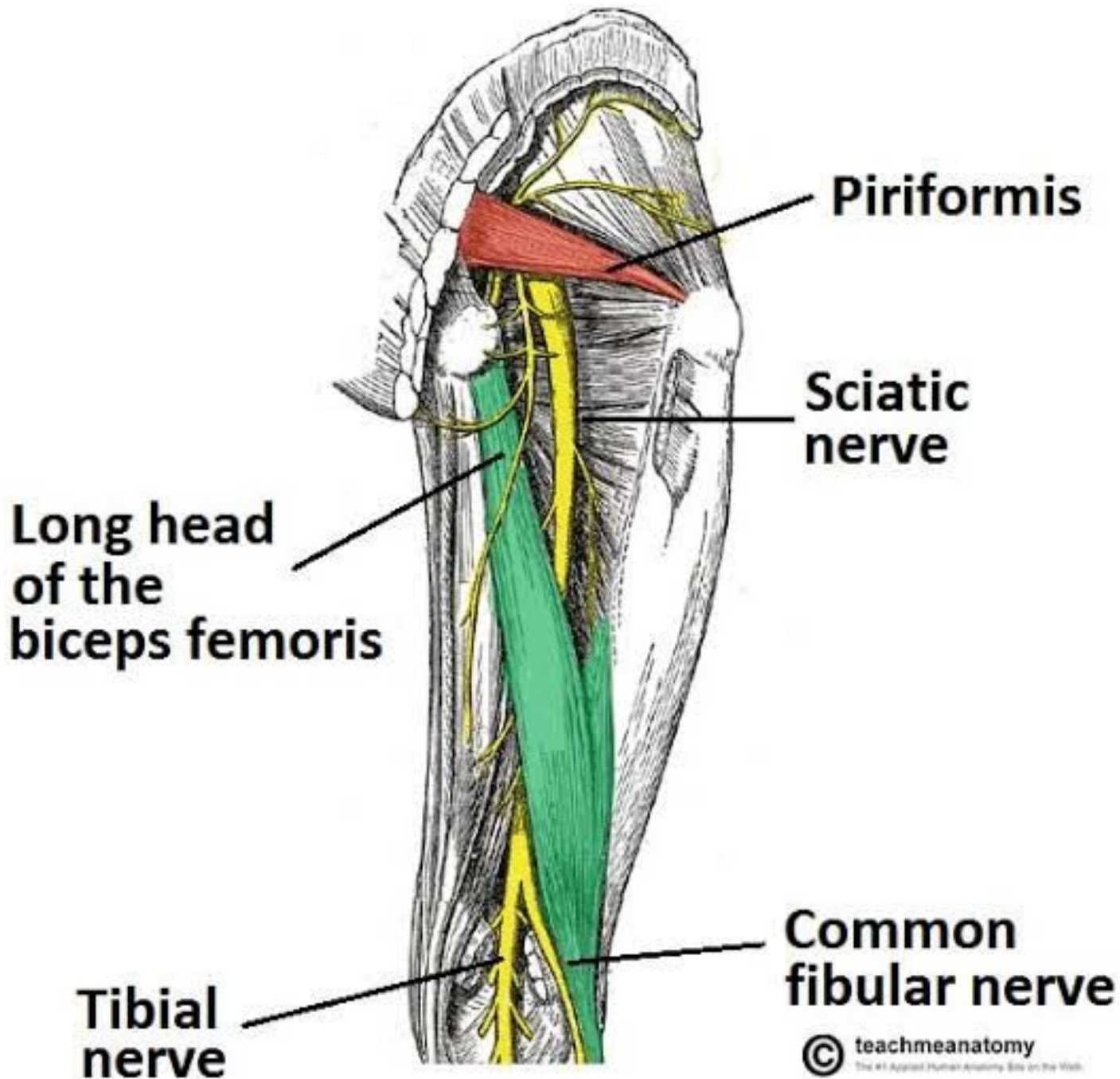


Anatomical course of Sciatic nerve:

Sciatic nerve: The Sciatic nerve is derived from the lumbosacral plexus. 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.

As the nerve moves through the gluteal region, it crosses the posterior surface of the Superior Gemellus, obturator internus, inferior Gemellus and Quadratus Femoris muscles.

It then enters the posterior thigh by passing deep to the long head of the biceps femoris.



Anatomical course of Femoral nerve:

Femoral nerve:

The Femoral nerve is the largest branch of lumbar plexus. It is derived from the anterior rami of nerve roots L₂, L₃ and L₄.

The Femoral nerve travels inferiorly through Psoas major muscle of the posterior abdominal wall. The Femoral nerve then passes underneath the inguinal ligament, to enter the Femoral triangle. Within this triangle, the nerve is located lateral to femoral vessels (unlike the nerve, the femoral artery and vein are enclosed within the femoral sheath).

**Femoral
nerve**

**Femoral
artery**

**Anterior cutaneous
branches**

**Saphenous nerve
(branch of femoral)**



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DPT, class (Section A)

Subject - Anatomy - II Lab

Anatomy Assignment:

Blood Supply and venous return of lower limb.

In the Thigh and Gluteal Region:

→ Femoral Artery: The main artery of the lower limb is the femoral artery. It is continuation of the external iliac artery. The external iliac becomes the femoral artery when it crosses under the inguinal ligament and enters the femoral triangle.

→ Perforating Branches: Consists of three or four arteries that perforate the adductor magnus, contributing to the supply of muscles in the medial and posterior thigh.

→ Lateral Femoral Circumflex artery: wraps round the anterior, lateral side of the femur, supplying its neck and head. Supplying some of

the muscles on the lateral aspect
of the thigh.

→ Medial Femoral circumflex artery:

Wraps round the posterior side of
the femur, supplying its neck and
head.

Other Arteries of the Thigh:

→ Obturator artery: it arises from the
internal iliac artery
in the pelvic region.
It has two branches.

→ Anterior branch - This supplies the
Pectineus, obturator
externus, adductor
muscles and gracilis.

→ Posterior branch: This supplies some of
the deep gluteal
muscles.

The gluteal region is largely supplied
by the superior and inferior gluteal
arteries.

In the leg: The popliteal artery descends down the posterior thigh, giving rise to genicular branches that supply the knee joint. It moves through the popliteal fossa, existing between the gastrocnemius and popliteus muscles.

At the lower border of the popliteus, the popliteal artery terminates by dividing into the anterior tibial artery and the tibioperoneal trunk. In turn, the tibioperoneal trunk bifurcates into the posterior tibial and fibular arteries.

→ Anterior tibial artery: it passes anteriorly between the tibia and fibula, through a gap in the interosseous membrane. It runs down the entire length of the leg, and into the foot, where it becomes the dorsalis pedis artery.

→ Posterior tibial artery:

it continues inferiorly, along the surface of the deep posterior leg muscles. It enters the sole of the foot, where via the tarsal tunnel, accompanying the tibial nerve.

→ Fibular artery: It descends posteriorly to the fibula, within the posterior compartment of the leg. It supplies muscles in the lateral compartment of the leg.

In the Foot:

Arterial supply to the foot is delivered via two arteries:

→ Dorsalis Pedis (a continuation of the anterior tibial artery).

→ Posterior tibial

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.

Thigh: Profunda Femoris vein:

It is the deep vein of the thigh. It is the other main venous structure in the thigh. 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.

Gluteal Region:

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

Superficial veins of the lower limb:

There are two major superficial veins:

→ Great Saphenous vein:

It 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 veins.

It 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 bypasses.

Small Saphenous vein:

It is formed by dorsal venous arch of the foot, and the dorsal vein of the little toe. It moves up the posterior side of the leg, passing posteriorly to the lateral malleolus, along the lateral border of the calcaneal tendon.

It moves between the two heads of the Gastrocnemius muscle and empties into the popliteal vein in the popliteal fossa.

