


Medial Compartment of Thigh (Adductor Compartment)

Overview

The medial compartment of the thigh primarily contains adductor muscles responsible for bringing the thigh toward the midline.

Key Exam Point

 Main function = Adduction of thigh

 Main nerve = Obturator nerve (L2-L4)

Muscles of Medial Compartment

List of Muscles


- Adductor longus
 - Adductor brevis
 - Adductor magnus
 - Gracilis
 - Obturator externus
 - Pectineus (*partly medial & anterior compartment*)
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Muscle Summary Table

Muscle	Origin	Insertion	Action	Nerve Supply
Adductor longus	Body of pubis	Linea aspera	Adduction, medial rotation	Obturator

Adductor brevis	Inferior pubic ramus	Linea aspera	Adduction	Obturator
Adductor magnus	Ischiopubic ramus + ischial tuberosity	Linea aspera + adductor tubercle	Adduction	★ Obturator + Tibial part of sciatic
Gracilis	Pubic symphysis + inferior pubic ramus	Medial tibia (Pes anserinus)	Adduction, flexion of leg	Obturator
Obturator externus	Obturator membrane + surrounding bone	Greater trochanter	Lateral rotation	Obturator
Pectineus	Superior pubic ramus	Pectineal line	Adduction, flexion	Femoral ± Obturator

 Important Concept: Dual Innervation of Adductor Magnus

Adductor magnus → two parts:

- Adductor magnus → Adductor part → Innervation: Obturator nerve
 - Hamstring part → Innervation: Tibial division of sciatic nerve
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Nerve Supply

Obturator Nerve (L2-L4)

- Branch of lumbar plexus
- Emerges medial to psoas major
- Passes through obturator canal
- Divides into:
 - Anterior division
 - Posterior division

Course & Branches of Obturator Nerve

Obturator nerve (L2-L4) → Emerges medial to psoas major → Runs along lateral pelvic wall → Enters obturator canal → Divides into:

i. Anterior division → Lies between adductor longus & brevis

→ Supplies: Adductor longus + Adductor brevis + Gracilis

→ Cutaneous branch → medial thigh

→ Articular branch → hip joint

ii. Posterior division → Pierces obturator externus →

Lies between adductor brevis & magnus → Supplies:

Obturator externus + Adductor magnus (adductor part)

→ Ends in knee joint (articular branch)

Blood Supply


Main Arteries

- Profunda femoris artery
 - Obturator artery
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Profunda Femoris Artery

Femoral artery → Gives profunda femoris (deep artery of thigh) → Descends between adductor longus & brevis

→ Gives branches:

i. Medial circumflex femoral artery → Supplies head & neck of femur  → Part of cruciate anastomosis

ii. Lateral circumflex femoral artery → Supplies lateral thigh → Part of cruciate anastomosis

iii. Perforating arteries (4) → Supply posterior & medial compartments

Obturator Artery

Internal iliac artery → Obturator artery → Runs along lateral pelvic wall → Enters obturator canal with nerve
→ Divides into:

- Anterior branch
 - Posterior branch
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Venous Drainage

- Profunda femoris vein
 - Obturator vein
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Key Anatomical Landmark: Pes Anserinus

Components:

- Sartorius
- Gracilis
- Semitendinosus

 Gracilis (medial compartment muscle) inserts here

Clinical Correlation

Obturator Nerve Injury

Causes:

- Pelvic surgery
- Obturator hernia

Effects:

- Loss of thigh adduction ✖
 - Sensory loss over medial thigh
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★ Revision Points

- Medial compartment = Adductors
 - Nerve = Obturator (L2-L4)
 - Exception:
 - Pectineus → Femoral nerve
 - Adductor magnus (hamstring part) → Sciatic nerve
 - Blood supply = Profunda femoris + Obturator artery
 - Obturator nerve divides in canal → anterior & posterior branches
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-> The End <-