The logo of Galgotias University is a circular emblem with three stylized, overlapping curved shapes in shades of yellow, blue, and red, resembling a sun or a flower.

UNIT-2

FEMALE PELVIS

(lecture-1)

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INTRODUCTION

- The pelvis is a basin like structure which connects the spine to lower limbs.
- It is an important part of the skeletal system.
- It transmits the weight of the trunk to the legs.
- It takes the weight of the sitting body.
- It allows movements of walking and running.
- It protects the pelvic organs.
- In addition the female pelvis is adapted for childbearing with an increased width and rounded brim.

DEFINITION

- It is a skeletal ring formed by two innominate or hip bones & the sacrum & the coccyx.

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TYPES OF PELVIC BONES

There are four pelvic bones that form pelvis:

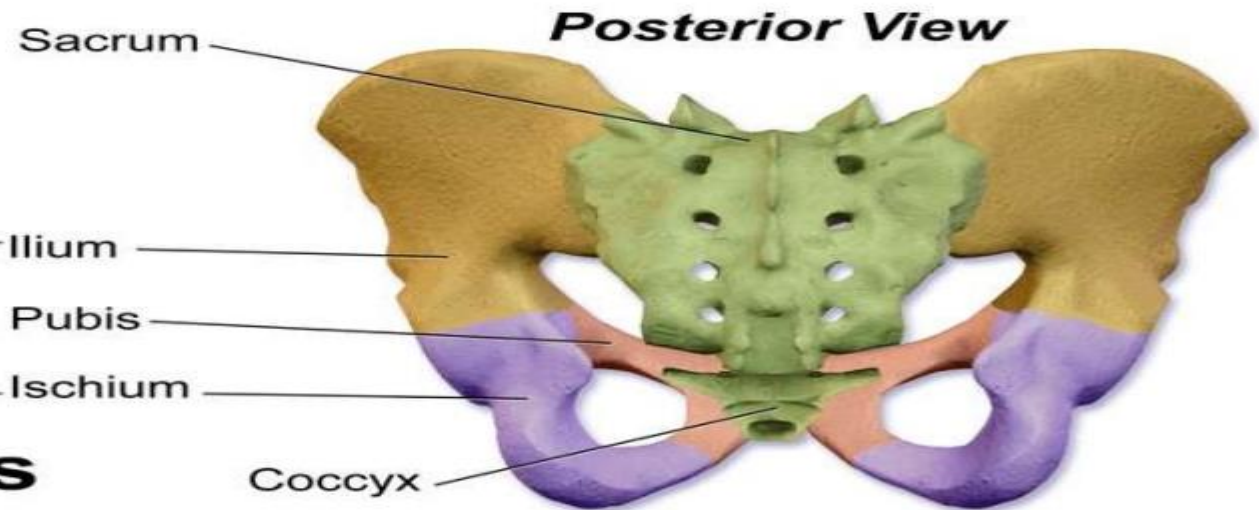
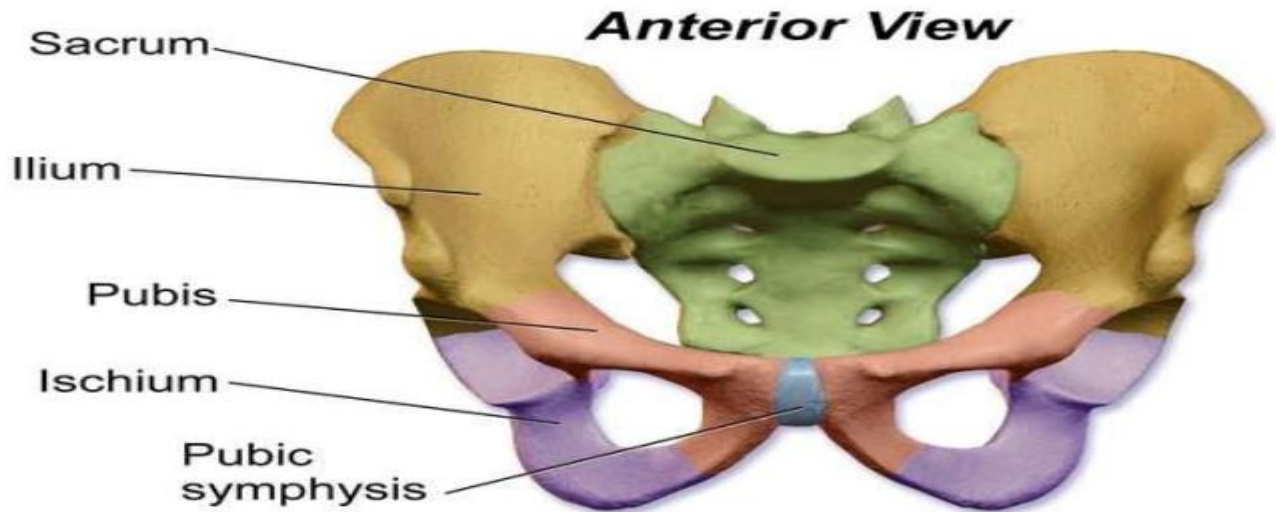
- Two Hip bones (Innominate or nameless)
- One Sacrum
- One Coccyx

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Hip bone

Ilium

Pubis

Ischium

The Pelvis

1.TWO INNOMINATE BONES

Innominate bone is made up of three bones

- Ilium
- ischium
- pubic bone

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ILIUM

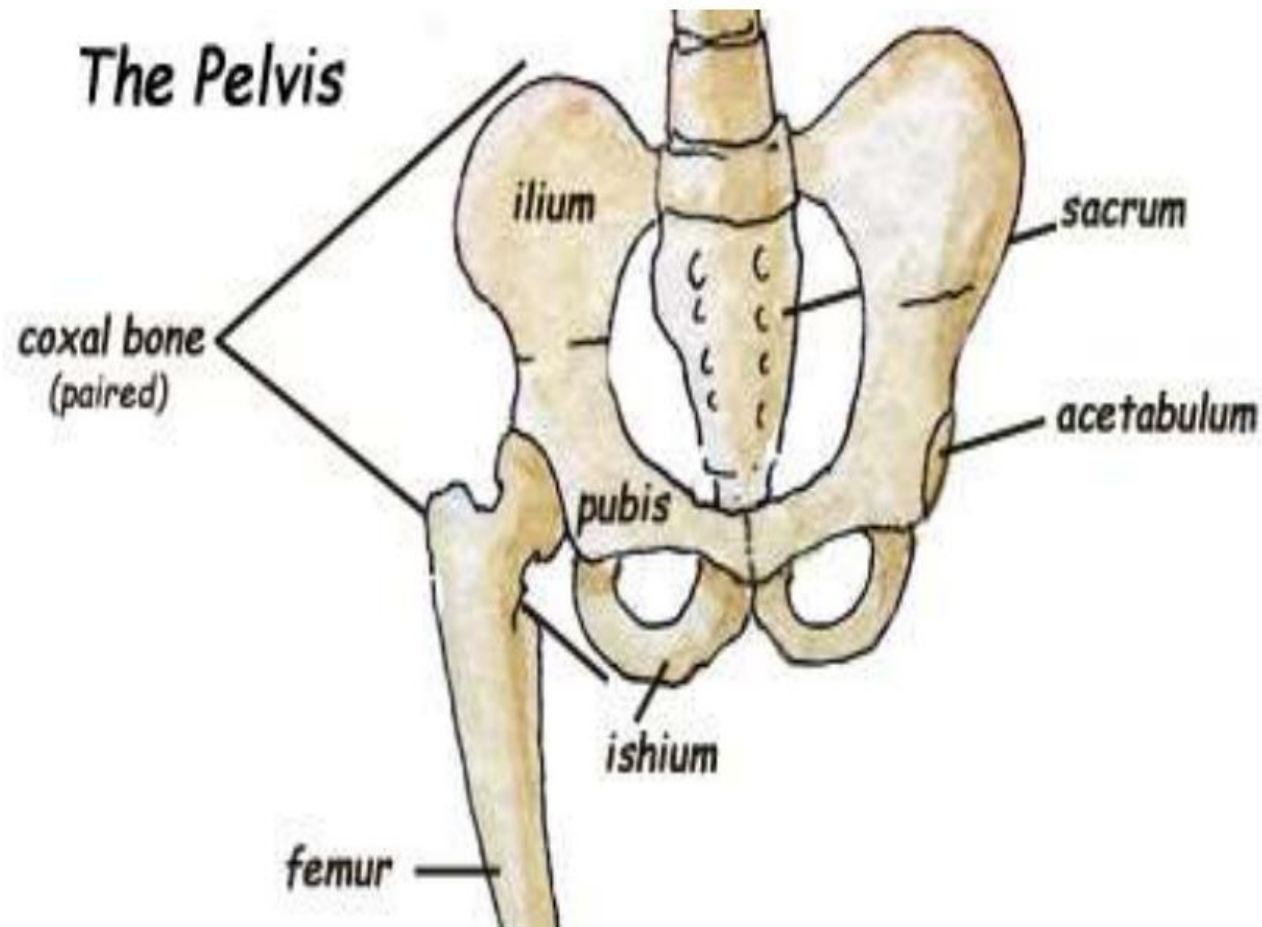
- The ilium is the flared out part of the hip bone. It has following parts-
- Iliac crest as upper border
- Concave border is iliac fossa
- Anterior superior iliac spine
- Anterior inferior iliac spine
- Posterior superior iliac spine
- Posterior inferior iliac spine

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ISCHIUM

- The ischium is the thick lower part of the hip bone. It has following parts-
- Acetabulum
- Ischial tuberosity
- Ischial spine: location in relation to fetal head, i.e. above (-), below (+) or at (zero station)
- Greater sciatic Notch: extends from Sacro iliac joint to ischial spine
- Lesser Sciatic Notch: extends from ischial spine to ischial tuberosity
- Obturator foramen: passage of pelvic nerve fibres

PUBIC BONE

- The two pubic bones form the anterior part of the hip bone. It has following parts-
- Inferior rami of Pubic bone (a)
- Superior rami of pubic bone (b)
- Symphysis pubis (a+b): It is formed at the junction of two pubic bones.
- Sub pubic angle: angle between the inferior rami of the pubic bone.

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2.SACRUM

- It is a wedge shaped bone made up of five fused bones. It has following parts-
- Sacral promontory: it is prominent upper margin of first sacral vertebrae, projects inwards
- Sacro iliac joint
- Wings of Sacrum or Ala of Sacrum
- Hollow of the Sacrum: concave

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3.COCCYX

- It is a vestigial tail consists of four fused vertebrae forming a small triangular bone.
- It is articulated with the sacrum
- Coccyx moves backward during childbirth

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PELVIC JOINTS

There are four pelvic joints:

- Two sacroiliac joints
- One pubic symphysis joint
- One sacrococcygeal joint

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TWO SACROILIAC JOINTS

- These are slightly movable joints formed where the ilium joints, first two sacral vertebrae on either side.
- They connect the spine to the pelvis & are the strongest joints in body.

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ONE PUBIC SYMPHYSIS JOINT

- It is a cartilaginous joint between two pubic bones.

ONE SACROCOCCYGEAL JOINT

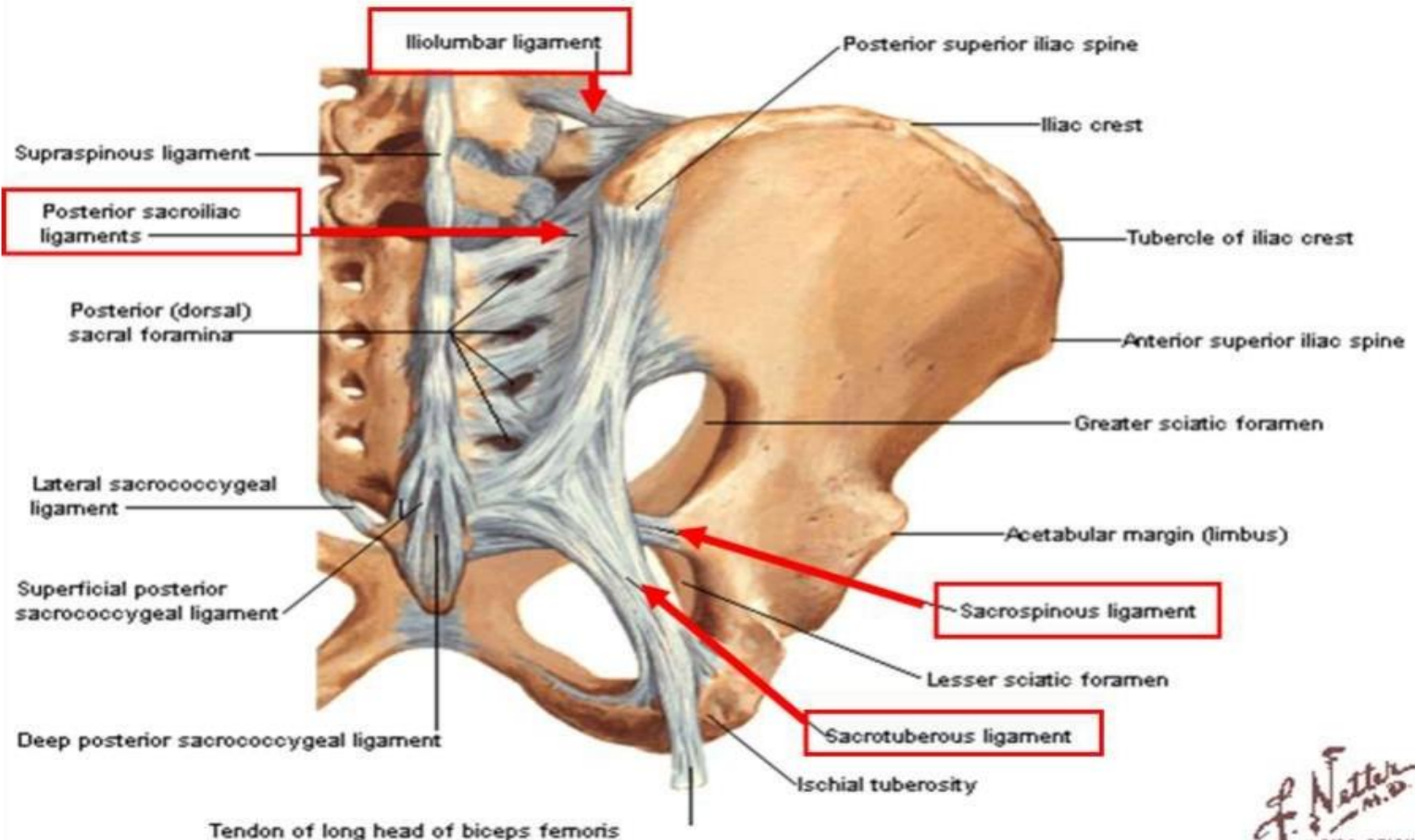
- It is a hinge joint between sacrum & coccyx.

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PELVIC LIGAMENTS

- The pelvic bones are held together with ligaments.
- **Sacro iliac ligament**- it pass in front of and behind each sacroiliac joint.
- **Pubic ligament**- it connect the top of pubic bones.
- **Sacro tuberos ligament**- one ligament on each side , run from sacrum to the ischial tuberosity
- **Sacro spinous ligament**- one ligament on each side of the sacrum & the ischial spine.
- **Sacro coccygeal ligament**-one ligament on each side from sacrum to coccyx.

Bones and Ligaments of Pelvis Posterior View



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