

Ulnar Nerve 3min

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Ulnar nerve

- Medial cord
- Anterior division of inferior trunk
- C8 & T1 spinal roots
 - o Also C7 as ulnar nerve often picks up C7 fibres at root level, trunk level, divisions level, etc.
- Forms lower part of M

Myotomes

- Anterior forearm muscles:
 - o Flexor carpi ulnaris (FCU)
 - o Medial half of flexor digitorum profundus (FDP)
- Everything that the median nerve does not supply
 - o Medial 2 lumbrical and Thenar remanence
 - Abductor digiti minimi (AbdDM)
 - Flexor digiti minimi (FDM)
 - Opponens digiti minimi (ODM)
 - Adductor pollicis (AddP)
 - 3rd and 4th lumbrical
 - Interossei

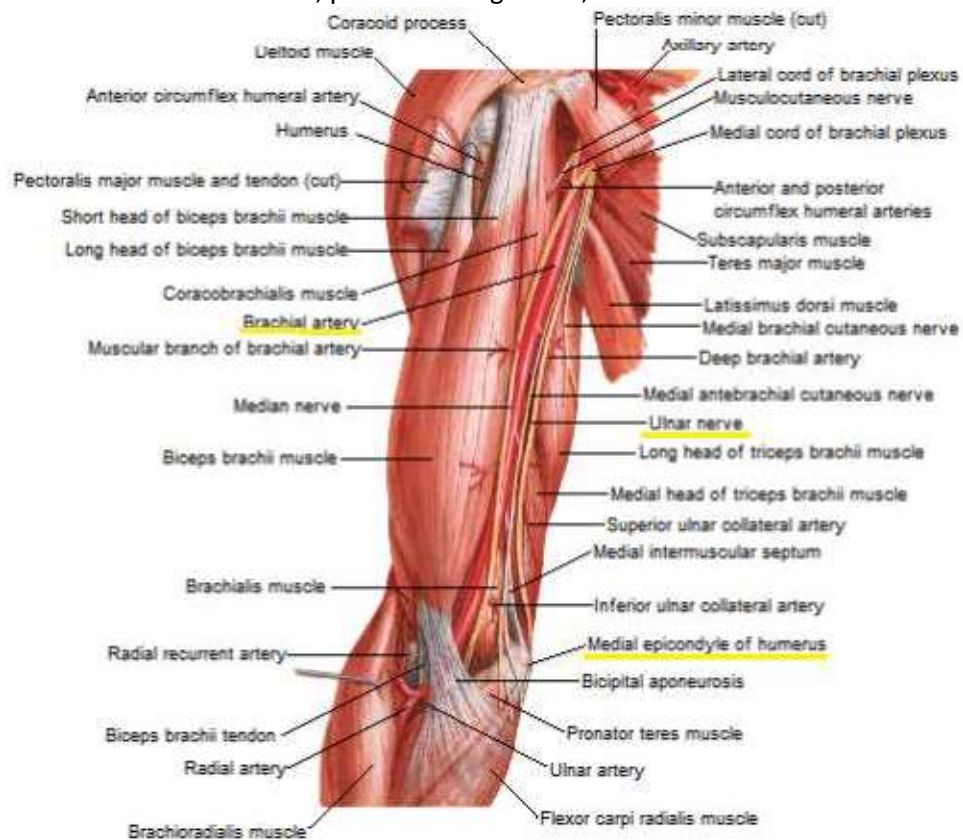


Dermatome

- Medial 1.5 digits (both palmar and dorsal)

Route

- Medial to brachial artery in arm
- Passes posterior to medial epicondyle
 - o Susceptible to compression and/or stretch across back of medial epicondyle
- Between and deep to heads of flexor carpi ulnaris (FCU)
- Between flexor carpi ulnaris (FCU) and medial surface of flexor digitorum profundus (FDP)
- Superficial to flexor retinaculum medially
 - o Susceptible at wrist to compression against handlebar of bike
- Enters hand through ulnar canal/tunnel:
 - o With ulnar artery
 - o Pisiform bone, pisohamate ligament, hook of hamate



Injury

- 'Claw hand'
- Ulnar nerve paradox: More distal the cut the more claw it appears

Veins and lymphatics of Upper limbs 2min 25

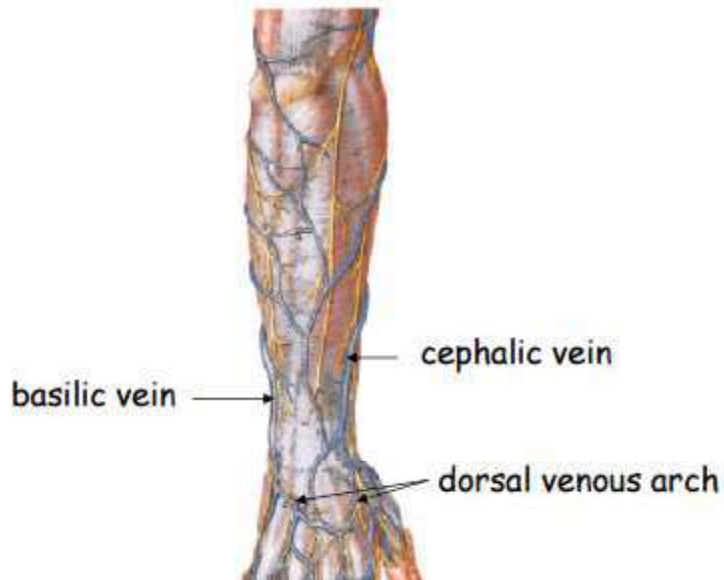
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Veins

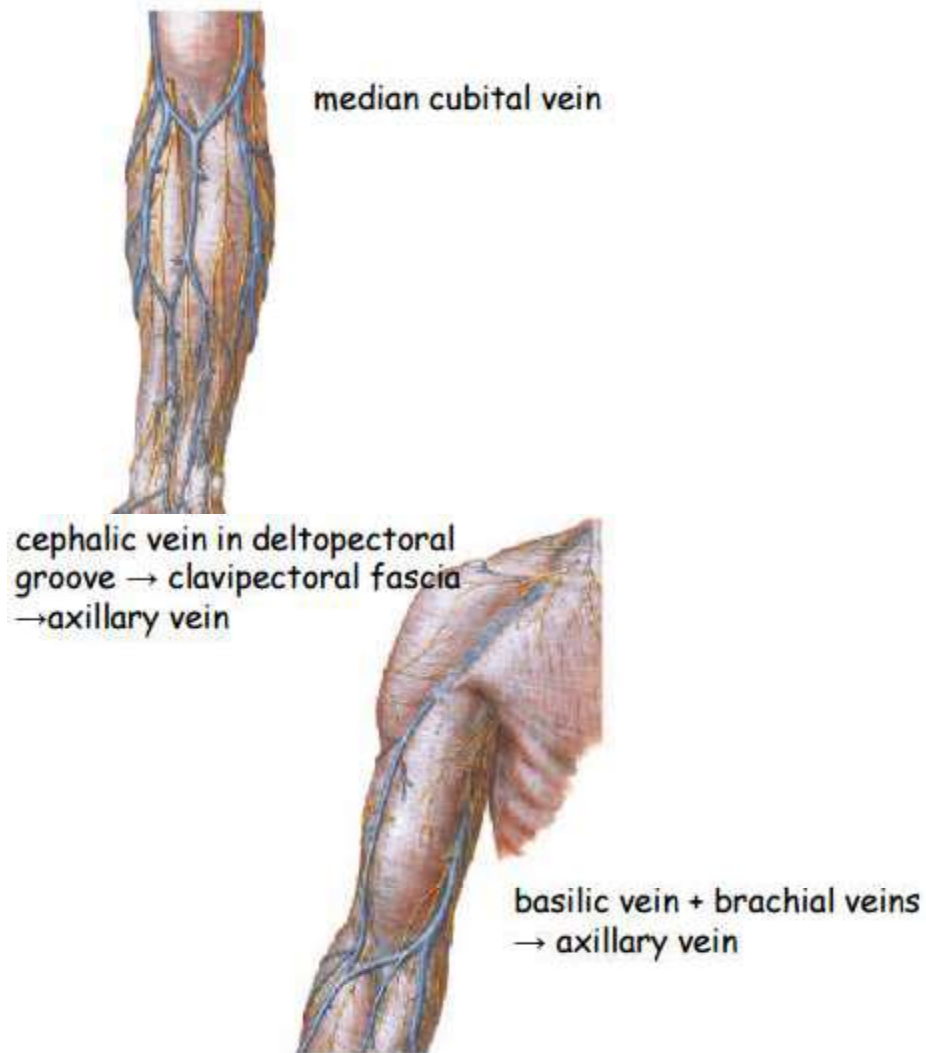
- There are always superficial and deep veins
- Deep and superficial veins always readily anastomose
- Superficial and deep veins have valves for unidirectional flow

Superficial Veins

- In superficial fascia outside of compartments
- Dorsal venous arch:
 - o Clenching of fist or pressure of gripping promotes collection of blood in dorsum of hand
 - o Drains into cephalic (lateral) and basilic (medial) veins of forearms
- Cephalic veins:
 - o Around lateral border of forearms to appear on anterior surface
 - o Ascend lateral side on anterior side of forearm
 - o Communicates with basilic vein via median cubital vein in cubital fossa
 - o Everyone has a different pattern
 - o Runs on the lateral side of biceps into deltoid-pectoral groove (between deltoid and pectoralis major)
 - o Pierces clavipectoral fascia just before clavicle joining the axillary vein
- Basilic vein:
 - o Winds around medial side of forearm to appear on anterior side
 - o Communicates with cephalic vein via median cubital vein in cubital fossa
 - o Medial side of biceps before piercing deep fascia at insertion of coracobrachialis (1/2 up arm)
 - o Enters anterior compartment to join brachial pair comatitensis/veins

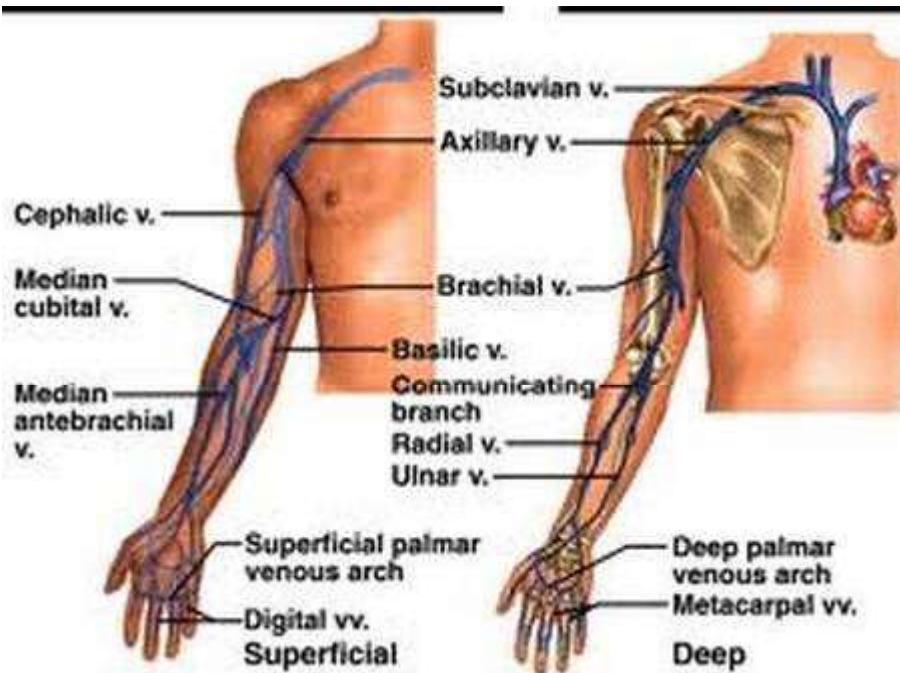


Anterior (Palmar) View



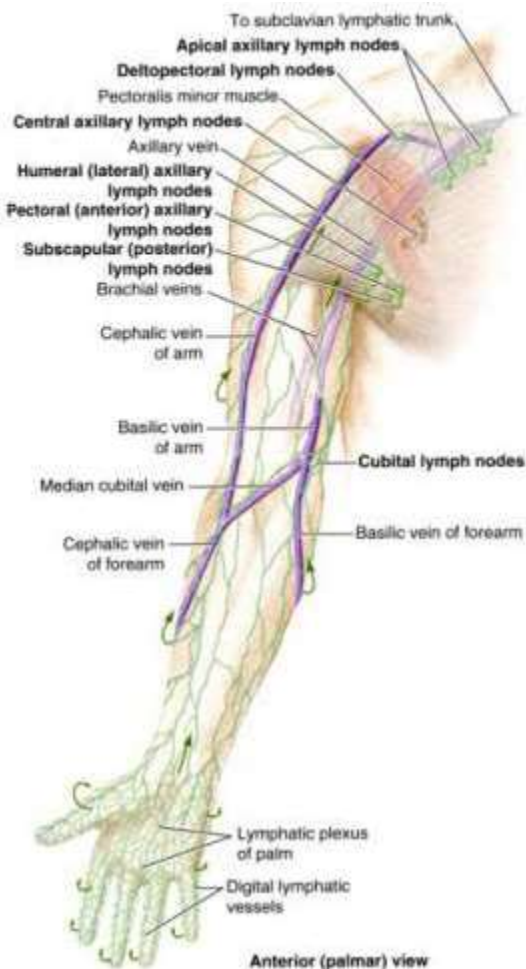
Deep Veins

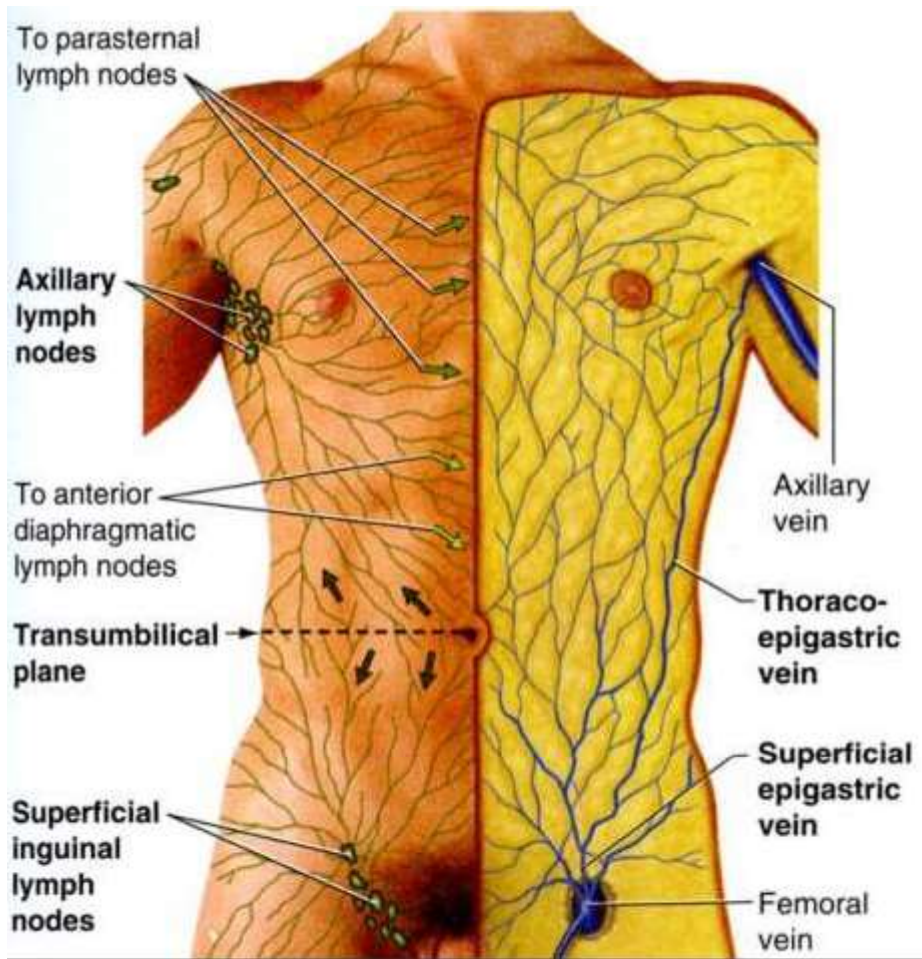
- Always accompanying arteries in compartments
- Proximal to middle joint (elbow) there are paired veni comitantes (a vein on either side of artery)
 - o Paired ulnar, radial and brachial veins
 - o Relatively small due to most venous drainage being superficial



Lymphatics

- Lymph ends in axillary lymph nodes
 - o Also drains anterior and posterior chest wall (upper quadrant)
- Deep lymphatics with major arteries
- Superficial lymphatics follow superficial veins



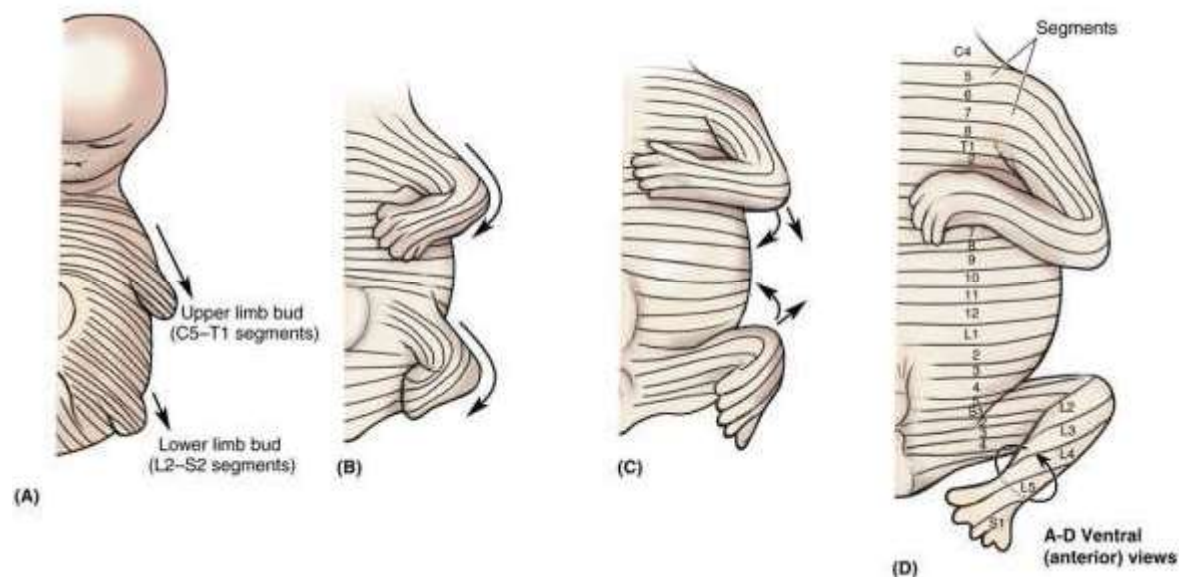


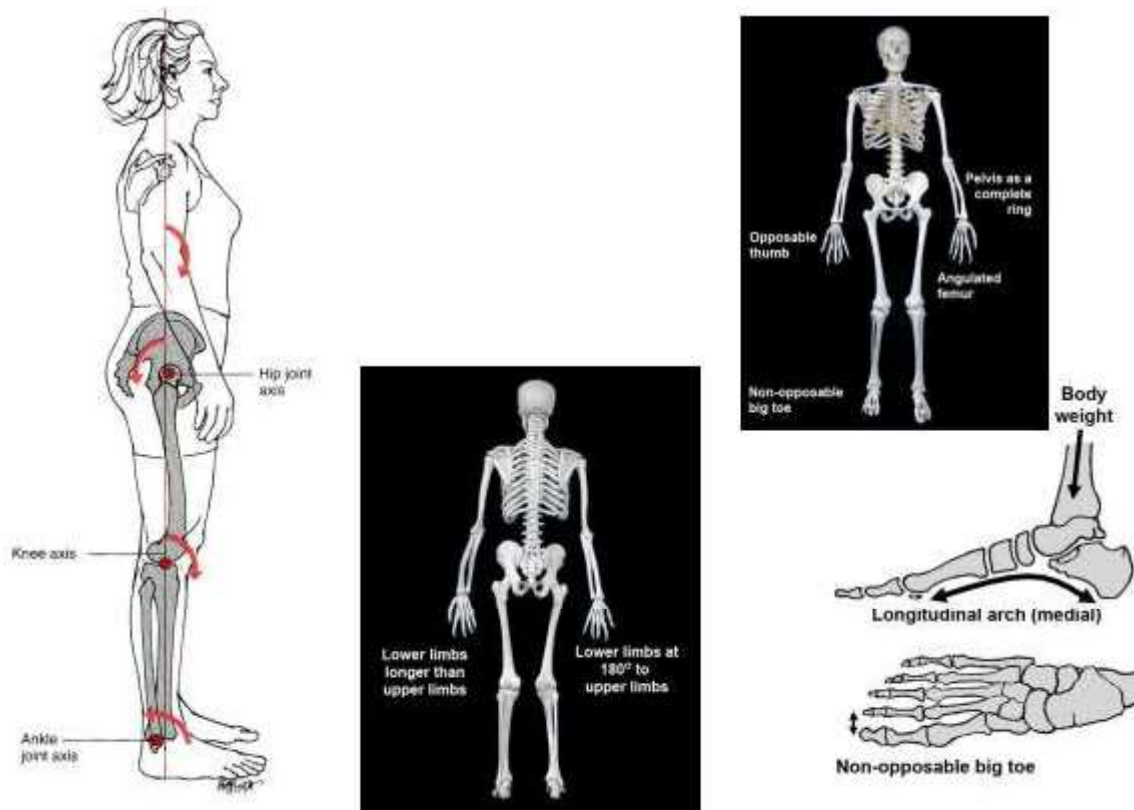
Lower Limb 50sec

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Lower Limb

- Lower limb bud rotates medially
- Designed for weight, locomotion, posture and stability
- Has a complete ring compared to the shoulder girdle
- Longer limbs for increased stride length, leverage, momentum, etc.
- Angulated femur so not swaying (controls centre of balance/mass)
- Non-opposable big toe (lies adducted)
- Longitudinal arch ensures weight distribution
- Centre of gravity:
 - o Posterior to hip joint axis
 - o Slightly anterior to knee
 - o Anterior to ankle: Soleus, gastrocnemius, etc. in calf maintain posture
 - o Not directly over joints so as to decrease wear
 - o Structures to provide support





Regions

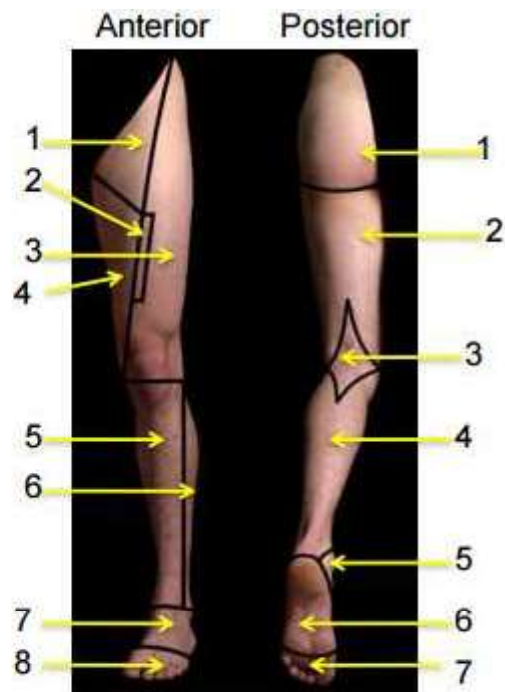
Major regions: hip, thigh, leg, foot

Anterior regions:

1. Femoral triangle
2. Subartorial canal
3. Anterior compartment of thigh
4. Medial compartment of thigh
5. Anterior compartment of leg
6. Lateral compartment of leg
7. Dorsum of foot
8. Dorsal aspect of digits

Posterior regions:

1. Gluteal region
2. Posterior compartment of thigh
3. Popliteal fossa
4. Posterior compartment of leg
5. Tarsal tunnel
6. Sole of foot
7. Plantar aspect of toes

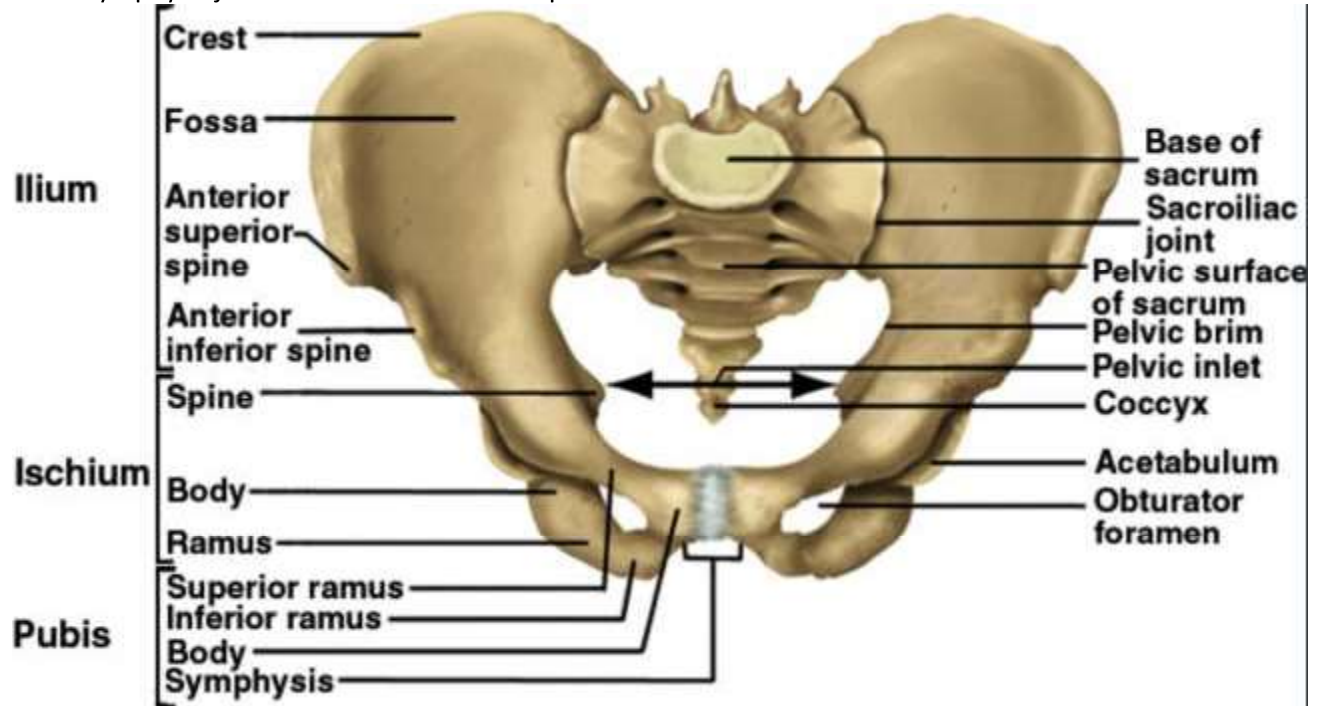


Pelvic Girdle 4min 10

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Pelvis

- Formed by 2 os coxa and sacrum
- Ligaments:
 - o Sacral spinal ligament:
 - Ligament from sacrum to ischial spine
 - Makes the greater sciatic notch a foramen
 - o Sacral tuberos ligament:
 - Ligament from sacrum to ischial tuberosity
 - Makes the lesser sciatic notch a foramen
- Symphysis joins the two os coxa at the pubic bones



Os coxa

- Each os coxa consists of:
 - o Ilium
 - o Ischium
 - o Pubis
- Acetabulum:
 - o Socket for head of femur
 - o Ilium contributes superior part
 - o Ischium contributes to posterior rim
 - o Pubis contributes to anterior part
 - o Acetabular notch: Incomplete inferiorly
 - o Contains labrum (fibrocartilaginous disc)
- Obturator foramen:
 - o Posteriorly and superiorly formed by ischium
 - o Anteriorly and some superior formed by pubis
 - o Obturator membrane covers the obturator foramen