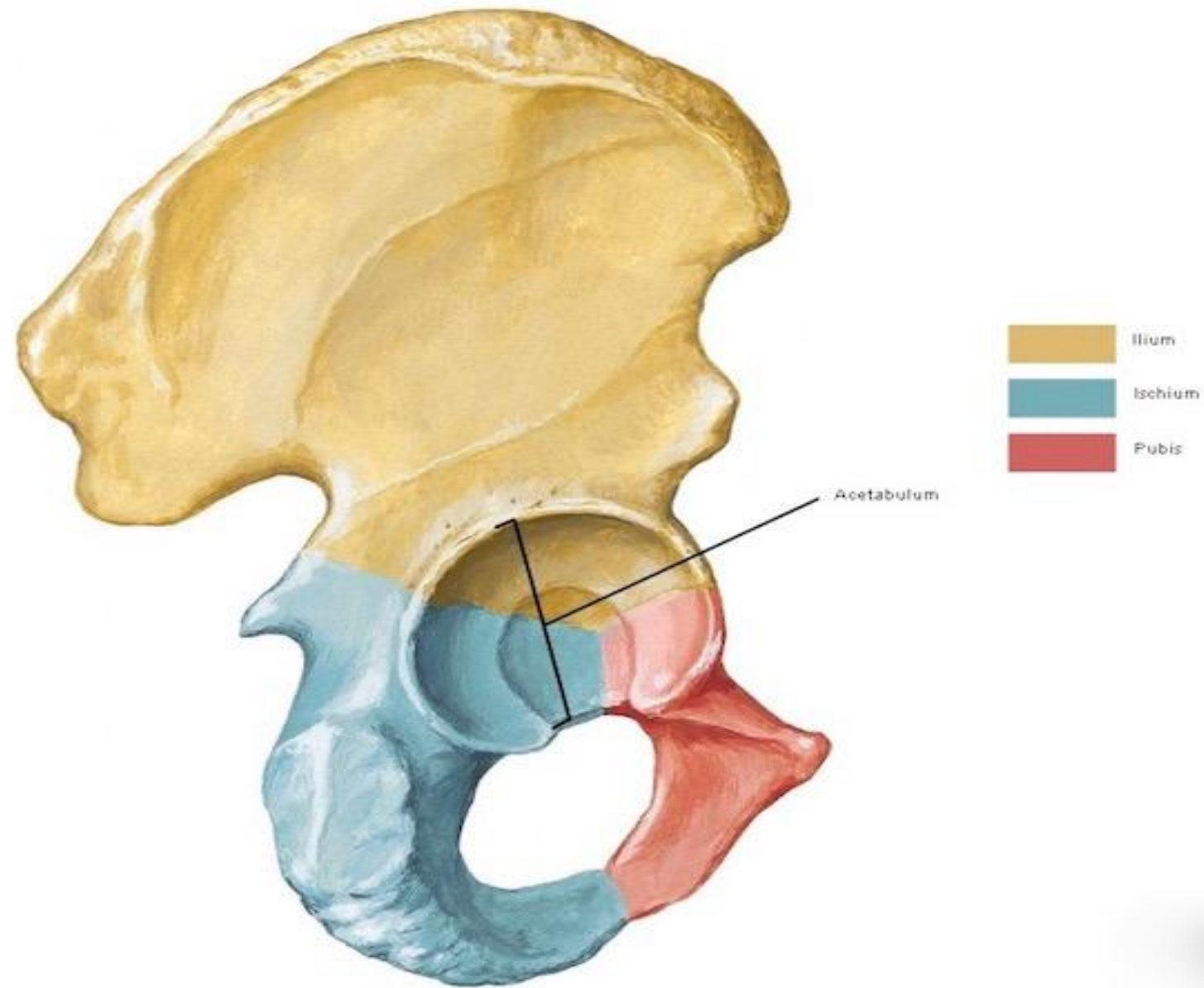
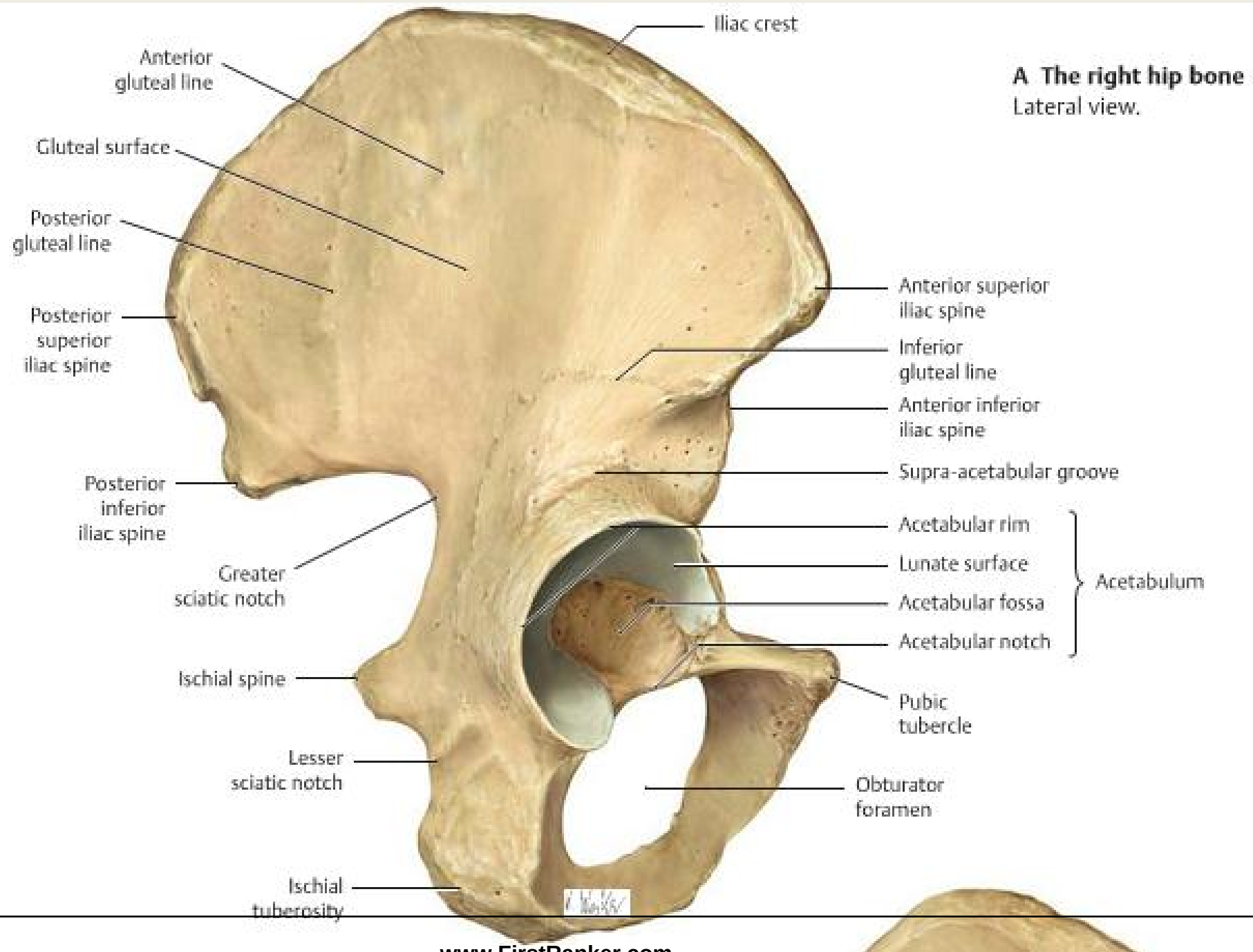


OBJECTIVES:

- General overview of hip bone.
- Side determination and anatomical position.
- Ilium bone
 1. Two ends: **upper & lower ends.**
 2. Three borders: **Anterior, posterior & medial borders.**
 3. Three surfaces: **Gluteal surface, iliac fossa, sacropelvic surface.**

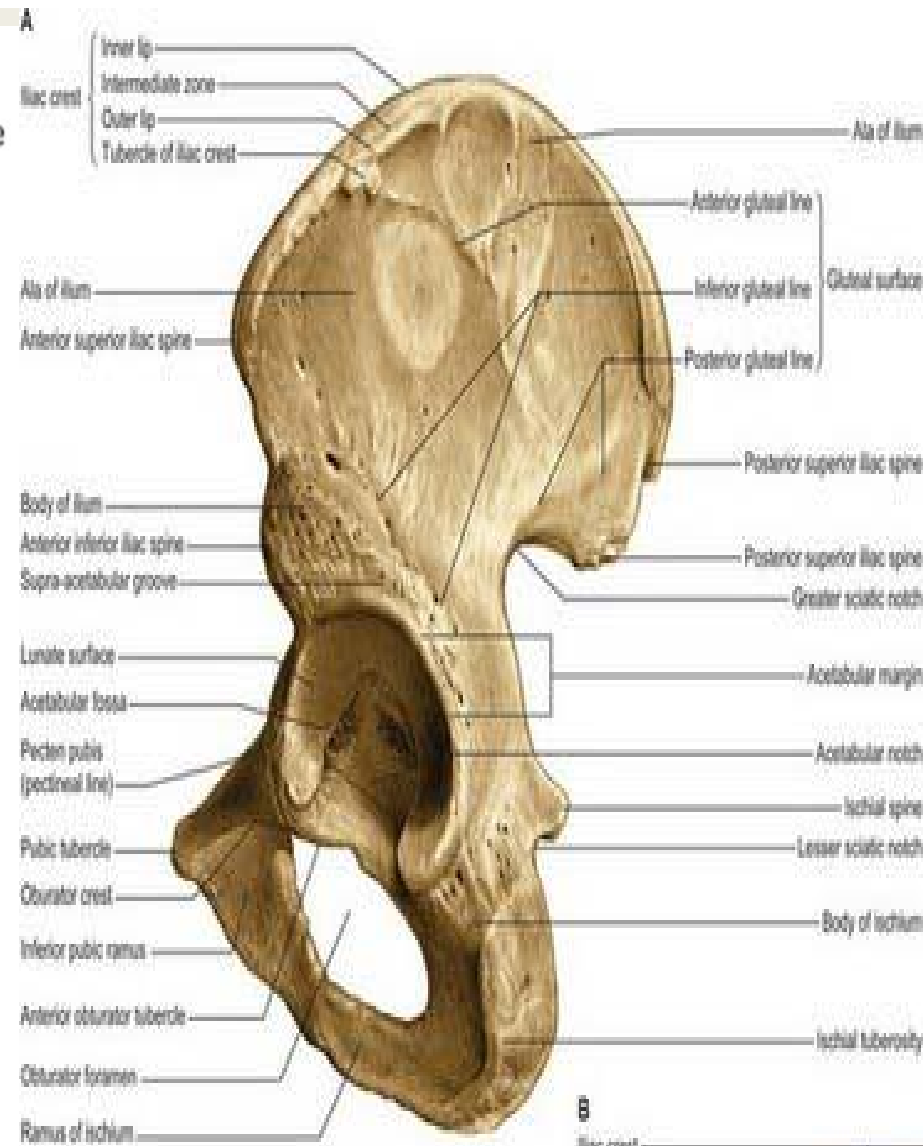
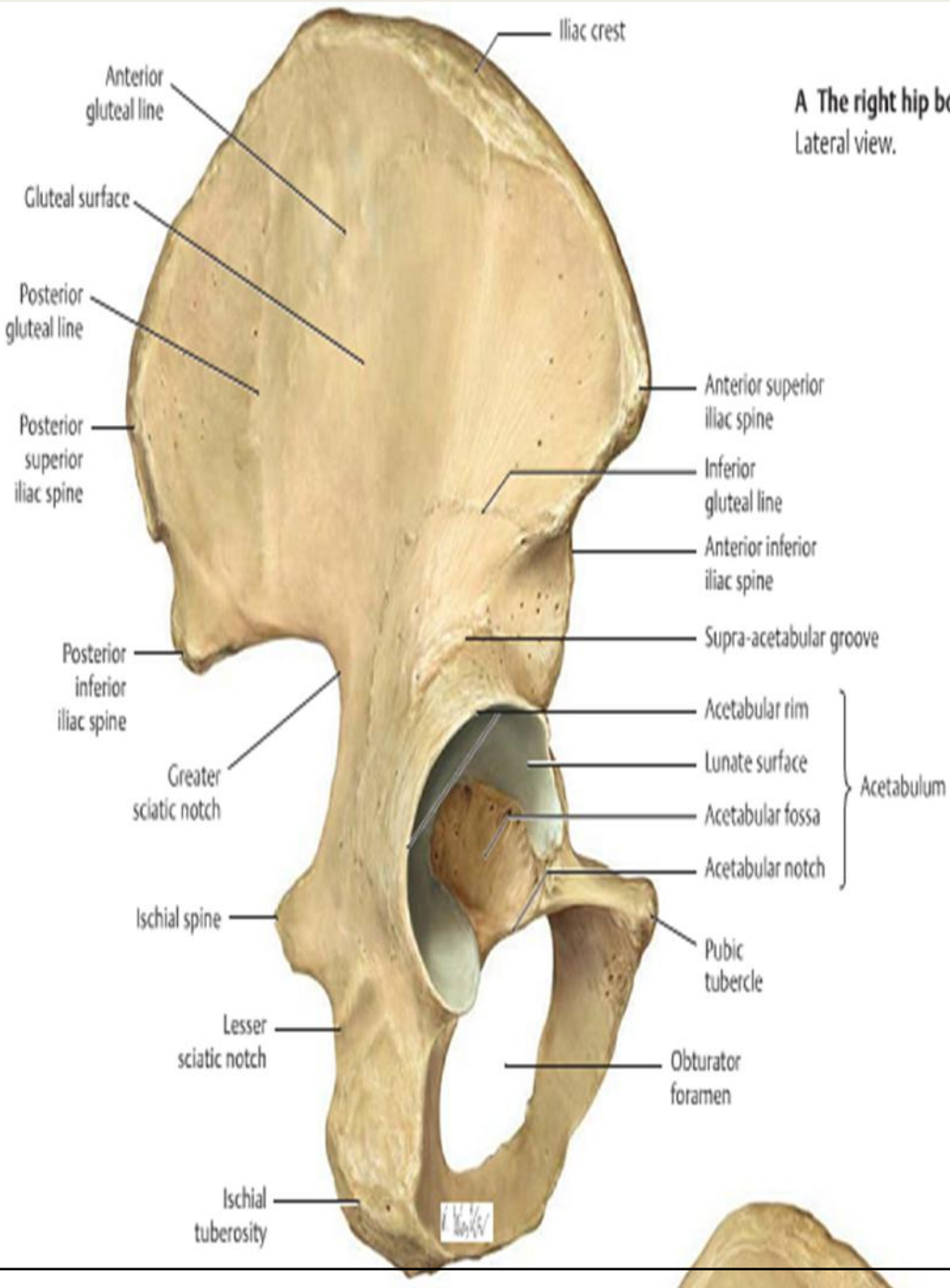
Hip (Coxal) Bone Lateral View





SIDE DETERMINATION & ANATOMICAL POSITION:

- Ilium is expanded and projects upwards.
- Pubis faces forwards and medially above the obturator foramen.
- Acetabular cavity faces forwards, downwards and laterally.
- ASIS and pubic crest lie in the same vertical level.



ILIUM

ILIUM

- Ilium is the flat, expanded portion above the acetabular cavity.
- It has:
 - a) 2 ends: Upper and Lower
 - b) 3 borders: Anterior, Posterior & Medial
 - c) 3 surfaces: Gluteal surface, Iliac fossa & sacropelvic surface

ENDS:

I. UPPER END/ ILIAC CREST:

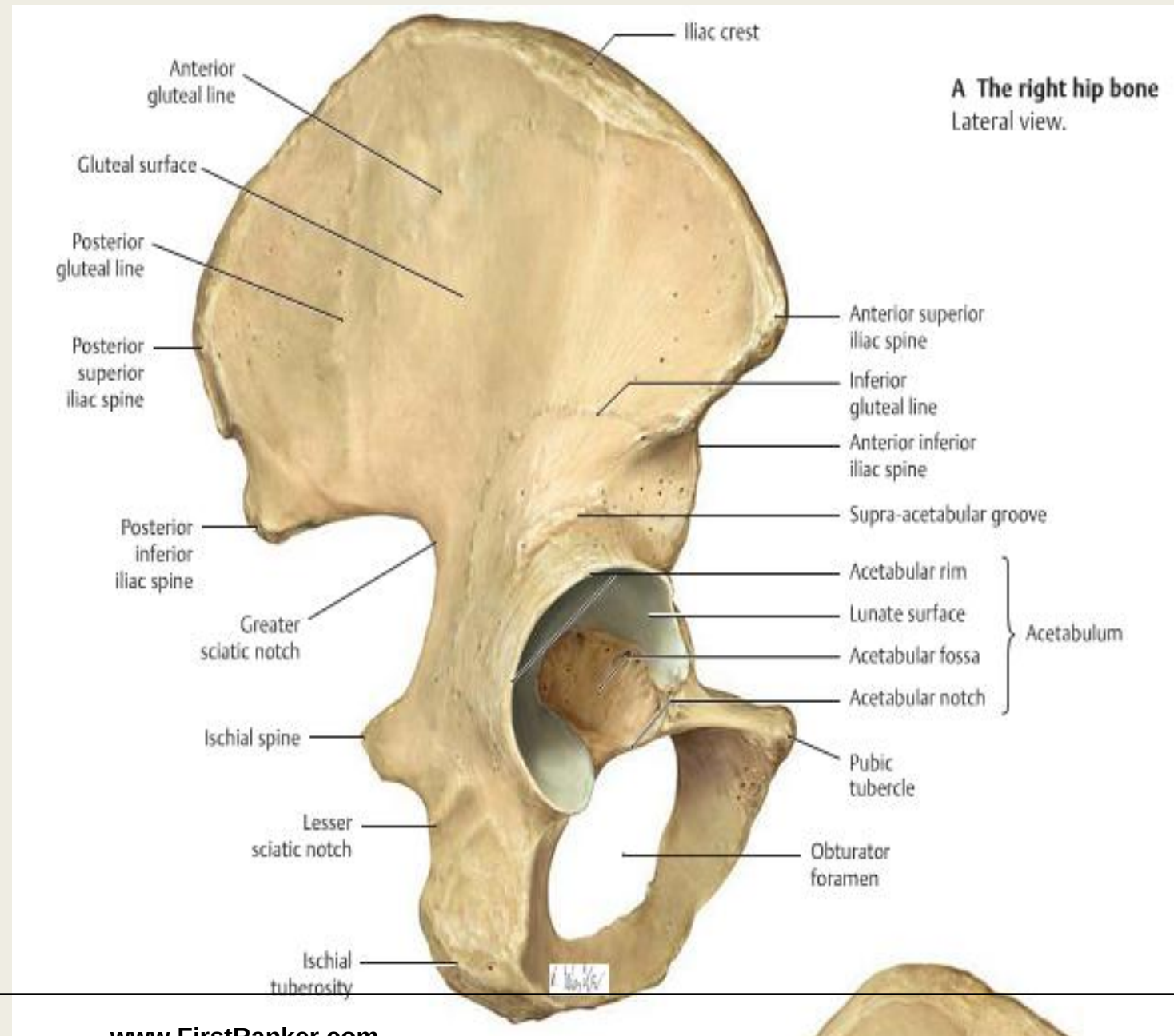
- Expanded and elongated.
- ASIS: Projected anterior end of the iliac crest.
 - Attachments: i) Lateral end of inguinal ligament.
 - ii) Sartorius arises below the inguinal ligament.
- PSIS: Projected posterior end of the iliac crest.
- Highest point of the iliac crest lies at the level of 3rd and 4th lumbar spine.
- Iliac crest is divided into: Ventral 2/3 segment.
 - Dorsal 1/3 segment.

A) VENTRAL 2/3 SEGMENT:

■ Possesses:

1) OUTER LIP

- Has a tubercle 5 Cm above and behind the ASIS called **the tubercle of iliac crest.**
- Attachments:
 - Tensor fascia lata: originates in front of the tubercle of iliac crest.
 - External oblique muscle: inserted into anterior 2/3 of outer lip.
 - Latissimus dorsi: originates just behind its highest point.



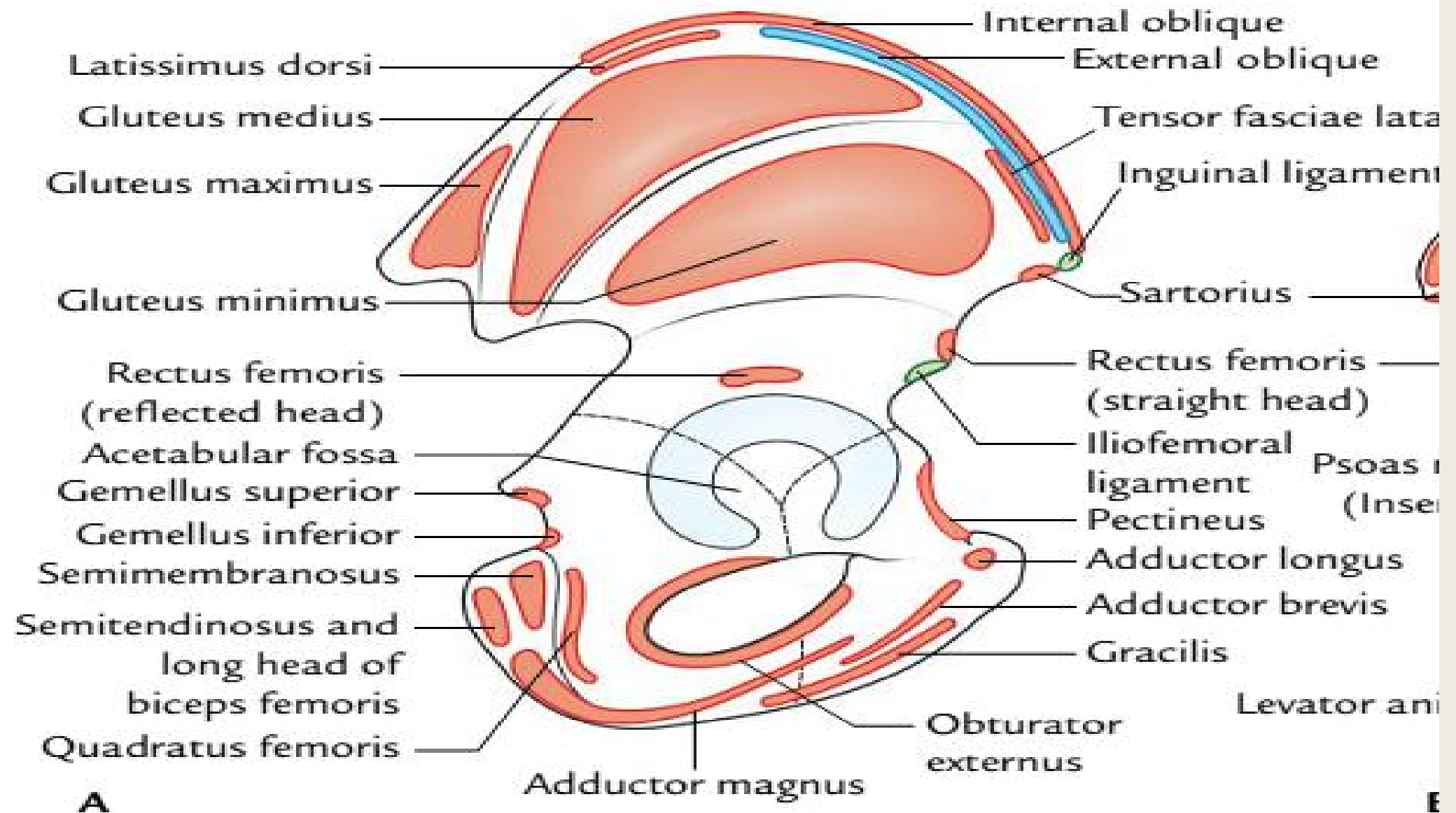


Fig. 21.2 Special features (attachments) of the ilium: **A**, outer surface;

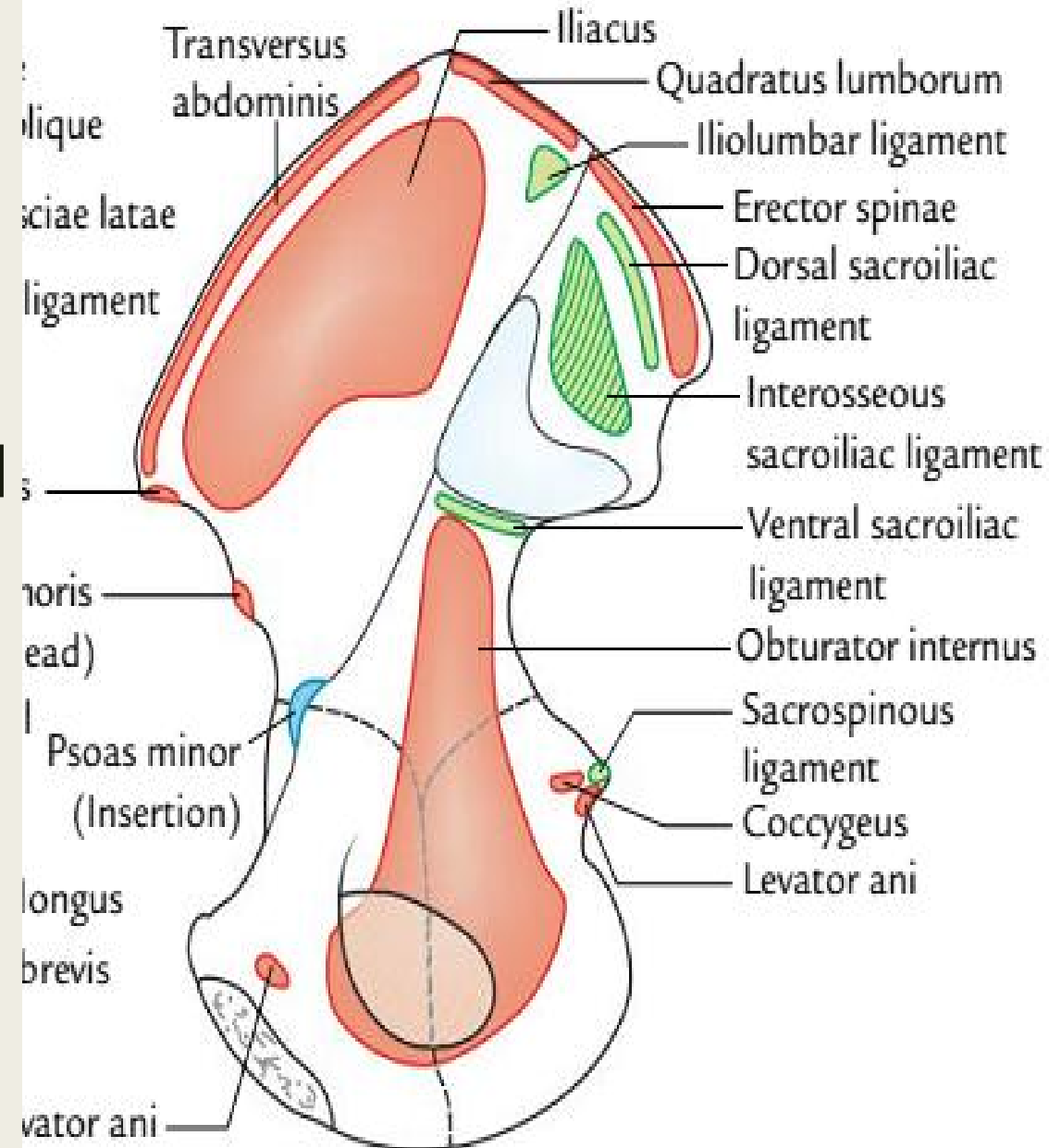
2. INNER LIP:

■ Attachments:

- I. Transversus abdominis: anterior 2/3
- II. Quadratus lumborum and lumbar fascia: posterior 1/3

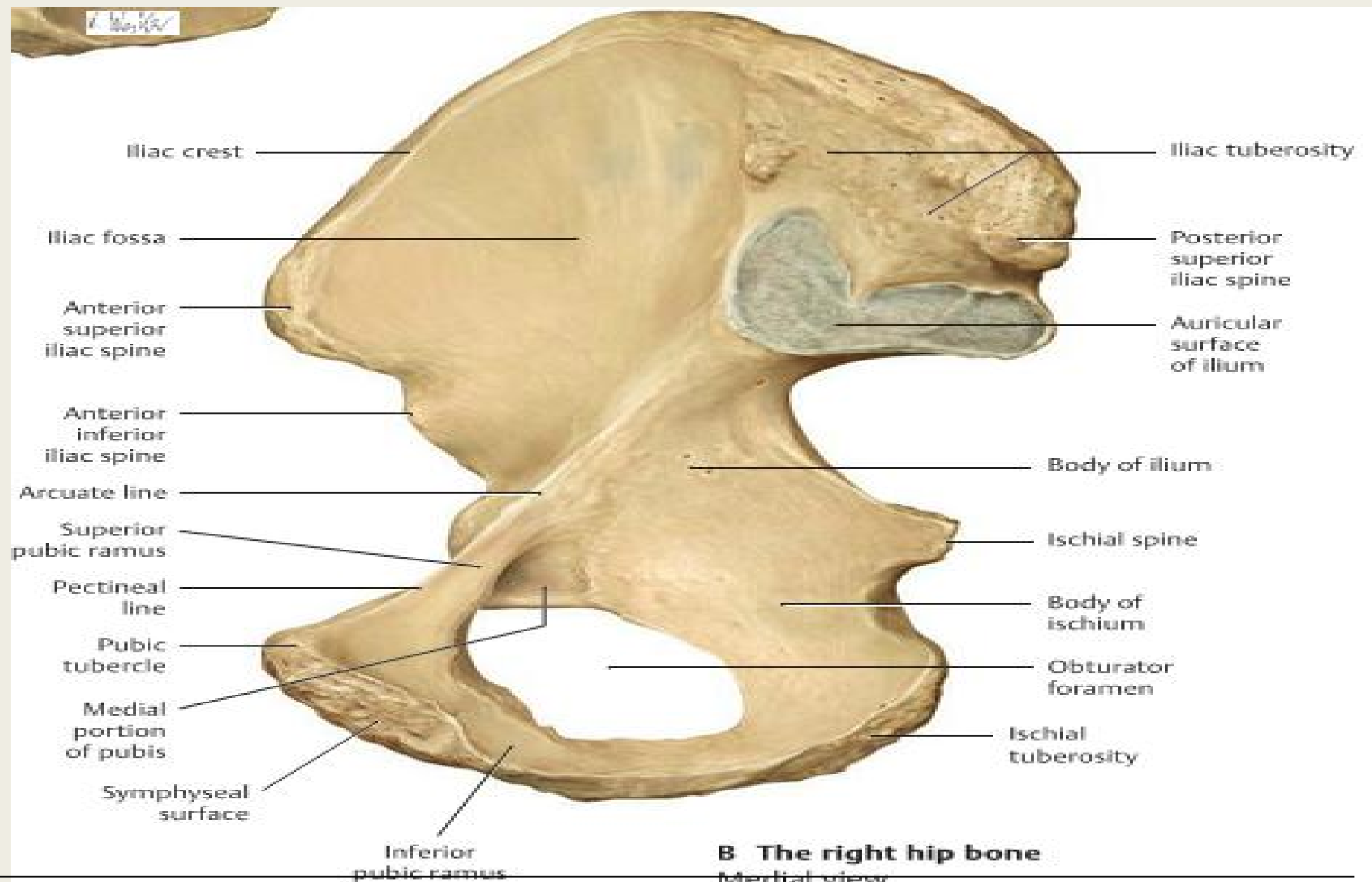
3. INTERMEDIATE AREA

- Lies between outer and inner lips. Internal oblique muscle arises from it.



DORSAL 1/3 SEGMENT:

- Ends behind in PSIS.
- Possesses 2 sloping surfaces: outer and inner separated by a well marked ridge.
- Attachments:
 1. Glutus Maximus: from outer sloping surface.
 2. Erector spinae: from inner sloping.
 3. Interosseous & dorsal sacroiliac ligament: attached to the medial margin.



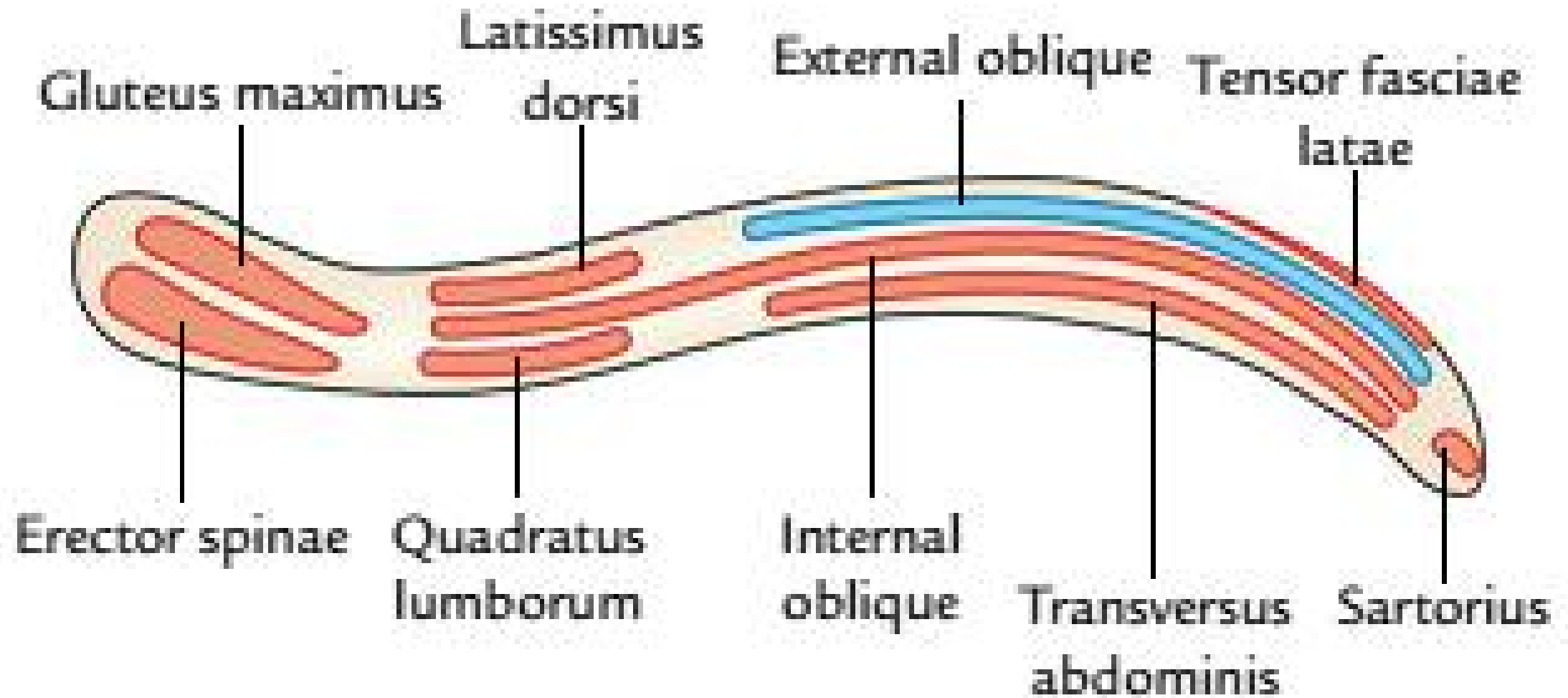
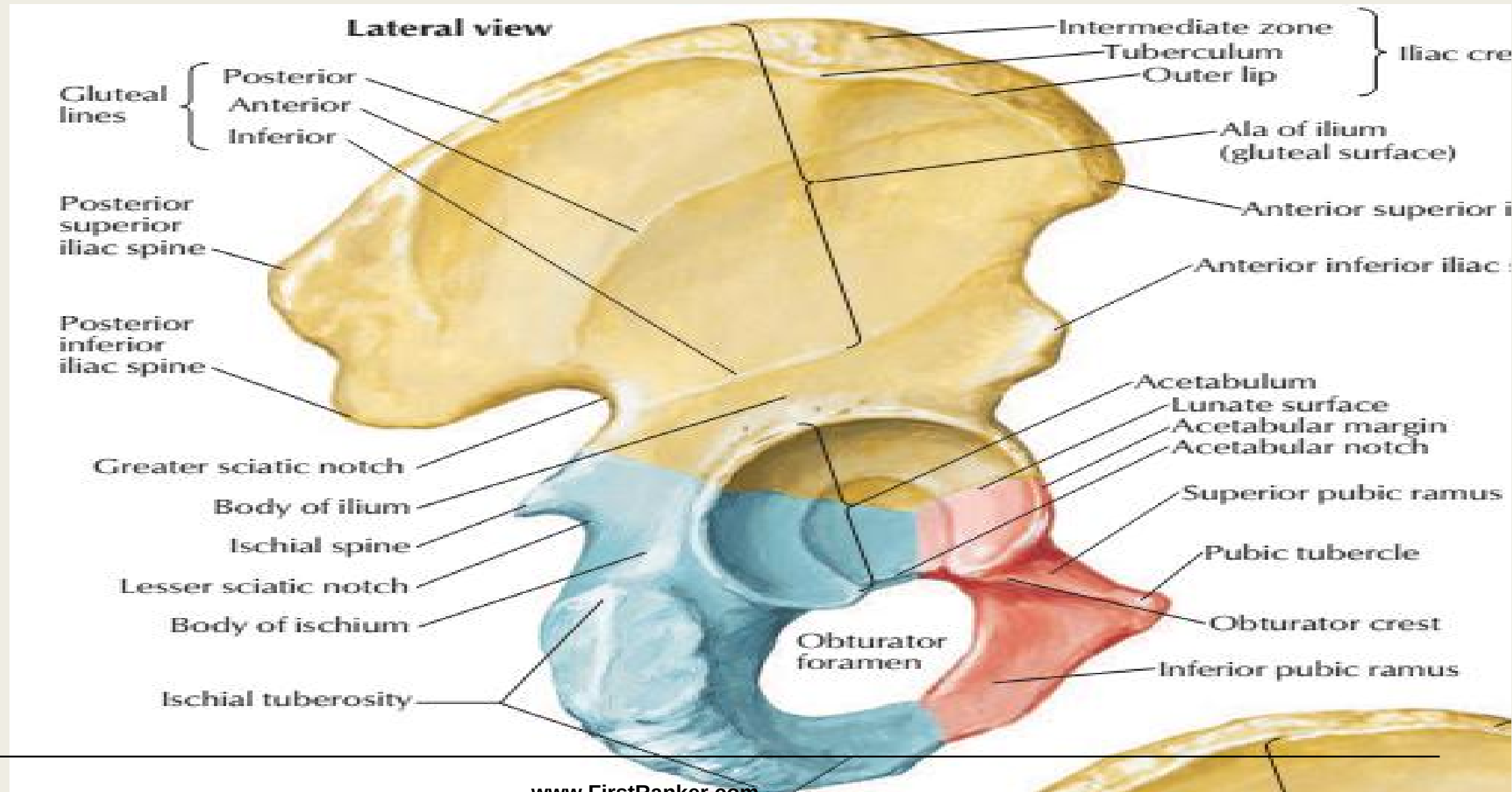


Fig. 21.3 Attachments on the right iliac crest (as seen from above).

II. LOWER END:

- Smaller and forms about $\frac{2}{5}$ th of articular surface of acetabulum.



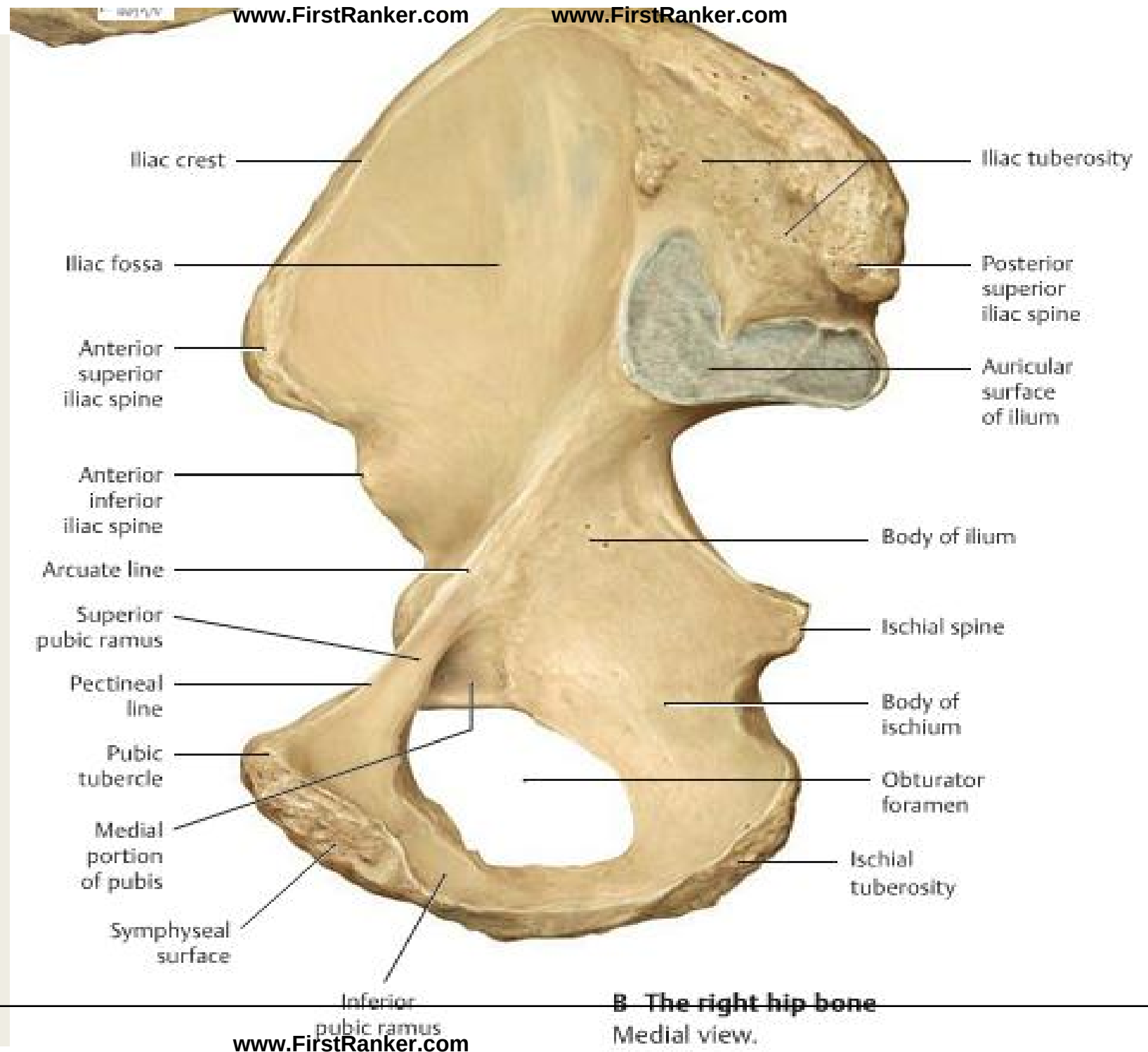
BORDERS:

■ 3 borders:

1. Anterior border

2. Posterior border

3. Medial border

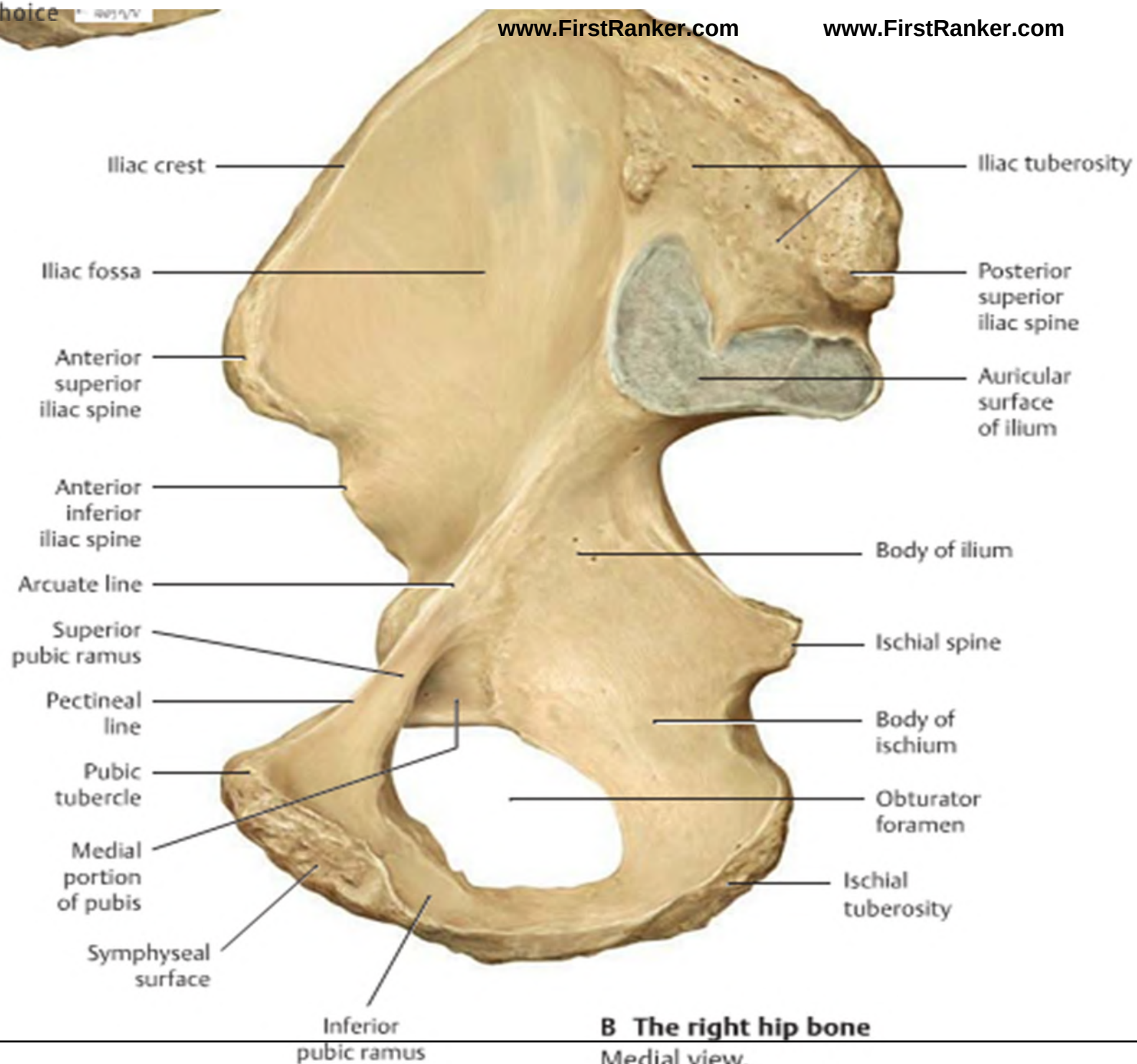


A) ANTERIOR BORDER:

- Extends from ASIS to acetabulum.
- Has a small notch below the spine, which gives exit to the lateral cutaneous nerve of thigh.
- **ANTERIOR INFERIOR ILIAC SPINE:** projection in the lower part of this border.
- **Attachments:**
 1. **Straight head of rectus femoris:** to upper and anterior part
 2. **Iliofemoral ligament:** to lower part

B) POSTERIOR BORDER:

- Runs downward from PSIS to become continuous with posterior border of ischium. At its lower part it forms the upper part of greater sciatic notch.
- Has a small notch in its upper part at the lower end of which is a projection called the PIIS.



C) MEDIAL BORDER:

- Separates the iliac fossa from sacropelvic surface.
- Its lower part which is smooth and rounded is known as arcuate line. It extends to the iliopubic eminence which is an elevation at the place where ilium and pubis unite.
- Attachments:
 1. Psoas minor: inserted to the middle of arcuate line.
 2. Ventral sacroiliac ligament.

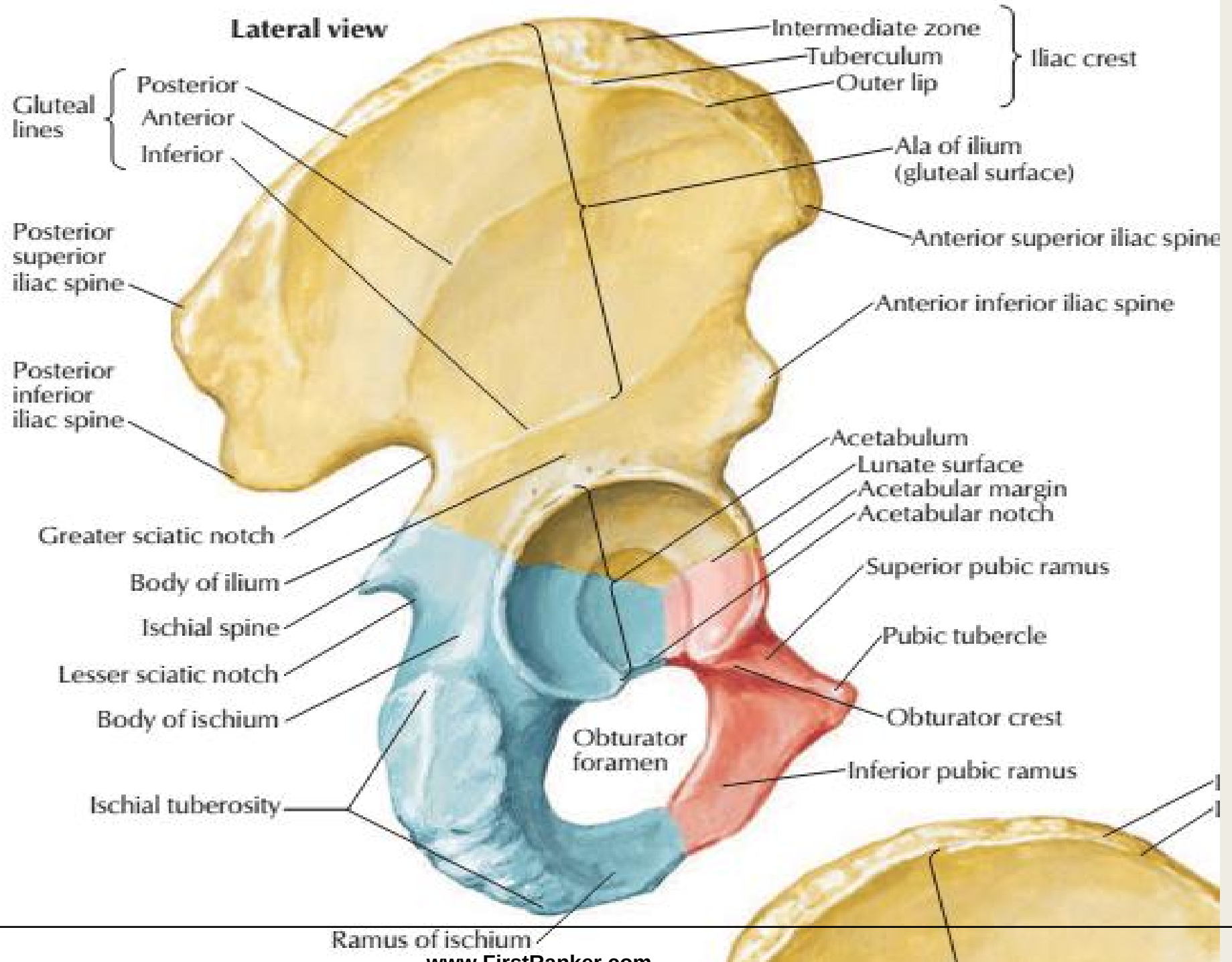
SURFACES:

- 3 Surfaces: 1. gluteal surface
- 2. iliac fossa
- 3. sacropelvic surface

SURFACES:

A) GLUTEAL SURFACE:

- **Boundaries:**
 - ❖ Above by the iliac crest.
 - ❖ Below by upper border of acetabulum.
 - ❖ In front by anterior border.
 - ❖ Posteriorly by posterior border.
- Divided by **three lines** into **four areas**:
 1. Posterior gluteal line
 2. Anterior gluteal line
 3. Inferior gluteal line



1. **Posterior gluteal line:** from outer lip of iliac crest about 5 cm in front of PSIS to end below just in front of PIIS.
2. **Anterior gluteal line:** starts at the middle part of upper border of greater sciatic notch and runs upwards and forwards to become continuous with outer lip of iliac crest just in front of the tubercle.
3. **Inferior gluteal line:** starts above and behind the ASIS runs down and behind to end near the upper part of greater sciatic notch.

Attachments:

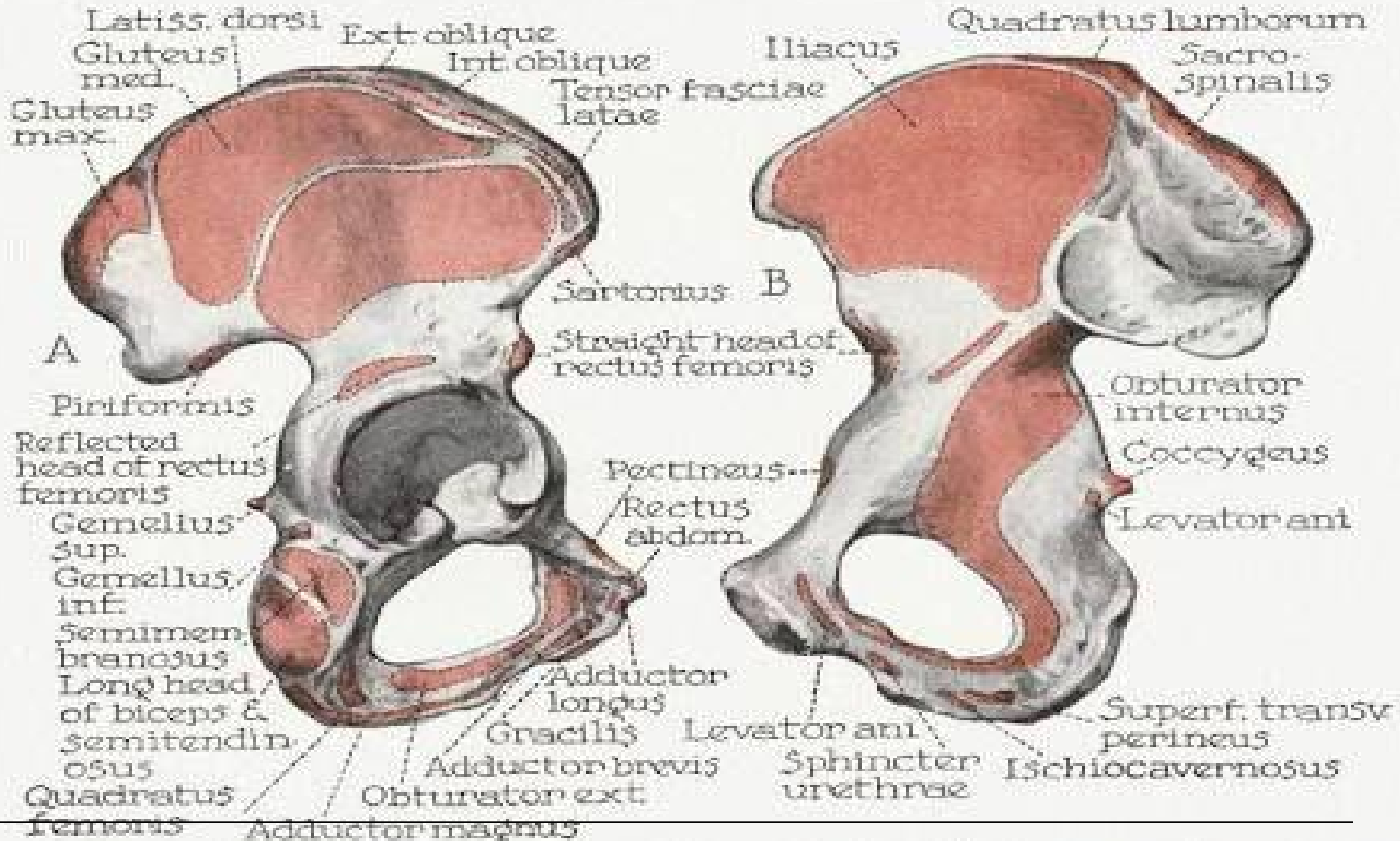
1. **Gluteus Maximus:** rough area behind the posterior gluteal line.
2. **Gluteal Medius:** from area between posterior and anterior gluteal lines.
3. **Gluteus Minimus:** from the area anterior and inferior gluteal lines.
4. **Rectus Femoris** (reflected head): below inferior gluteal line and above acetabulum.



SURFACES:

B) ILIAC FOSSA:

- Lies between anterior border in front, medial border behind and iliac crest above.
- Is smooth and concave.
- Has a nutrient foramen at its posteroinferior part.
- Attachment:
 1. Iliacus muscle arises from upper 2/3rd of this surface.



SURFACES:

C) SACROPELVIC SURFACE:

- Lies between medial border above and in front and posterior border below and behind.
- Divided into 3 parts:

1. Iliac tuberosity: Rough area on dorsal segment of iliac crest.

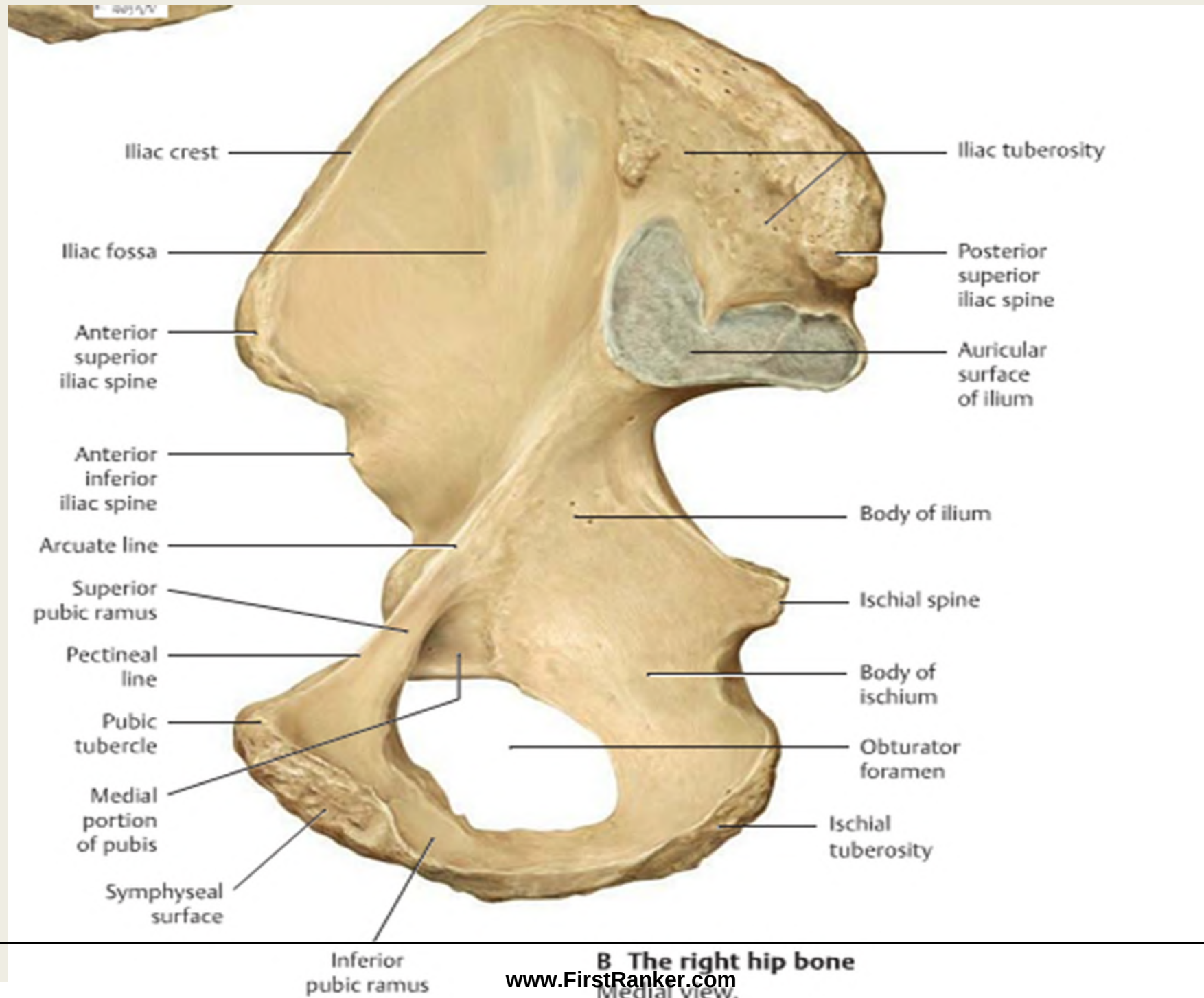
Attachments: Iliolumbar ligament

Dorsal sacroiliac ligament

Interosseous sacroiliac ligament

2. Articular surface:

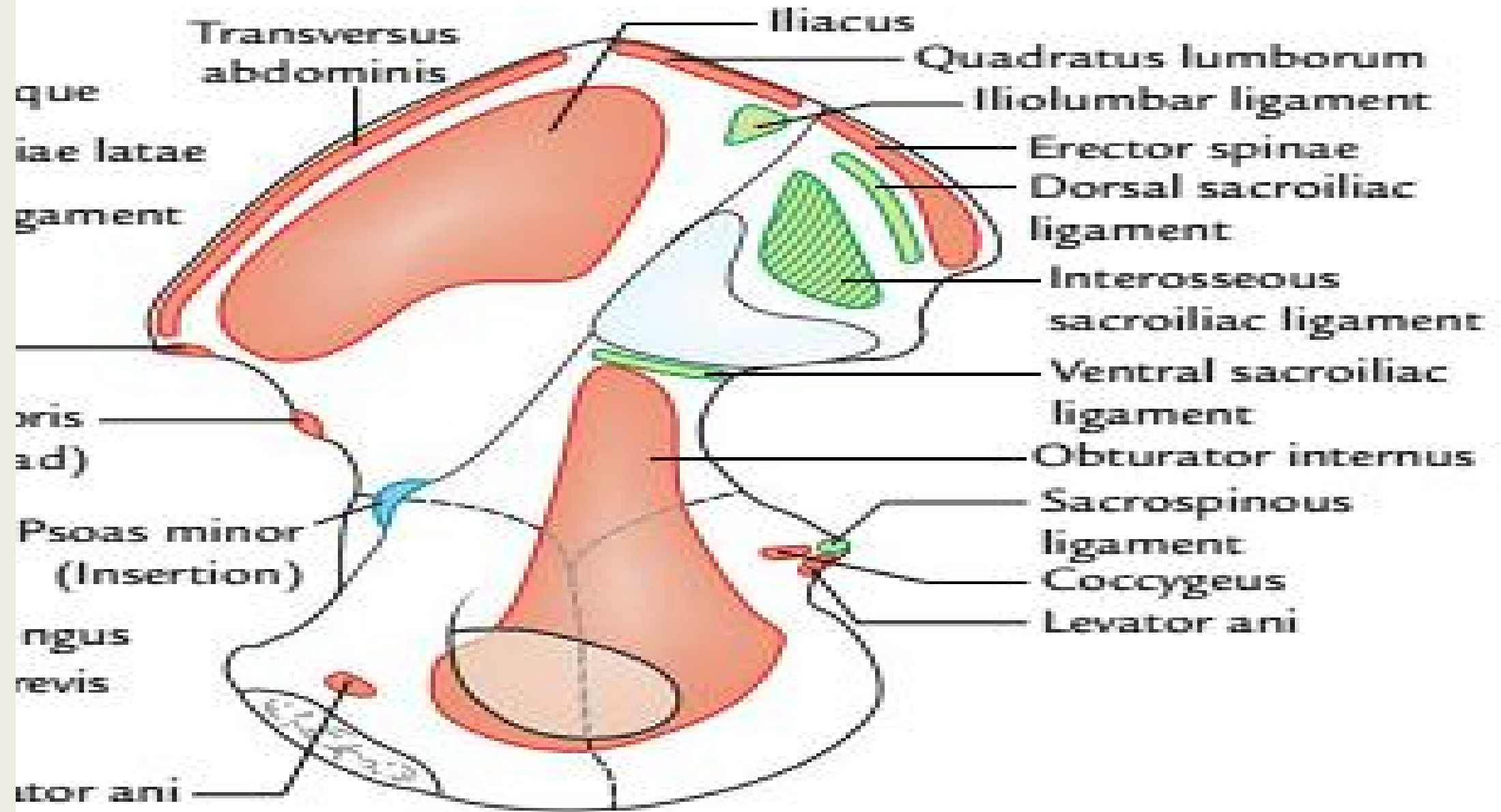
- Lies below and in front of the iliac tuberosity and resembles the shape of pinna.
- Articulates with the articular surface of the sacrum.
- Ventral sacroiliac ligament is attached to its anterior and inferior borders



3. Pelvic surface:

lies below and inferior of the articular surface and helps to form the wall of true pelvis.

Obturator internus muscle arises from this surface.



THANK YOU.