

PELVIS

Hip Bone – see diagram

Joints

Sacroiliac joint: from sacrum to ilium

Pubic symphysis: from left to right superior rami of pubis

Ligaments:

Anterior sacroiliac: from sacrum to iliac fossa

Posterior sacroiliac: from sacrum to iliac crest

Inguinal: from anterior superior iliac spine to pubic tubercle

Sacrospinous: from sacrum to ischial spine

Sacrospinous: from posterior sup. & inf. iliac spine and sacrum to ischial tuberosity

Spaces and Openings

True pelvic cavity: located inferiorly

False pelvis: located superiorly

Space under inguinal ligament:

- Femoral artery
- Femoral vein
- Femoral nerve and lateral cutaneous nerve of thigh
- Iliopsoas muscle

Greater sciatic foramen:

- Gluteal arteries (sup. & inf.)
- Gluteal veins (sup. & inf.)
- Gluteal nerves (sup. & inf.), sciatic nerve, posterior cutaneous nerve of thigh
- Piriformis muscle

Lesser sciatic foramen:

- Obturator internus muscle

Obturator foramen:

- Obturator artery
- Obturator vein
- Obturator nerve

Sciatic nerve:

A combination of the **tibial nerve** and **common peroneal nerve**

Emerges in the gluteal region as sciatic nerve and divides into the tibial nerve and common peroneal nerve at **the superior angle of the popliteal fossa**

Iliac arteries

The abdominal aorta divides into **common iliac arteries**.

The common iliac arteries divides into **internal and external branches**

The **femoral artery** is a continuation of the **external iliac artery**, at the **inguinal ligament**

LUMBOSACRAL PLEXUS

Formed from anterior (ventral) primary rami

Lumbar plexus:

Formed by: Ventral rami (L2, L3, L4)

Major branches

- Femoral nerve
- Obturator nerve
- Lateral cutaneous nerve of thigh

Posterior divisions

- Femoral nerve
- Lateral cutaneous nerve of thigh

Anterior divisions

- Obturator nerve

Sacral plexus:

Formed by:

- Lumbosacral trunk (ventral rami of L4, L5)
- Ventral rami (S1, S2, S3)

Major branches

- Sciatic nerve (tibial and common peroneal)
- Gluteal nerves (superior and inferior)
- Posterior cutaneous nerve of thigh

Posterior divisions

- Superior and inferior gluteal nerves
- Common peroneal nerve

Anterior divisions

- Tibial nerve
- Posterior cutaneous nerve of thigh

Femoral nerve (posterior division)

- exists pelvis under inguinal ligament
- Innervates muscles of anterior thigh
- Extends knee

Obturator nerve (anterior division).

- exists pelvis from obturator canal
- Innervates muscles of medial thigh
- Adducts hip

Sup. Gluteal nerve (posterior division)

- exists pelvis from greater sciatic foramen
- Innervates muscles of gluteal region
- Abduct hip

Inf. Gluteal nerve (posterior division)

- exists pelvis from greater sciatic foramen
- Innervates muscles of gluteal region
- Extends hip

Tibial (anterior division)

- exists pelvis from greater sciatic foramen
- Innervates muscles of posterior thigh and leg
- Flexes knee and ankle

Common peroneal (posterior division)

- exists pelvis from greater sciatic foramen
- Innervates muscles of anterior leg
- Dorsiflexes (extends) ankle

GLUTEAL REGION

GLUTEAL REGION

Muscle	Origin	Insertion	Actions	Nerve Supply
Superficial Gluteal Tensor fascial lata	Iliac crest & ASIS	Iliotibial tract	Flexion, abduction & medial rotation of hip joint Extension of knee joint	Superior gluteal nerve
Gluteus maximus	Iliac crest, post. gluteal line	Femur: gluteal tuberosity Iliotibial tract	Extends and laterally rotates hip joint	Inferior gluteal nerve
Gluteus medius	Hip bone: ilium, between anterior and posterior gluteal lines	Femur: greater trochanter	Abducts and medially rotates hip joint	Superior gluteal nerve
Gluteus minimus	Hip bone: body of ilium, between anterior and inferior gluteal lines	Femur: greater trochanter	Extends and laterally rotates hip joint	Inferior gluteal nerve
Deep Gluteal Piriformis	Sacrum	Femur: greater trochanter	Laterally rotates the thigh at hip joint	Branches of ventral spinal rami
Gemellus superior	Hip bone: ischial spine	Femur: greater trochanter	Laterally rotates extended hip joint and abducts flexed hip joint	Nerve to obturator internus
Gemellus inferior	Hip bone: ischial tuberosity	Femur: greater trochanter	Laterally rotates extended hip joint and abducts flexed hip joint	Nerve to quadrates femoris
Quadratus femoris	Hip bone: ischial tuberosity	Femur: quadrate tubercle	Laterally rotates and adducts the hip joint	Nerve to quadrates femoris
Obturator externus	Hip bone: obturator foramen Obturator membrane	Femur: greater trochanter	Laterally rotates the extended hip joint Abducts the flexed hip joint	Obturator nerve
Posterior Abdominal Wall: Psoas	Transverse processes of vertebrae T12 to L5	Femur: lesser trochanter	Flexes thigh at hip joint	Ventral rami of lumbar nerves
Iliacus	Hip bone: iliac fossa and iliac crest	Femur: lesser trochanter Tendon of psoas major	Flexes thigh at hip joint	Femoral nerve