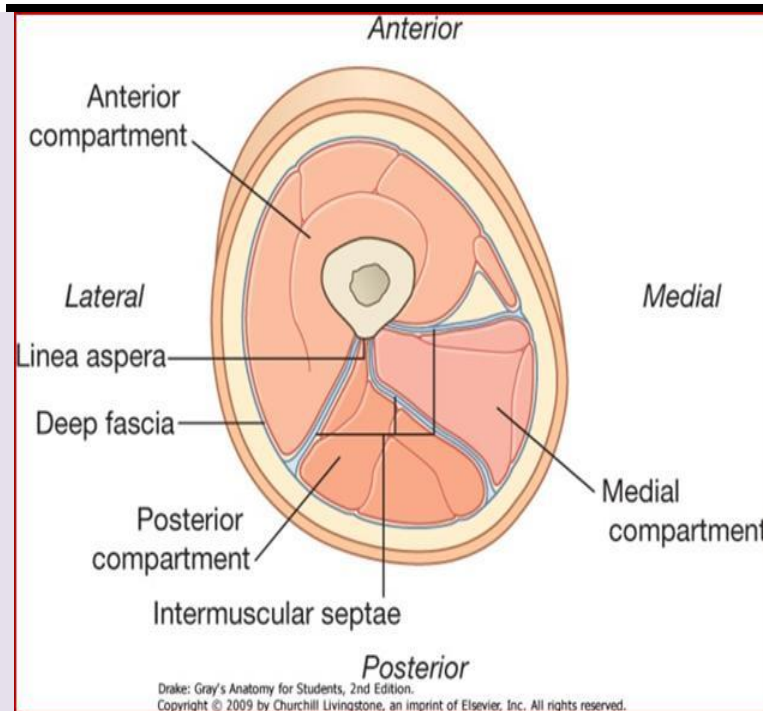
At the end of the lecture, students should:

- *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



Medial Compartment

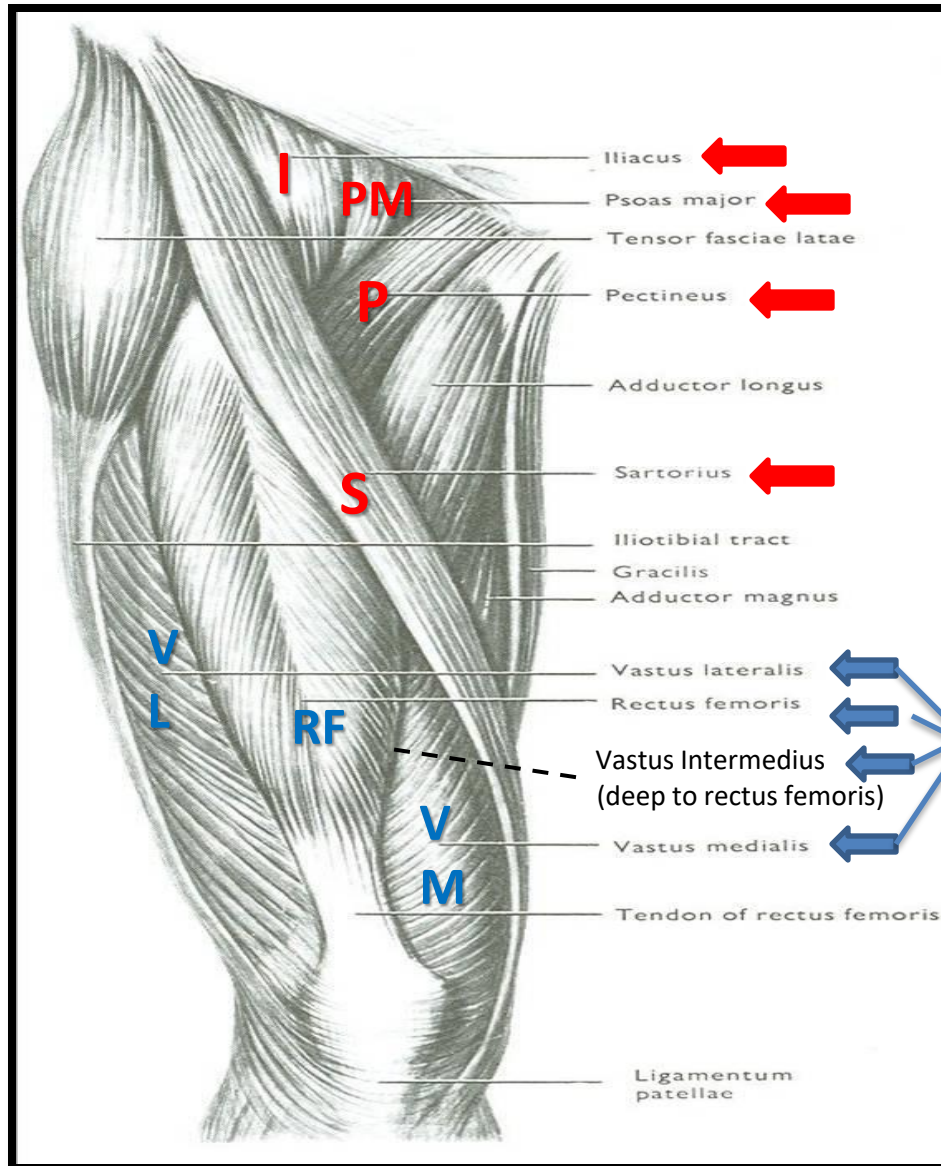
- ❑ Adductors of hip:
 1. Adductor longus
 2. Adductor brevis
 3. Adductor magnus (adductor part)
 4. Gracilis
- ❖ Nerve supply:
Obturator nerve

Posterior Compartment

- ❑ Flexors of knee & extensors of hip:
Hamstrings
- ❖ Nerve supply:
Sciatic nerve

ANTERIOR COMPARTMENT OF THIGH

NERVE SUPPLY:
Femoral nerve



Quadriceps femoris

SARTORIUS

ORIGIN

Anterior superior iliac spine

INSERTION

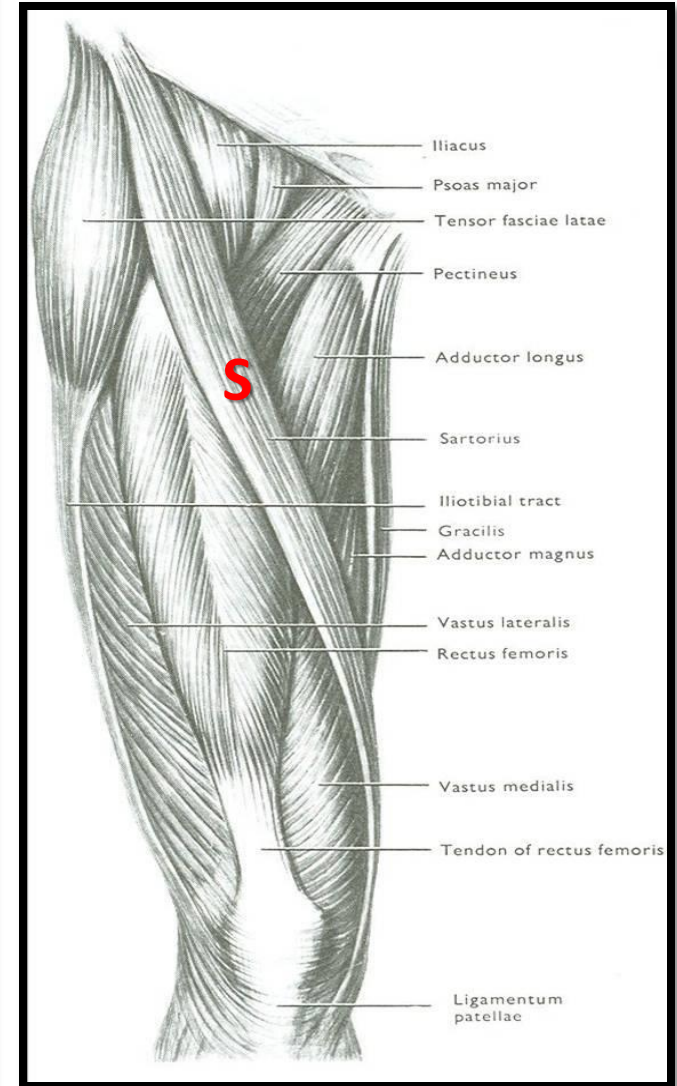
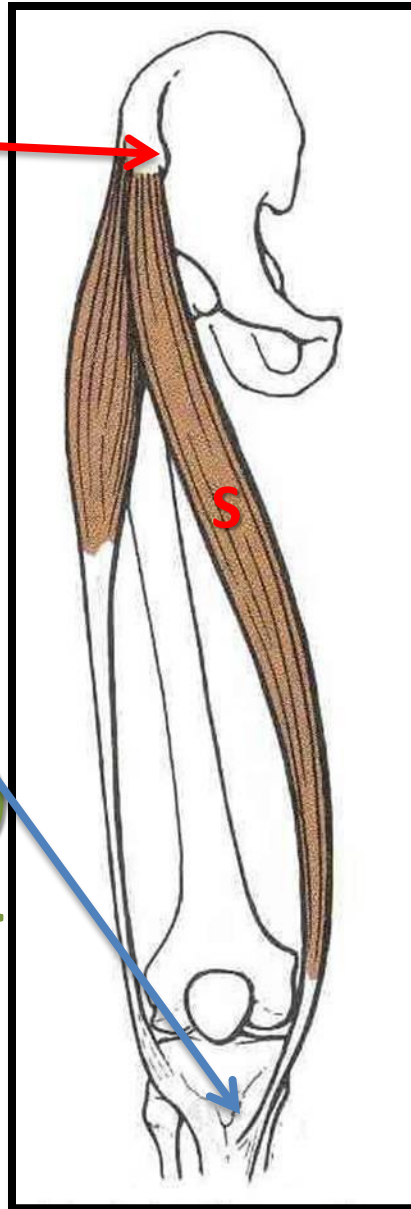
Upper part of medial surface of tibia

ACTION

(TAILOR'S POSITION)

☐ Flexion, abduction & lateral rotation of hip joint

☐ Flexion of knee joint



PECTINEUS

ORIGIN:

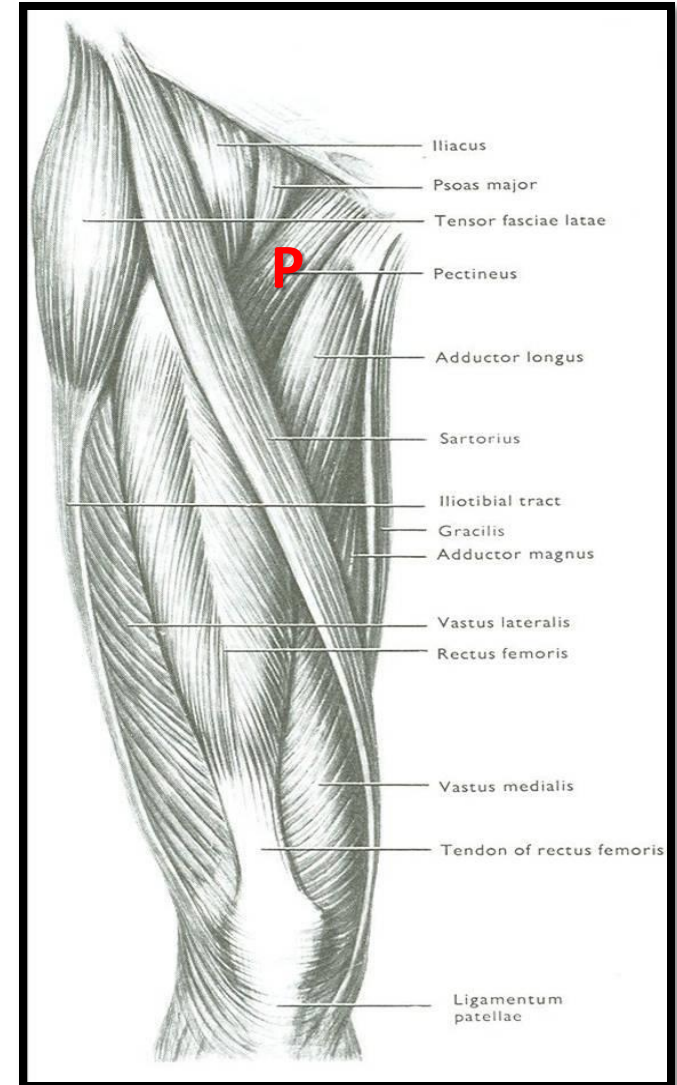
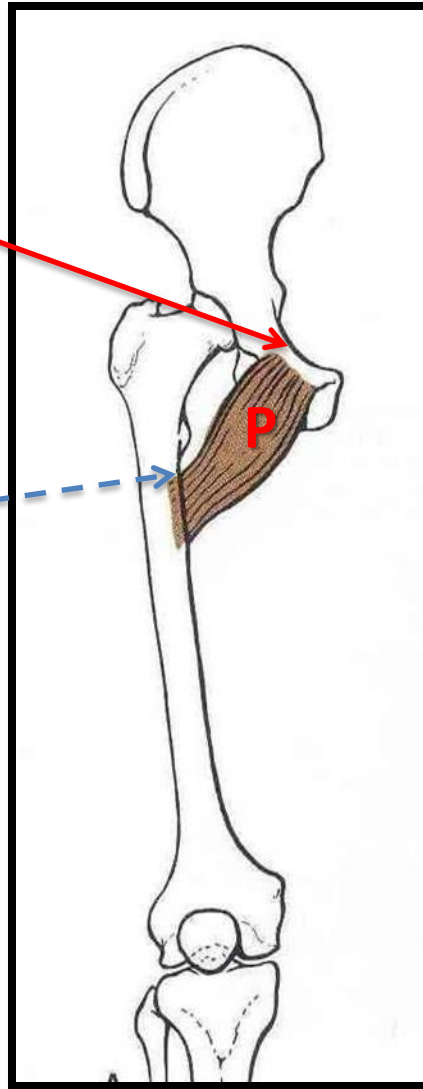
Superior pubic ramus

INSERTION:

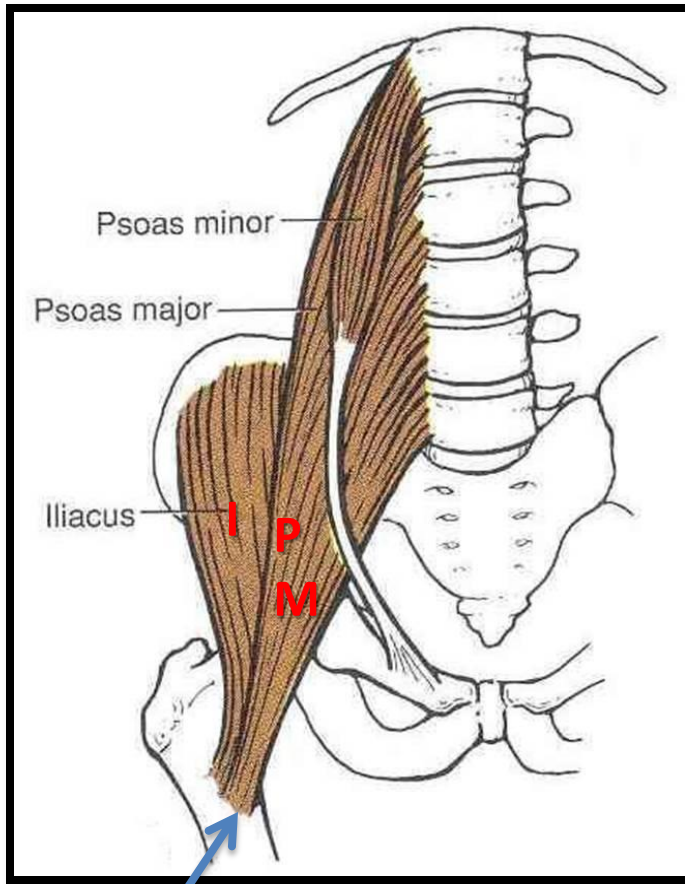
Back of femur
(below lesser trochanter)

ACTION:

□ Flexion & adduction of hip joint

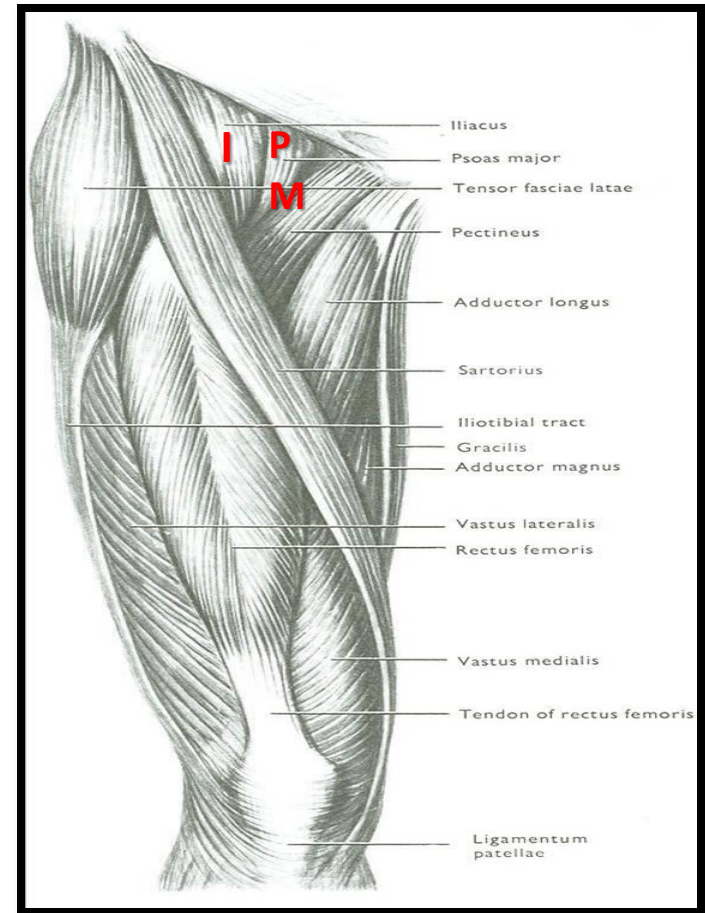


ILIOPSOAS: ILIACUS & PSOAS MAJOR



INSERTION:

Lesser trochanter of femur



ACTION:

Flexion of hip joint

QUADRICEPS FEMORIS

ORIGIN:

☐ Rectus femoris:

Anterior inferior iliac spine (Hip bone)

☐ Vastus intermedius:

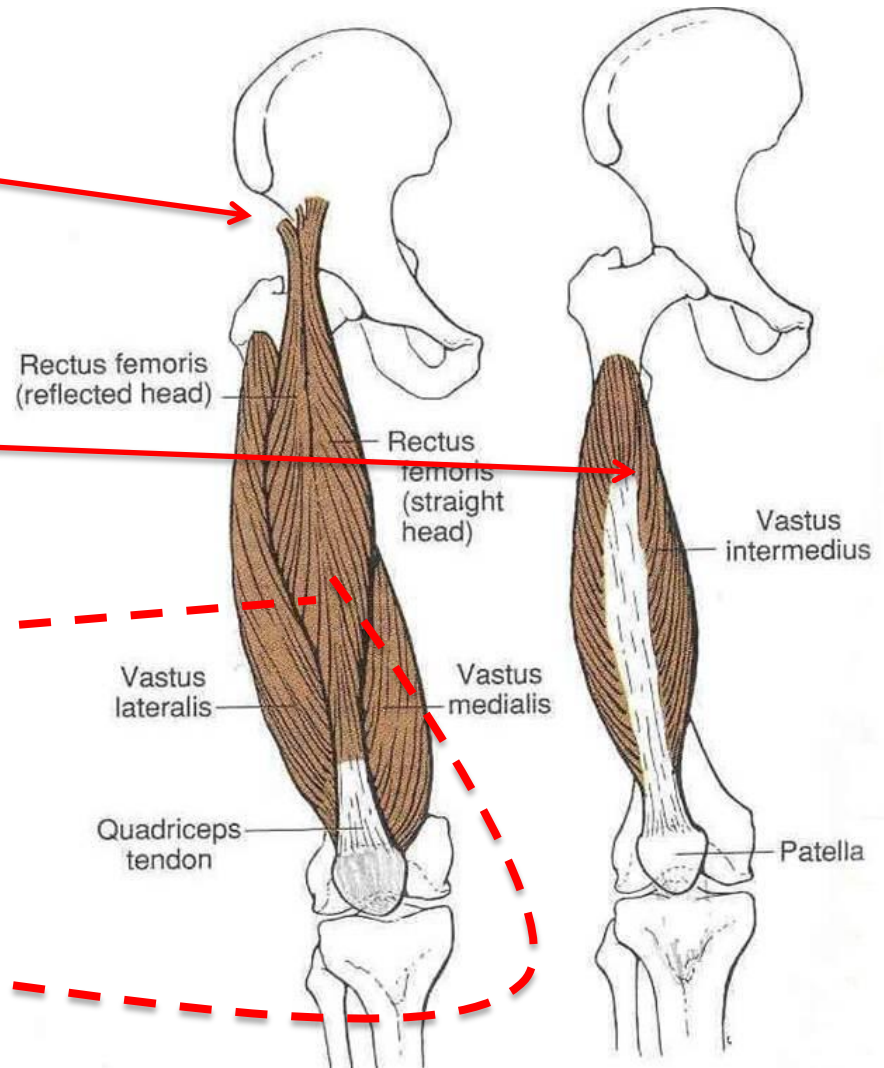
Front of shaft of femur

☐ Vastus lateralis:

Posterior border of femur

☐ Vastus medialis:

Posterior border of femur



QUADRICEPS FEMORIS

INSERTION:

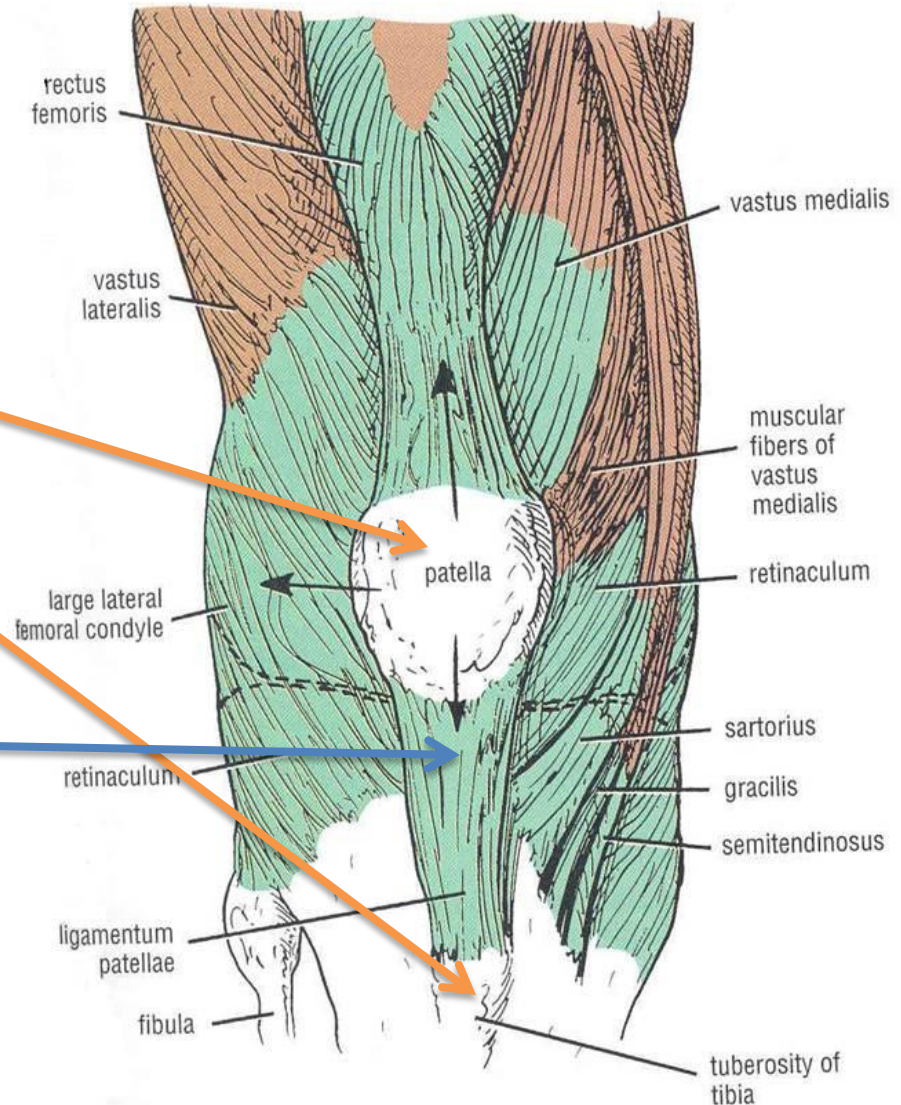
□ Into **PATELLA**

(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

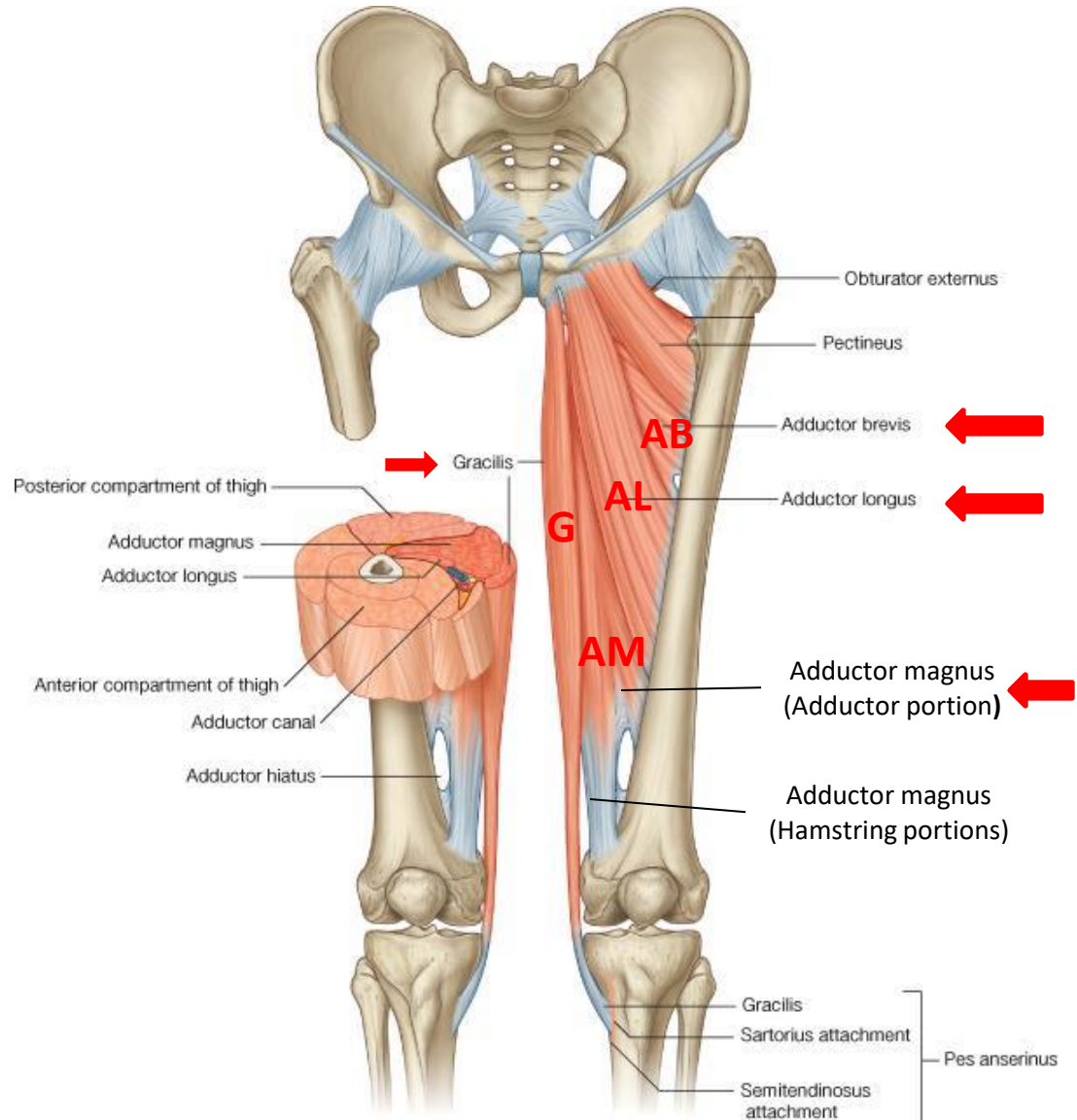
ACTION:

ADDUCTION OF HIP JOINT

N.B.: Gracilis also flexes knee joint

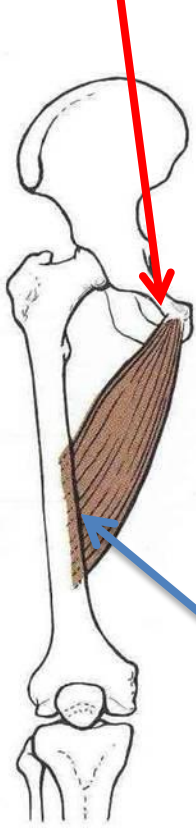
NERVE SUPPLY:

OBTURATOR NERVE



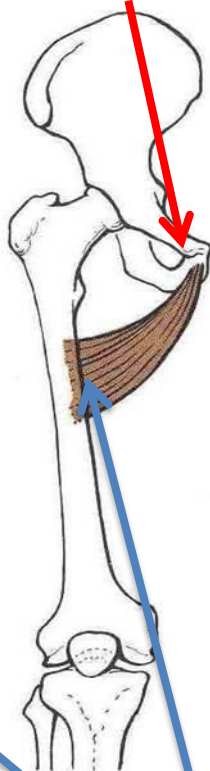
Origin

▪ Body of pubis



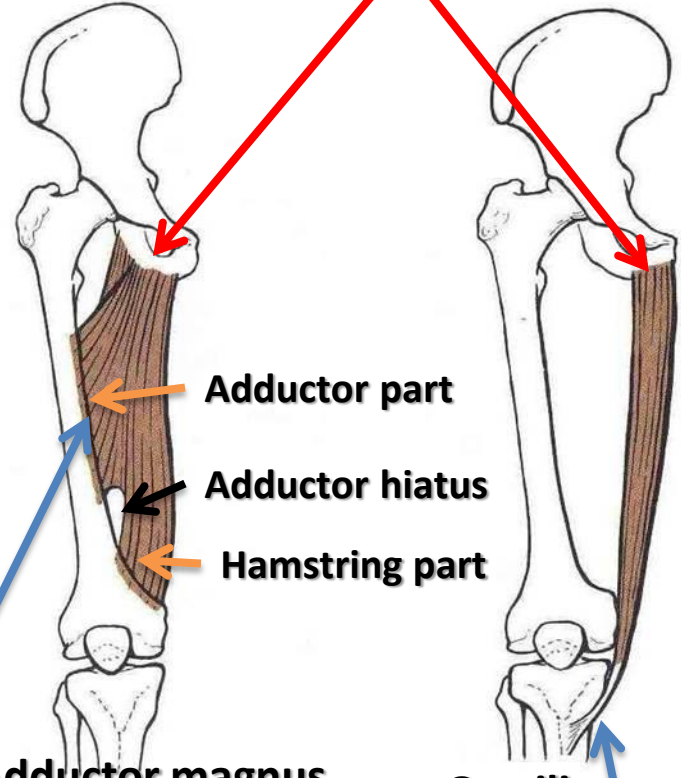
Adductor longus

▪ Body of pubis
▪ Inferior pubic ramus

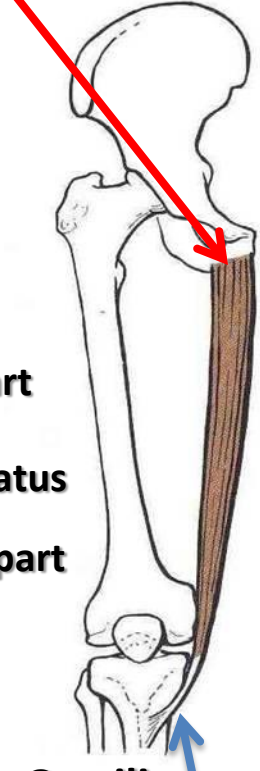


Adductor brevis

▪ Inferior pubic ramus
▪ Ischial ramus



Adductor magnus
(adductor part)



Gracilis

Insertion

▪ Posterior border of femur (Linea Aspera)

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

SITE:

- Upper third of front of thigh

BOUNDARIES:

- Base: inguinal ligament
- Lateral: medial border of sartorius
- Medial: medial border of adductor longus

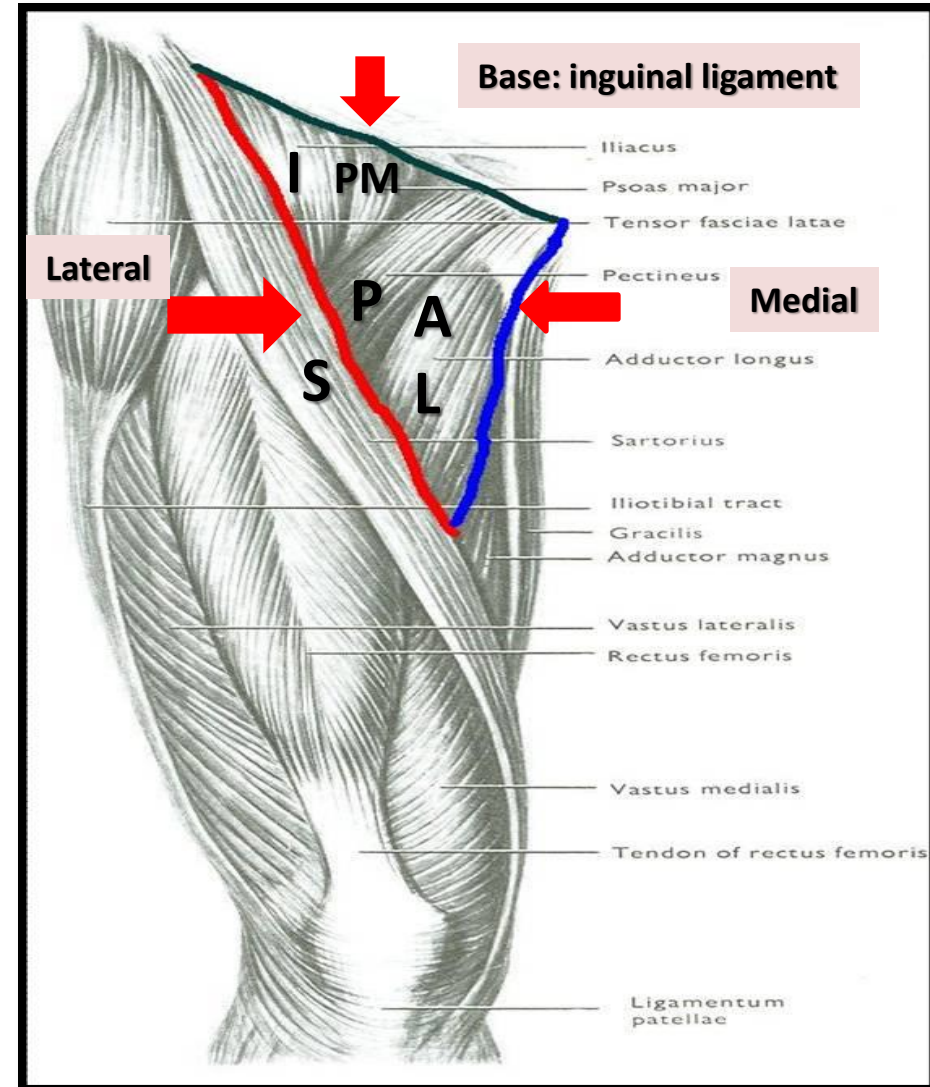
ROOF:

- Skin
- Fasciae: superficial & deep

FLOOR: *From medial to lateral*

- Adductor longus
- Pectineus
- Psoas major
- Iliacus

FEMORAL TRIANGLE



FEMORAL TRIANGLE

CONTENTS:

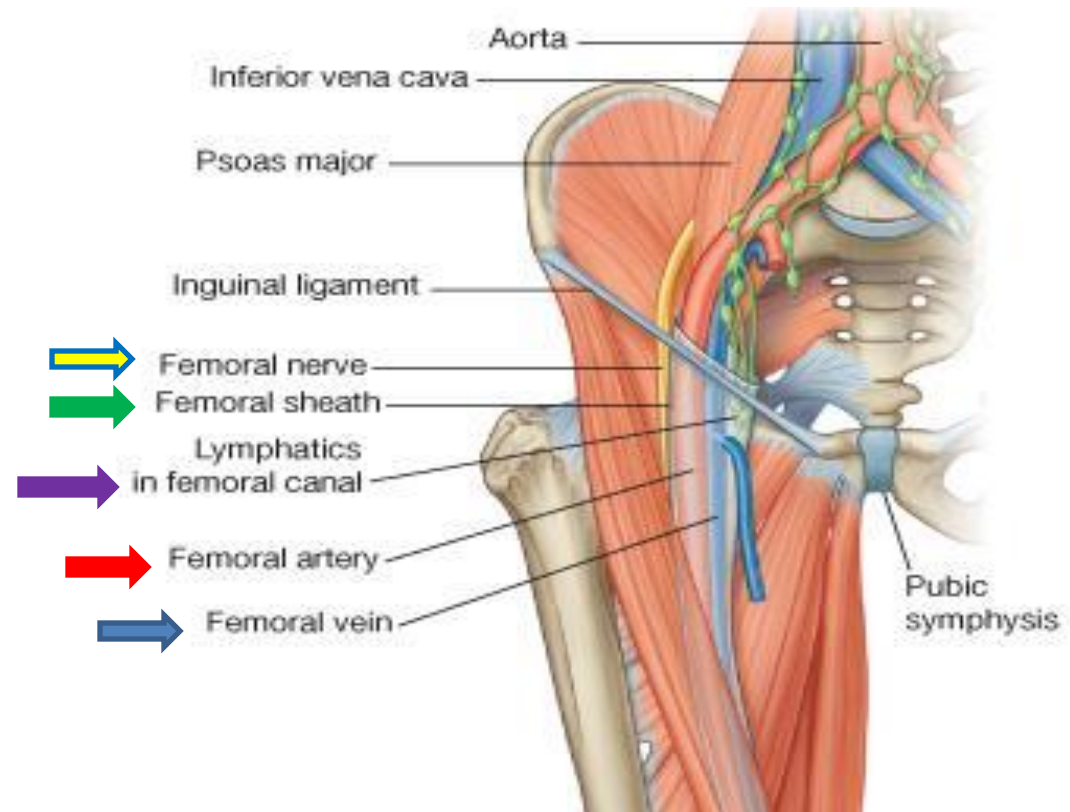
□ Femoral vein

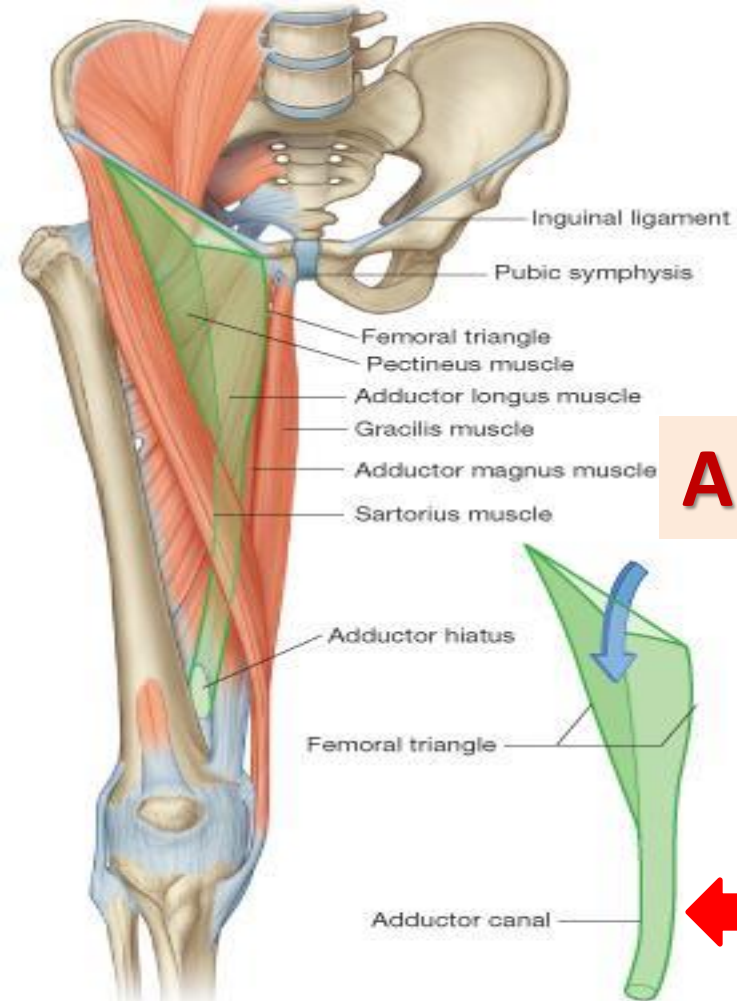
□ Femoral artery

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

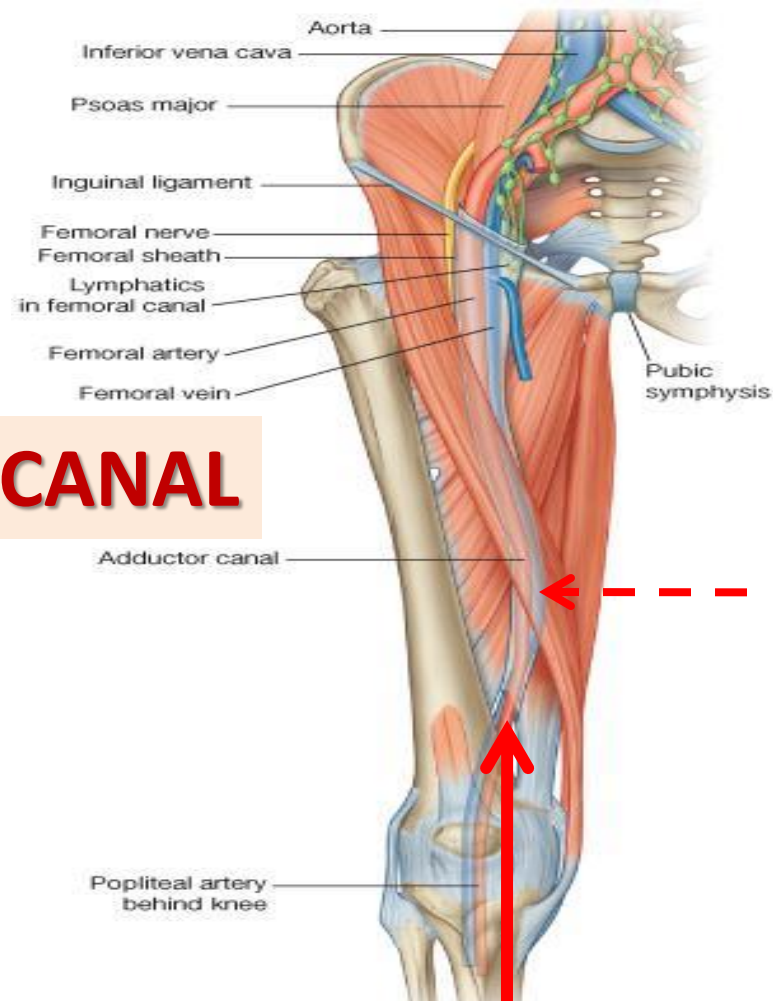
□ Femoral nerve

□ Deep inguinal lymph nodes





ADDUCTOR CANAL



- ❑ **DEFINITION:** A fascial envelope for femoral artery & vein
- ❑ **SITE:** In middle third of front of thigh
- ❑ **EXTENT:** From apex of femoral triangle to adductor hiatus
- ❑ **BOUNDARIES:** *Roof: Sartorius
*Floor: Adductor longus & magnus

SUMMARY

MUSCLES OF ANTERIOR COMPARTMENT OF THIGH:

☐ Flexors of hip: Sartorius, pectineus, psoas major & iliacus (all are inserted into femur EXCEPT: Sartorius: inserted into tibia)

N.B.: Tailor's position performed by sartorius: flexion, abduction & lateral rotation of hip + flexion of knee.

☐ Extensors of knee: Quadriceps femoris

1. All parts originate from femur EXCEPT: Rectus femoris: from hip
2. All parts are inserted into patella

☐ **NERVE SUPPLY**: femoral nerve

SUMMARY

MUSCLES OF MEDIAL COMPARTMENT OF THIGH:

□ ACTION:

1. All muscles adduct hip joint.
2. Gracilis also flexes knee joint.


□ ATTACHMENTS:

1. All muscles originates from pubic bone.
2. All muscles are inserted into posterior border of femur EXCEPT: gracilis: into tibia (as sartorius)

□ NERVE SUPPLY: Obturator nerve


QUESTION 1

□ Which one of the following muscles is supplied by femoral nerve?

- 1. Sartorius** 
- 2. Gracilis**
- 3. Adductor longus**
- 4. Adductor brevis**

QUESTION 2

Which one of the following muscles is inserted into the tibia?

1. Sartorius 
2. Pectineus
3. Iliacus
4. Adductor longus

A stylized illustration of two yellow roses with green leaves and a dark brown stem, set against a teal background. The roses are rendered in a low-poly, geometric style. The text 'THANK YOU' is written in a bold, blue, sans-serif font across the center of the roses. The entire image is framed by a thick orange border.

THANK YOU