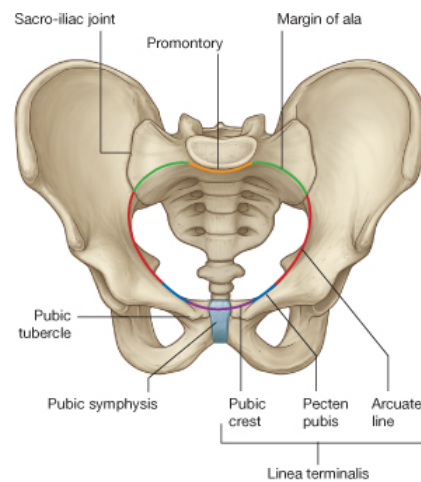


PELVIC BONES:

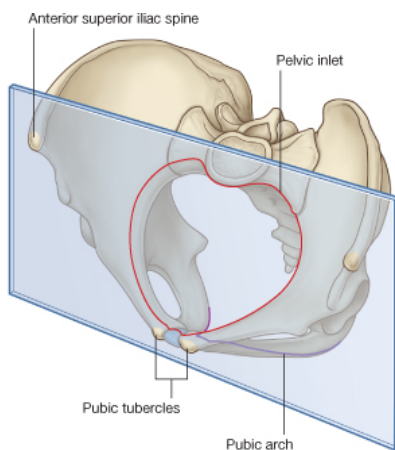
- Right and left innominate bones
- Sacrum
- Coccyx
- Innominates articulate with the sacrum posteriorly @ sacroiliac joints – synovial joints
- Innominates articulate with each other anteriorly @ pelvic symphysis; secondary cartilagenous
- Above the pelvic inlet = ‘false pelvis’ – belongs to abdomen
- Below the pelvic inlet = ‘true pelvis’ – contains the pelvic cavity.
- Acetabulum is the large articular socket on the lateral side of innominate which forms the hip joint with the head of the femur.

Pelvic inlet:

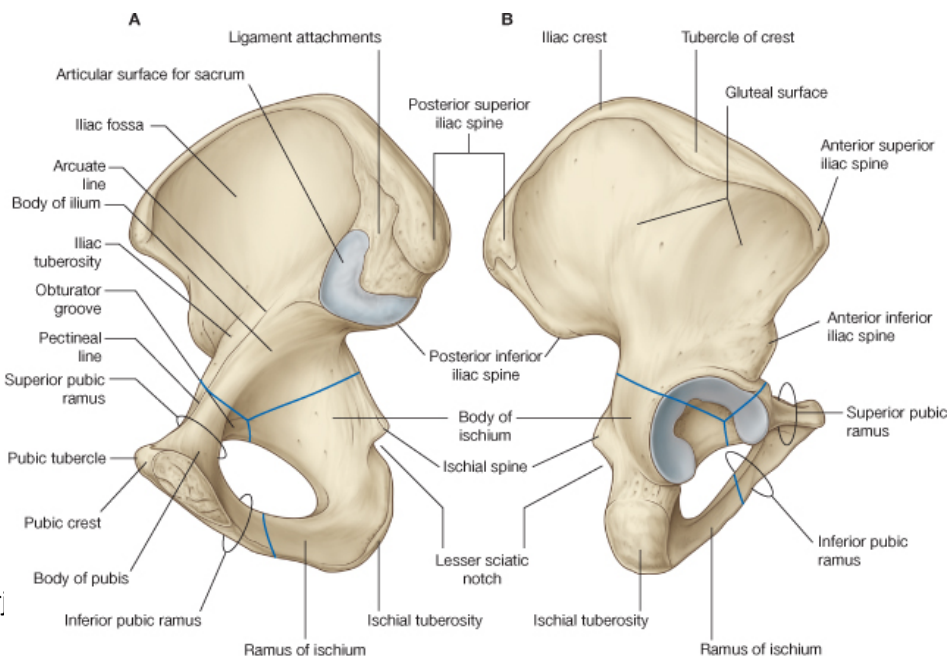
- Defined by the bony pelvic brim made up by:
 - Sacral promontory → sacral ala → arcuate lines → iliopectineal lines → pubic crest → pubic symphysis.



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Jack Marj

Sacrum:

- **5** fused segments of vertebral column
- Weight from trunk is passed onto the alae (lateral masses)
- Sacral promontory - most forward point of superior sacrum

Coccyx:

- **4** fused vertebrae
- Innominate bone consists of 3 fused bones:
 - Ilium
 - Pubis
 - Ischium
- Fuse at puberty (before this they are separated by Y-shaped **triradiate** cartilage in the acetabulum)

Pubis:

- Has a body and 2 arms (rami)
- Articulate anteriomedially at the pubic symphysis
- Pubic tubercle
- Superior pubic ramus joins to ilium and ischium
- Pectineal line = sharp superior border of superior ramus (forms part of border of pelvic inlet)
- Inferior pubic rami joins with ramus of the ischium

Ischium:

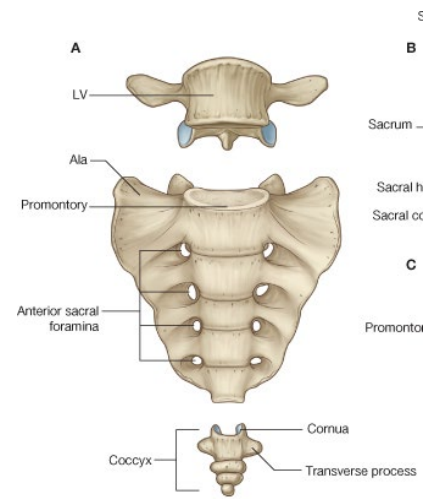
- Posterior inferior part of innominate
- Posterior border has ischial spine
- Ischial spine separates:
 - Greater sciatic notch
 - Lesser sciatic notch
- Ischial tuberosity is on posteroinferior aspect of ischium – part of the pelvis that we sit on.
- Ligaments pass between:
 - Ischial spine and sacrum; **sacrospinous ligament**
 - Ischial tuberosity and sacrum: **sacrotuberous ligament**
- This turns the greater and lesser sciatic notches into:
 - Greater sciatic foramen
 - Allows communication: pelvic region ↔ gluteal region
 - Lesser sciatic foramen
 - Allows communication: gluteal region ↔ perineum

Obturator foramen:

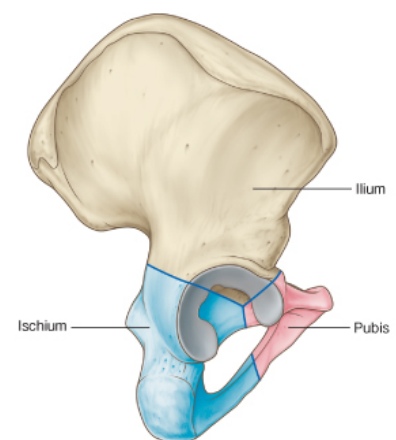
- Formed by superior and inferior pubic rami, and by ischium and ramus of ischium posteriorly.
- Covered with obturator membrane
- Internal and external obturator muscles lie either side of the membrane.
- Small 'obturator canal' allows obturator nerves and vessels through.

Subpubic angle:

- **Ischiopubic ramus** runs from pubic symphysis anteriorly → ischial tuberosity posteriorly.



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- Angle between left and right ischiopubic rami = subpubic angle.

Differences between male and female pelvises:

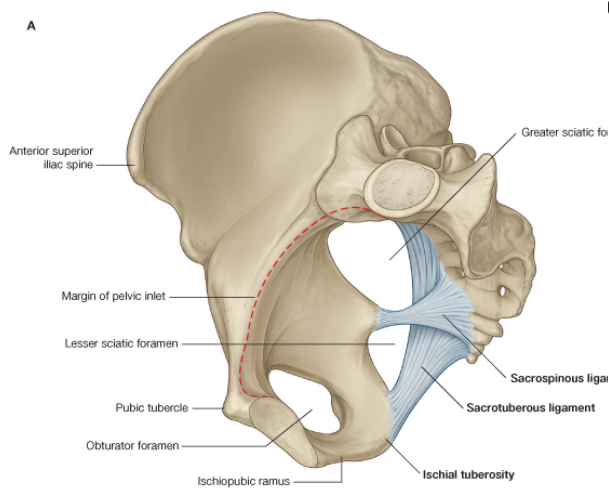
Male	Female
Narrow, heart-shaped, pelvic inlet:	Wider pelvic inlet
<ul style="list-style-type: none"> • Larger acetabulum • Acetabulum diameter = length of superior pubic ramus 	<ul style="list-style-type: none"> • Smaller acetabulum • Acetabulum diameter is smaller than superior pubic ramus
<ul style="list-style-type: none"> • Sacral promontory projects further forward 	<ul style="list-style-type: none"> • Sacrum is positioned further back • Wider alae of sacrum (sacral bodies make up less of sacral width)
Smaller pelvic outlet	Larger pelvic outlet
<ul style="list-style-type: none"> • Sacrum positioned forward • Larger ischial spines 	<ul style="list-style-type: none"> • Sacrum positioned backwards
<ul style="list-style-type: none"> • J-shaped greater sciatic notch 	<ul style="list-style-type: none"> • L-shaped, more opened out, greater sciatic notch.
<ul style="list-style-type: none"> • Subpubic angle = 60 	<ul style="list-style-type: none"> • Subpubic angle = 90
<ul style="list-style-type: none"> • Ischial tuberosity and spines positioned more medially 	<ul style="list-style-type: none"> • Ischial tuberosity and spines positioned more laterally
Taller true pelvis	Shorter true pelvis

Women:

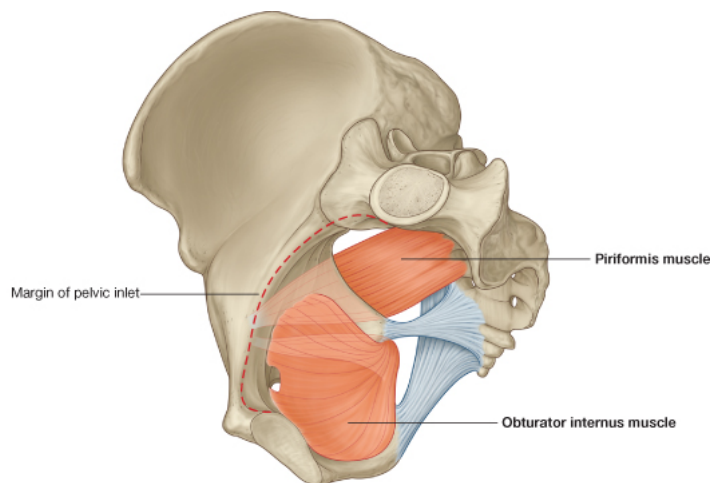
- Pelvic inlet: wider than it is long
- Pelvic outlet: longer (anteroposteriorly) than it is wide
- Accommodates the fact that baby changes orientation through 90° during childbirth.

Muscular walls of the pelvis:

Muscle	Origin	Inserion	Function
Obturator internus	<ul style="list-style-type: none"> • Bone surrounding obturator foramen • Obturator membrane 	Passes through <u>lesser</u> sciatic foramen, turning through 90° and inserting into the greater trochanter of femur.	Lateral rotation of the thigh .
Piriformis	<ul style="list-style-type: none"> • Anterior side of S2, 3 & 4 of sacrum 	Passes through <u>greater</u> sciatic foramen to insert in posterior part of greater trochanter of femur	Lateral rotation of the thigh . Proprioception.



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LUMBAR PLEXUS

L1,2,3,4,5

