

# **SNS COLLEGE OF PHYSIOTHERAPY**

**Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai  
Coimbatore- 641035**

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**COURSE NAME :ANATOMY**

**SUBJECT CODE : 6273**

**TOPIC:ARTHROLOGY OF HIPJOINT**

# DEFINE

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## Key Challenges Identified:

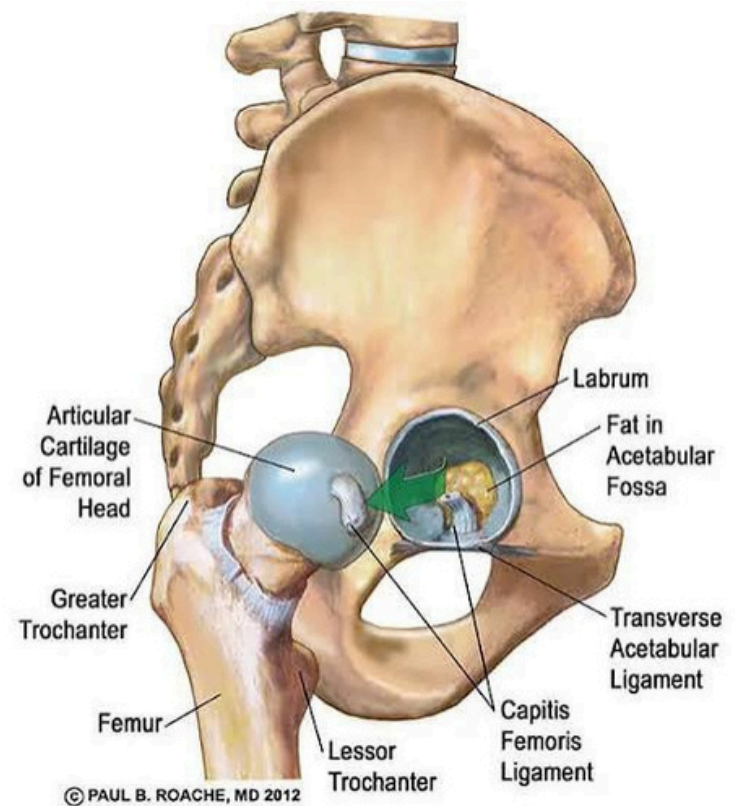
- Complex relationship between structure and function
- Difficulty in understanding range of motion and limiting factors
- Lack of clarity in clinical correlations, such as trendelenburg gait
- Need for a functional and clinically oriented approach



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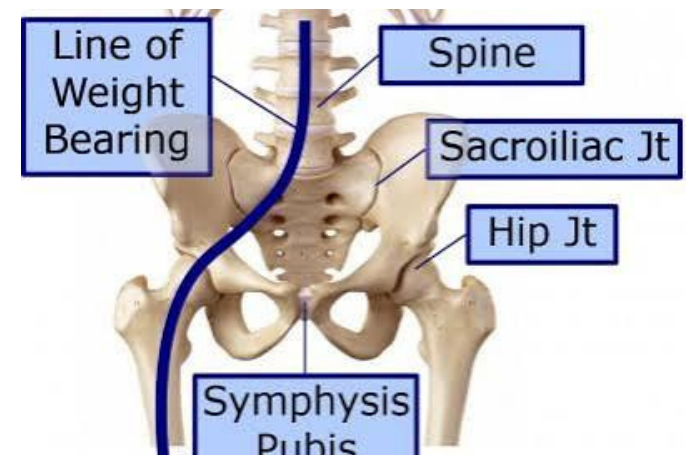
# IDEATE

- Use functional anatomy-based learning Teach hip joint through: Gait cycle analysis Movement demonstration
- Clinical case scenarios Integrate: Diagrams showing force transmission Videos of normal vs abnormal gait Apply knowledge directly to physiotherapy assessment and rehabilitation



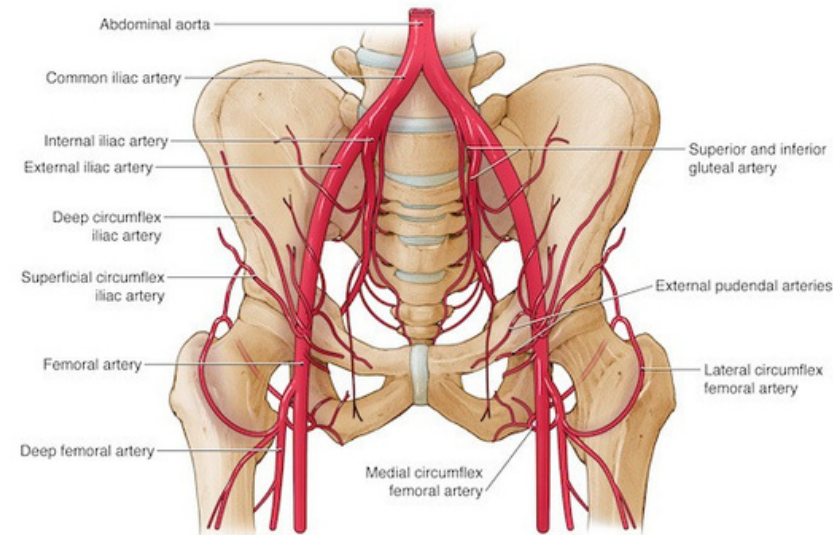
# EMPATHIZE

- Hip joint disorders significantly affect walking, sitting, and daily activities  
Patients experience: Pain during movement Limping and reduced mobility
- Difficulty in weight bearing Students find it difficult to: Understand weight transmission Relate joint anatomy to gait deviations Correlate nerve supply with referred pain



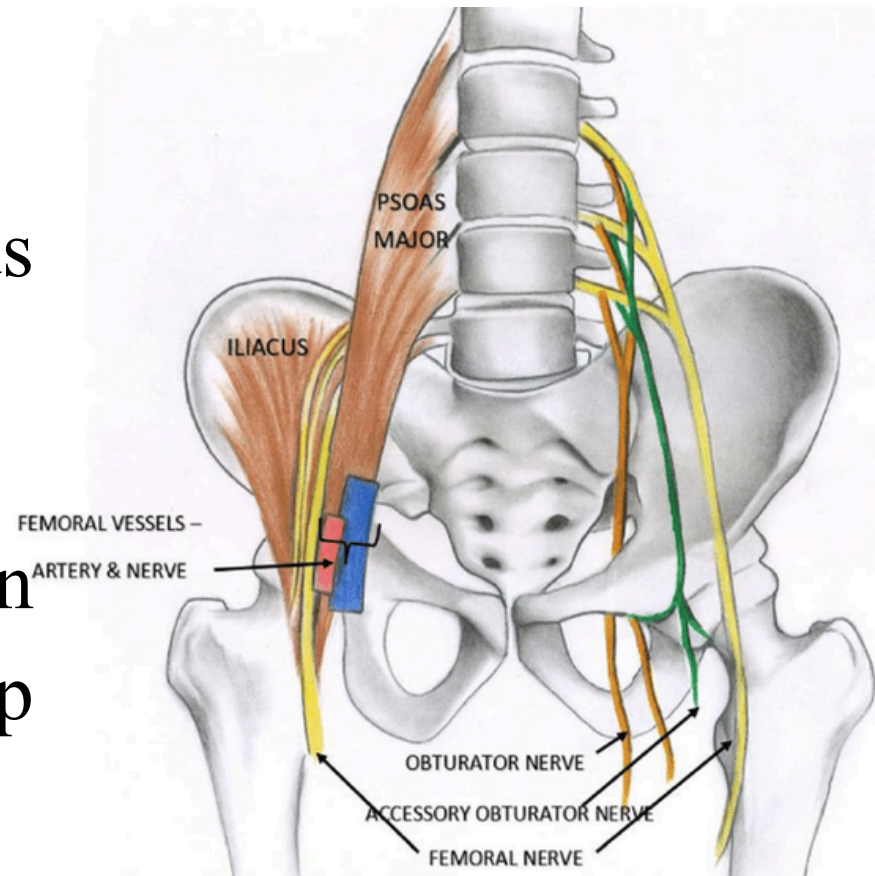
# BLOOD SUPPLY

- Medial circumflex femoral artery (major supply)
- Lateral circumflex femoral artery
- Acetabular branch of obturator artery
- Injury to blood supply → avascular necrosis of femoral head



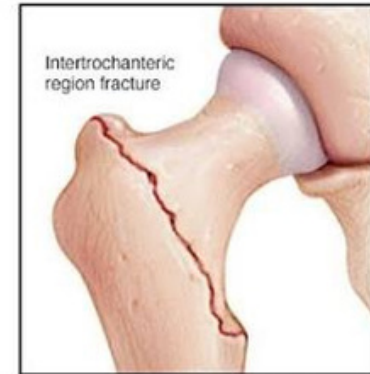
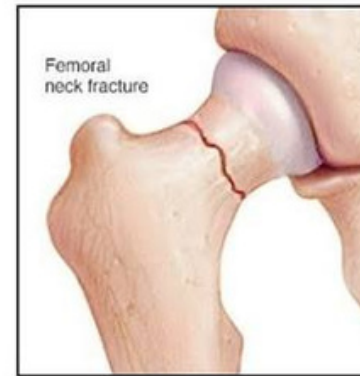
# NERVE SUPPLY

- Femoral nerve
- Obturator nerve
- Nerve to quadratus femoris
- Superior gluteal nerve
- Explains referred pain to knee in hip pathology



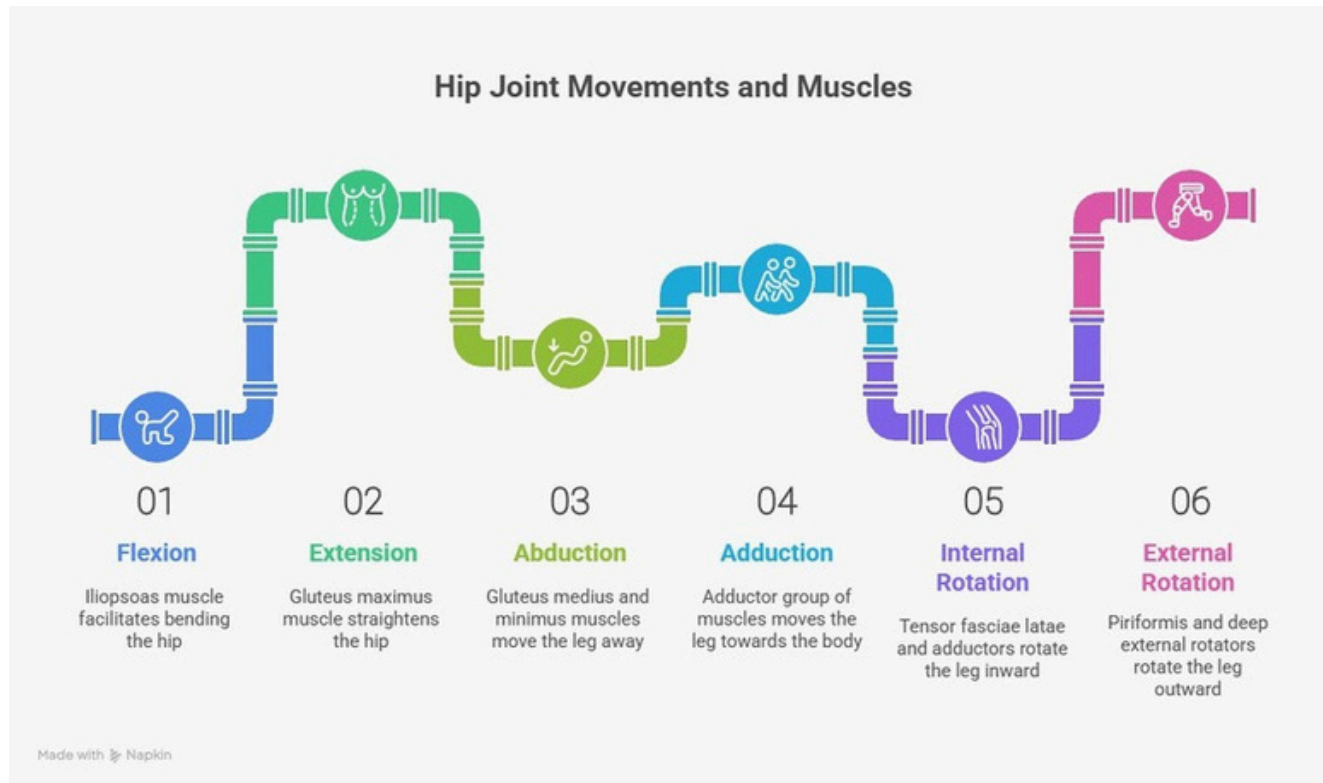
# APPLIED ANATOMY

- Common clinical conditions:
- Congenital dislocation of hip  
Osteoarthritis
- Fracture neck of femur
- Arthrology knowledge is essential for: Orthopaedic assessment    Physiotherapy  
rehabilitation    Gait correction



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# FLOW CHART



# In class assessment

1. List the range of movements at the hip joint and mention one limiting factor for each.
2. Explain weight transmission through the hip joint in erect posture.
3. Describe the role of hip joint in gait. What is
4. Trendelenburg gait? Mention its cause.
5. Write the applied anatomy of the hip joint (any two conditions).

# In class assessment

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6. Define the hip joint and mention its functional importance.
7. Describe the acetabular labrum and state its role in hip joint stability.
8. Write a short note on the synovial membrane of the hip joint.
9. Enumerate the blood supply of the hip joint and mention its clinical significance.
10. Describe the nerve supply of the hip joint and explain referred pain.

# Thank you

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