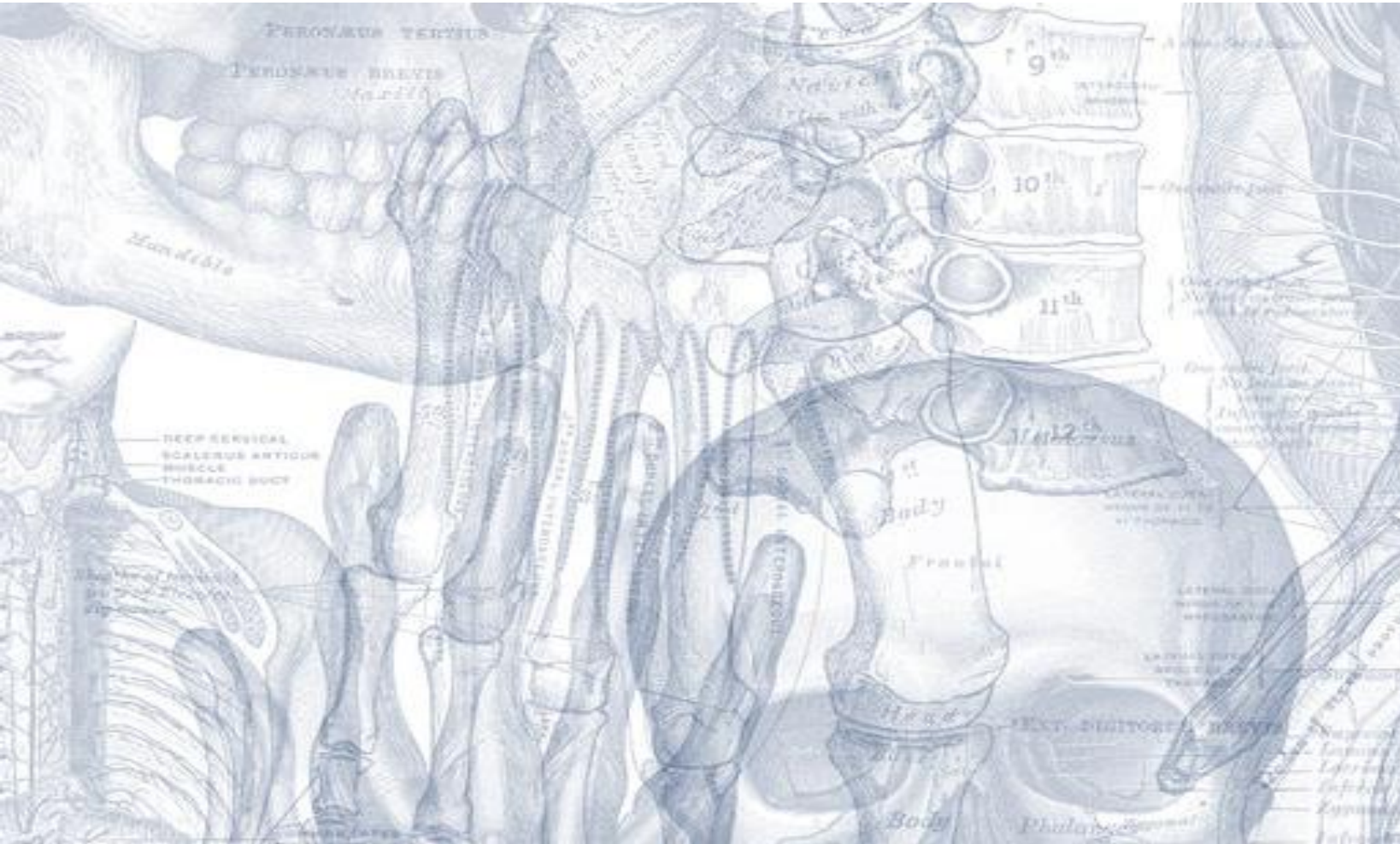


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MEDICINE
KING SAUD UNIVERSITY



Anterior and Medial Thigh

[Editing file](#)

Color Code

- **Important**
- **Doctors Notes**
- **Notes/Extra explanation**

Objectives

- ✓ 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.

POSSIBLE HIP MOVEMENTS

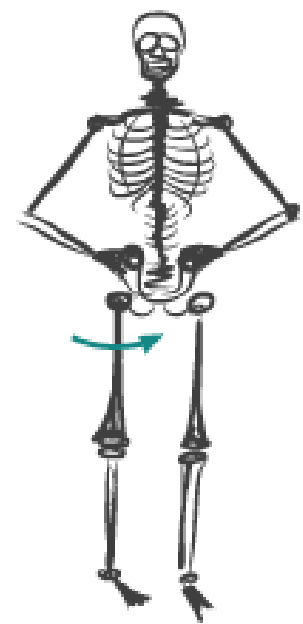
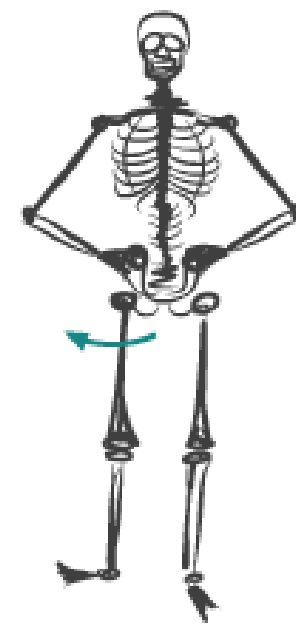
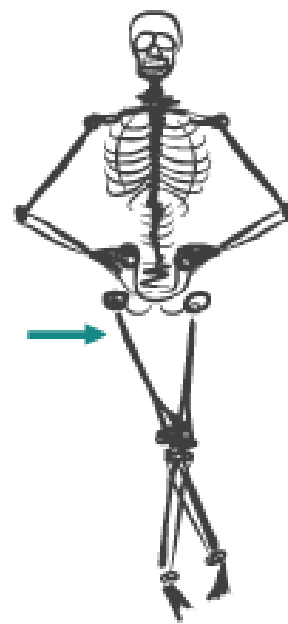
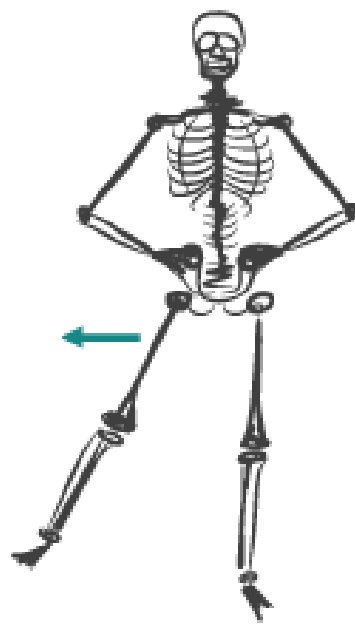
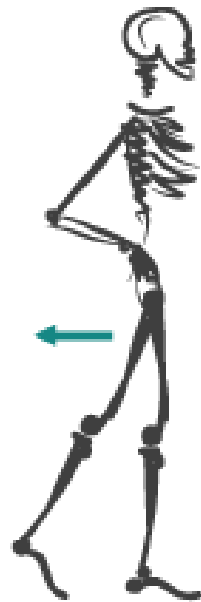
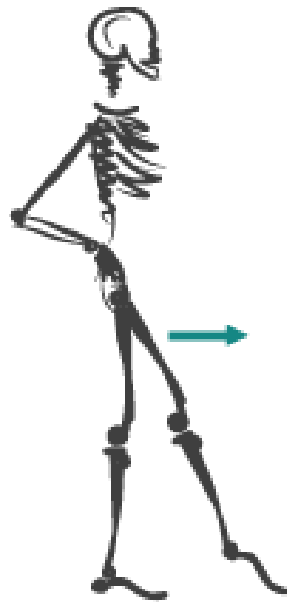
FLEXION

EXTENSION

ABDUCTION

ADDUCTION

EXTERNAL / INTERNAL ROTATION
Or lateral Or medial



featured on www.sequencewiz.com

The thigh is divided into 3 compartments

By 3 intermuscular septa (extending from deep fascia into femur)

Note: In the book the pectineus muscle is listed under the medial group but since it has similar innervation and action as the anterior group it is mentioned as a part of it here.

(Anterior compartment)

1. Quadriceps femoris
2. Sartorius
3. Pectineus
4. psoas major
5. Iliacus

Nerve supply:
Femoral nerve

(Posterior Compartment)

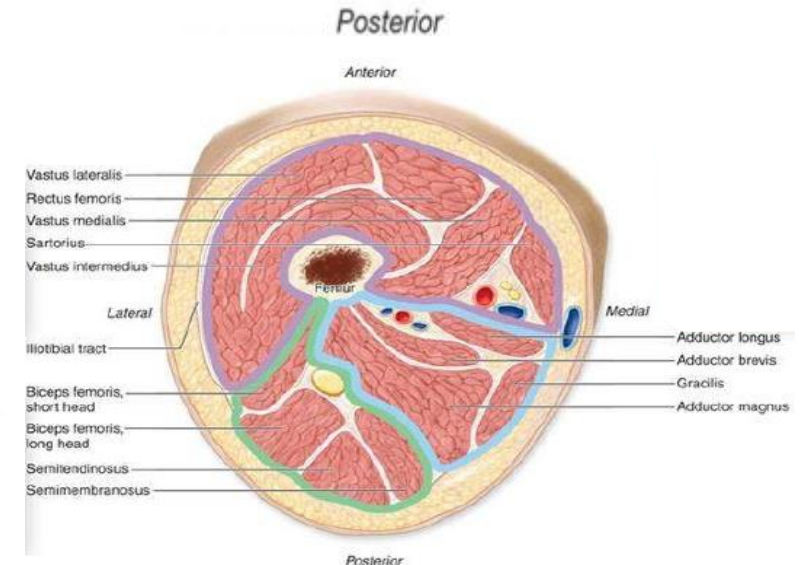
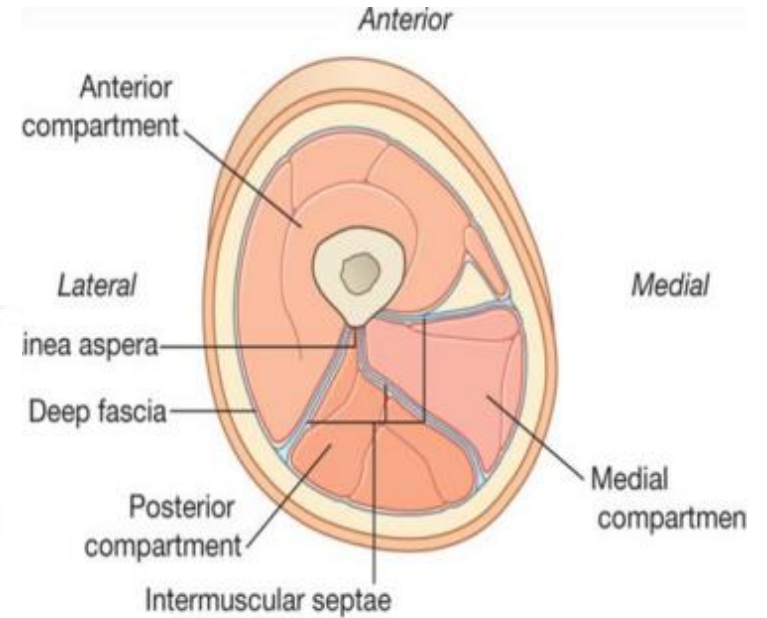
1. Hamstrings (next lecture)

Nerve supply:
Sciatic nerve

(Medial Compartment)

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

Nerve supply:
Obturator nerve



Anterior Compartment

MUSCLES:

1. Quadriceps femoris
2. Sartorius
3. Pectineus
4. psoas major
5. Iliacus

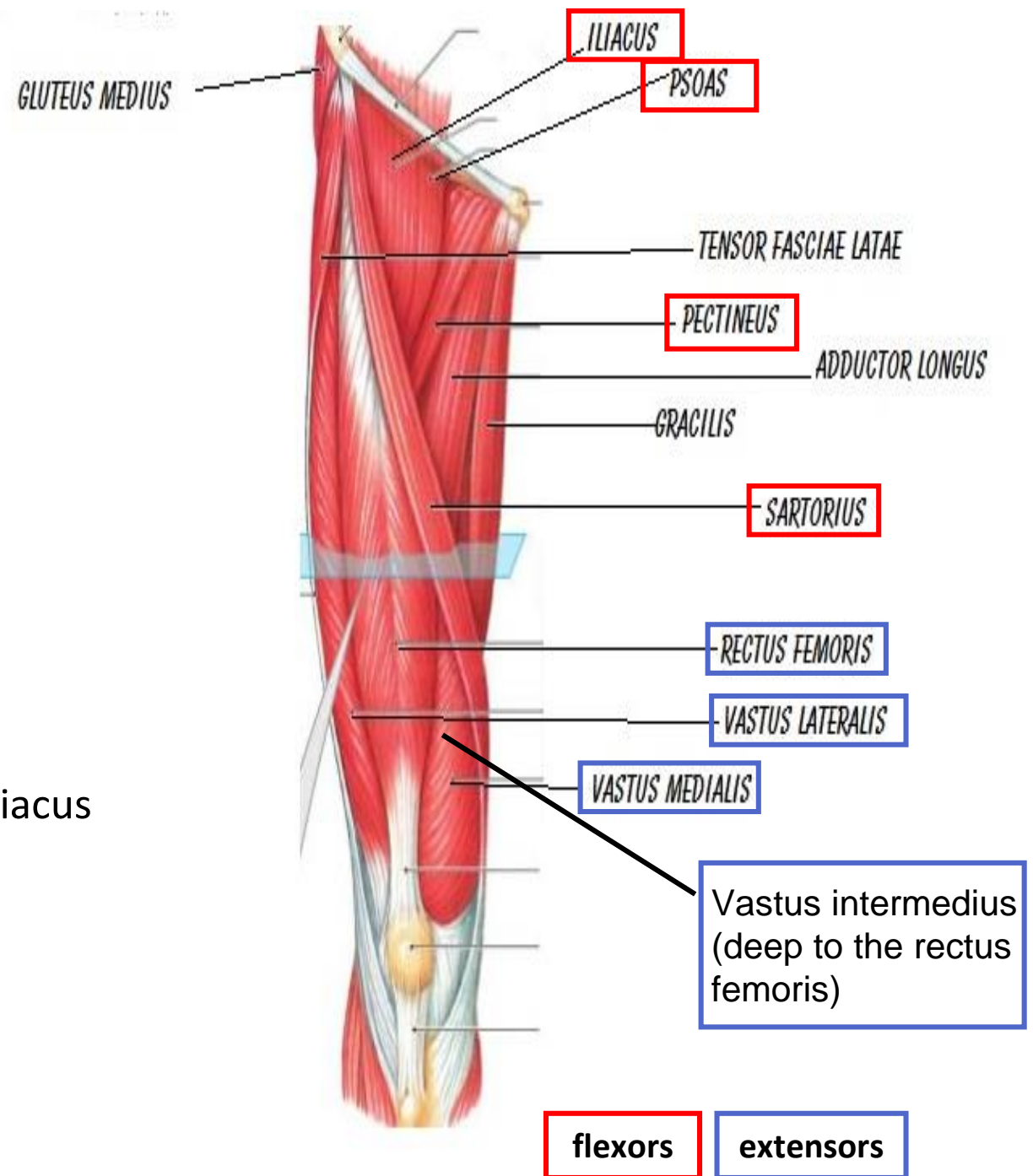
ACTION:

Extensor of the **knee**: Quadriceps femoris

Flexors of the **hip**: Sartorius , Pectineus , psoas major , Iliacus

Nerve supply:

Femoral nerve.



Anterior compartment

1- Quadriceps femoris

- **ORIGIN:**

- 1- **Rectus femoris:** Anterior inferior iliac spine (**Hip bone**)
- 2- **Vastus intermedius:** Front of shaft of femur
- 3- **Vastus medialis:** Posterior border of femur
- 4- **Vastus lateralis:** Posterior border of femur

- **INSERTION:**

Into PATELLA

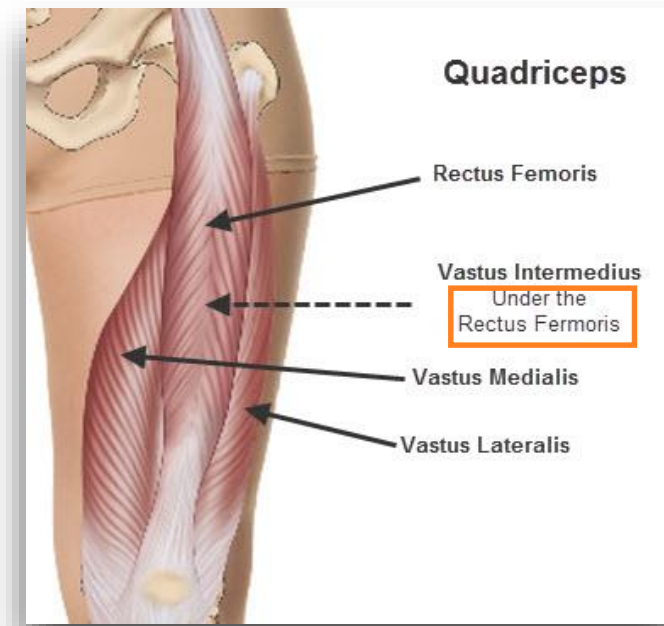
(Patella is the **largest** sesamoid bone)

*From patella into **TUBEROSITY OF TIBIA** through ligamentum patellae (patellar ligament)

إذا سأل عن الانسیرشن لها الجواب هو آخر شيء اللي هو التیبیا تیوبرستی

- **ACTION:**

Extension of knee joint



Anterior compartment

2- Sartorius

- Origin:

Anterior superior iliac spine.

- Insertion:

Upper part of medial surface of tibia.

SGS: same insertion (Upper part of medial surface of tibia)

= same action (flexes knee joint)

S: Sartorius (Anterior compartment)

G: Gracilis (Medial Compartment)

S: semitendinosus (part of Hamstrings) (Posterior Compartment)

- Action:

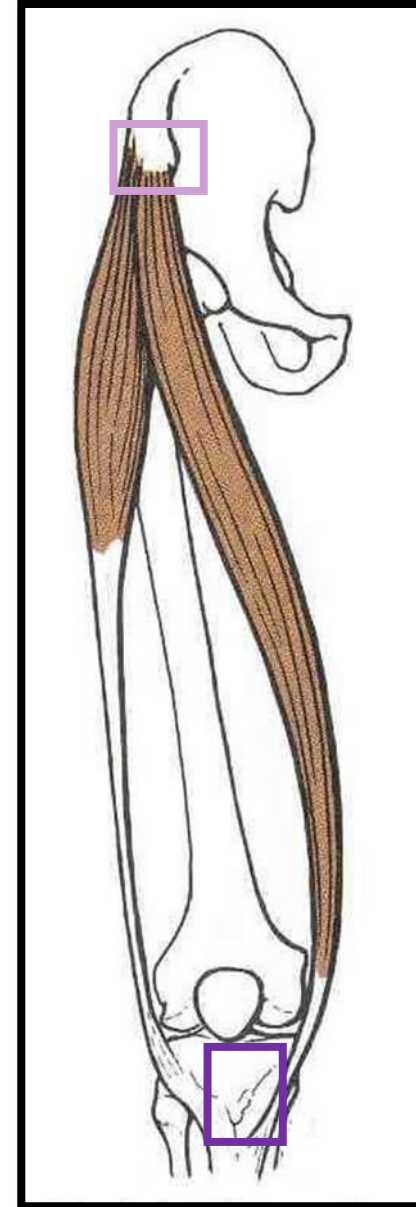
(Tailor's position)

Hip joint:

1. Flexion.
2. Abduction.
3. Lateral rotation.

Knee joint:

1. Flexion.



Tailor = ! خياط

Anterior compartment

3- Pectineus

- Origin:

Superior pubic ramus.

- Insertion:

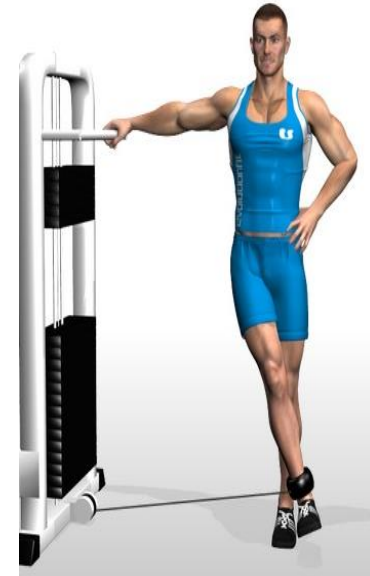
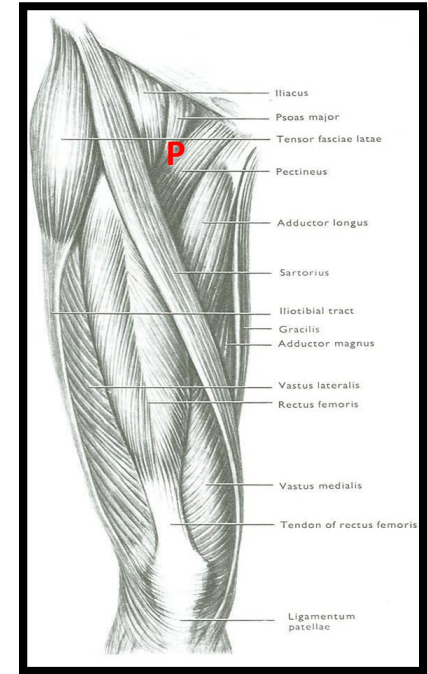
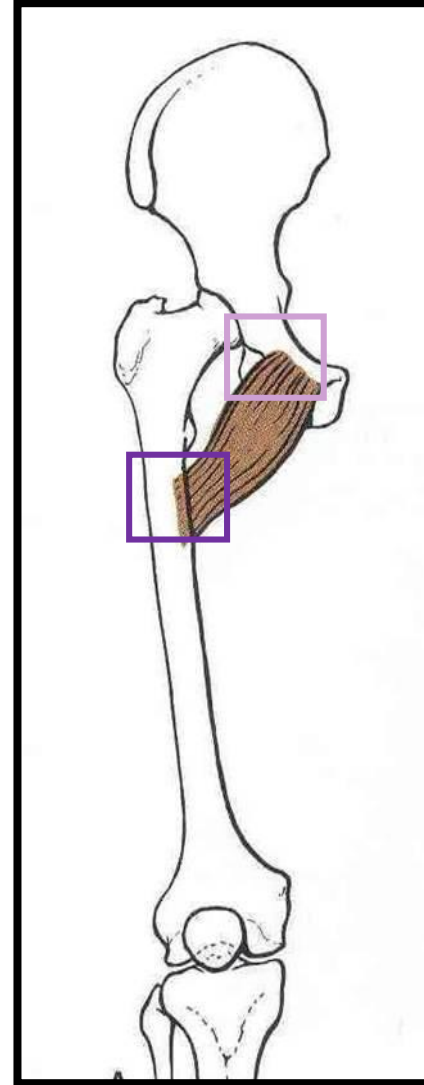
Back of femur (below lesser trochanter)

- Action:

Flexion & adduction of Hip joint.



ملاحظة من الدكتورة: مثل شخص يشوت كرة



Anterior compartment

4- ILIOPSOAS: ILIACUS & PSOAS MAJOR

(/'sɒʊ.əs/ or /'sɒʊ.æ.s/)

نفس الاسم لأن لهم نفس الانسیرشن

- **Origin:**

Iliacus: ilium of hip bone

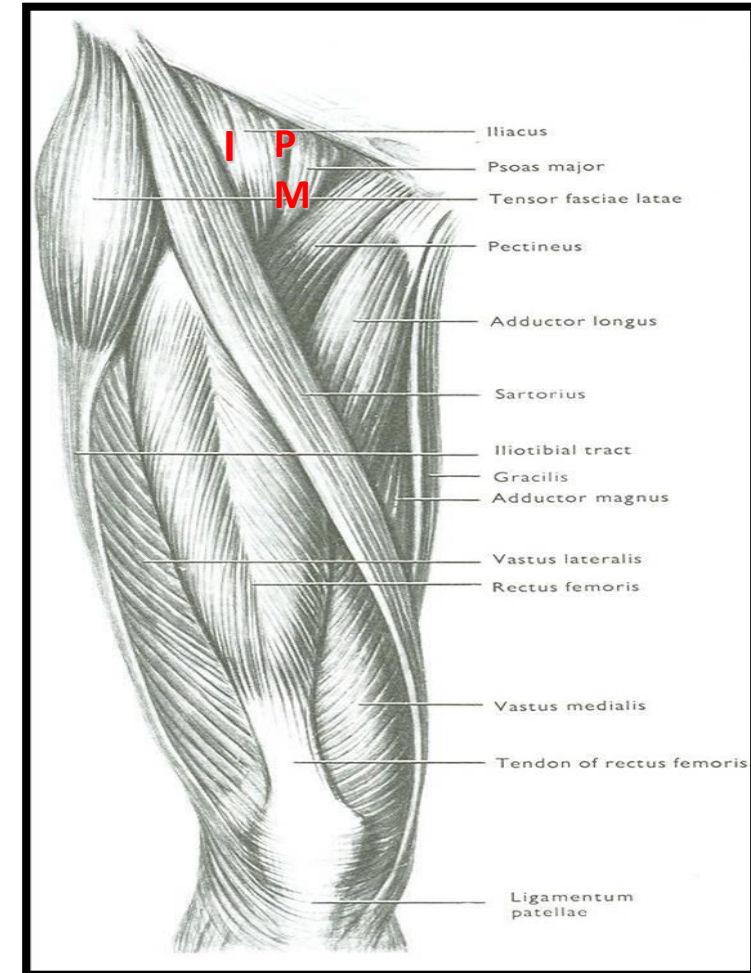
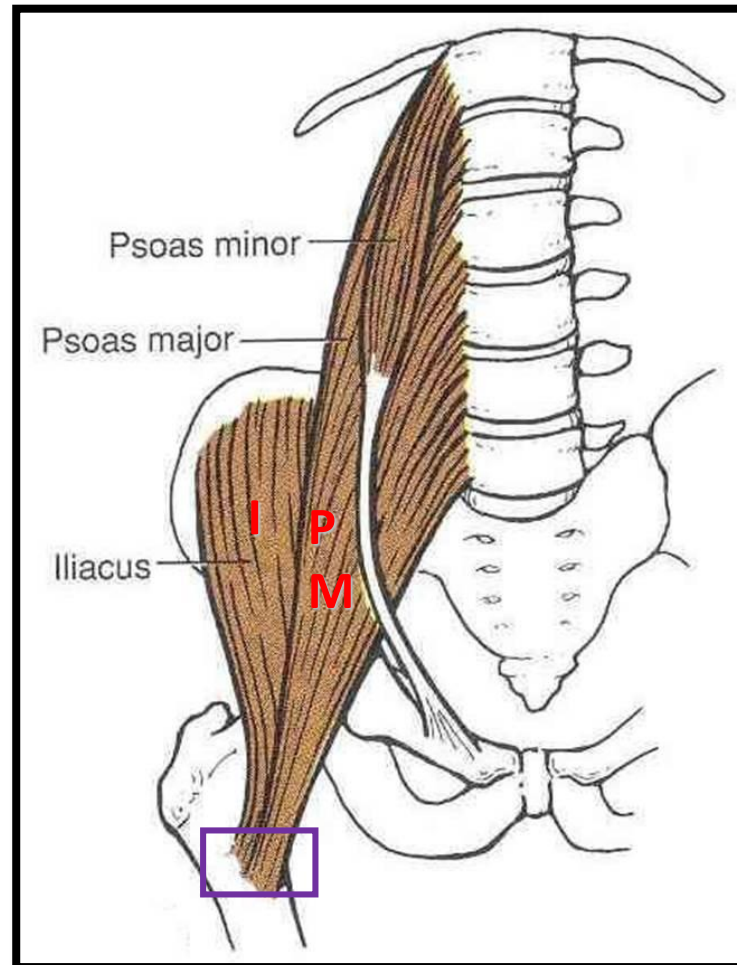
Psoas: transverse process of lumbrical vertebral

- **INSERTION**

Lesser trochanter of femur

- **ACTION**

Flexion of hip joint



Medial Compartment

MUSCLES:

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

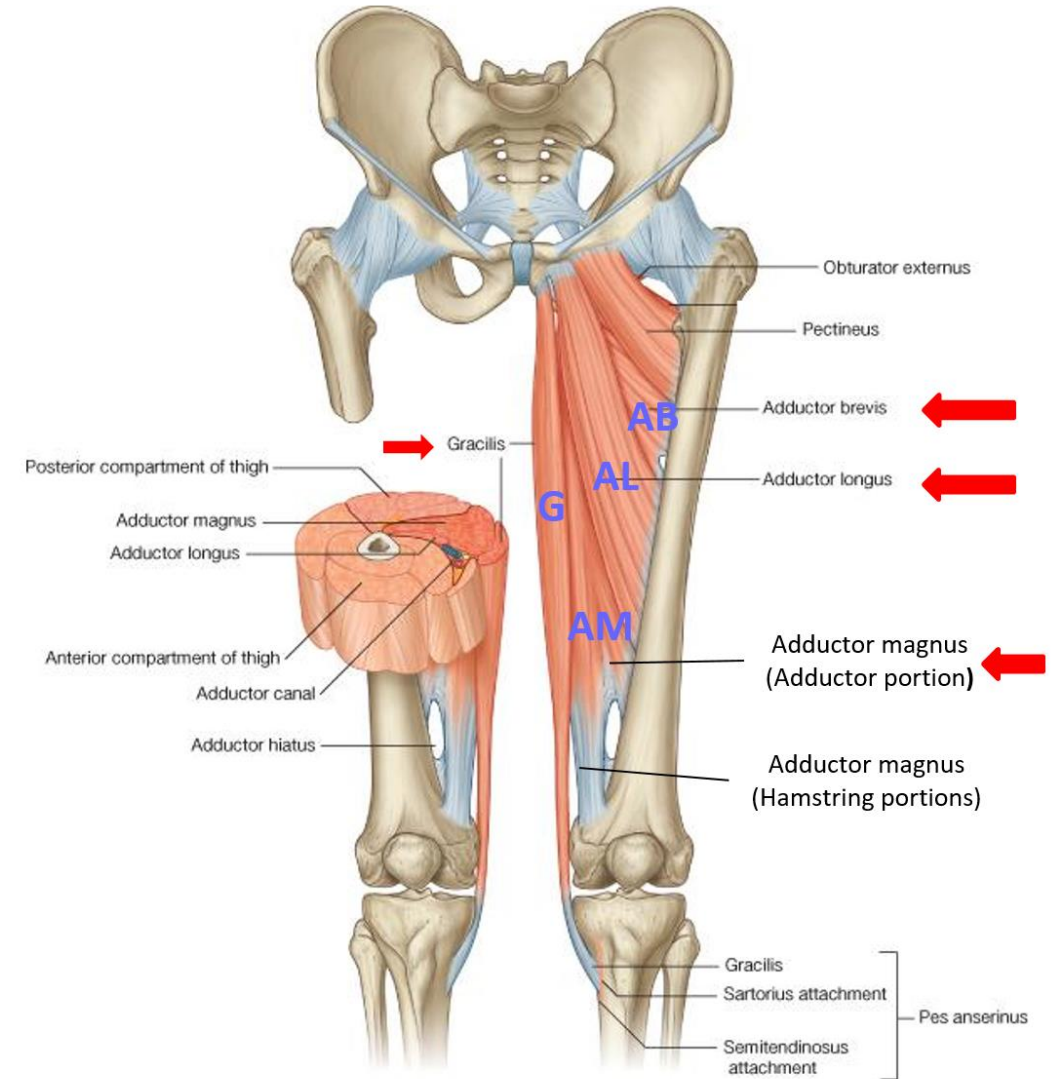
ACTION:

adduction of hip joint

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

Nerve supply:

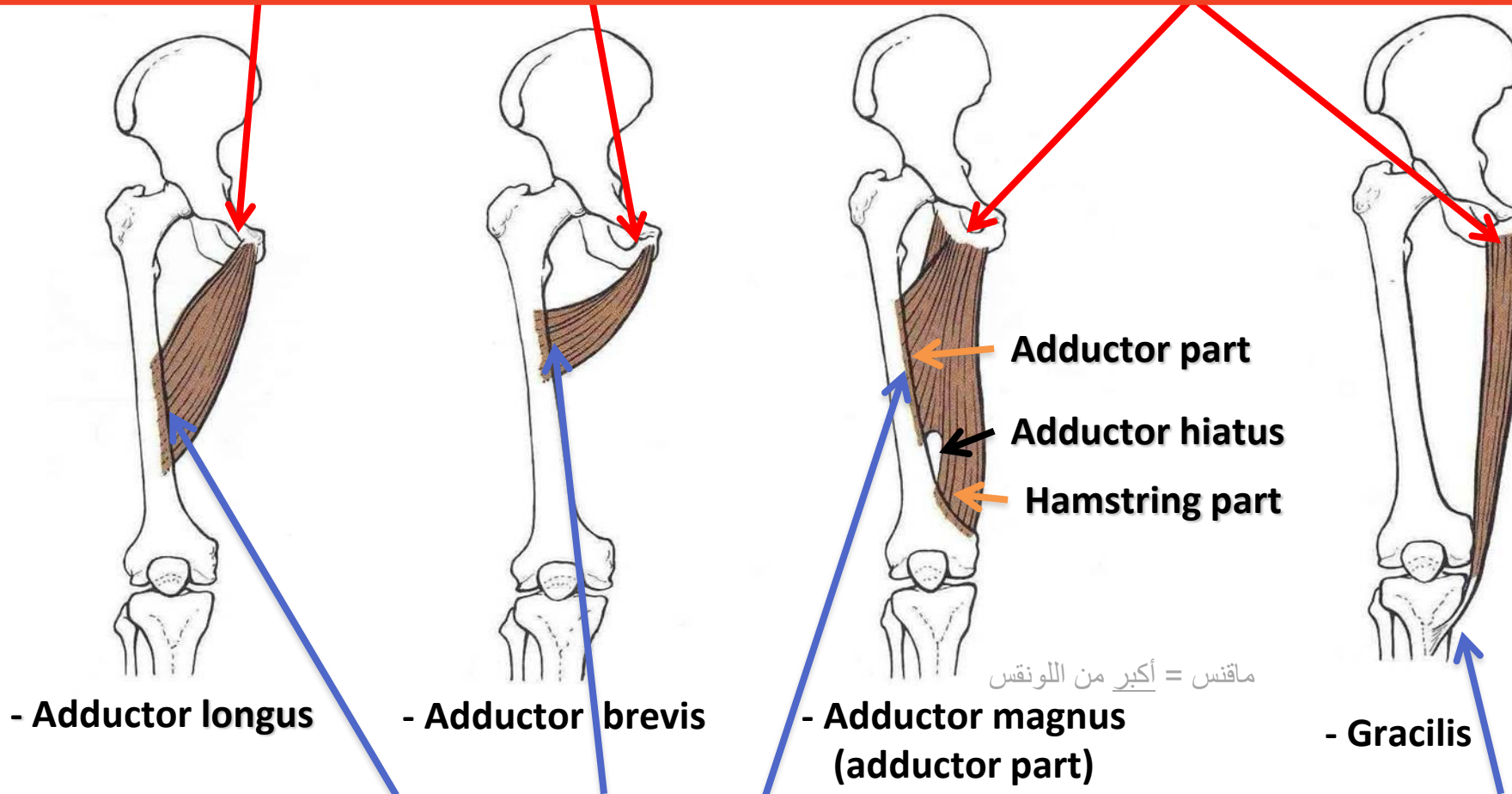
obturator nerve



Medial Compartment

Origin :

- Body of pubis
- Body of pubis
- Inferior pubic ramus
- Inferior pubic ramus
- Inferior pubic ramus
- Ischial ramus.



Insertion :

- Posterior border of femur (Linea Aspera)
- Upper part of medial surface of tibia (behind sartorius)

SGS: same insertion (Upper part of medial surface of tibia)

= same action (flexes knee joint)

S: Sartorius (Anterior compartment)

G: Gracilis (Medial compartment)

S: semitendinous (part of Hamstrings) (Posterior Compartment)

Femoral Triangle

CONTENTS:

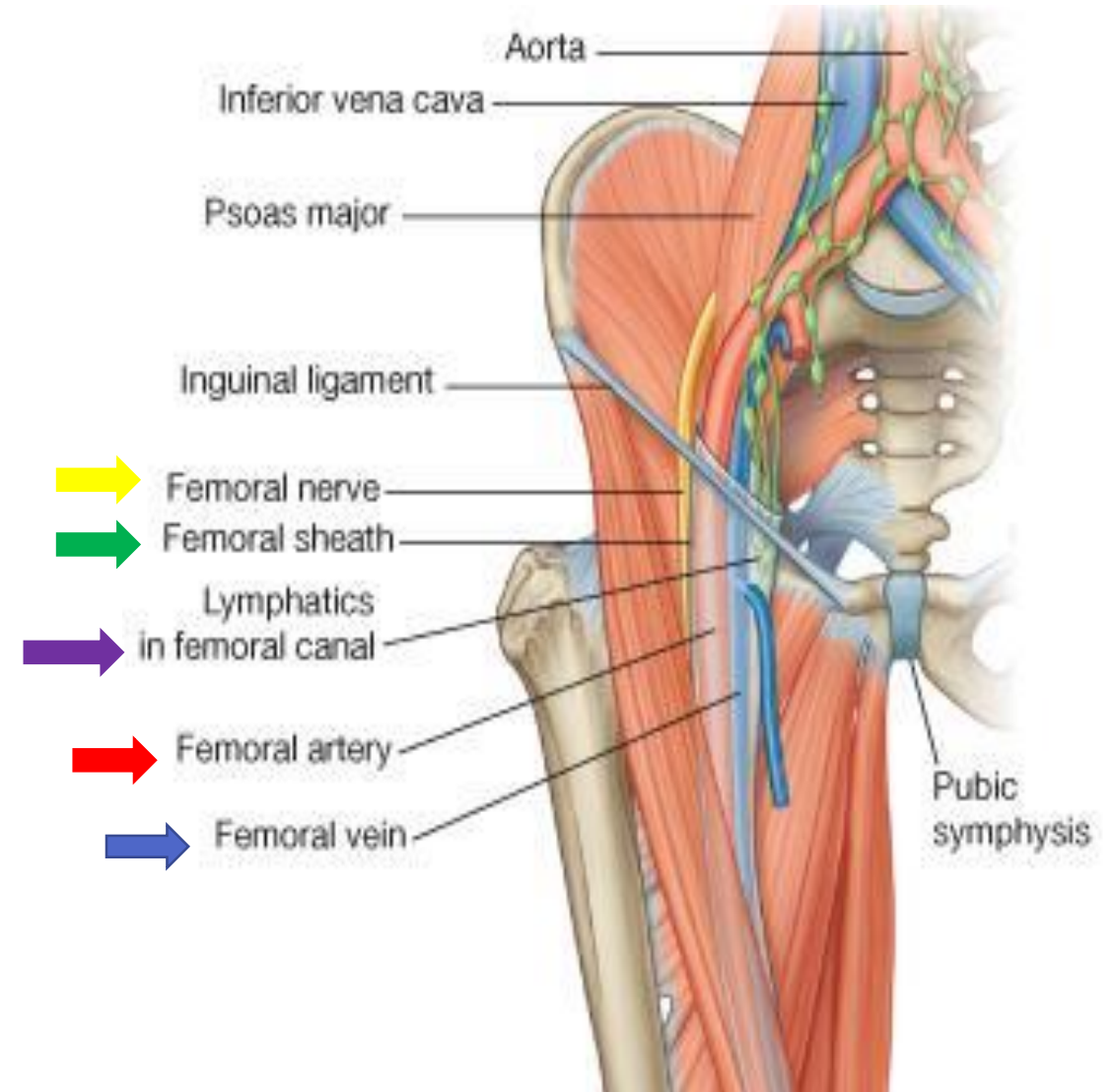
- Femoral vein

- Femoral artery

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

- Femoral nerve (out side femoral sheath) ! مهم

- Deep inguinal lymph nodes

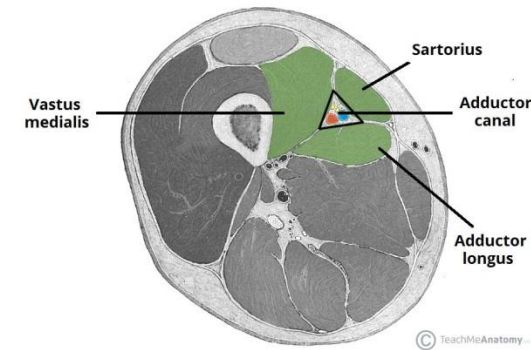


ADDUCTOR CANAL

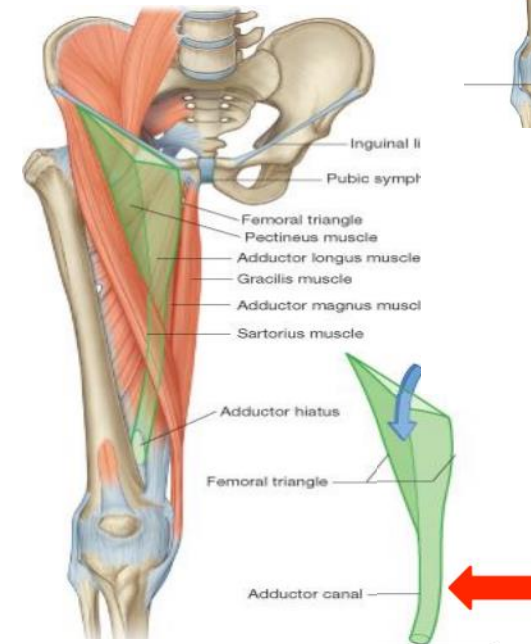
(Subsartorial canal)

اسم آخر لها . لأنها تقع تحت السارتوريل

- **Definition:** intermuscular passage for A **fascial envelope for femoral artery & vein** (+nerve)
- **Other def. :** it is an aponeurotic tunnel of femoral artery & vein
- **Site:** In middle third of front of thigh
- **Extent:** From **apex of femoral triangle** to **adductor hiatus** (in adductor magnus)
- **Boundaries:**
 - *Roof (anterior): Sartorius
 - *Floor (posterior): Adductor longus & magnus



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Summary

Compartments of thigh

Anterior compartment

Nerve supply:
Femoral nerve.

Extensor of the knee:
Quadriceps femoris.

Flexors of the hip:
1. sartorius.
2. Pectineus.
3. Psoas major.
4. Iliacus

Medial compartment

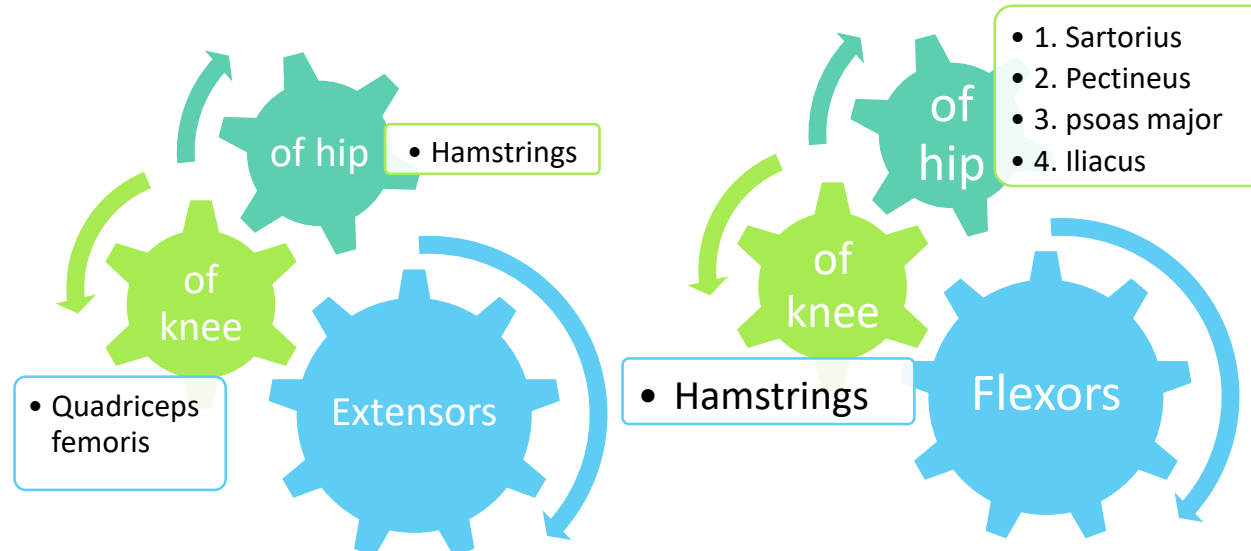
Nerve supply:
obturator nerve

Adductors of the hip:
1. Adductor longus.
2. Adductor brevis.
3. Adductor
magnus
(adductor part)
4. gracilis

Posterior compartment

Nerve supply:
Sciatic nerve.

Flexors of knee & extensors of hip:
hamstrings



Quiz

Q1: Adductor canal is intramuscular passage that contain fascial envelope for:

- A) Femoral artery
- B) Femoral vein
- C) Femoral nerve
- D) All of the above

Q2: Which of the following is not enclosed in a fascial envelope:

- A) Femoral artery and femoral nerve
- B) Femoral vein
- C) Femoral artery and femoral vein
- D) Femoral nerve

Q3: The floor of femoral triangle includes all of the following except:

- A) Adductor longus
- B) Iliopsoas
- C) Psoas major
- D) Iliacus

Q4: The site of femoral triangle is:

- A) Lower third of back of thigh
- B) Upper third of front of thigh
- C) Lower third of front of thigh
- D) Upper third of back of thigh

Q5: Which of the following flexes the knee joint?

- A) Gracialis
- B) Iliopsoas
- C) Adductor longus

Q6: Body of pubis is the origin of:

- A) Abductor longus
- B) Gracialis
- C) Adductor longus

1)D 2)D 3)B 4)B 5)A 6)C

Quiz

Q7:What's the action of Pectineus muscle upon hip joint?

- A)Flexion
- B)Extension
- C)Flexion and adduction
- D)Extension and adduction

Q8:Which muscle of the quadriceps femoris in the anterior compartment can not be seen?

- A)Rectus femoris
- B)Vastus lateralis
- C)Vastus intermedius
- D)Vastus medialis

Q9:Which muscle acts by extending the knee joint?

- A)Sartorius
- B)Hamstrings
- C)Gracialis
- D)Vastus medialis

Q10:What is the insertion of the quadriceps femoris?

- A)Into the patella
- B)Into the tuberosity of the tibia through ligamentum patella
- C)Both a and b
- D)None of the above



Leaders:

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جواهر أبانمي
غادة المزروع

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