# 🦵 Posterior Compartment of Thigh (Hamstring Compartment)

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## 📌 Overview

The posterior thigh contains the hamstring muscles, mainly responsible for:

- Hip extension
- Knee flexion

## ⭐ Key Exam Point

👉 Nerve supply = Sciatic nerve (mainly tibial division)

👉 Blood supply = Profunda femoris artery

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# 🧠 Skin & Cutaneous Innervation

## 📌 Posterior Femoral Cutaneous Nerve

- Branch of sacral plexus
- Emerges below gluteus maximus
- Descends along posterior thigh
- Pierces deep fascia in popliteal fossa

## 🔄 Course Flowchart

Posterior femoral cutaneous nerve → Exits gluteal region (below gluteus maximus) → Descends along back of thigh → Gives cutaneous branches → Pierces deep fascia at popliteal fossa → Supplies skin of:

- Posterior thigh
- Upper leg

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# 💪 Muscles of Posterior Compartment

## 📋 Hamstring Muscles

- Semitendinosus
- Semimembranosus
- Biceps femoris (long head)
- Hamstring part of adductor magnus

👉 Exception:

- Short head of biceps femoris (NOT a true hamstring)

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## 🧾 Criteria for True Hamstrings ⭐

A muscle is a true hamstring if it:

- Originates from ischial tuberosity
- Supplied by tibial division of sciatic nerve
- Acts on hip & knee joints

## 📊 Muscle Summary Table

| Muscle | Origin | Insertion | Action | Nerve |
|---|---|---|---|---|
| Semitendinosus | Ischial tuberosity | Medial tibia (Pes anserinus) | Extend hip, flex knee | Tibial |
| Semimembranosus | Ischial tuberosity | Medial tibial condyle | Extend hip, flex knee, medial rotation | Tibial |
| Biceps femoris (long head) | Ischial tuberosity | Head of fibula | Flex knee, lateral rotation | Tibial |
| Biceps femoris (short head) | Linea aspera | Head of fibula | Flex knee | Common fibular |

| | | | | |
|---|---|---|---|---|
| Adductor magnus (hamstring part) | Ischial tuberosity | Adductor tubercle | Extend hip | Tibial |

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## 🦢 Pes Anserinus (Important Attachment)

### 📌 Components:

- Sartorius
- Gracilis
- Semitendinosus

👉 Seen on anteromedial tibia

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## 🔌 Nerve Supply

### 📌 Sciatic Nerve (L4–S3)

## 🔄 Course Flowchart

Sciatic nerve → Leaves pelvis via greater sciatic foramen (below piriformis) → Enters gluteal region → Passes between:

- Greater trochanter
- Ischial tuberosity

→ Descends in posterior thigh → Divides (mid-thigh) into:

- Tibial nerve
- Common fibular (peroneal) nerve

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## 📌 Branches of Sciatic Nerve

## 🔄 Functional Flowchart

Sciatic nerve

i. Tibial division → Supplies:

- Hamstrings
- Posterior leg muscles
- Sole of foot

ii. Common fibular division → Supplies:

- Anterior leg (dorsiflexors)
- Lateral leg (evertors)

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## 🩸 Blood Supply

📌 Main Source:

- Profunda femoris artery

🔄 Flowchart

Femoral artery → Profunda femoris → Perforating branches → Supply posterior thigh muscles

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# 🦵 Popliteal Fossa

## 📌 Definition

👉 Diamond-shaped space at the back of the knee

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## 🔷 Boundaries

| Boundary | Structures |
| --- | --- |
| Superolateral | Biceps femoris |
| Superomedial | Semimembranosus & semitendinosus |
| Inferolateral | Lateral head of gastrocnemius + plantaris |
| Inferomedial | Medial head of gastrocnemius |

| | |
|---|---|
| Floor | Femur + popliteus + knee capsule |
| Roof | Skin + fascia |

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## 📦 Contents

- Popliteal artery
- Popliteal vein
- Tibial nerve
- Common fibular nerve
- Small saphenous vein
- Popliteal lymph nodes

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## 🔄 Arrangement (Superficial → Deep) ⭐

Tibial nerve → Popliteal vein → Popliteal artery

👉 Mnemonic: N-V-A (from superficial to deep)

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## 🦶 Tibial Nerve

### 📌 Course

Tibial nerve → Descends through popliteal fossa → Enters posterior leg → Runs with posterior tibial vessels → Passes behind medial malleolus → Enters sole of foot → Divides into:

i. Medial plantar nerve

ii. Lateral plantar nerve

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## 🧠 Clinical Correlations 🩺

### 🚨 Sciatic Nerve Injury

Causes:

- Improper gluteal injection
- Hip dislocation

Effects:

- Loss of knee flexion ❌
- Weak hip extension
- Foot drop (if common fibular affected)

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## 🚨 Popliteal Aneurysm

- Affects popliteal artery
- Can compress:
    - Tibial nerve → pain
    - Vein → edema

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## ⭐ Revision Points

- Posterior compartment = Hamstrings
- Main nerve = Sciatic nerve
- True hamstrings:
    - From ischial tuberosity
    - Supplied by tibial nerve
- Exception:
    - Short head of biceps → common fibular
- Popliteal fossa order = N → V → A
- Blood supply = Profunda femoris

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-> The End <-