

# **POPLITEAL FOSSA**

**DR NAJMA ATTAULLAH**  
**LECTURER KGMC**

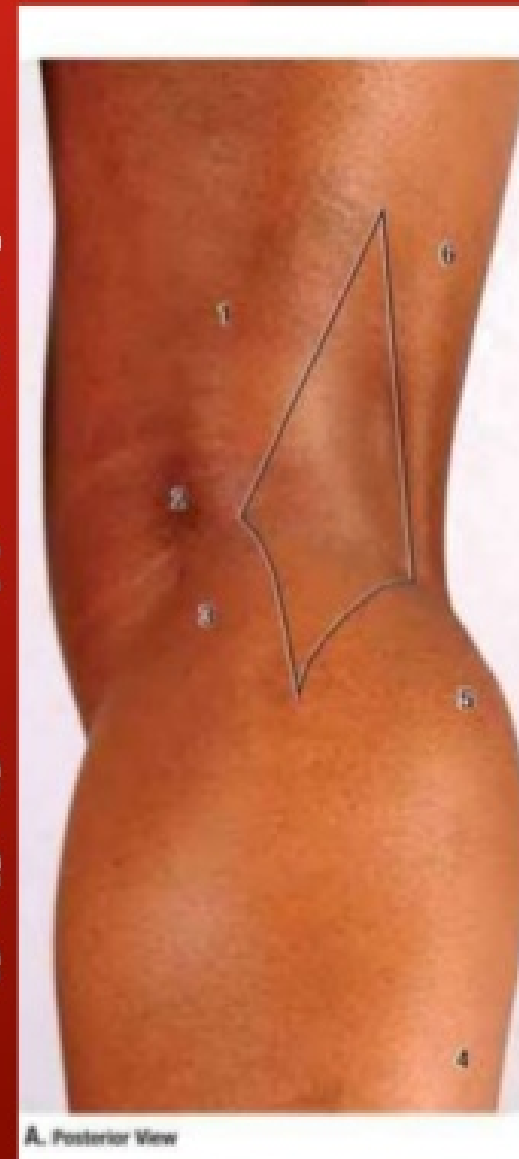
# Popliteal fossa

## Definition

- The popliteal fossa is a diamond-shaped intermuscular space situated at the back of the knee.

The fossa is most prominent when the knee joint is flexed.

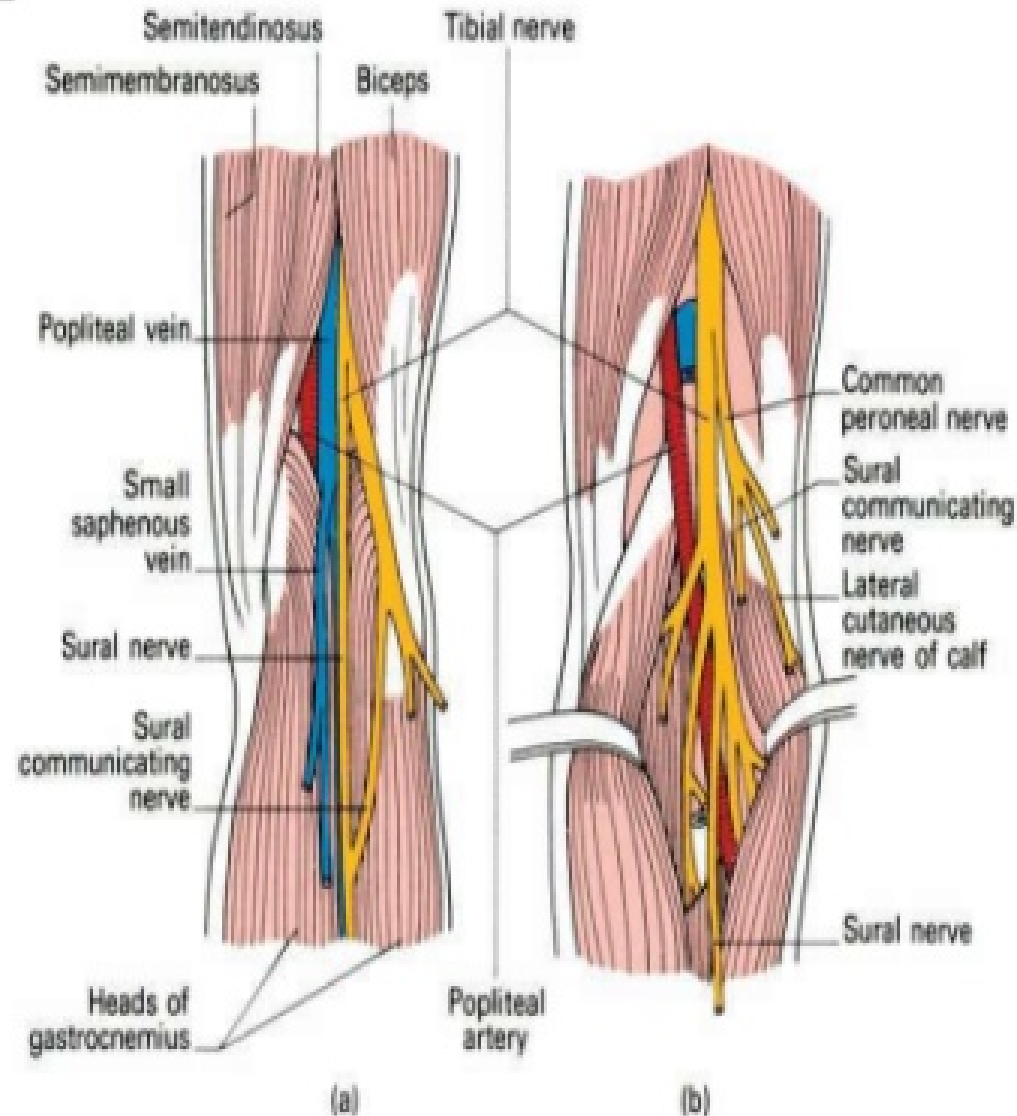
The cutaneous nerve supply of the skin over the popliteal fossa is the Posterior Cutaneous Nerve of the Thigh



A. Posterior View

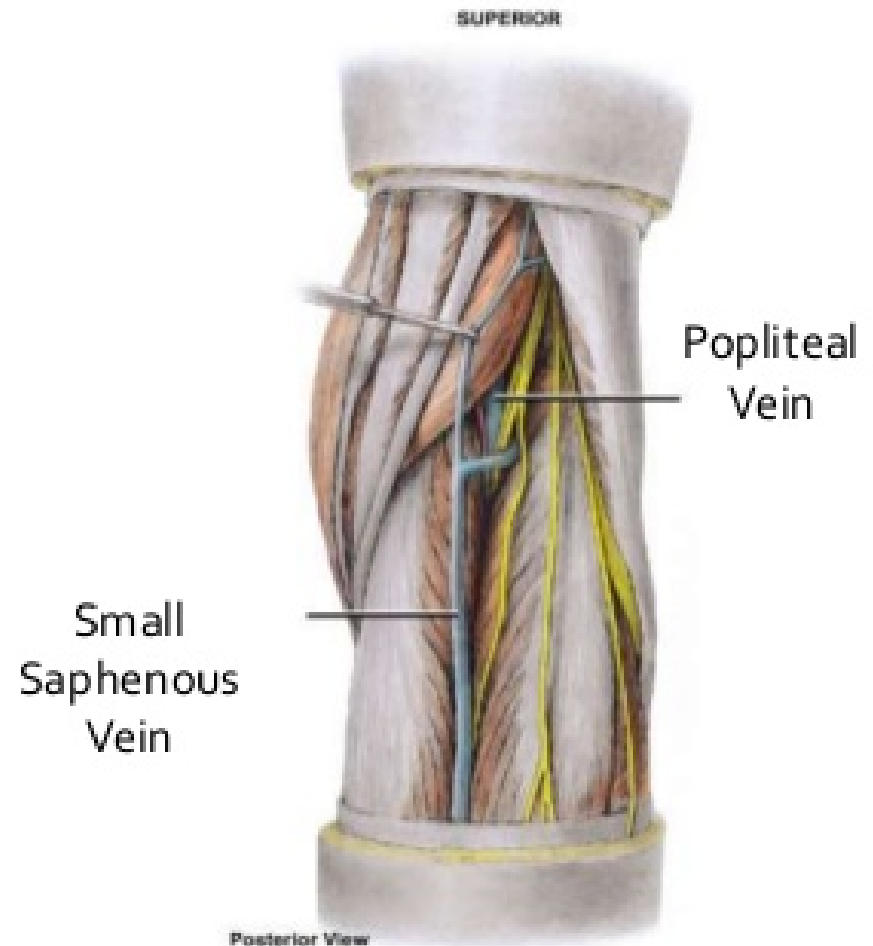
# Boundaries

- Superolaterally — biceps tendon
- Superomedially — semimembranosus reinforced by semitendinosus
- Inferomedially and Inferolaterally — the medial and lateral heads of gastrocnemius.



# Roof

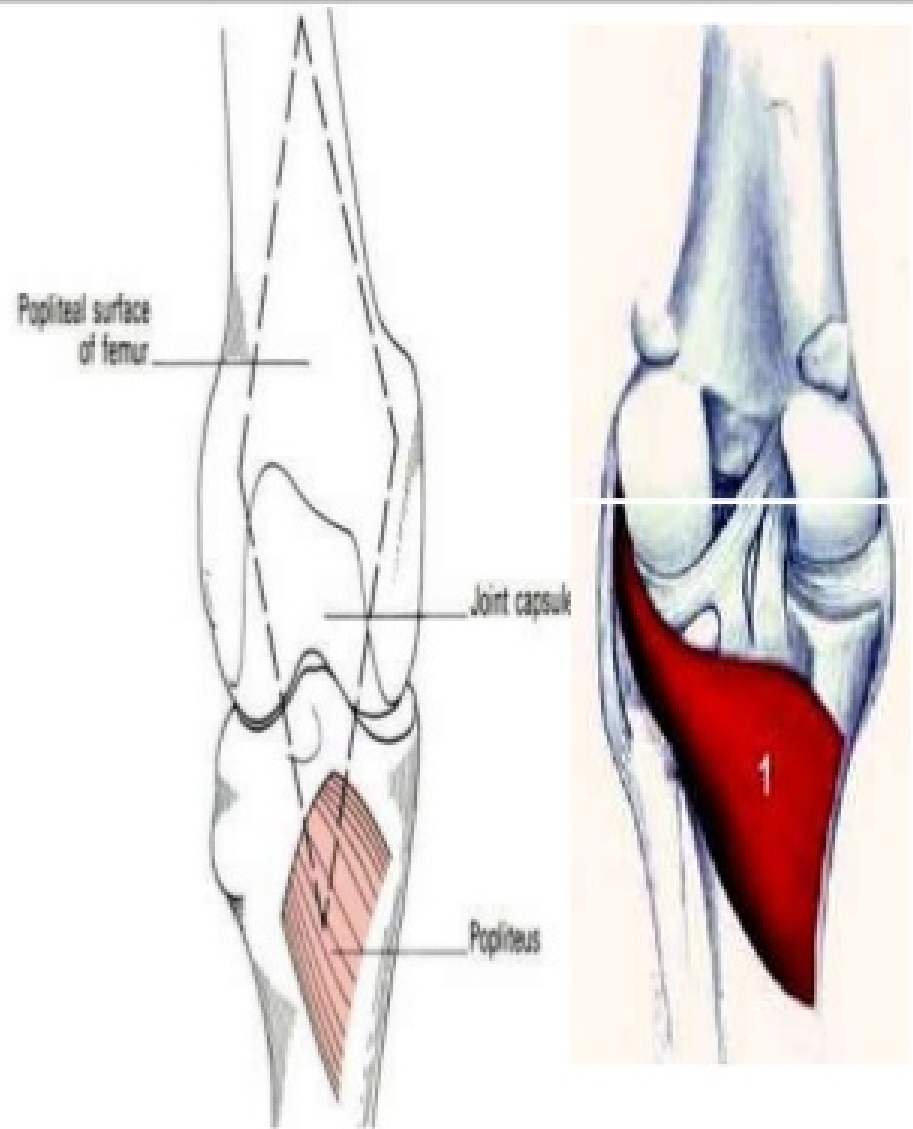
Fascia lata which is pierced by the *short saphenous vein* as this enters the popliteal vein & *posterior femoral cutaneous nerve*.



# Floor

From above down is formed by:

1. Popliteal surface of the femur
2. Capsule of the knee joint
3. Oblique popliteal ligament
4. Popliteus muscle covering the upper posterior surface of the tibia.



Semitendinosus

Semimembranosus

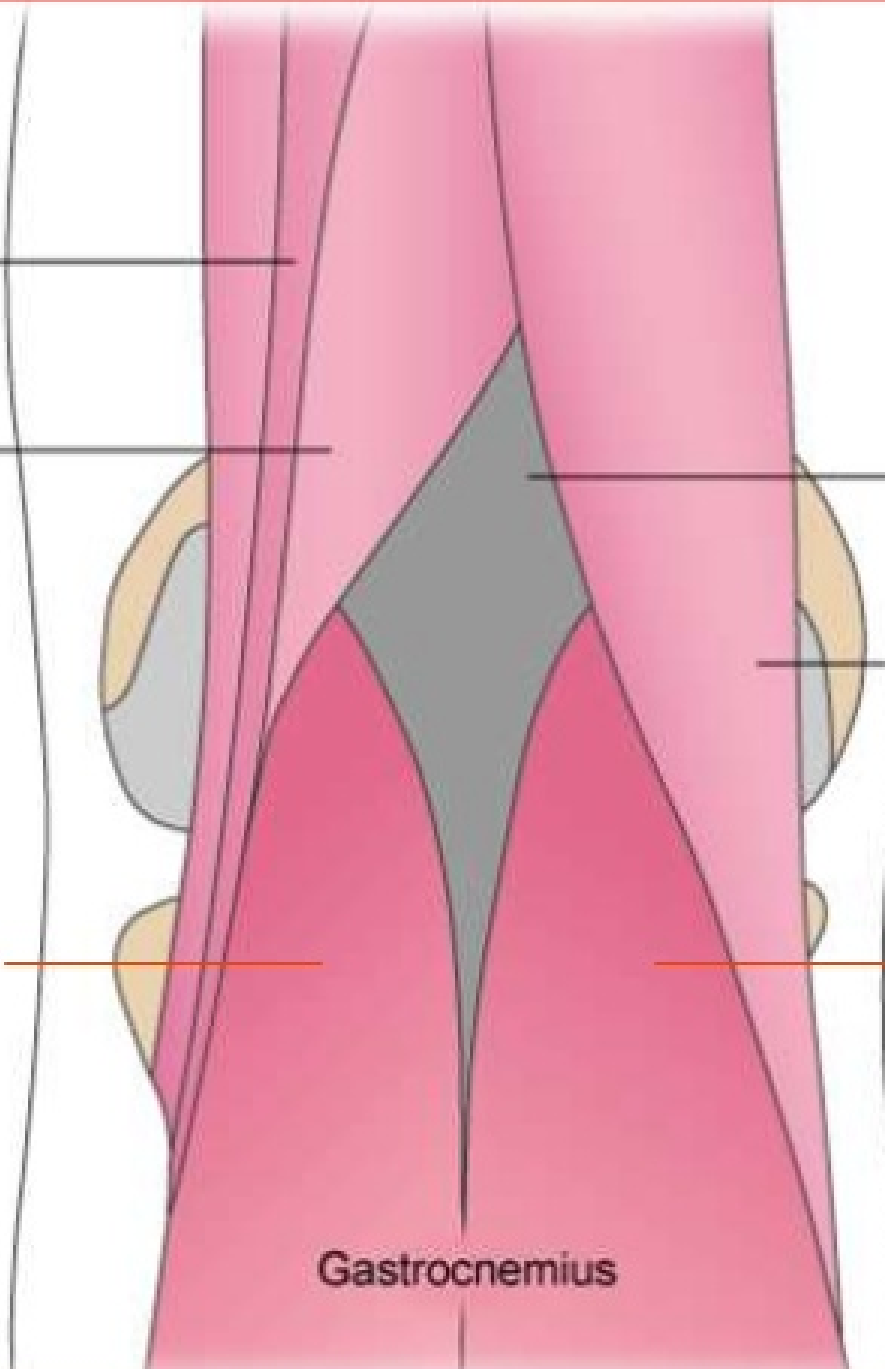
Popliteal fossa

Biceps femoris

Medial head

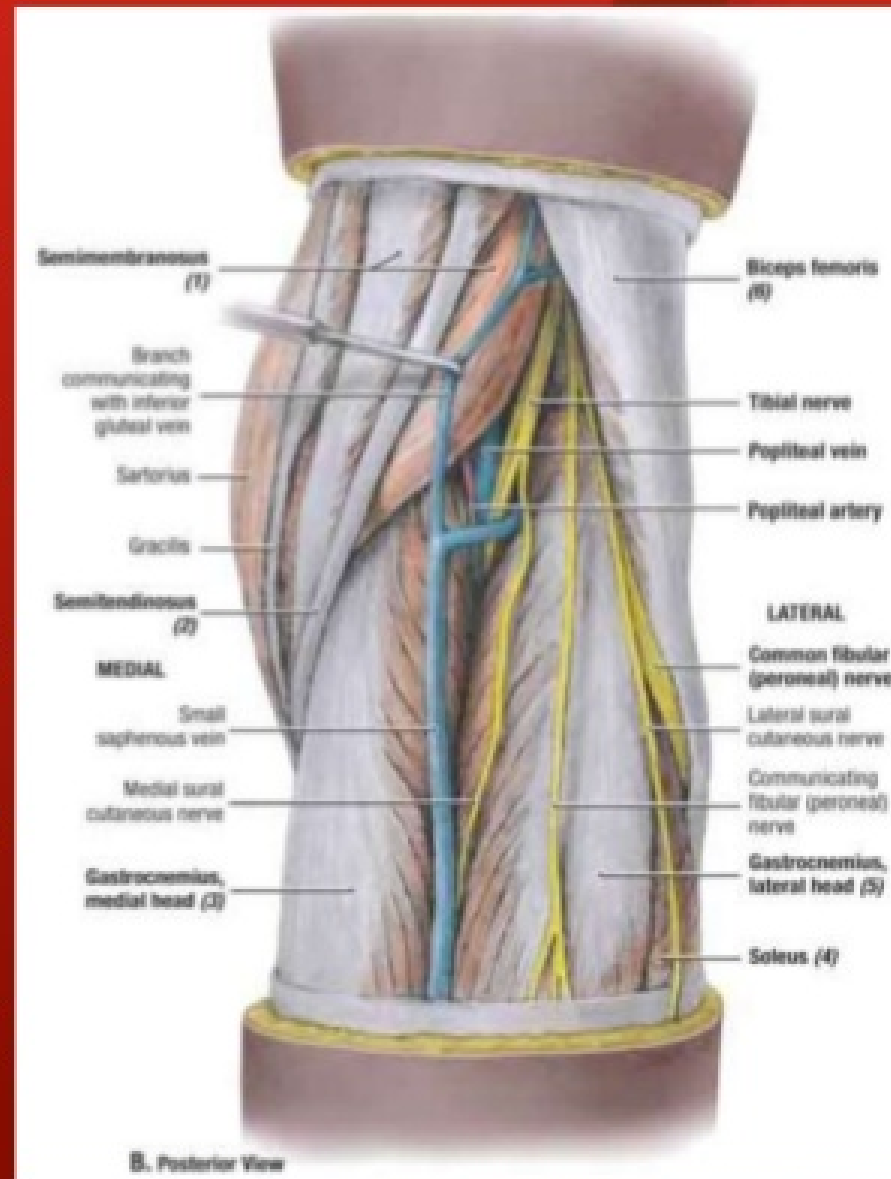
Lateral head

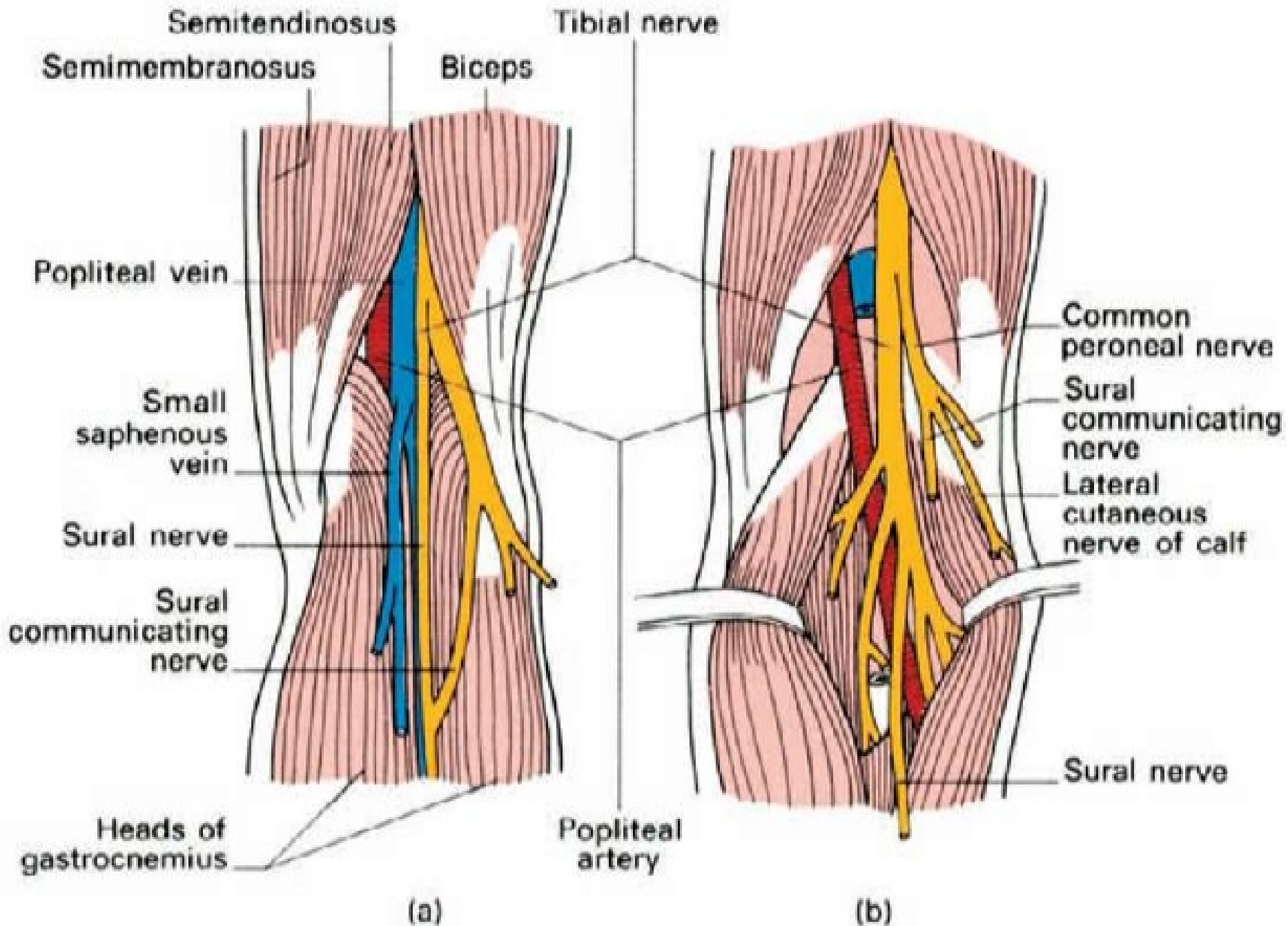
Gastrocnemius



# Contents of Popliteal Fossa

- The popliteal artery and popliteal vein
- The small saphenous vein,
- The common peroneal and tibial nerves
- The posterior cutaneous nerve of the thigh,
- The genicular branch of the obturator nerve
- Connective tissue, and lymph nodes.







# Popliteal Muscle

## Origin :

- By a tendon from anterior end of popliteal groove on lateral femoral condyle.
- Its tendon passes under lateral collateral ligament of knee



# Popliteal Muscle

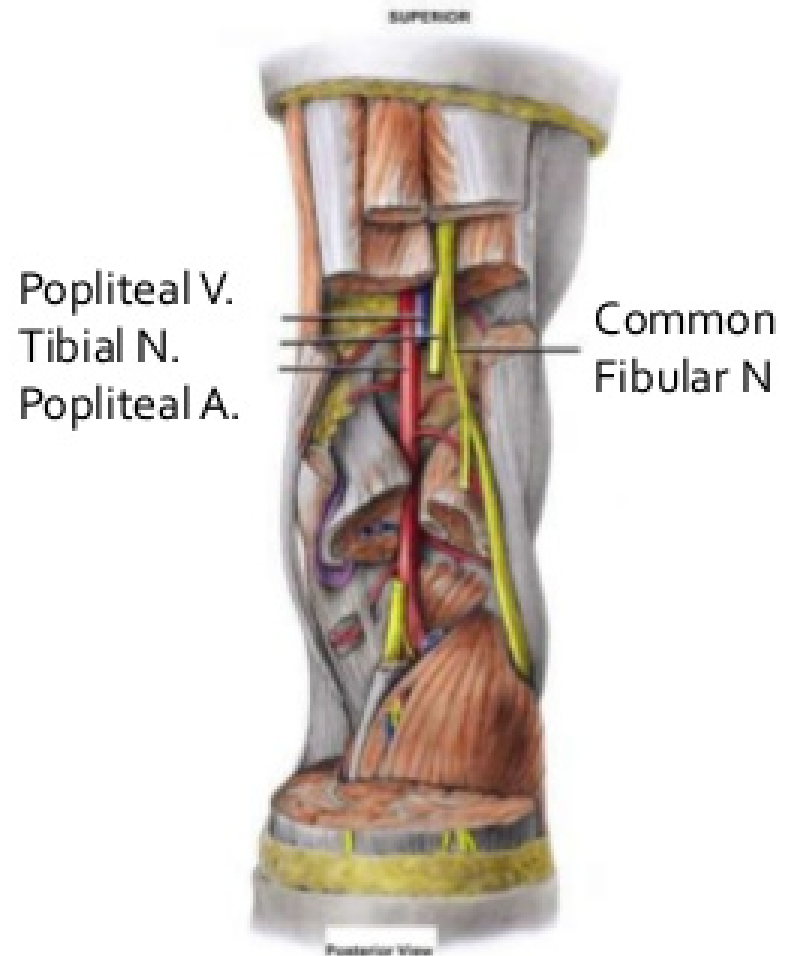
## Insertion :

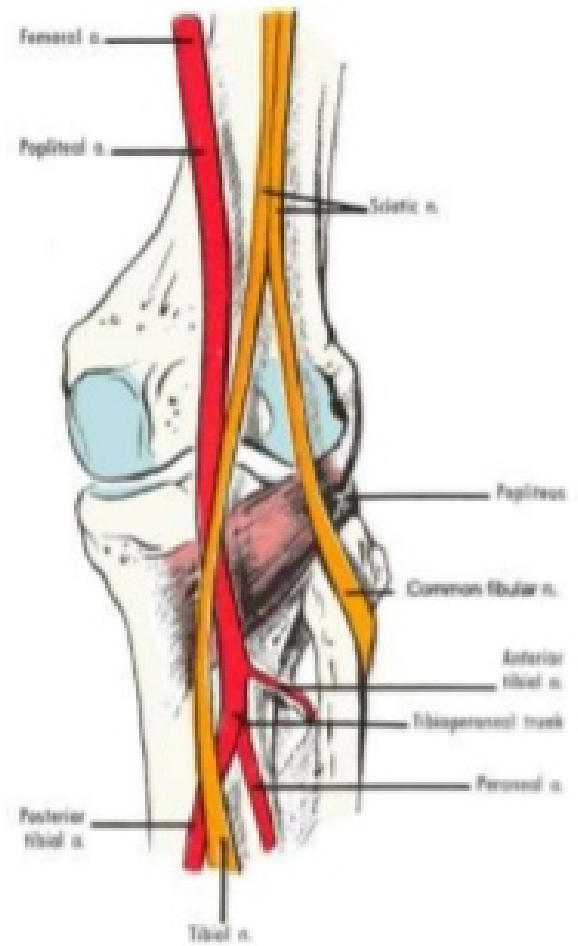
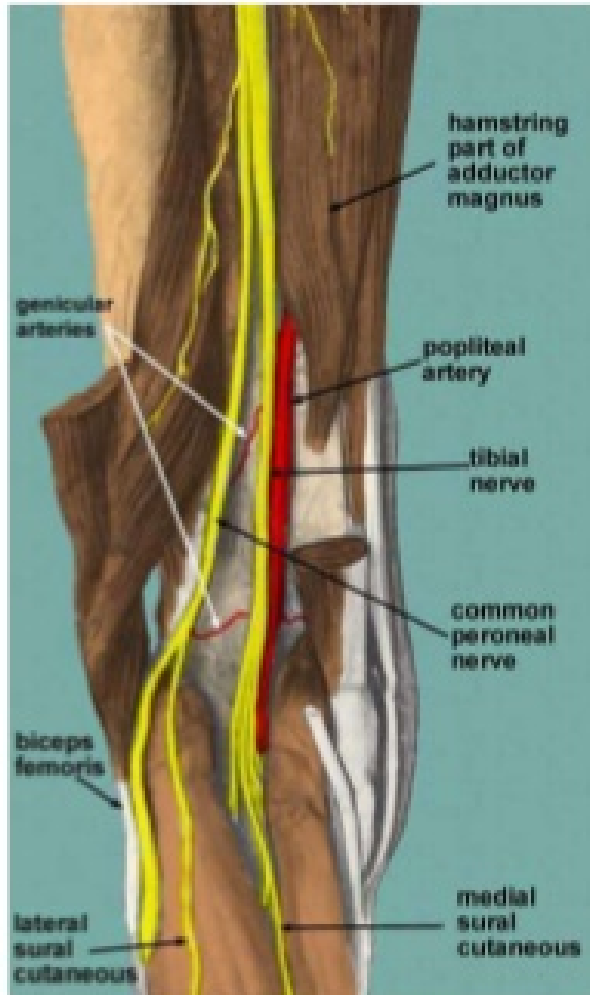
- Tendon passes within the knee capsule under arcuate popliteal lig.
- Into a triangular area on the posterior surface of the tibia above the soleal line.
- Knee capsule
- Lateral meniscus



# Contents

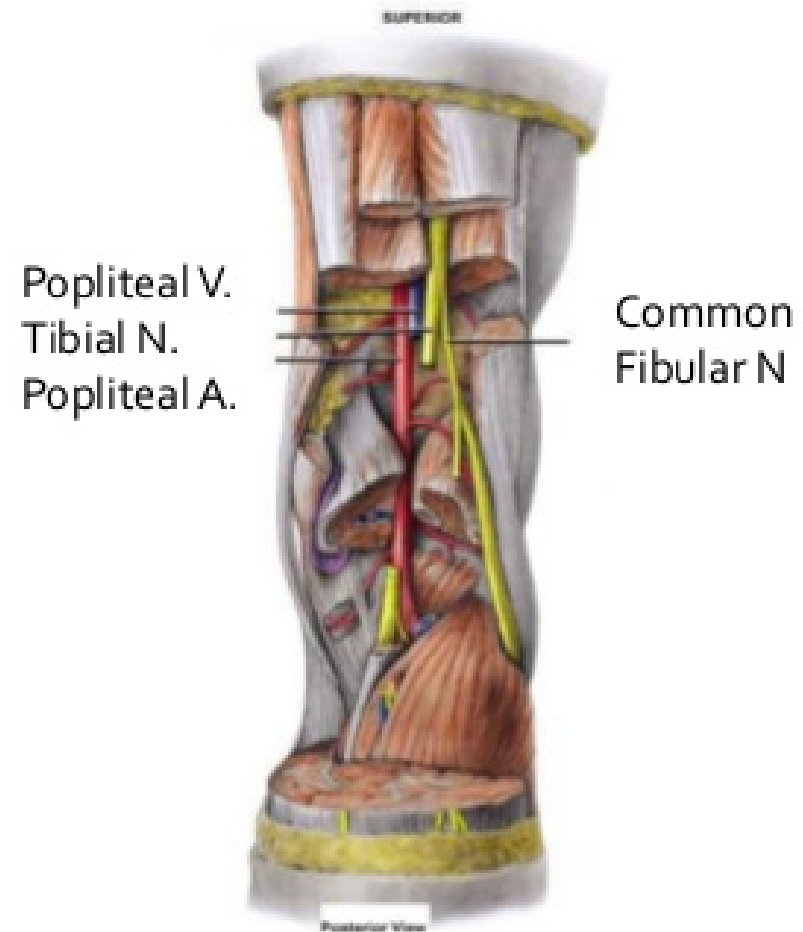
1. The *common peroneal nerve* passes out of the fossa along the medial border of the biceps tendon
2. The *tibial nerve* is first lateral to the popliteal vessels and then crosses superficially to these vessels to lie on their medial side.





# Contents

1. The *popliteal vein* lies immediately superficial to the artery;
2. The *popliteal artery* itself lies deepest of all in the fossa.
3. Fat
4. Popliteal lymph nodes.



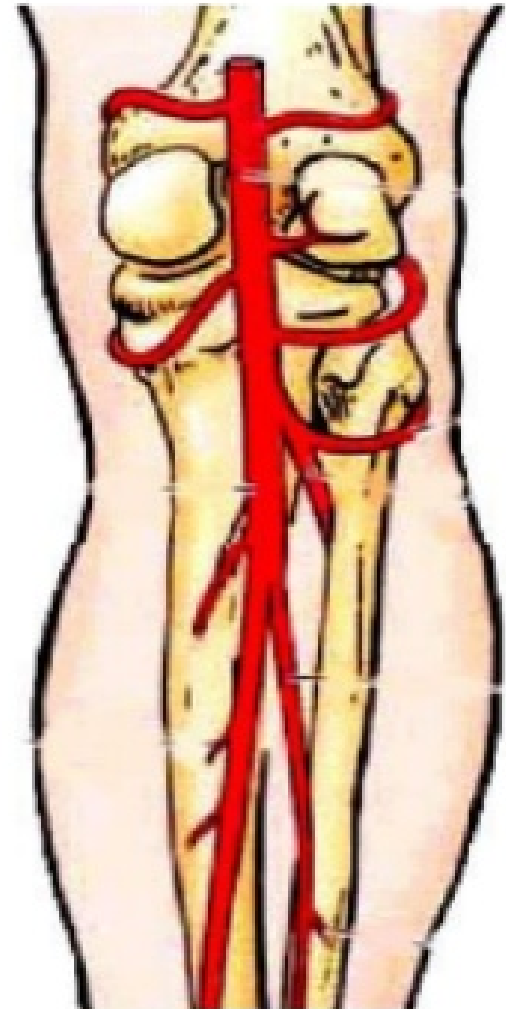
# Popliteal Artery

## Beginning:

- Continuation of femoral a. @ adductor magnus hiatus

## Termination:

- Divide into anterior and posterior tibial arteries @ lower border of popliteus



# Popliteal Artery

## Course:

- It is the deepest of the structures of the popliteal fossa

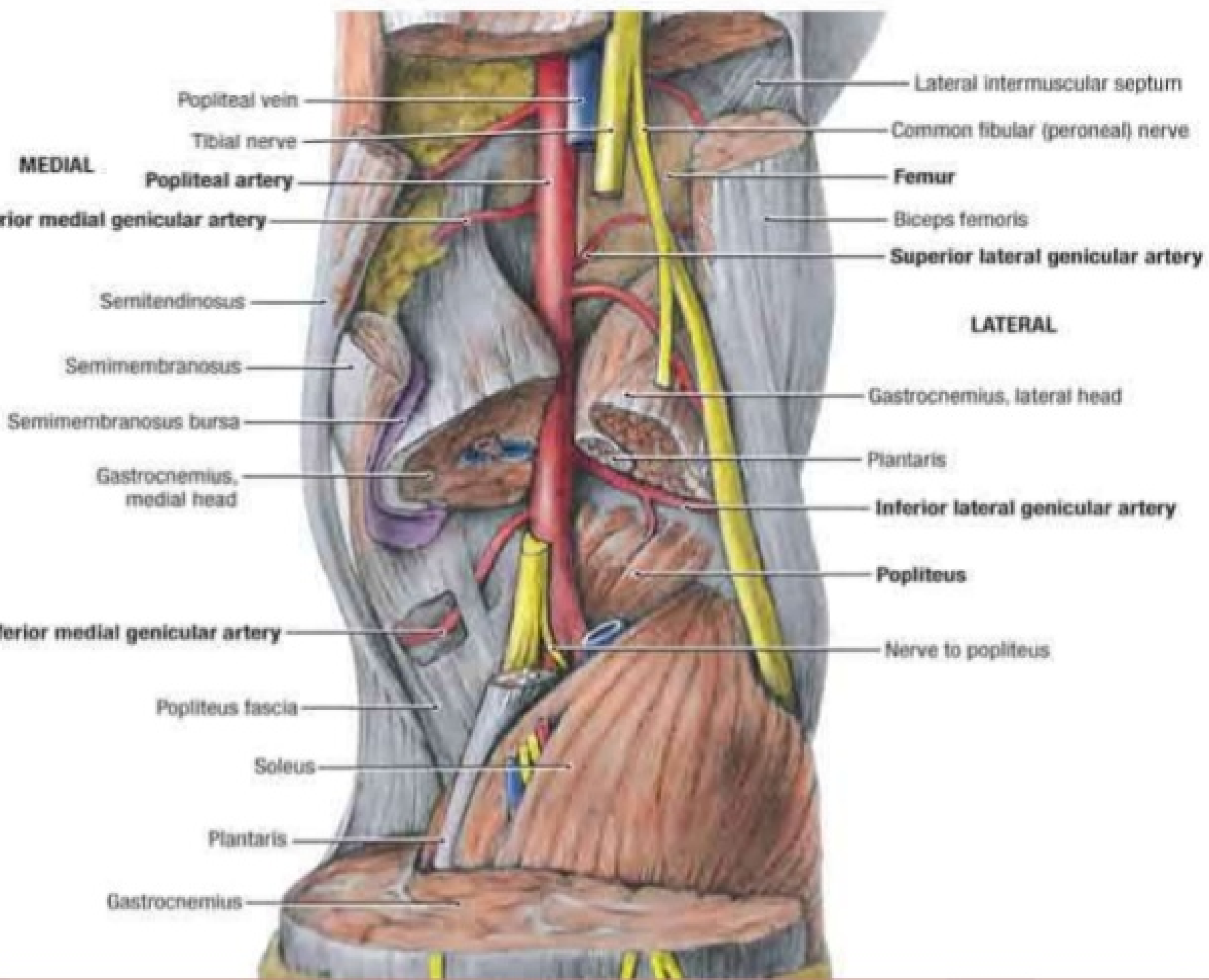
## Anterior relations:

- Floor of the fossa

## Branches:

- Superior, inferior, and middle genicular arteries
- Muscular branches (sural)







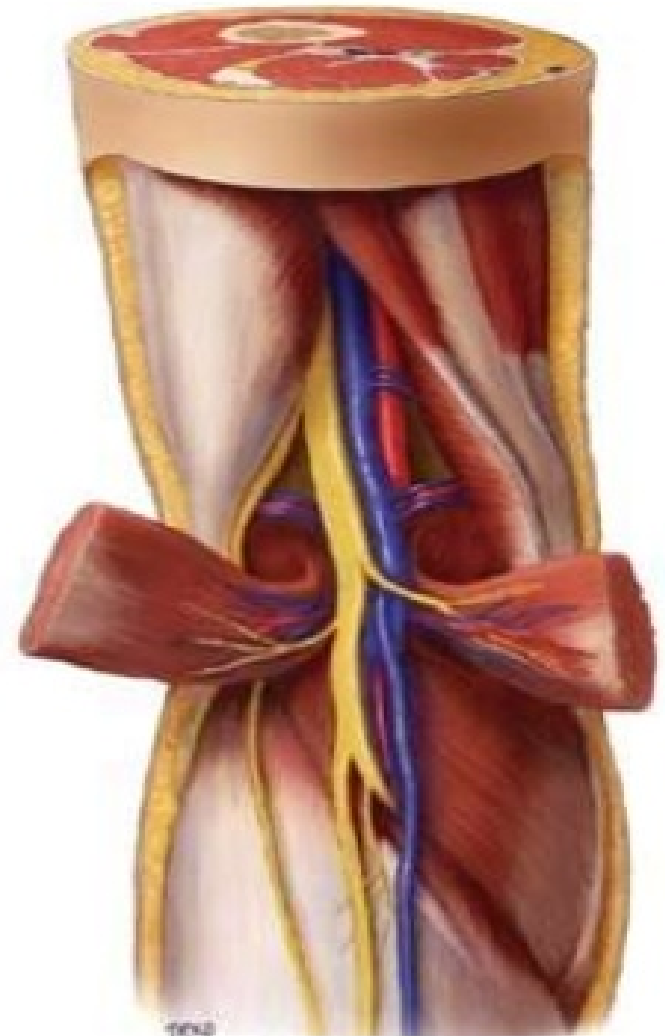
# Popliteal Vein

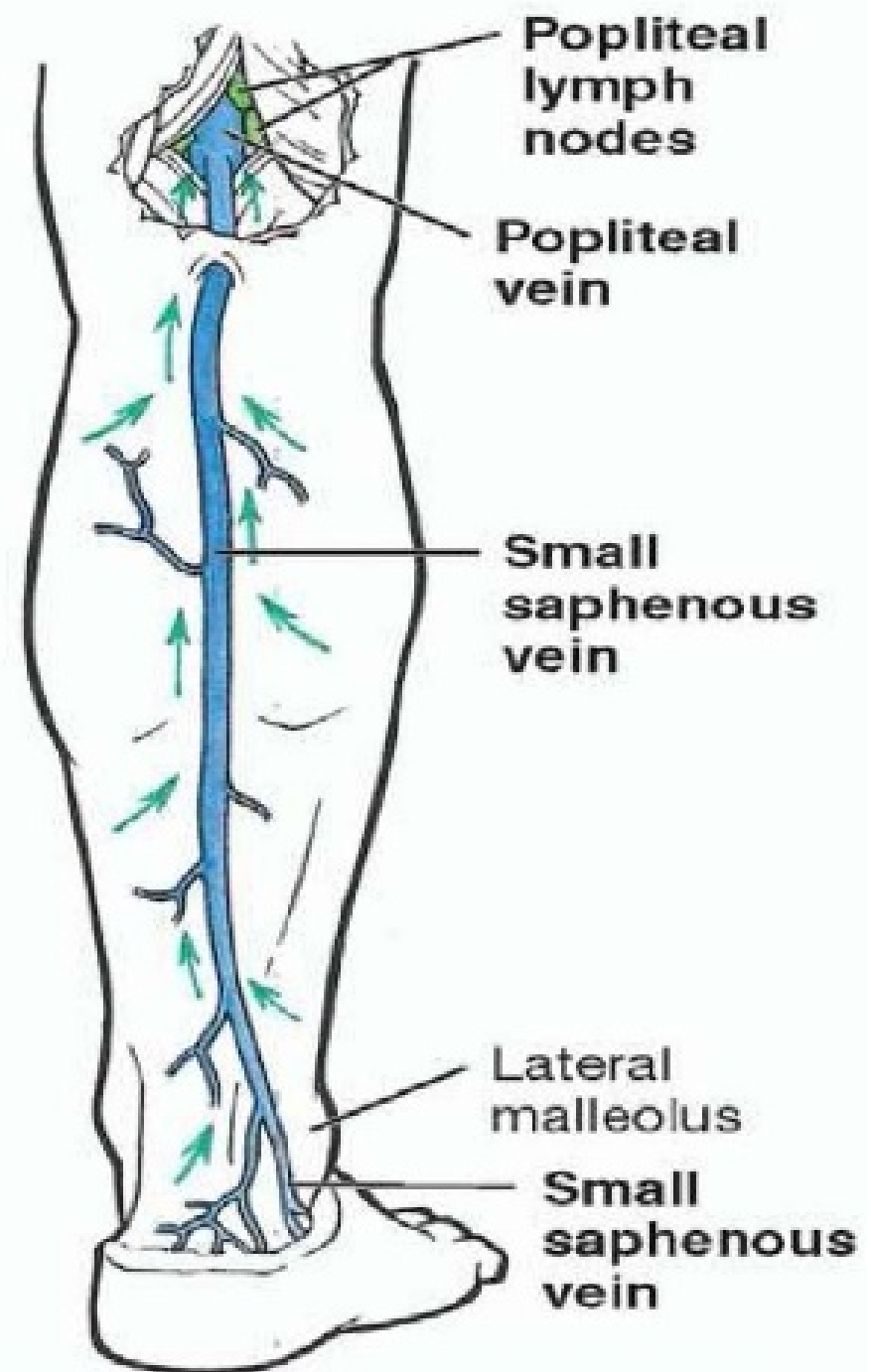
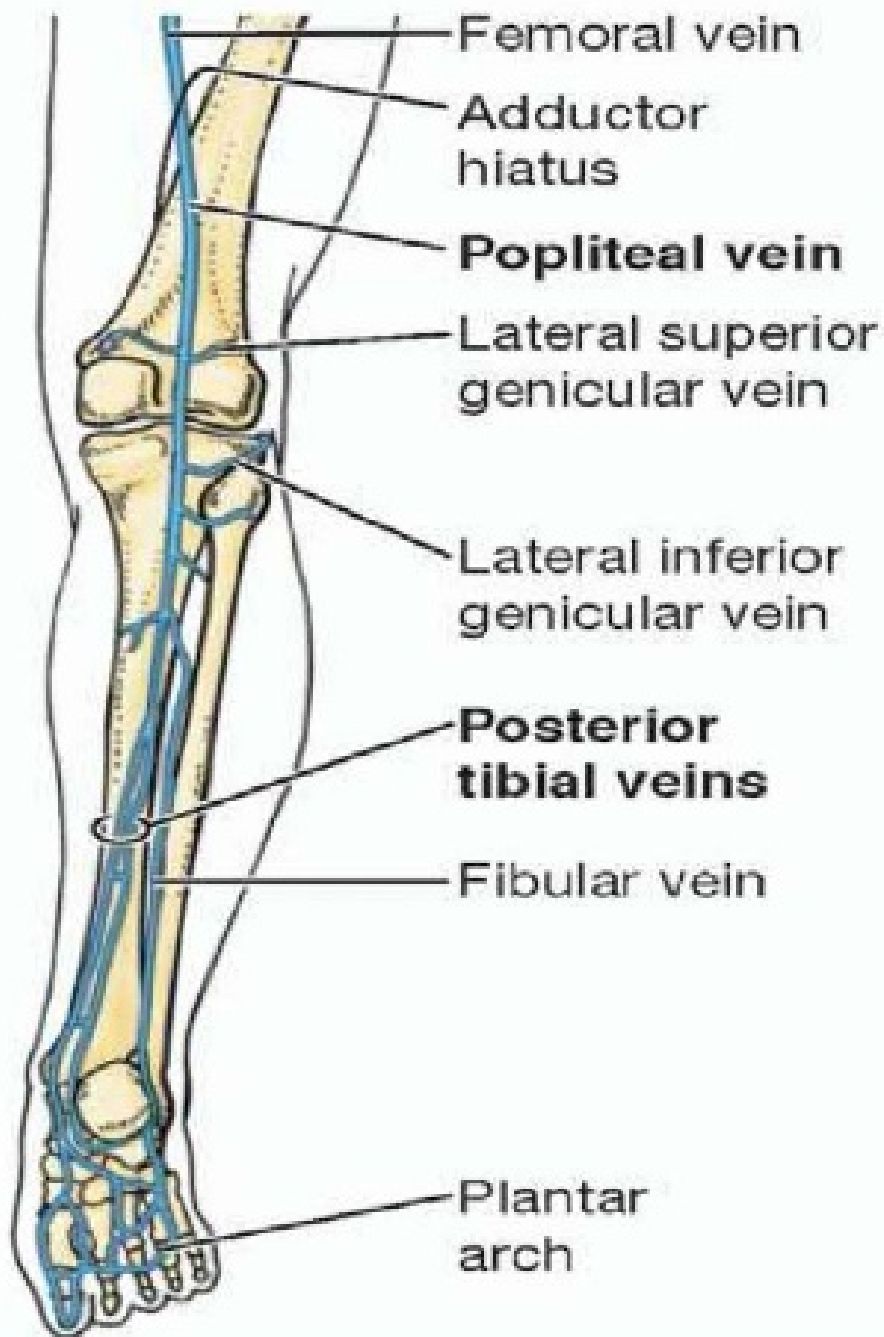
## Course:

- Along its course, lies between popliteal artery and tibial nerve

## Tributaries:

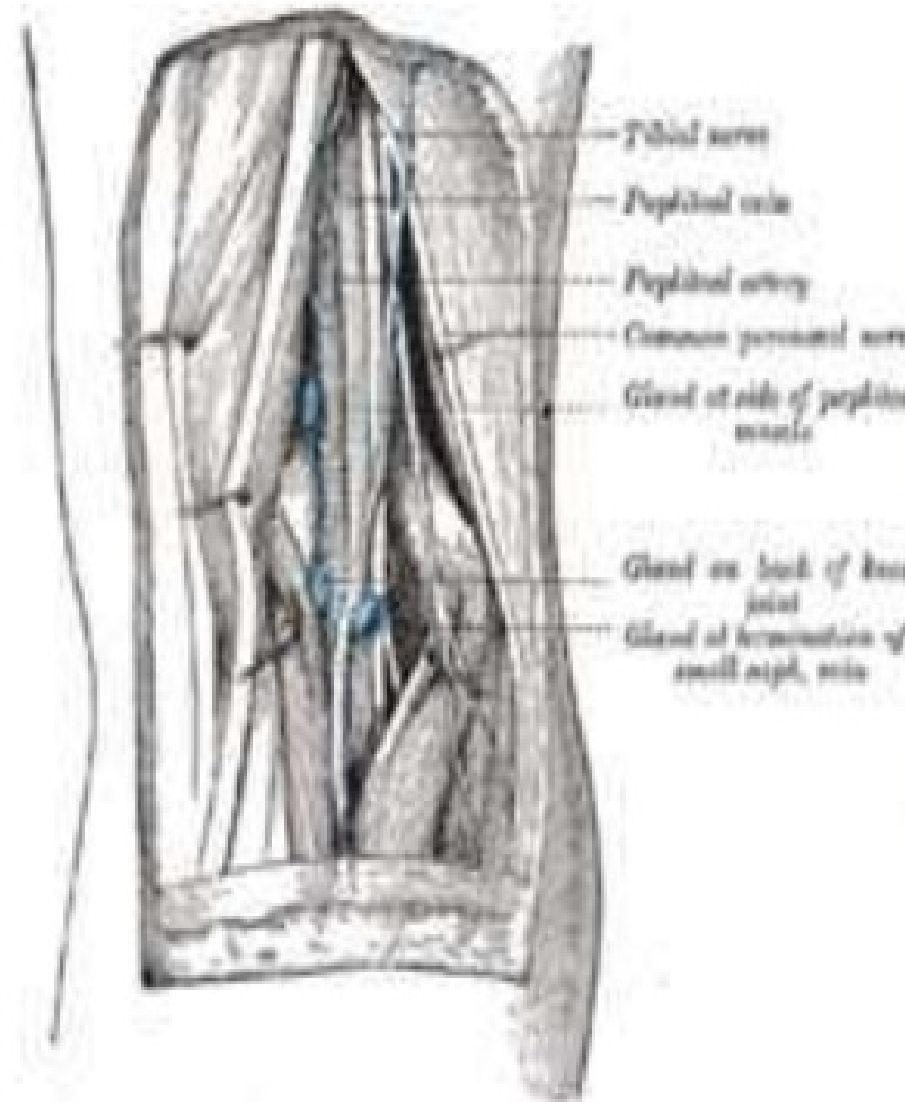
- Veins that accompany the branches of the artery
- Small saphenous vein





# Popliteal Lymph nodes

- Few nodes just under the deep fascia
- Embedded in the fatty connective tissue of popliteal fossa, close to the popliteal vessels
- Drain the deep tissues of the leg, foot and knee joint
- Efferents to the deep inguinal LN



# Tibial Nerve

- Passes vertically in the fossa
- Leaves between the 2 heads of gastrocnemius
- Gives:
- Muscular → to muscles arising from the popliteal fossa
- Articular → 3 genicular nerves
- Cutaneous → sural nerve



# Common Peroneal N.

- Passes medial to biceps femoris
- Disappears into peroneus longus
- Lie on neck of fibula
- Gives:
- Muscular → none in the fossa
- Articular → 3 genicular nerves
- Cutaneous → sural communicating nerve and lateral cutaneous nerve of the calf



# **APPLIED ANATOMY**

**CLINICAL ANATOMY**

# VARICOSE VEINS

- Varicose veins are enlarged, swollen, and tortuous (twisting) veins, frequently linked to faulty valves in the vein.

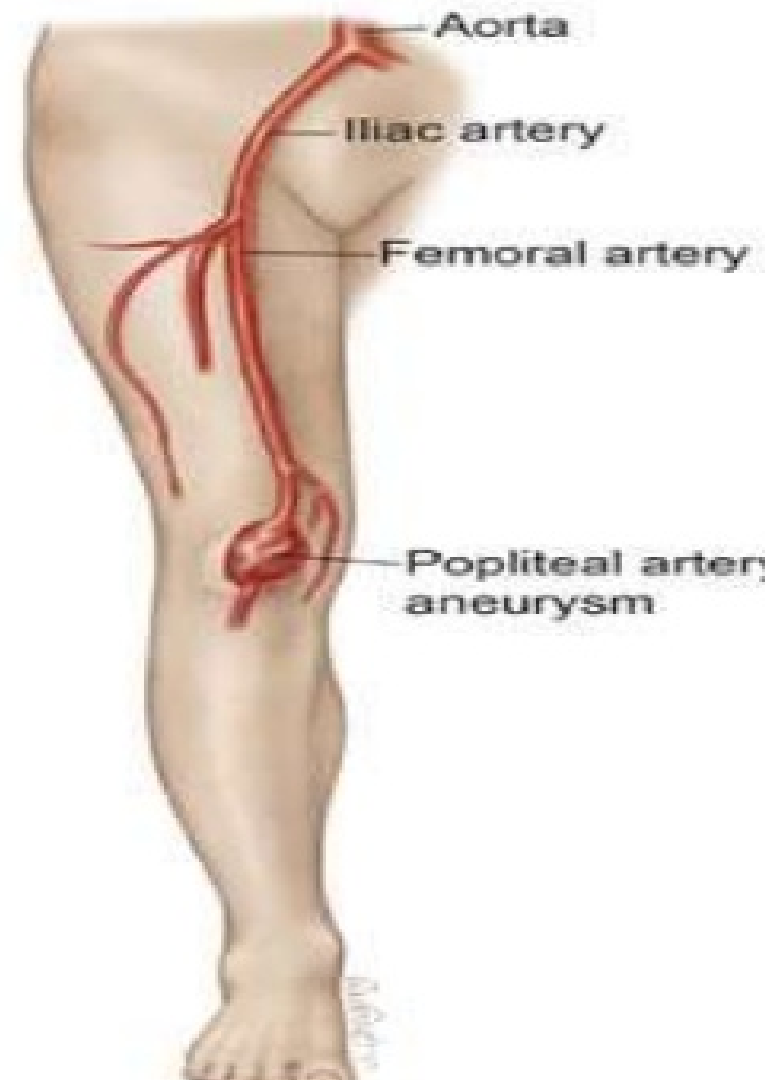


BEFORE

AFTER

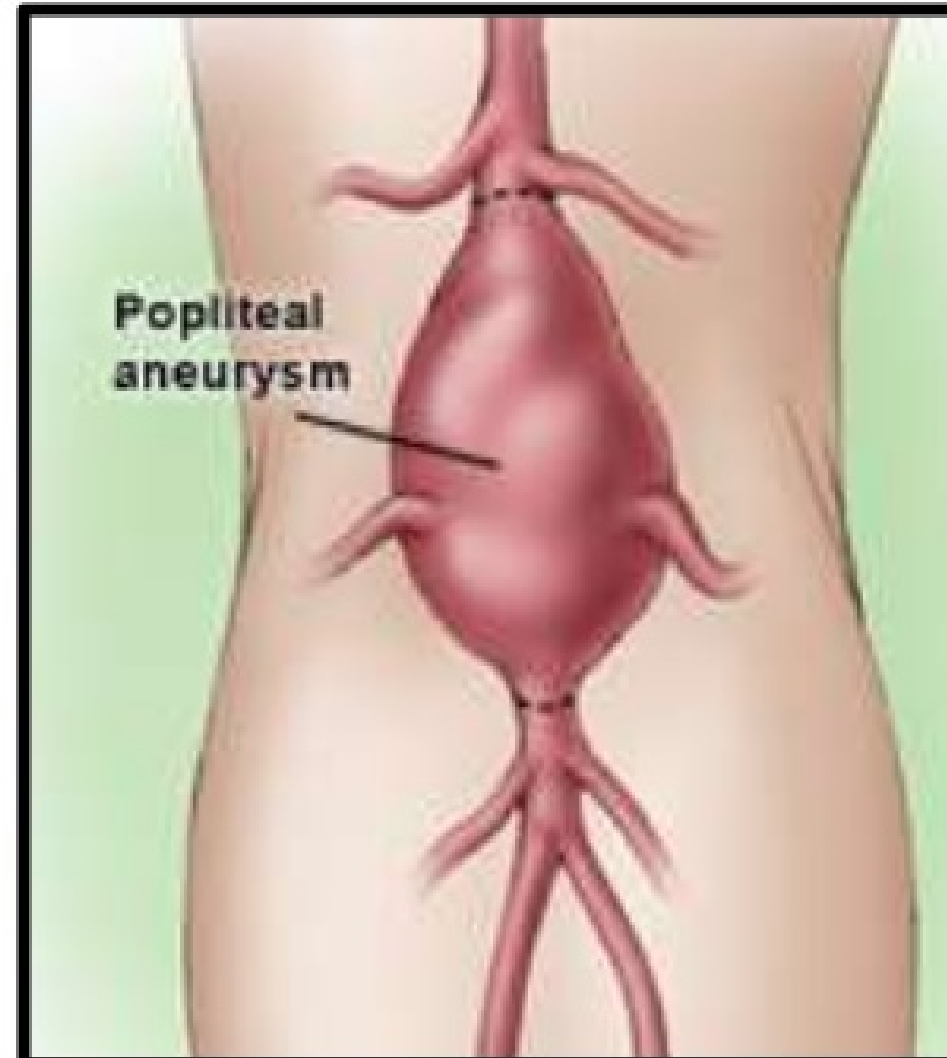
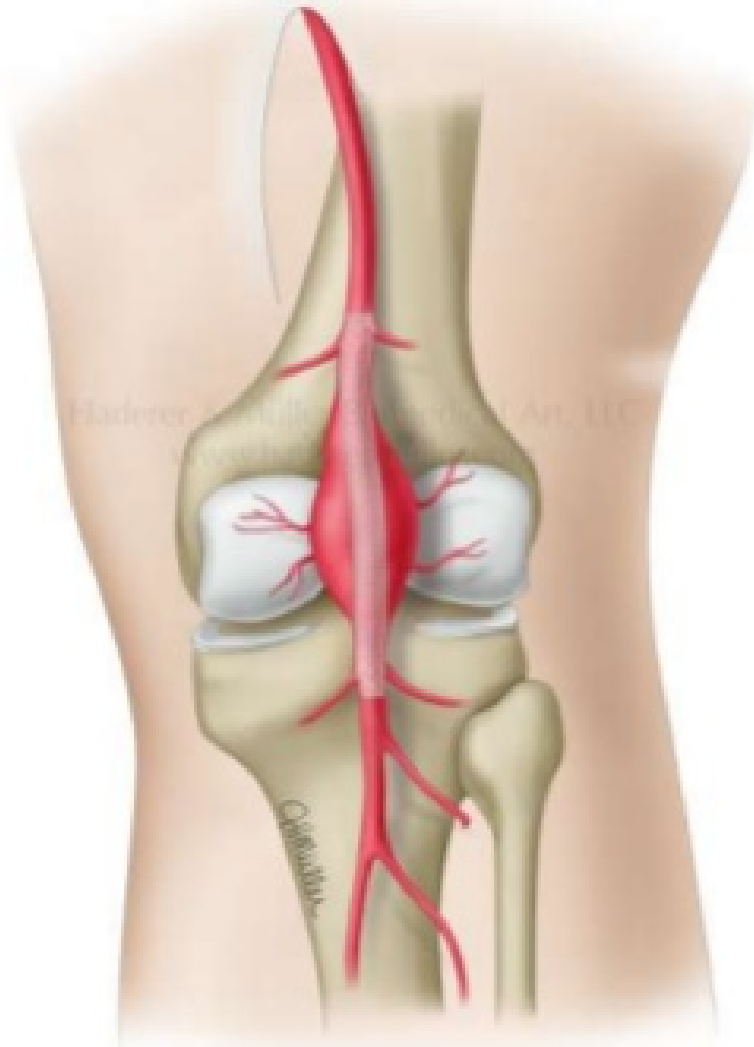
# POPLITEAL A. ANEURYSM

- Popliteal artery entrapment is an uncommon clinical entity that occurs due to compression of the popliteal artery by adjacent muscle and tendinous structures



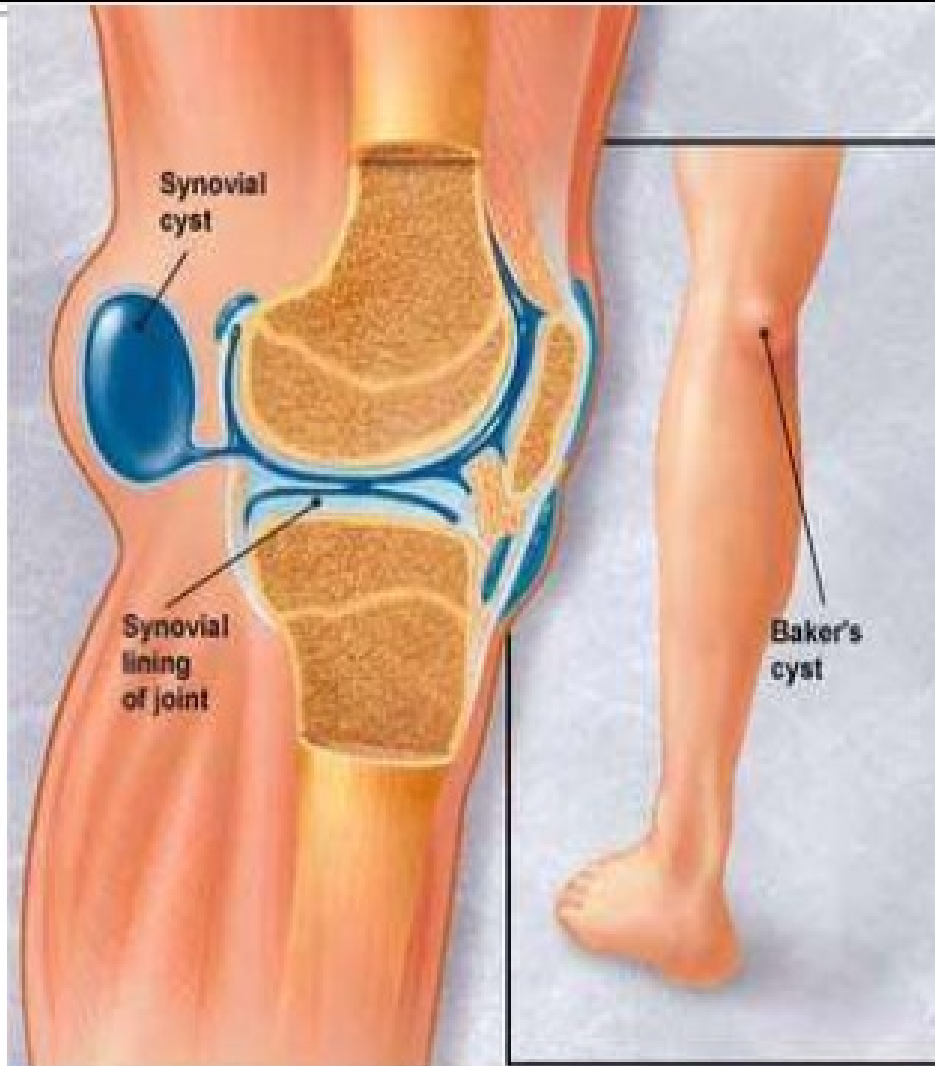


# Popliteal Aneurysm

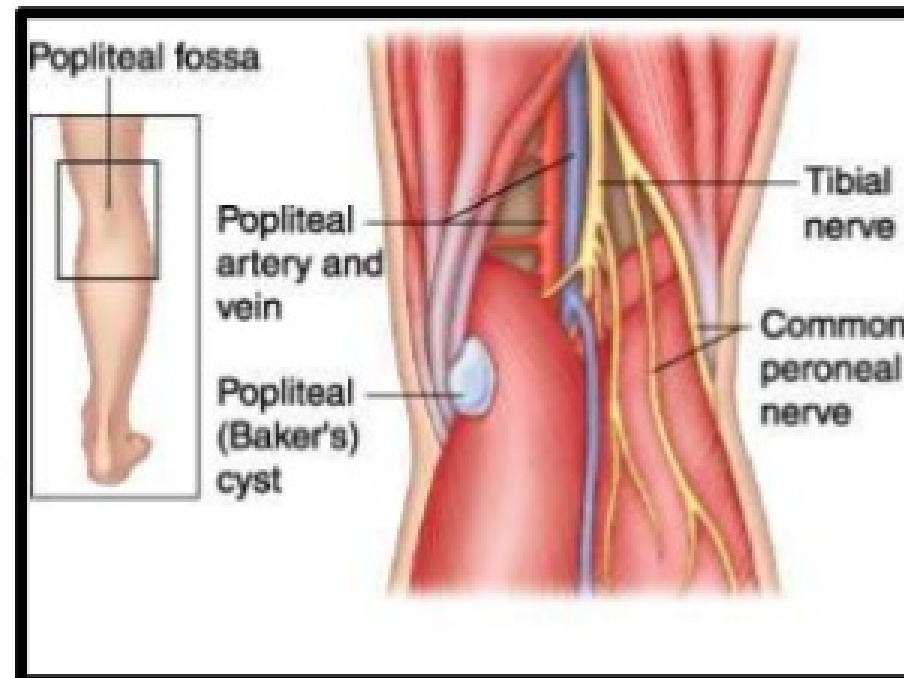
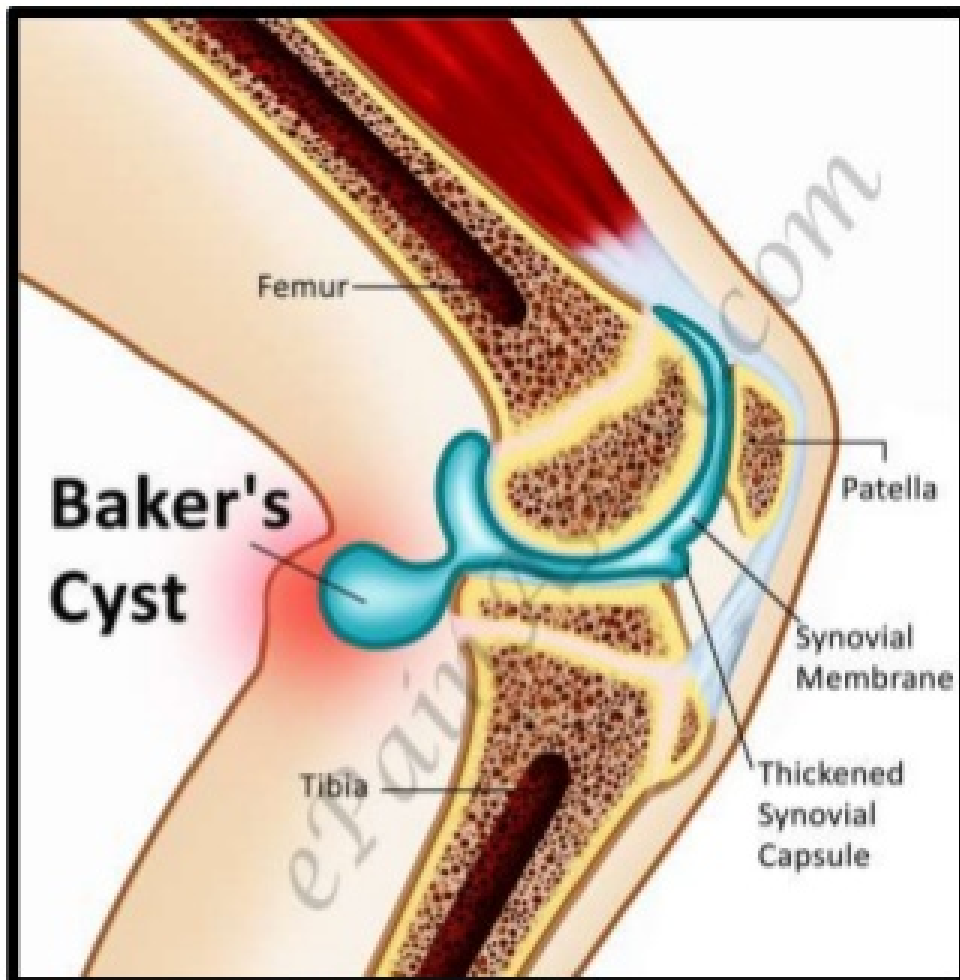


# BAKER'S CYST

- **Baker cyst** is " a collection of synovial fluid that has escaped from the knee joint or a bursa and formed a new synovial fluid-lined sac in the popliteal space



# Baker's cyst



A photograph of a long, straight path lined with trees in autumn. The trees have vibrant red and orange leaves, creating a canopy over the path. The path is covered in fallen leaves. The scene is captured from a low angle, looking down the path towards the horizon.

**Thank you**