

* Sacral plexus (L4-S4)

L₄, L₅, S₁, S₂, S₃, upper part of S₄
Lumbosacral trunk anterior primary rami

* Branches to pelvic muscle, pelvic viscera & perineum:
→ pudendal nerve (S_{2,3,4})

* Branches to Lower limb ⇒ Leave pelvis through greater sciatic foramen

(1) Superior gluteal nerve (L₄, L₅, S₁)

supply :- gluteus medius & minimus, tensor fascia lata muscle

(2) Inferior gluteal nerve (L₅, S₁, S₂)

Supply :- gluteus maximus muscle.

(3) posterior cutaneous nerve of thigh (S₁, S₂, S₃)

Supply :- - skin of buttock & back of thigh.

~~skin over the back~~ upper part of leg.

(4) Sciatic nerve (L_{4,5} & S_{1,2,3})

Ventral division

Tibial nerve (L_{4,5} & S₁₋₃)

Larger terminal branch

→ long head of Biceps femoris

→ semitendinosus & semimembranosus

→ adductor magnus (hamstring part)

→ skin along Lateral border of foot

→ calf & back of leg

→ Gastrocnemius / plantaris / soleus

→ popliteus / Flexor digitorum Longus

Flexor hallucis Longus / Tibialis posterior

dorsal division

Common peroneal nerve (L_{4,5} & S_{1,2})

→ short head of Biceps

lateral popliteal (common fibular nerve)

* Lower limb Lab (Notes)

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→ Vertebral Column consist of group of vertebra

↳ (cervical, thoracic, Lumber, sacral)

* In human, Five sacral vertebrae are joined together to form one bone called ⇒ sacrum.

→ symphysis pubis ⇒ only slightly motile, in case of delivering a Fetus في حالات الولادة

* The longest bone of body → Femur

* 2nd longest = = = → (Tibia) articulate w condyles of Femur superiorly
↳ talus inferiorly.

→ The shaft of tibia is subcutaneous & unprotected anteromedially throughout its course → so it's the most common long bone to be Fractured.
↳ the extensive subcutaneous surface of tibia makes it an accessible donor site for bone-grafts.

* The Common peroneal nerve is related to the ~~neck~~ neck of Fibula & it's run superficial so it's exposed to injury resulting in Foot drop

→ The malleolar Fossa → commonly used to determine the side of Fibula (Right/Left)
↳ because it's located on medial surface of lateral malleolus inferior, posterior & medial in anatomical position.

→ The (Superior surface) of Talus (heel bone) ⇒ gripped by the 2 malleoli & receives the body weight of From tibia.
↳ (Trochlea of talus)

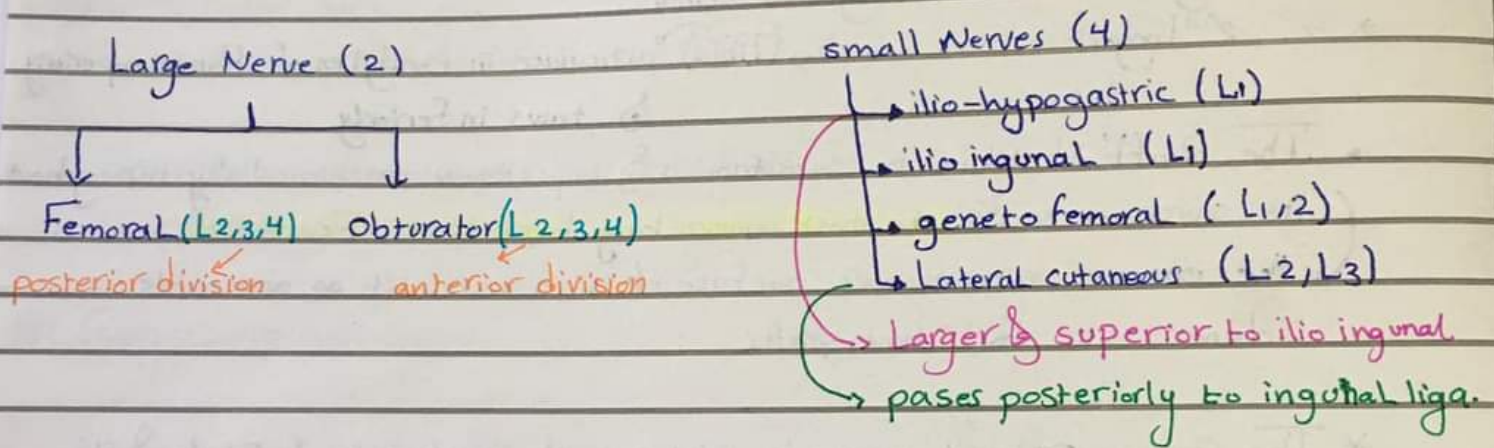
→ Calcaneus ⇒ the Largest & Strongest bone in foot.

→ Sulcus tali (talus sulcus) & sulcus calcanei → in the articulated Foot, form tunnel called (tarsal sinus) (sinus tarsi) ⇒ which is occupied by the strong interosseous talocalcaneal ligament.

* For upper limb Lab \Rightarrow I think we should know the origin & insertion for muscles.

* Nerves of Lower limb.

- Each Lumber segment of spinal Cord gives off 3 root (only L2 is an exception & gives off 4 root)



[1] ilio-hypogastric (L1)

Supply:- posterolateral gluteal skin & distributed the skin in pubic region

[2] ilio-ingunal nerve (L1)

Supply:- upper medial of thigh / root of penis / (anterior surface of scrotum) ^{in men}
(mons pubis & Labium majus) in women

[3] geneto Femoral (L1, L2)

(has 2 branches)

Femoral branch:- skin of upper anterior of thigh
genital branch:- men \rightarrow cremasteric muscle &

accompanies the round ligament of uterus & skin of mons pubis and Labium majus. (women)

Terminates of the skin in upper anterior part of Scrotum.

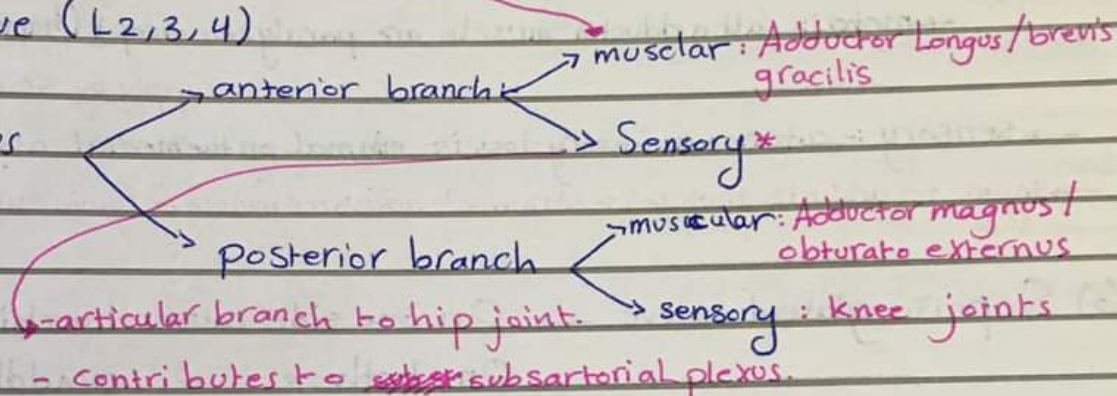
[4] Lateral cutaneous (Femoral) nerve of thigh (L2,3)

Supply:- skin on anterior & lateral thigh to level of knee.

[5] Femoral nerve (L2,3,4) → Intermediate cut. → supply: anterior of thigh.
Sartorius muscle / iliacus → in pelvis before passes behind Inguinal liga.
Quadriceps Femoris. / pectineus muscle (in 25% from obturator nerve)

[6] obturator nerve (L2,3,4)

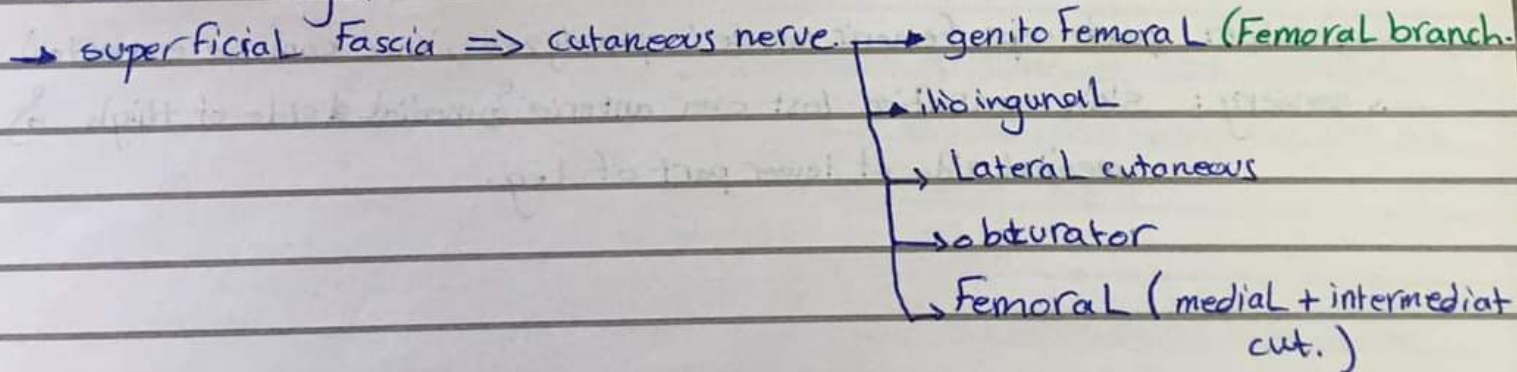
→ Branches



Intermediate cut. of والأضراسية في → skin on medial side of thigh.
obturator nerve.

Lumbar plexus (L1,2,3) ⇒ Supply :- psoas major.

Fascia of thigh



* Nerve Injury.

(1) Lateral cutaneous nerve

- Intra pelvic → causes:- pregnancy, abdominal tumors
- Extrapelvic → " :- traum to the region of ASIS (eg. From seatbelt in motor accident) tight garments, belt, girdle stretch, From obesity, bone marrow graft.
- Mechanical → " :- prolonged sitting or standing.

(2) Obturator nerve

- motor:- all adductor muscle are paralyzed except (hamstring part of adductor magnus.
 supply by sciatic nerve)
- sensory:- cutaneous sensory loss is minimal on the medial aspect of thigh (important)
- injury to adductor muscles:- strain of adductor muscle or (groin strain) more common in athlete

- ### (3) Superior gluteal nerve →
- On one side causes Lurching gait
 - On both " = waddling gait.

(4) Sciatic nerve

- motor: hamstring muscle are paralyzed, all muscle ~~is~~ below knee joint paralyzed
- sensory:- sensation is lost below knee except for medial side of leg & foot
 supply by saphenous nerve.

(5) Femoral nerve.

- motor: quadriceps femoris muscle is paralyzed, knee can't be extended
- sensory: skin sensation lost over anterior & medial side of thigh & medial side of lower part of leg.

