

ASADULLAH

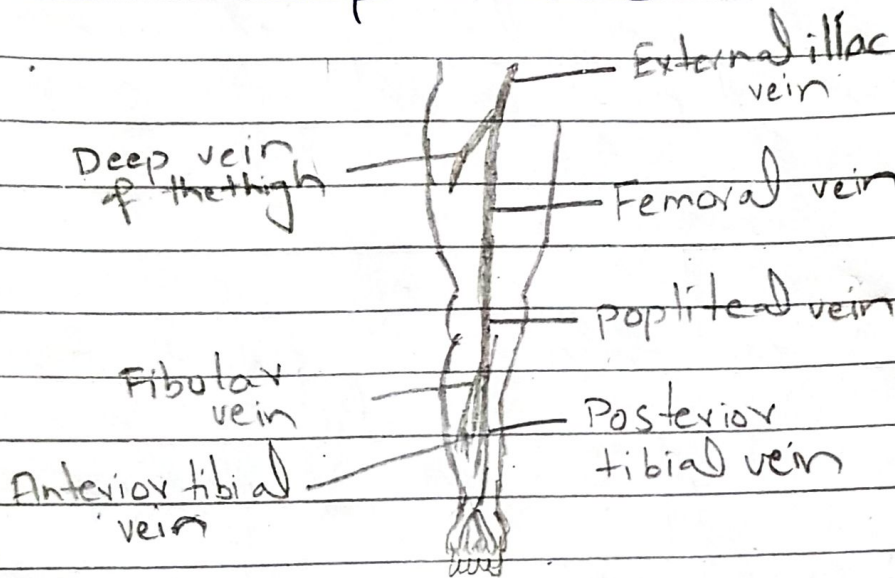
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DPT 2<sup>nd</sup>

Sec (A)

Q) Blood supply and venous return of lower limb?

Ans) In the lower limbs, venous blood flows from the skin to superficial veins, which drain into the deep veins.



Varicose veins on the right leg: with the veins there are valves that prevent back flow of blood. If these valves become incompetent blood can flow back into superficial veins.

The veins of lower limb drain deoxygenated blood and return it to the heart. They can be divided into two groups - deep and superficial

**Deep veins:-** are located underneath the deep fascia of the lower limb accompanying the major arteries.

**Superficial veins:-** are found in the subcutaneous tissue. They eventually drain into the deep veins.

### **Deep veins of lower limb:-**

The deep venous drainage system of the lower limb is located beneath the deep fascia of the lower limb. As a general rule, the deep veins accompany and share the name of the major arteries in the lower limb. Often, the artery and vein are located within the same vascular sheath - so that arterial pulsations aid the venous return.

### **The Foot & Leg:-**

The main venous structure of the foot is the dorsal venous arch which mostly drains into superficial veins. Some veins from the arch penetrate deep into leg forming the anterior tibial vein.

On the plantar aspect of the foot, medial and lateral plantar veins arise. These veins combine to form posterior tibial and fibular veins.

The posterior tibial vein accompanies the posterior tibial artery, entering the leg posterior to the medial malleolus. On the posterior surface of the knee the anterior tibial, posterior tibial and fibular veins unite to form the popliteal vein. The popliteal vein enters the thigh via the adductor canal.

## The THIGH:-

Once the popliteal vein has ended the thigh, it is known as the femoral vein. It is situated anteriorly, accompanying the femoral artery.

The deep vein of the thigh (profunda femoris vein) is the other main venous structure in the thigh. Via perforating veins, it drains blood from the thigh muscle. It then empties into the distal section of the femoral vein.

The femoral vein leaves the thigh by running underneath the inguinal ligament, at which point it is known as the external iliac vein.

## The Gluteal Region:-

The gluteal region is drained by inferior and superior gluteal veins. These empty into the internal iliac vein.

## Superficial vein of the lower limb

The superficial vein of the lower limb run in the subcutaneous tissue. There are two major superficial veins - the great saphenous vein, and the small saphenous vein.

## The great Saphenous vein:-

The great saphenous vein is formed by the dorsal venous arch of the foot, and the dorsal vein of the great toe. It ascends up the medial side of the leg, passing anteriorly to the medial malleolus at the ankle, and posteriorly to the medial condyle at the knee.

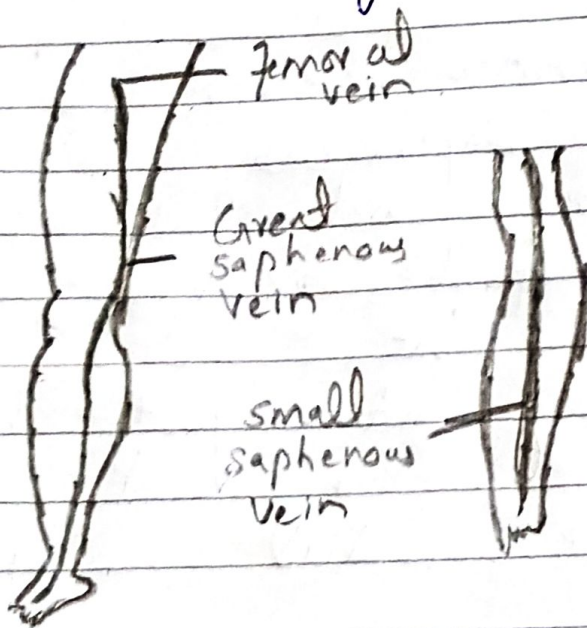
As the vein moves up the leg, it receives tributaries from other small superficial vein.

Surgically, the great saphenous vein can be harvested and used as a vessel in coronary artery bypass.

## The small saphenous vein :-

The small saphenous vein is formed by the dorsal venous arch of the foot, and the dorsal vein of the little toe. It moves up the leg, it receives tributaries from other small superficial vein. The great saphenous vein terminates by draining into the femoral vein immediately inferior to the inguinal ligament.

• Surgically, the great saphenous vein can be harvested and used as a vessel in coronary artery bypass.

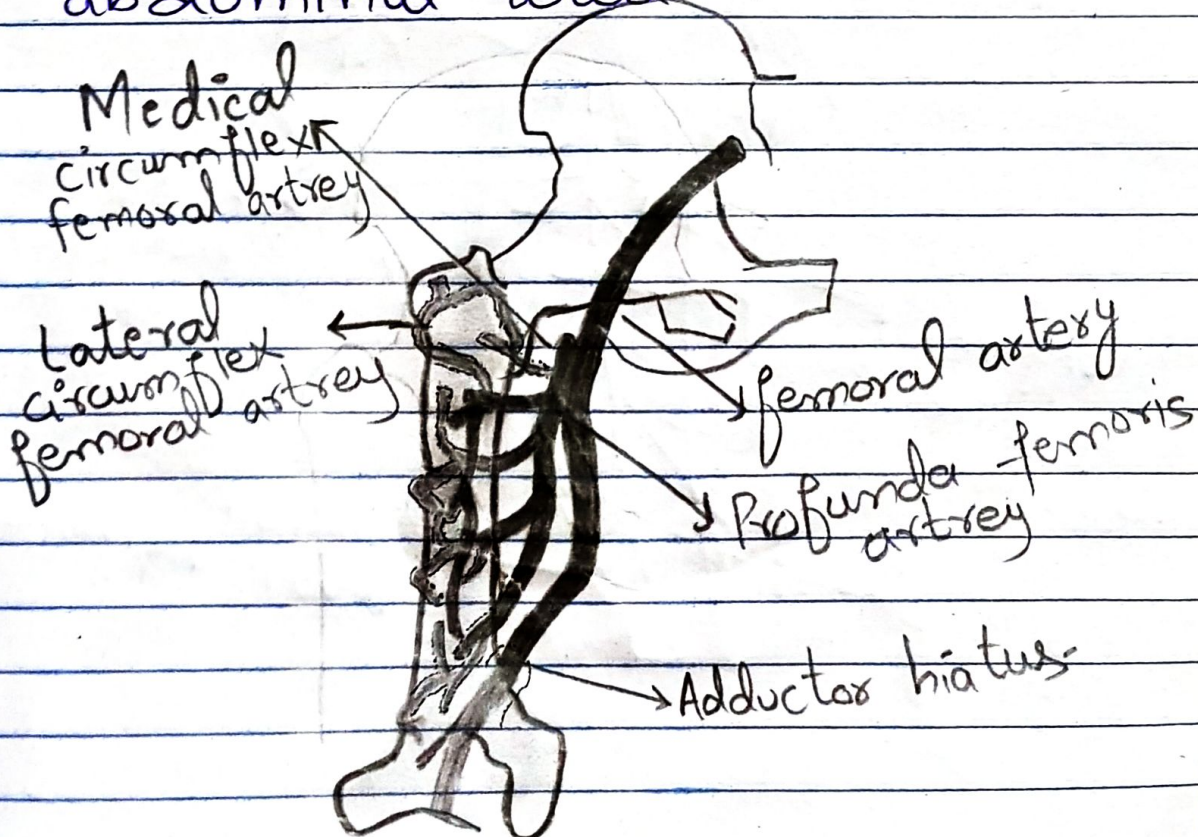


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2. Describe Anatomical course of femoral and sciatic nerve with the help of diagram

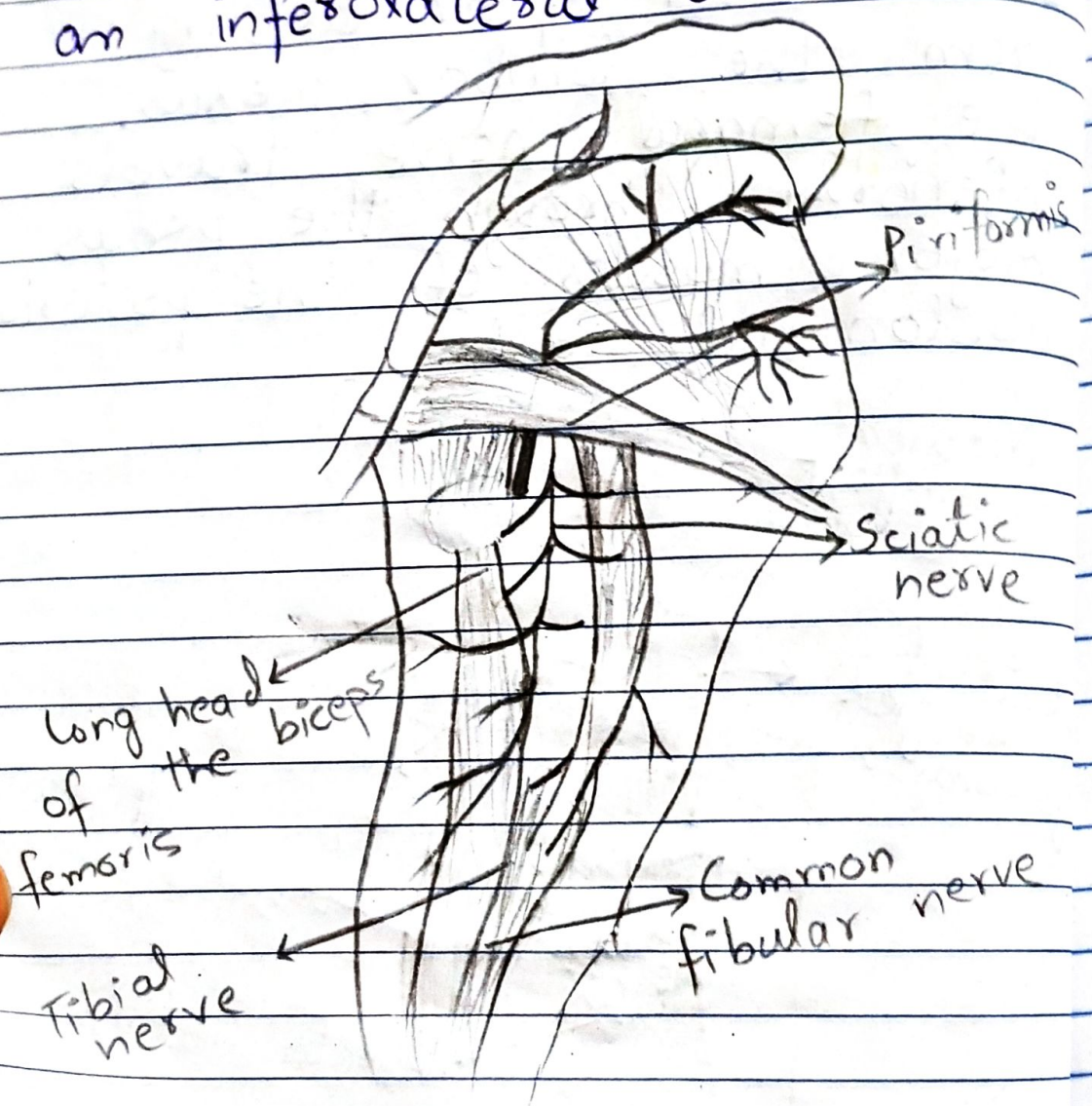
## Anatomical Course:

The femoral nerve is the largest branch of the lumbar plexus. It is derived from the anterior rami of nerve roots that are L2, L3 and L4. After arising from the lumbar plexus, the femoral nerve travels inferiorly through the psoas major muscles of the posterior abdominal wall.



# Sciatic Nerve:

The **sciatic nerve** is derived from the lumbosacral plexus. After its formation, it leaves the pelvis and enters the **gluteal region** via greater **sciatic foramen**. It emerges inferiorly to the piriformis muscle and descends in an inferolateral direction.



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