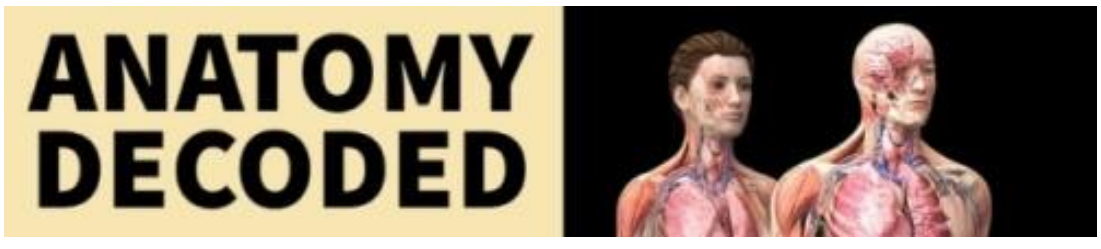
Q&A 30 : Osteology of Lower Limb



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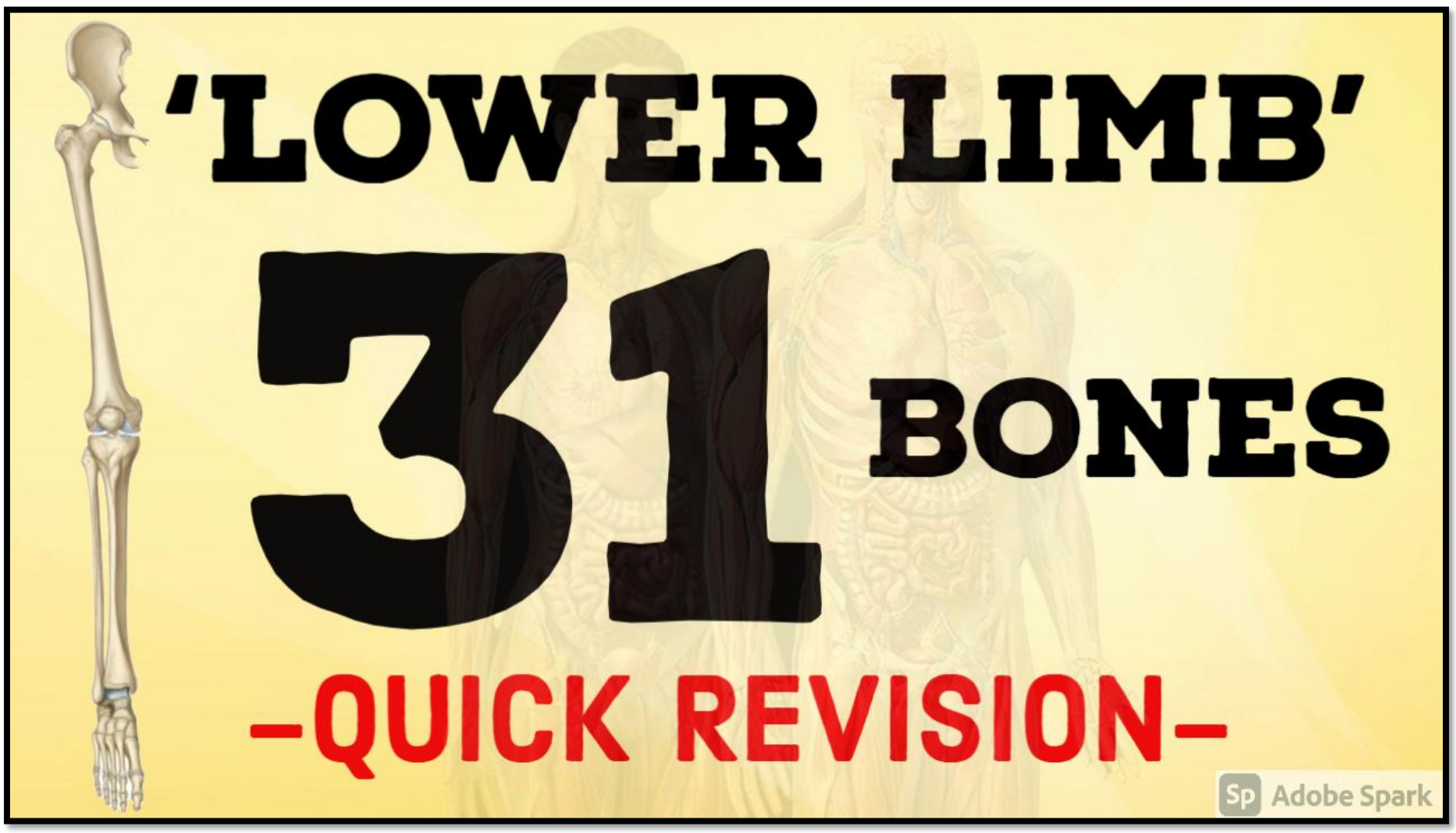
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Q&A – 30: Lower Limb

Topic:

- **Osteology of Lower Limb**



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Another name for Hip bone ?

Innominate bone or Os Coxae

Other structures in the body Related to the word Innominate?

Brachiocephalic artery - Innominate artery

Brachiocephalic vein - Innominate vein

Canaliculus innominatus – Between foramen ovale and foramen spinosum

Anterior superior iliac spine

Anterior inferior iliac spine

Structures attached ?

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Anterior superior iliac spine

- Inguinal ligament above
- Sartorius below

Anterior inferior iliac spine

- Straight head of rectus femoris above
- Iliofemoral ligament below

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Vertebral level of highest point of iliac crest ?* Clinical significance ?

Between L3 L4

Clinical significance – Most common site of Lumbar puncture in adults

Structures passing through both Greater sciatic notch & Lesser sciatic notch ?

Medial to Lateral

- Pudendal nerve
- Internal pudendal vessels
- Nerve to obturator internus

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Which part of ischial tuberosity is subcutaneous ?* Any structure attached there ?

Inferomedial part (Covered by fibrofatty tissue, weight transmission occurs in sitting position)

-Sacrotuberous ligament is attached there

Meaning of the word femur ?

Femur is a Latin word meaning Thigh

Note - Meaning of the word Humerus is not Arm

Click here to Find out the meaning of the word Humerus

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Muscles attached to Lesser trochanter of femur ?

- Iliacus
- Psoas major

Muscle attached to tip the of greater trochanter of femur ?

Piriformis

Muscle attached to trochanteric fossa ?

Obturator externus

Meaning of the word Linea aspera ?

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Latin word

Linea = Line

Asper = Rough

Referring to rough line on posterior aspect of femur

Attachments of cruciate ligaments on femur?

Mnemonic - LAMP

Lateral condyle - Anterior cruciate ligament (ACL)

Medial condyle - Posterior cruciate ligament (PCL)

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Adductor tubercle gives Attachment to which part of Adductor magnus?

Hamstring's / Ischial part

Adductor part is attached on the Linea aspera

Complication of fracture Neck of Femur ?

- Avascular necrosis of Head of Femur.
- Intracapsular fracture hampers retinacular vessels which supply the head of Femur

Meaning of the word patella ?

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Latin word meaning small dish

Why fractures of patella doesn't heal soon ?

Absence of periosteum which is required for bone formation.

Patella is a sesamoid bone, so it lacks periosteum

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Meaning of the word Tibia ?

Meaning of the word Fibula ?

Tibia

Latin word meaning Pipe / Flute

Fibula

Latin word meaning Needle of brooch / Pin

Muscles attached to upper medial aspect of tibia ?

Seperated by which bursa ?

Mnemonic - SGS

- Sartorius
- Gracilis
- Semitendinosus

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Bursa - Anserine bursa

Characteristic features of Guy ropes ?

- 3 muscles are from 3 different compartments of thigh.
- Arise from 3 different parts of the hip bone
- Supplied by 3 different nerves
- Distal attachment of all 3 is at upper medial aspect of tibia

➢ Sartorius (Anterior compartment, Ilium, Femoral nerve)
➢ Gracilis (Medial compartment, Pubis, Obturator nerve)
➢ Semitendinosus (Posterior/Hamstring compartment, Ischium, Sciatic nerve)

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Why Nutrient artery of Tibia is largest ?

Usually bones receive blood supply from surrounding muscles.

Tibia has very few muscles Attached as compared to fibula.

So Nutrient Artery of tibia is large

Muscles Attached on to the posterior surface of tibia ?

- Popliteus – Above soleal line
- Soleus – At the soleal line
- Flexor digitorum longus - Medial
- Tibialis posterior - Lateral

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Why does fibula violate the law of ossification ?

Lower end of fibula is a pressure epiphysis - Important component of stability of Ankle joint (So centre appears first and also fuses first)

Upper end is growing end of fibula - therefore unites with the shaft last

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Calcaneocuboid joint is of which type ?

Saddle variety of synovial joint

Other examples of saddle variety of synovial joint ?

- Incudomalleolar join
- Sternoclavicular joint
- 1st carpometacarpal joint
- Patellofemoral joint
- Ankle joint (structurally saddle, functionally hinge)

Muscles attached the base of 1st metatarsal ?

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Inferomedial aspect - Tibialis anterior

Inferolateral aspect - Fibularis longus

Characteristic feature of 5th metatarsal, which Muscle is attached at the base ?

Has styloid process

Fibularis brevis & Fibularis tertius attached

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Meaning of the word

Ilium ?

Ischium ?

Pubis ?

Ilium - Latin word meaning Flank

(Part of the hip bone flanking the abdomen)

Ischium - Greek work meaning Socket

(Ischium forms 2/5th of the socket for head of Femur)

Pubis - Latin word meaning Adult

(Compare with puberty - pubic hair is a mark of adulthood)

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