

# ❑ FEMALE GENITAL ORGANS

The Uterine tube, Ovaries & Vagina

## ❑ Ischiorectal Fossa

**Dr. Aiman Qais Afar**

**Surgical Anatomist**

**College of Medicine / University of Mutah**

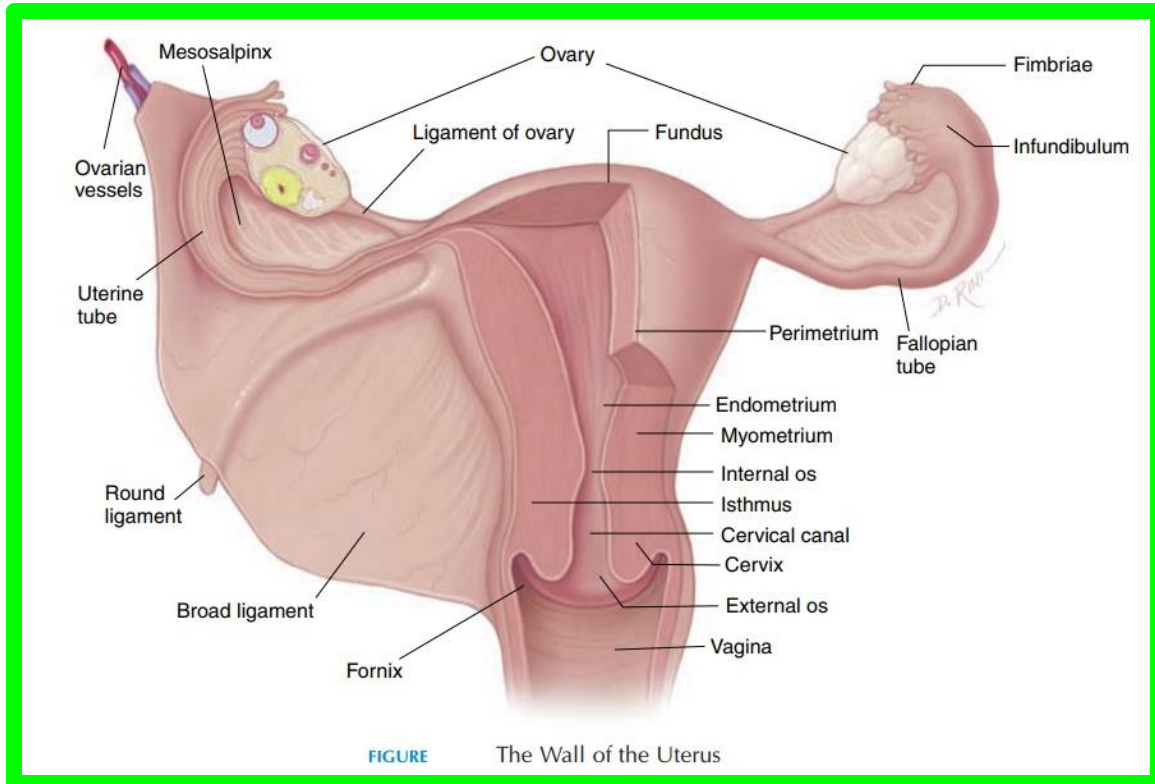
**2025-2026**

**Tuesday 12 May 2026**

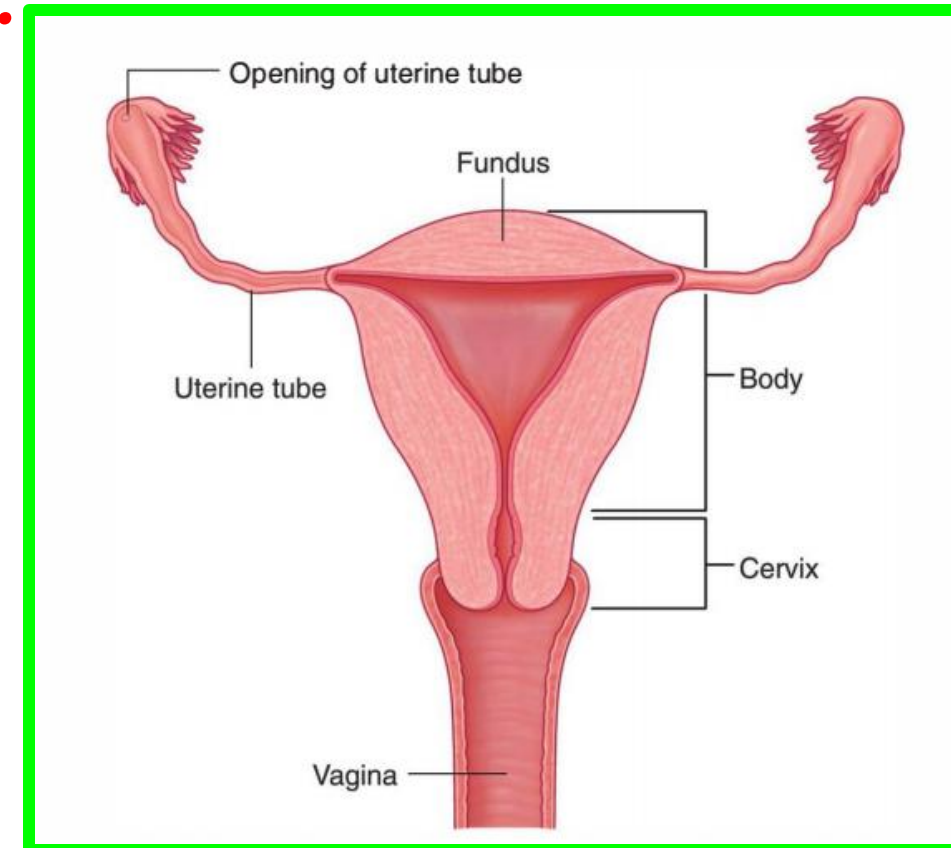
# Uterine Tube

Dr. Aiman Qais Al Maathidy  
Tuesday 12 May 2026

- ❖ The two tubes run in the free border of the broad ligament.
- ❖ It is about **10 cm** long and has **2 ends**.
- a. The medial end opens in the uterine cavity at the junction of the fundus with the body.
- b. The lateral end opens in **the peritoneal cavity**.



2



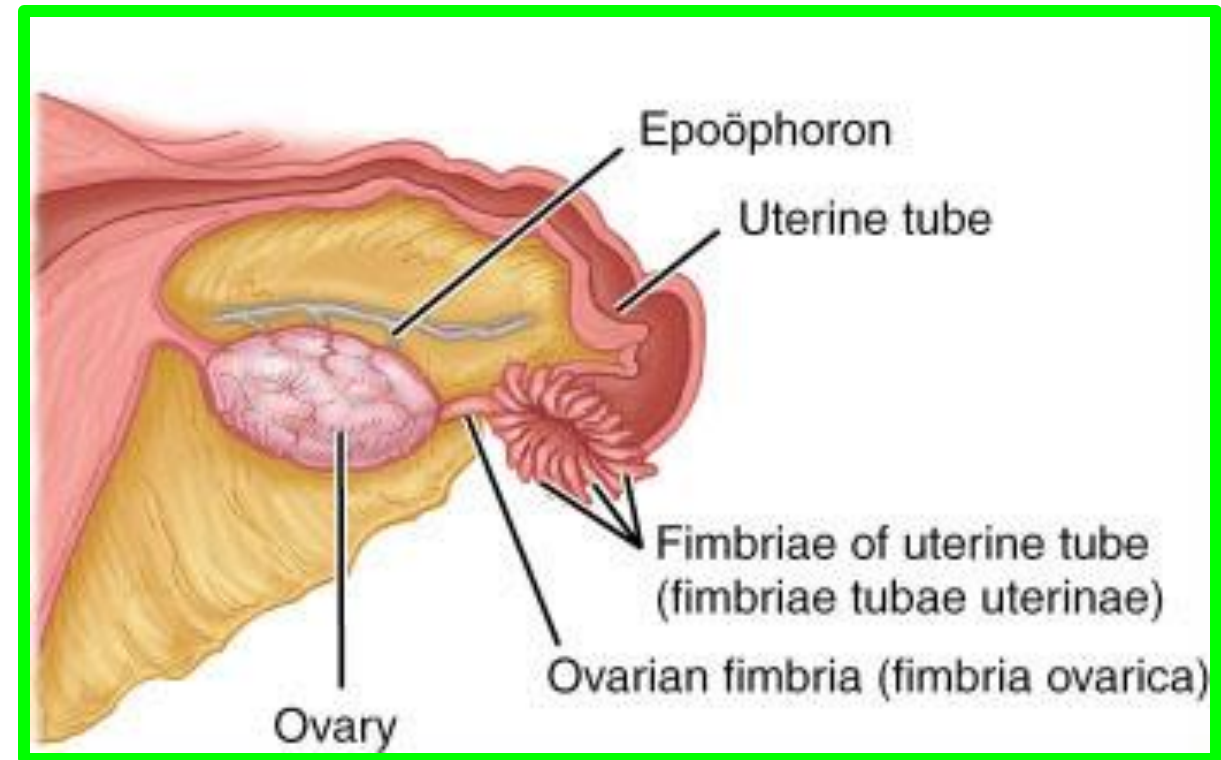
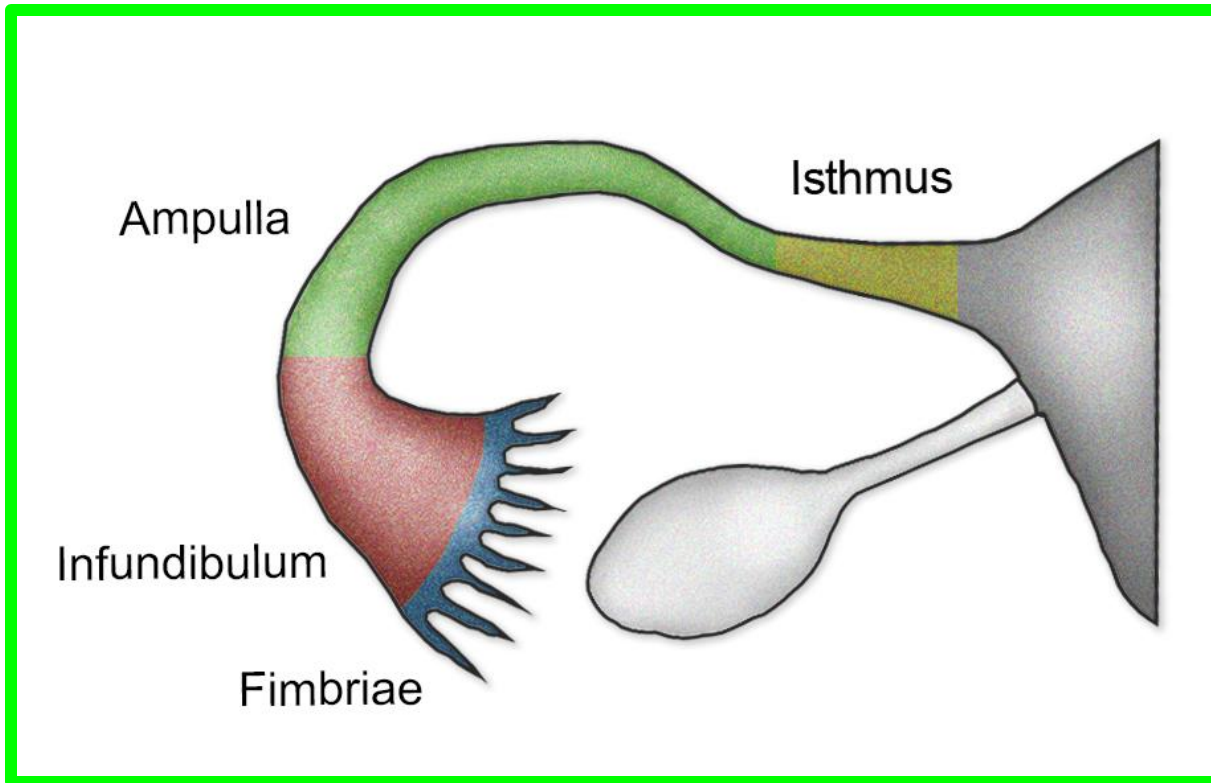
# Uterine Tube

\*\* Parts of the tube: From the lateral to the medial end,

**1. Infundibulum:** a funnel-shaped which open in the peritoneal cavity.

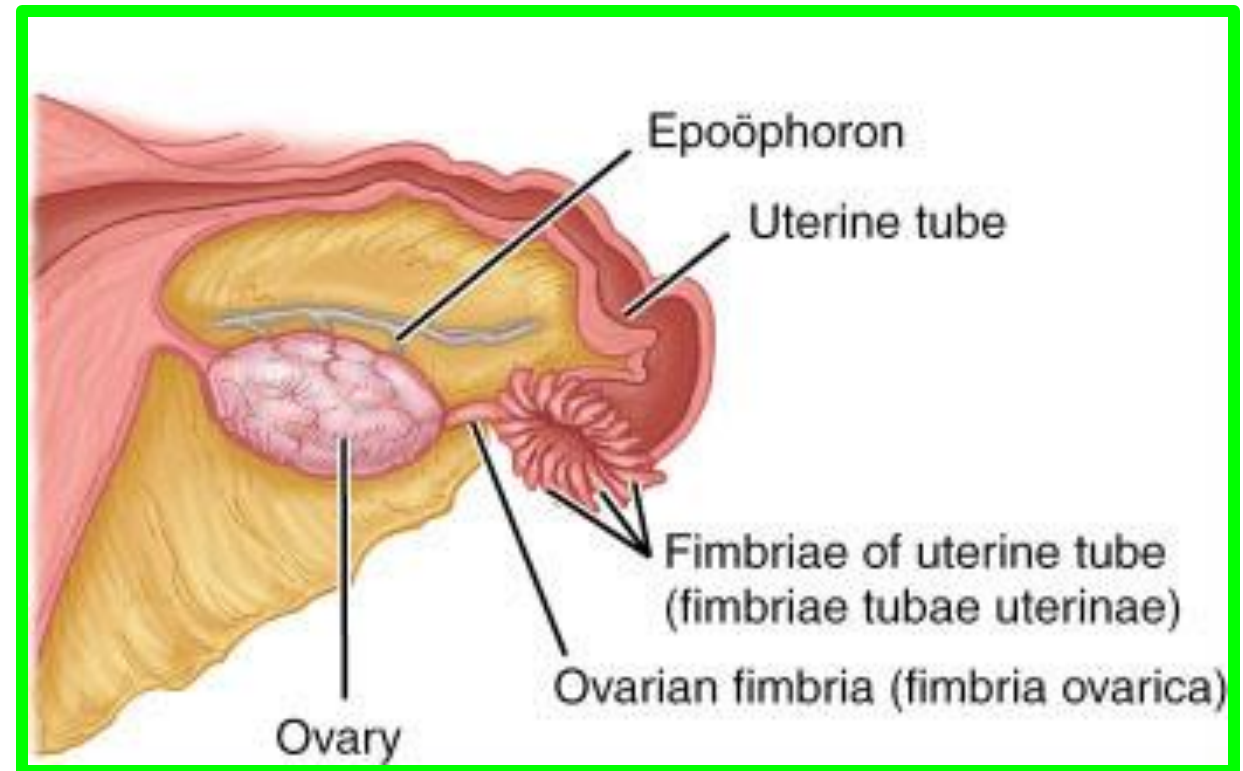
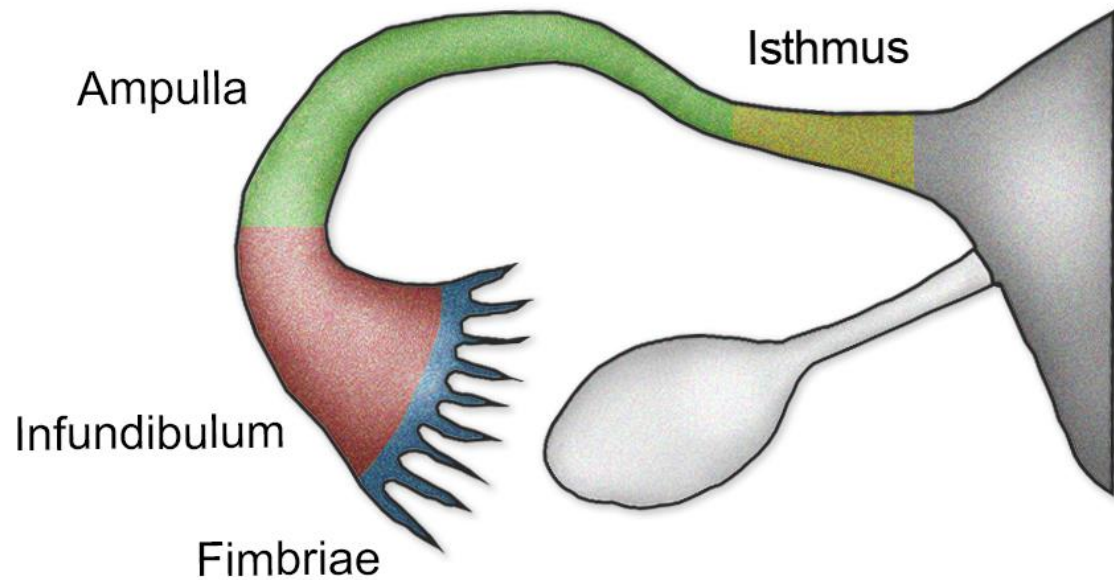
- It has a number of processes called **fimbriae**. One of these fimbriae is large and extends to the ovary and called **ovarian fimbria**.

**2. Ampulla:** a dilated, tortuous and thin-walled.



# Uterine Tube

- 3. Isthmus:** a narrow straight part, constituting the **medial 1/3 of the tube**.
- 4. Intramural part:** the part inside the uterine wall (narrowest part).



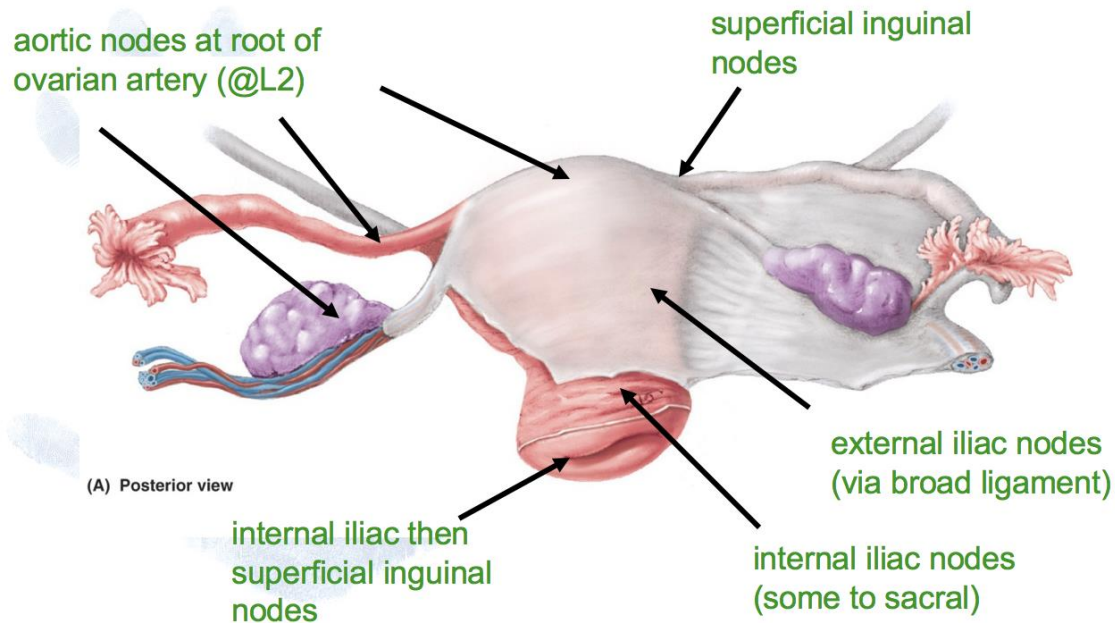
# Uterine Tube

Dr. Aiman Qais Al Maathidy

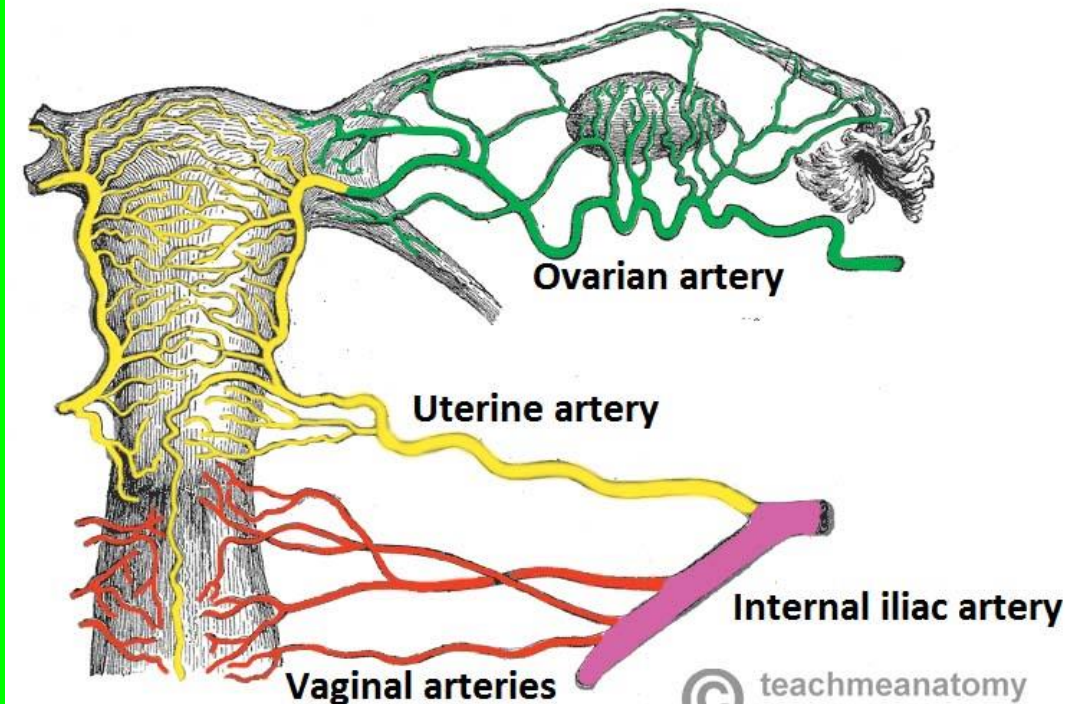
Tuesday 12 May 2026

- \*\* Arterial supply:** 1) The lateral part by **the ovarian artery.**  
2) The medial part by **the uterine artery.**
- \*\* Venous drainage:** by veins accompanying the arteries.
- \*\* Lymphatic drainage:** to the preaortic and para-aortic **lymph nodes.**
- \*\* Nerve supply:** Sympathetic from **T 10 to L 2.** Parasympathetic **S2,3,4.**

## Lymphatic drainage



5

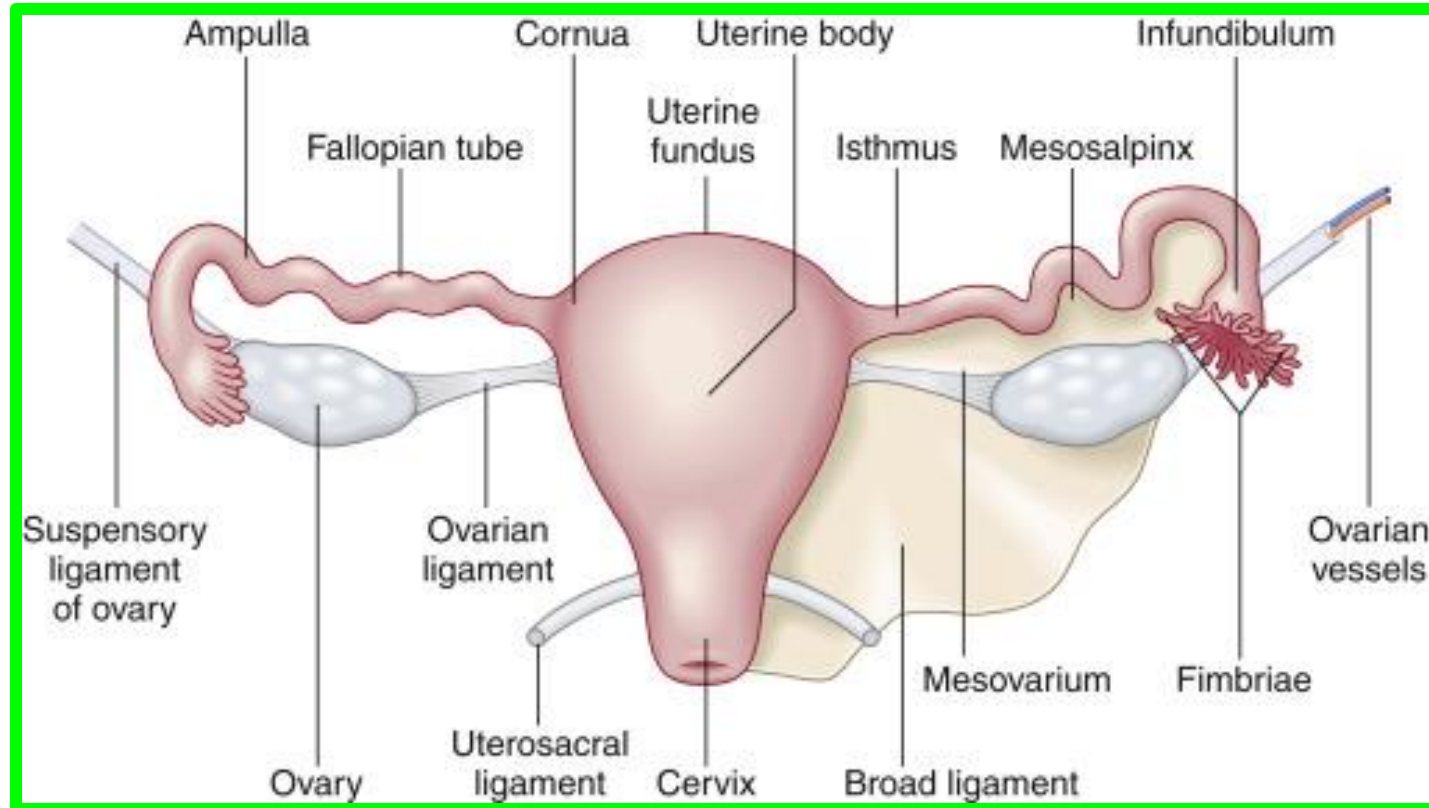


# Ovaries

Dr. Aiman Qais Al Maathidy

Tuesday 12 May 2026

- ✓ One on each side, these are **the primary female sex organs**.
- ✓ Each ovary is attached to the upper surface of the broad ligament by the mesovarium.
- \*\* **Dimensions** (1 cm thickness) (2 cm breadth) (3 cm Length)
- \*\* **Weight** from 2 to 3.5 gm

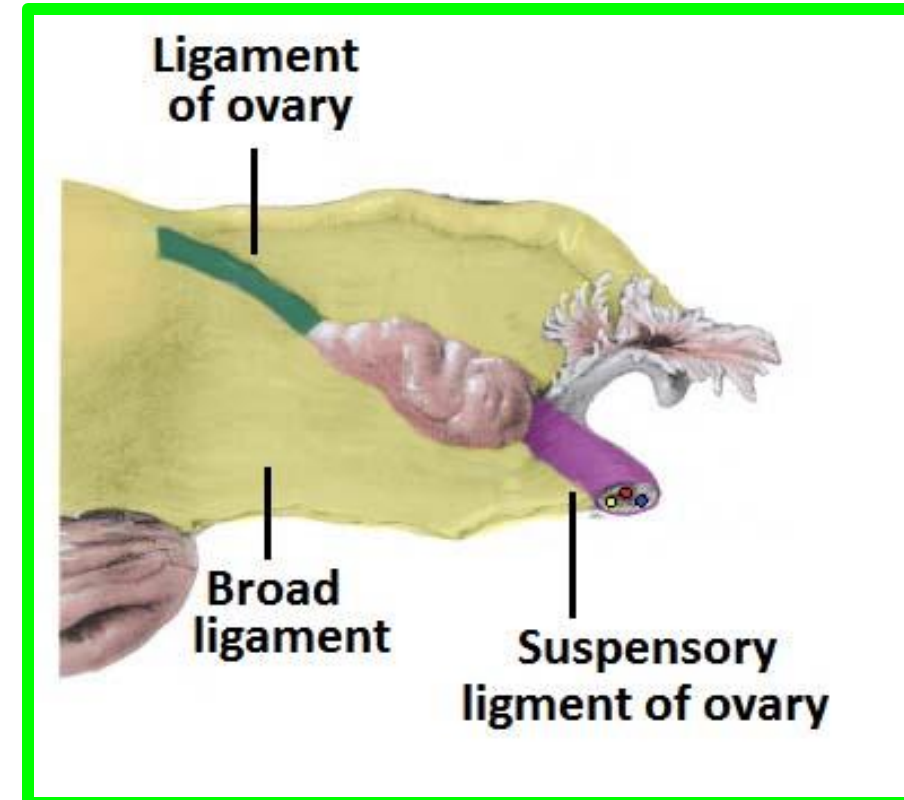
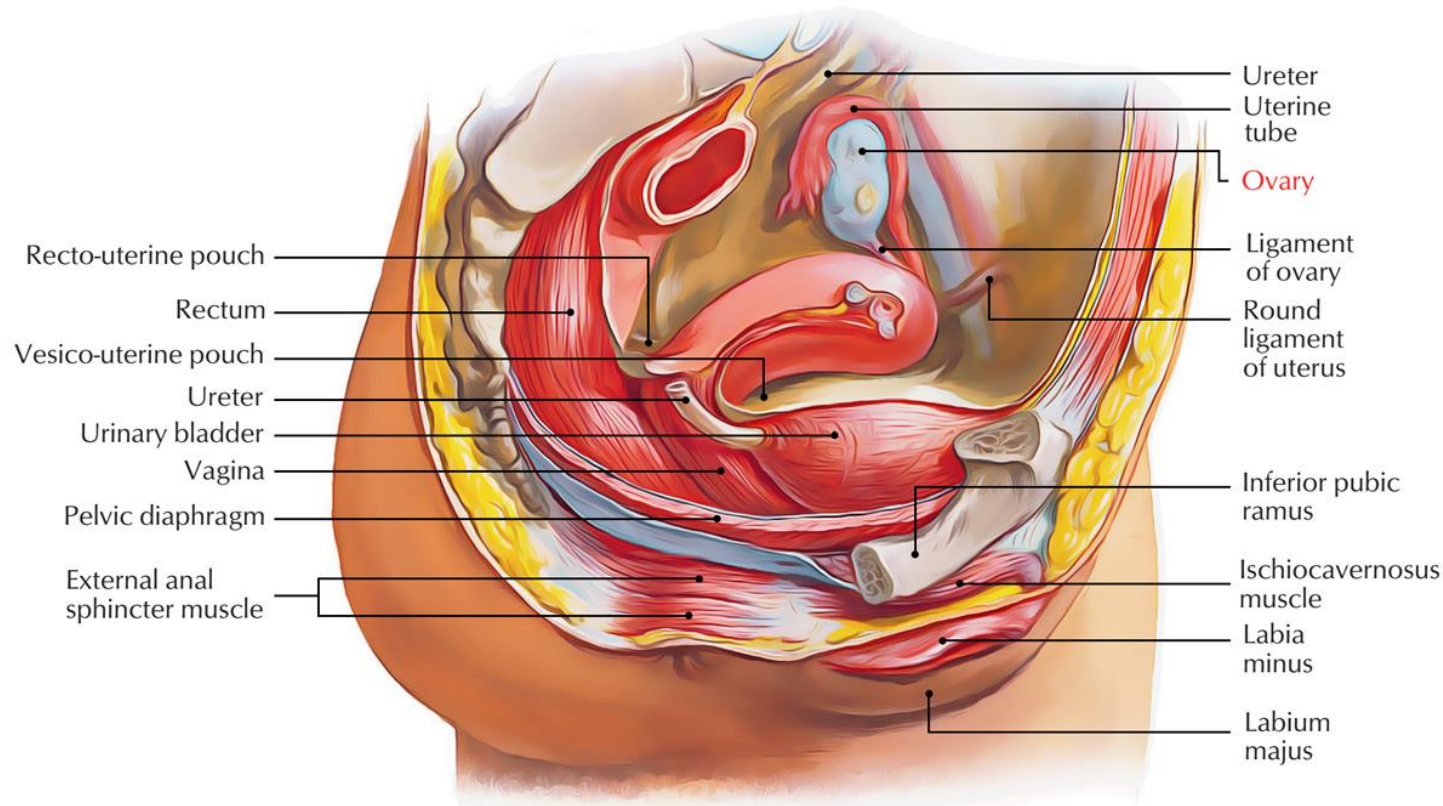


# Ovaries

**\*\* General features and Relations, The ovary has:**

## A. 2 surfaces:

- 1. Lateral surface:** lies in the floor of the ovarian fossa. (On lateral pelvic wall)
- 2. Medial surface:** is covered by the uterine tube.



# Ovaries

Dr. Aiman Qais Al Maathidy  
Tuesday 12 May 2026

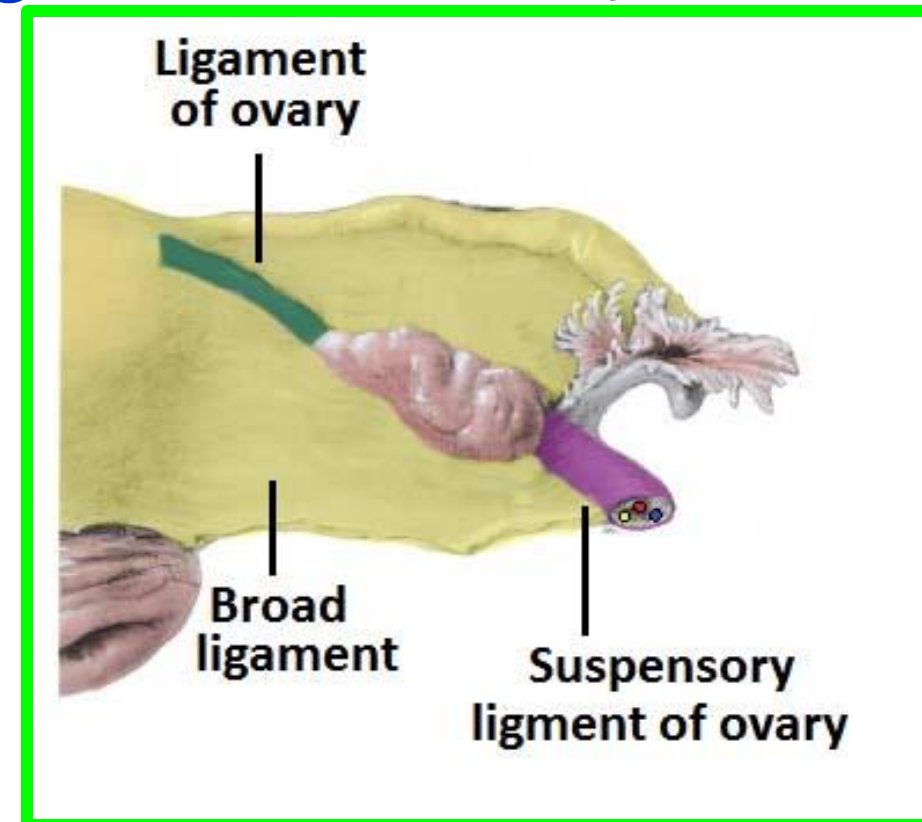
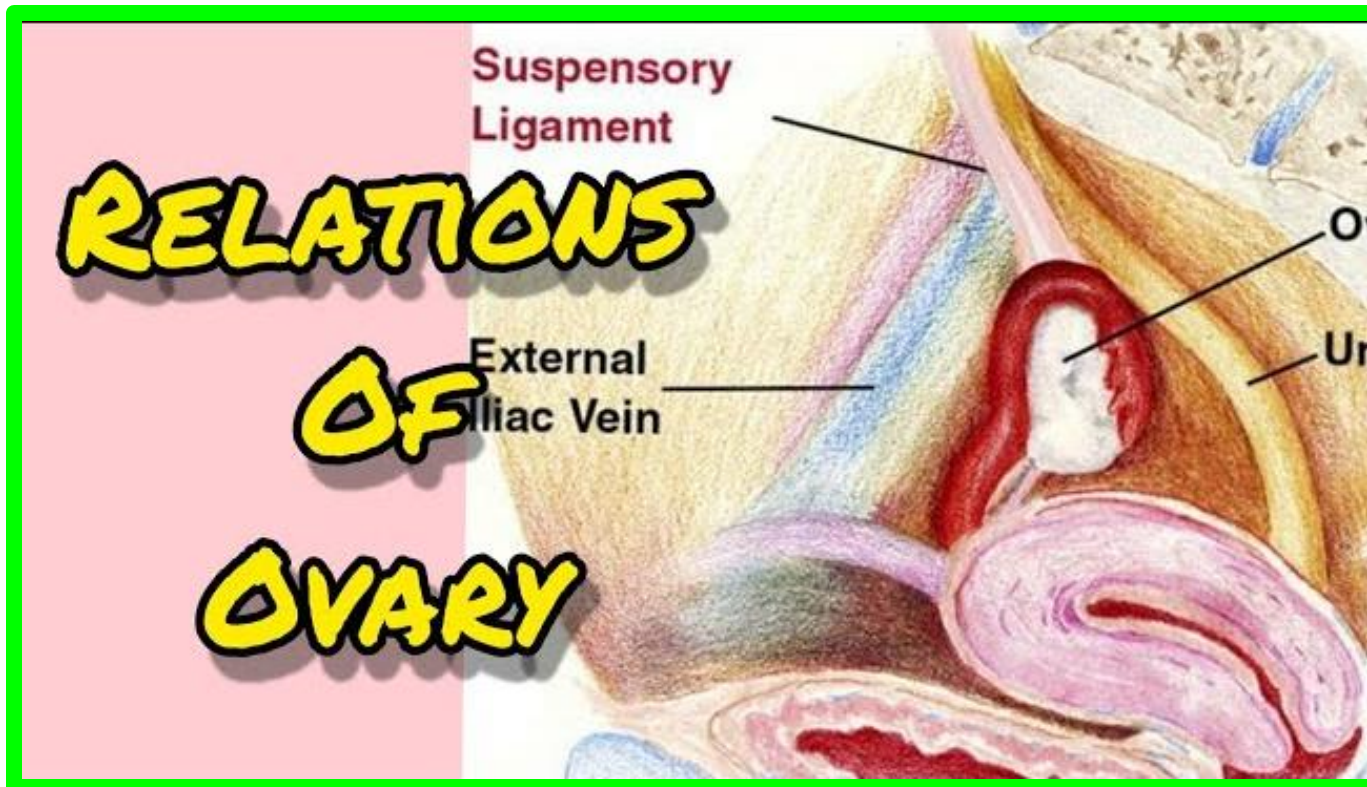
8

B. 2 ends:

1. Tubal (Upper) end: gives attachment to

- 1) Ovarian fimbria of the tube.
- 2) The suspensory ligament of the ovary.

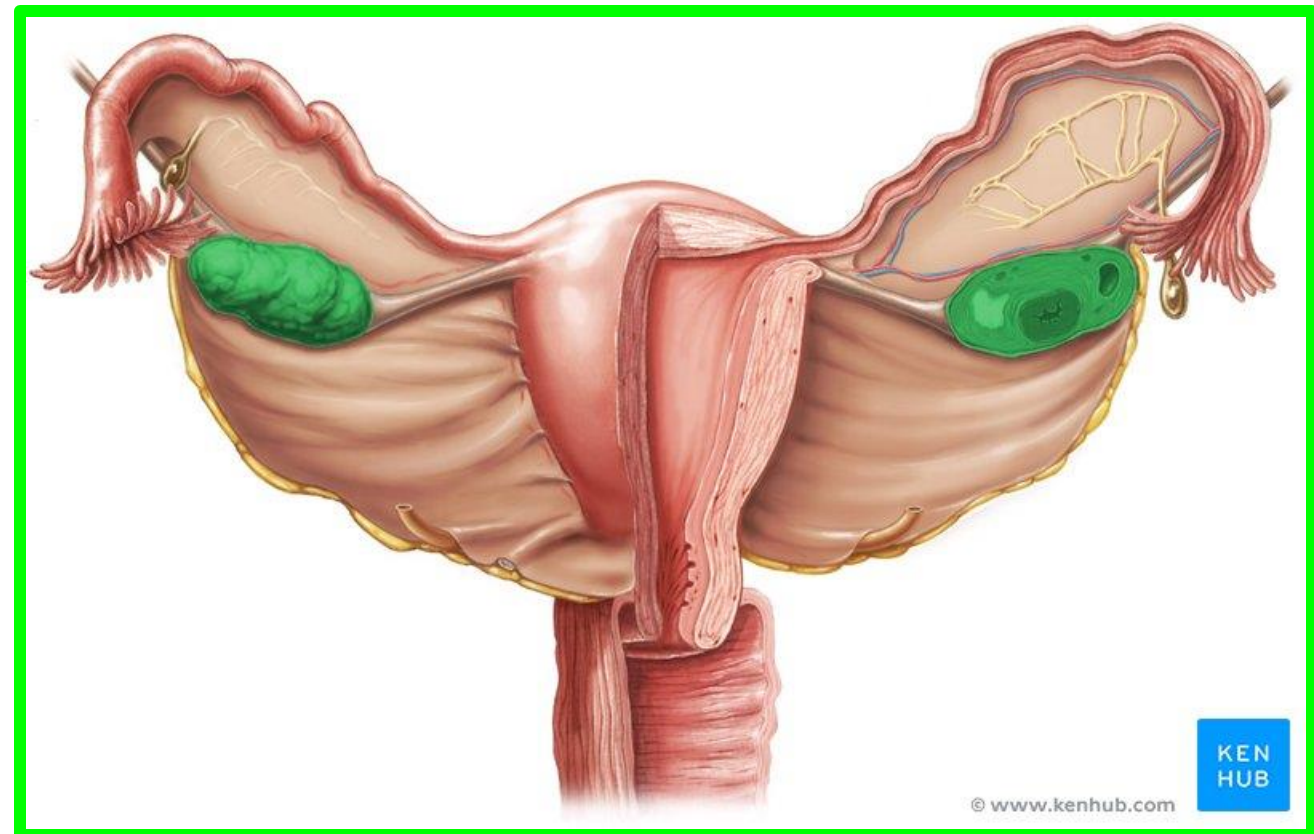
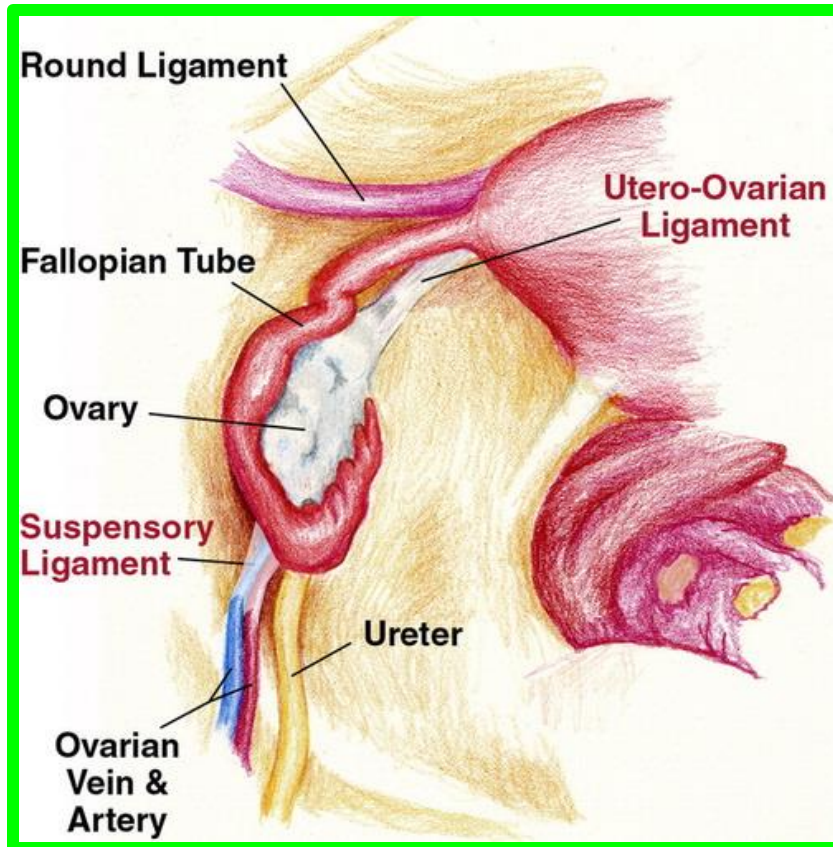
2. Uterine (Lower) end: gives attachment to the ligament of the ovary.



# Ovaries

## C. 2 borders:

1. **Free border:** directed backward.
2. **Attached border:** attached to the upper layer of the broad ligament by the mesovarium.

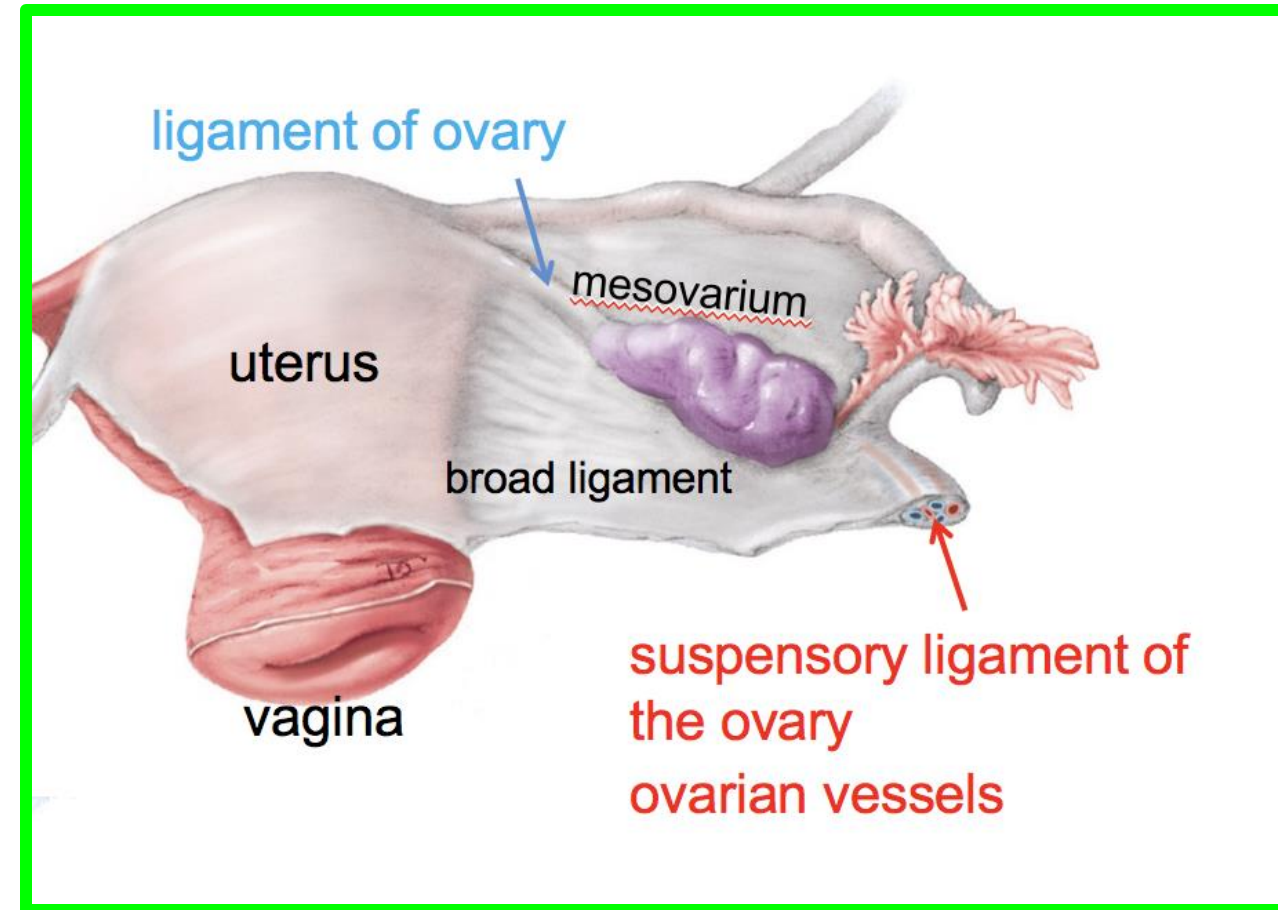


## \*\* Ligaments of the ovary

1. **Suspensory ligament of the ovary**, it extends from the ovary to the side wall of the pelvis and contains the ovarian vessels and nerves.

2. **Round ligament of the ovary**. It connects the ovary with the uterus below and behind the uterine tube.

3. **Mesovarium (peritoneal relation)** between the upper surface of the broad ligament and ovary. It contains the ovarian vessels and nerves.



**\*\* Arterial supply:** the **ovarian artery** from abdominal aorta.

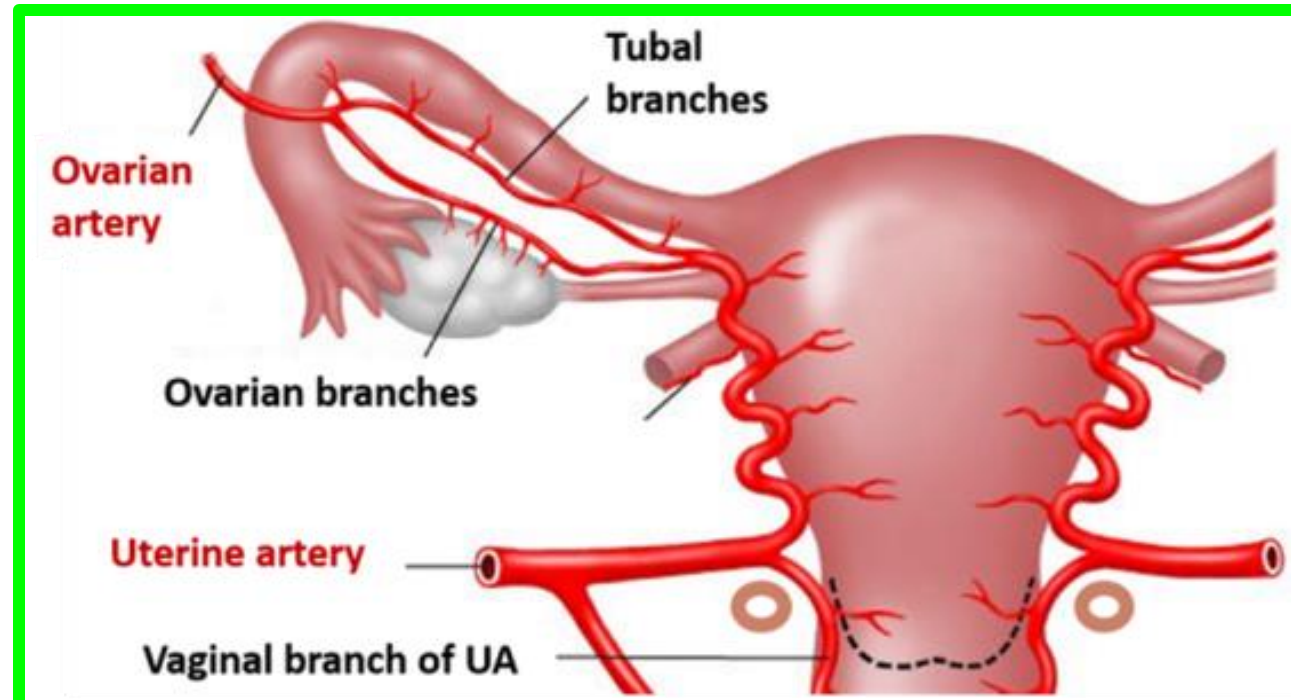
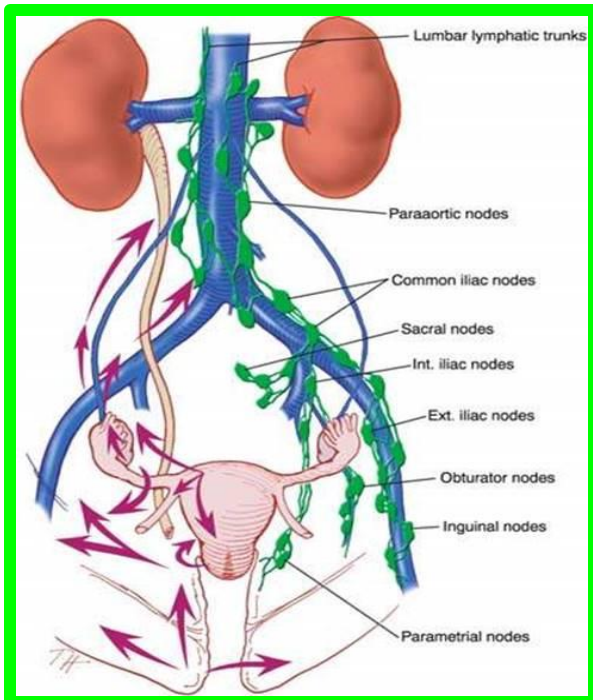
**\*\* Venous drainage:** The ovarian veins.

1) The **right ovarian vein** drains into the **inferior vena cava**;

2) The **left ovarian vein** drains into the **left renal vein**.

**\*\* Lymphatic drainage:** Into **para-aortic lymph nodes**.

**\*\* Nerve supply:** sympathetic from **T10, 11** while parasympathetic from **S2, 3, 4**.



# Vagina

□ This is the canal connecting the uterus with the vestibule,

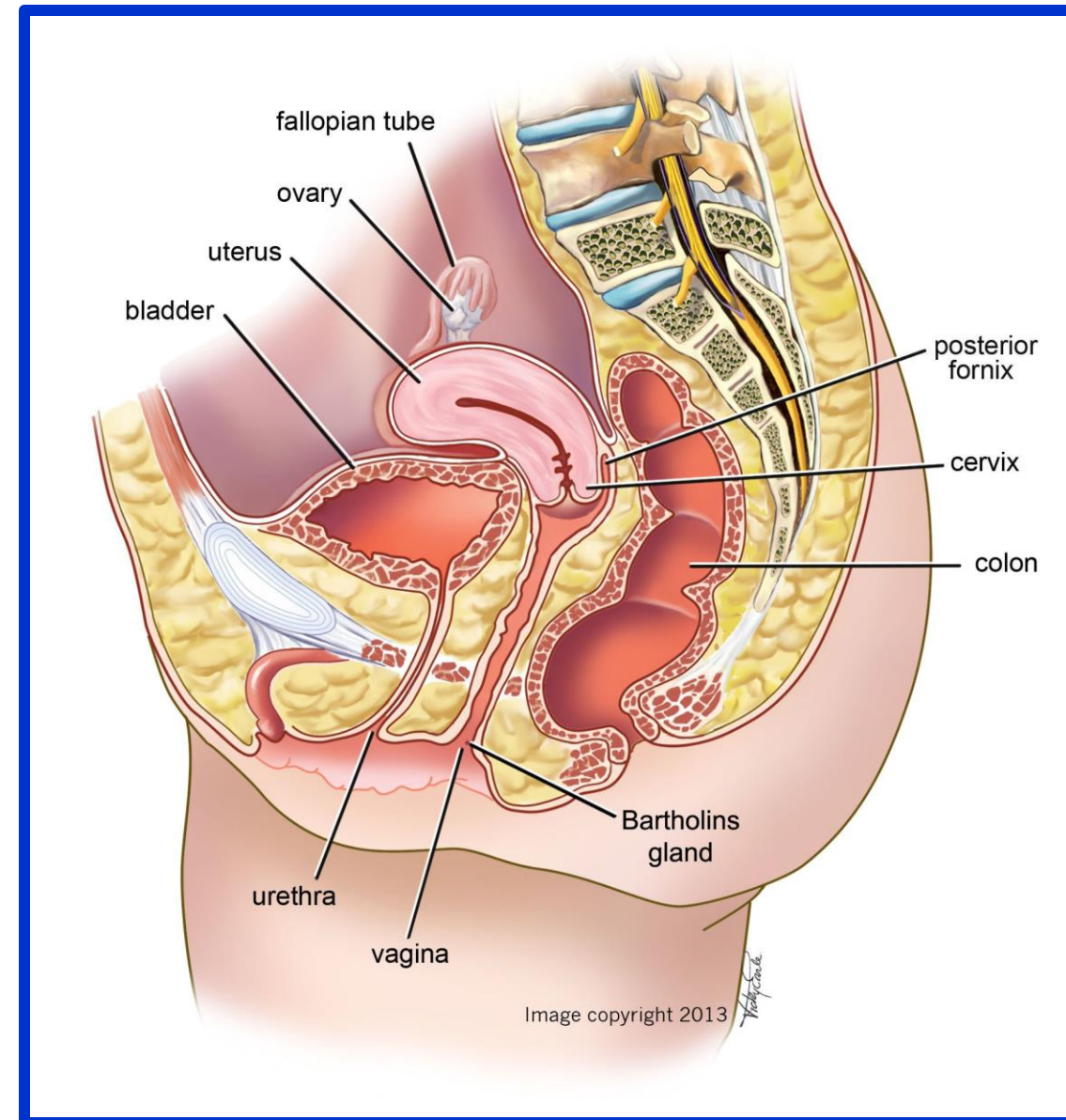
**\*\* Direction:** From below, it is directed upwards and slightly backwards.

**\*\* Walls:** 2 walls (anterior and posterior) which are contact with each other.

**\*\* Diameter:** lower part 2.5 cm while the upper part 5 cm.

Dr. Aiman Qais Al Maathidy

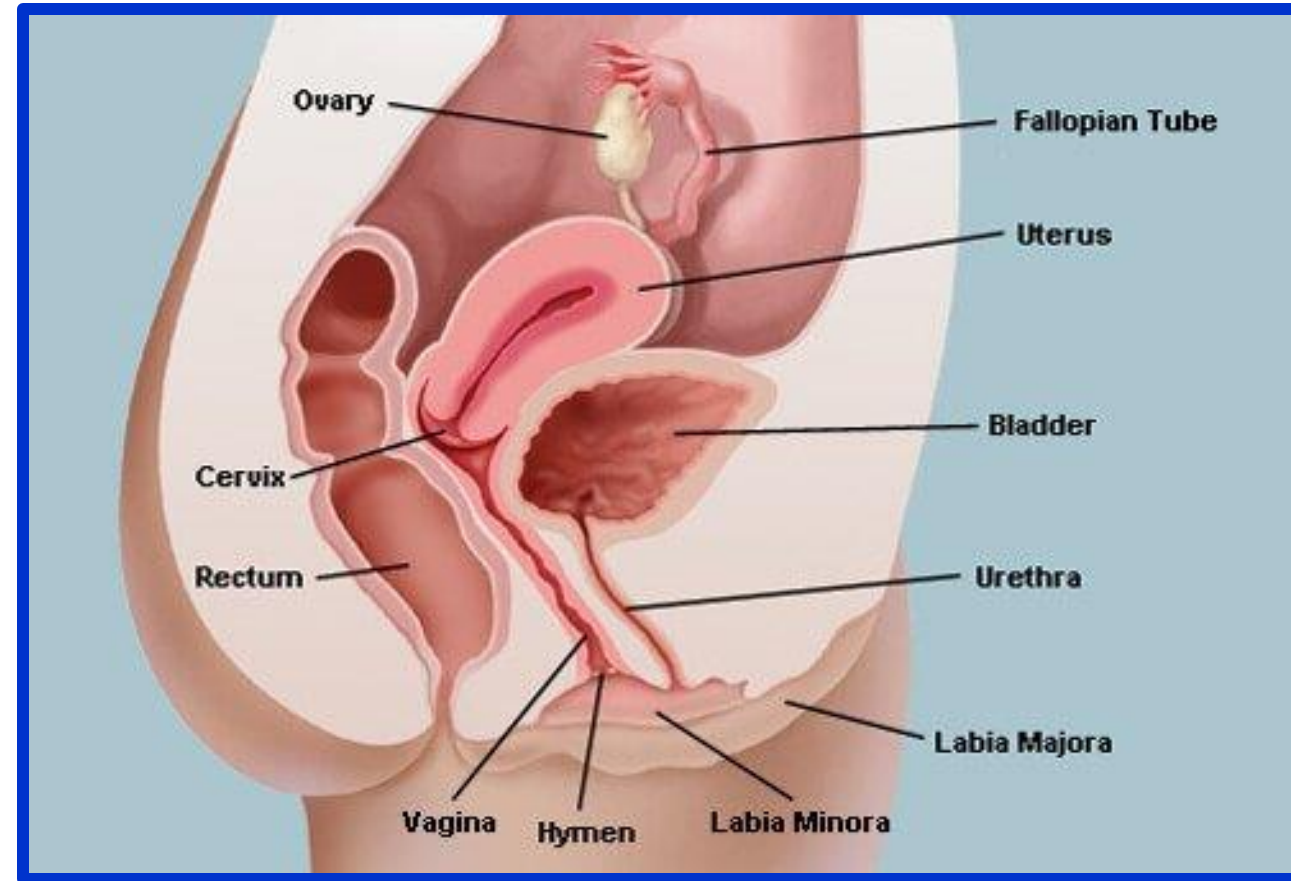
Tuesday 12 May 2026



## \*\* Relations:

1. The anterior wall of the vagina is short (7.5 cm).

✓ It is closely related to the base of the urinary bladder and urethra.



2. The posterior wall of the vagina is longer (9 cm).

a. Upper 1/4 is covered by peritoneum of the rectovaginal pouch.

b. Middle 2/4 is directly related to the rectum.

c. Lower 1/4 is separated from the anal canal by the perineal body.

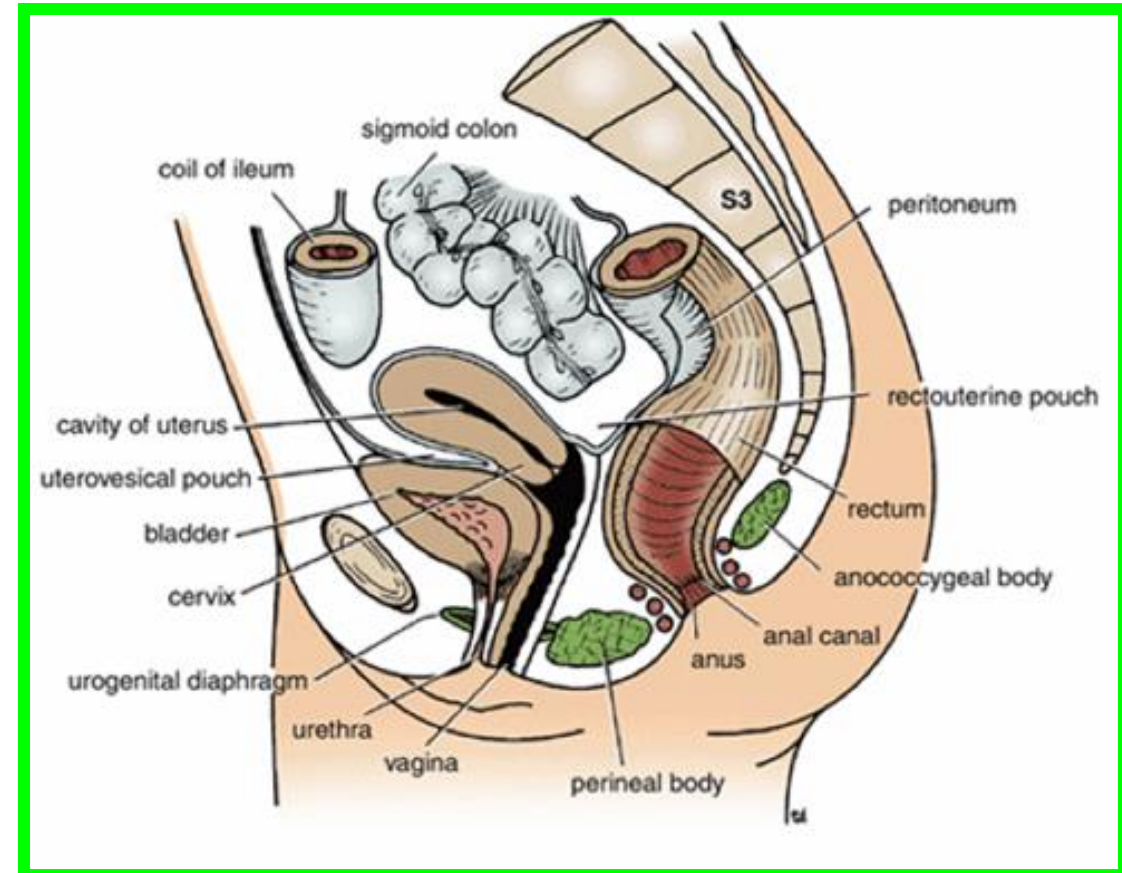
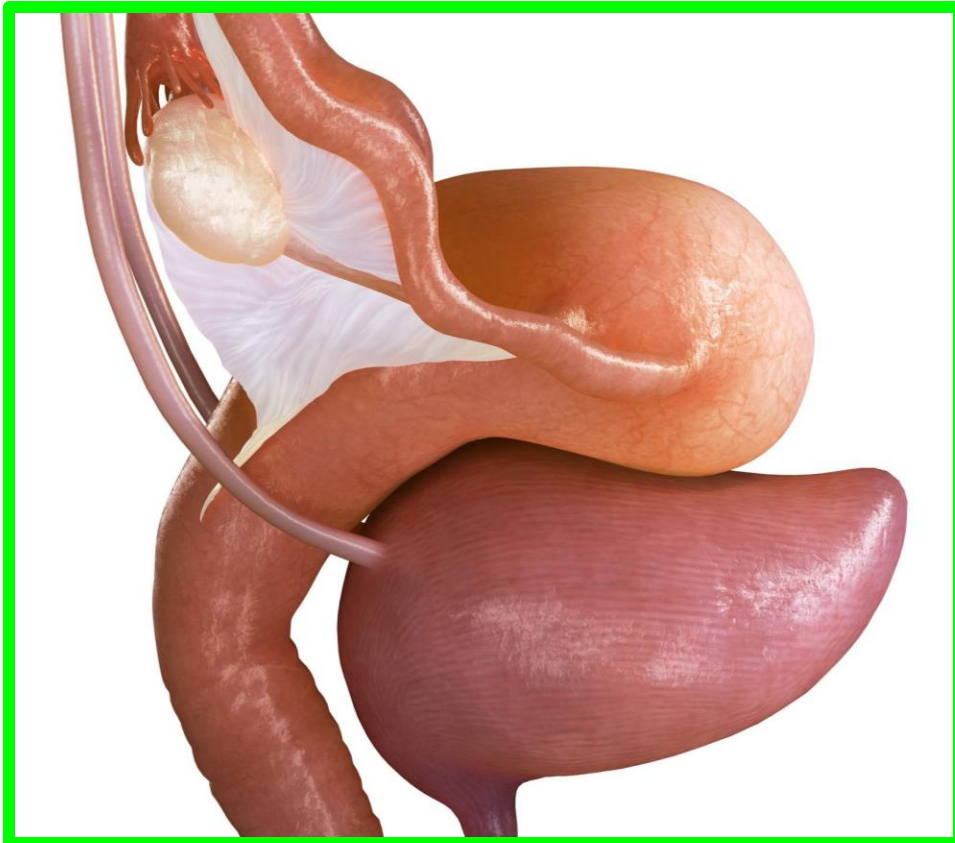
# Vagina

Dr. Aiman Qais Al Maathidy  
Tuesday 12 May 2026

14

## 3. Laterally:

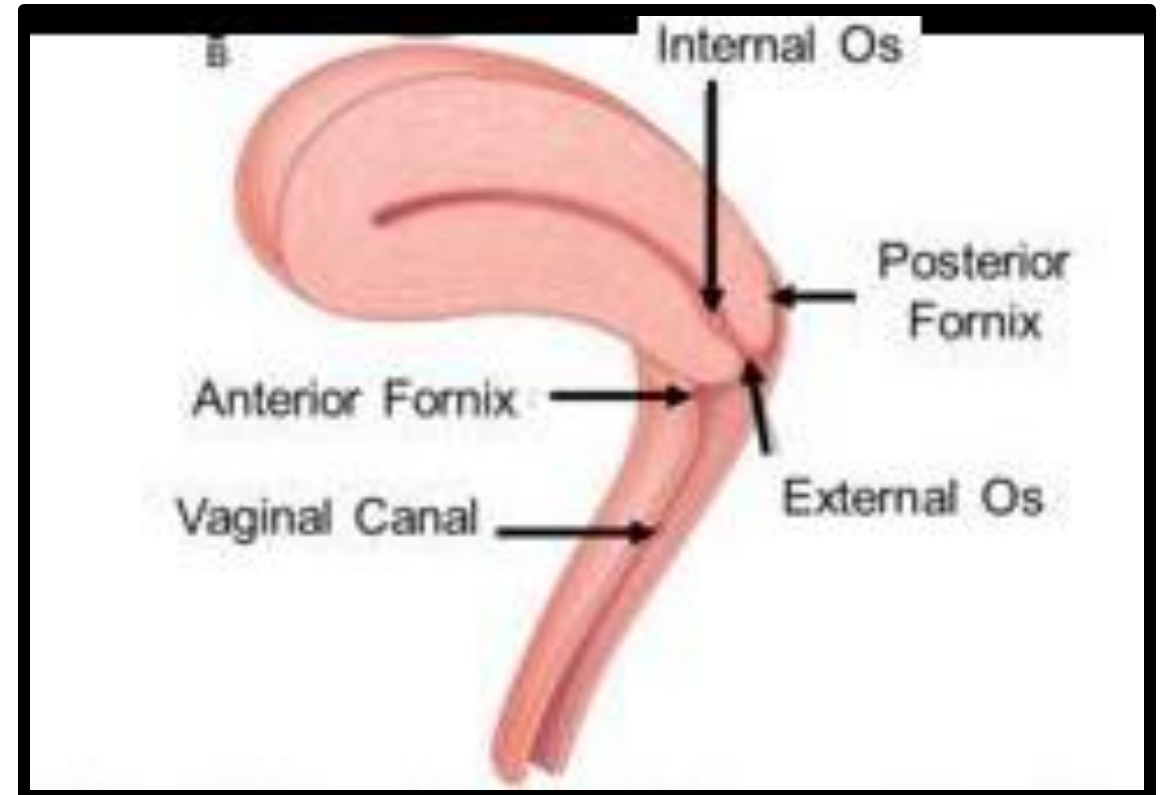
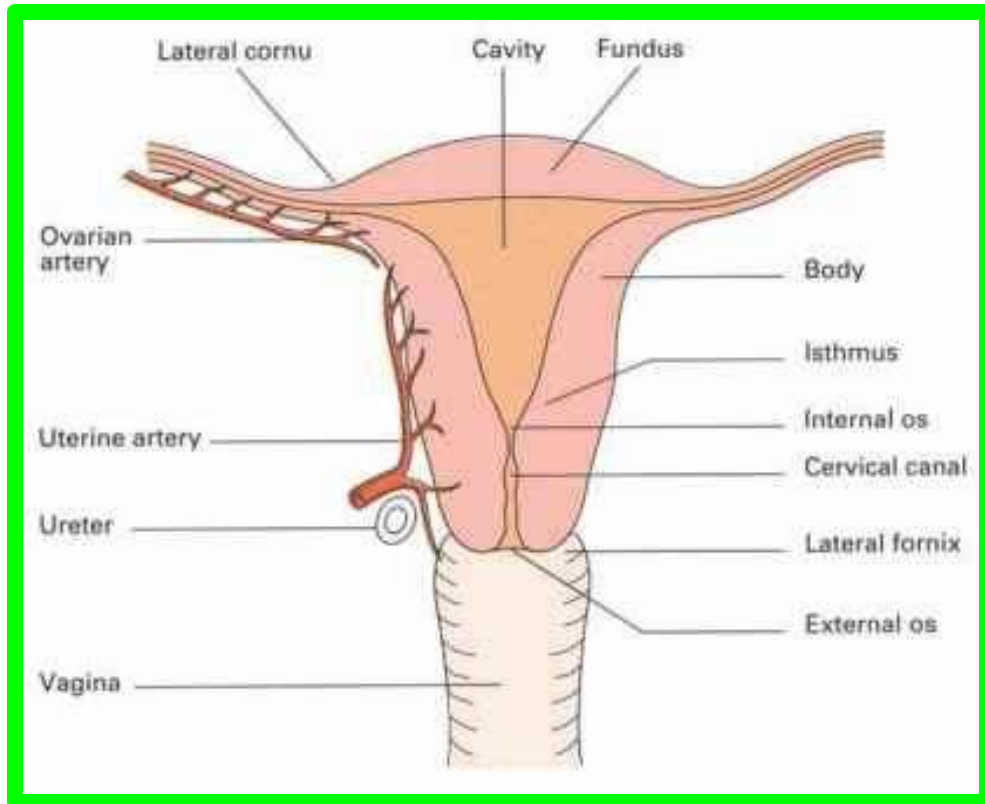
- a. Upper part is related to the ureter.
- b. Middle part is to the levator ani. (**Sphincter vaginae**)
- c. Lower part transverses the deep and superficial perineal pouches.



# Vagina

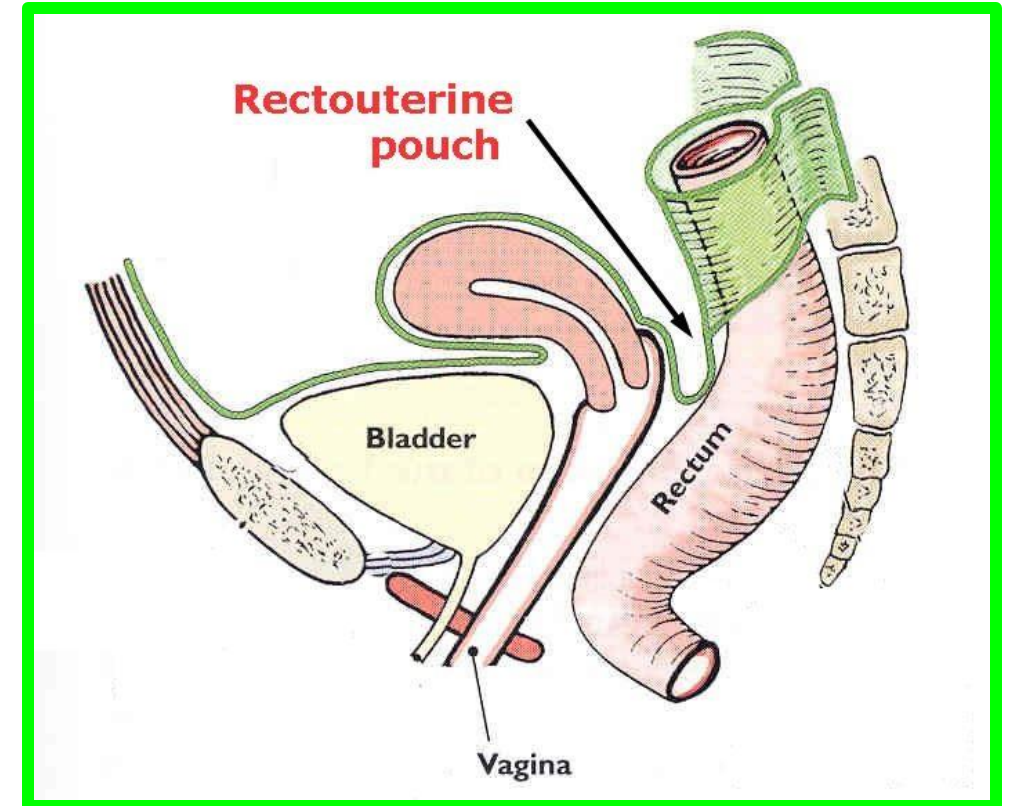
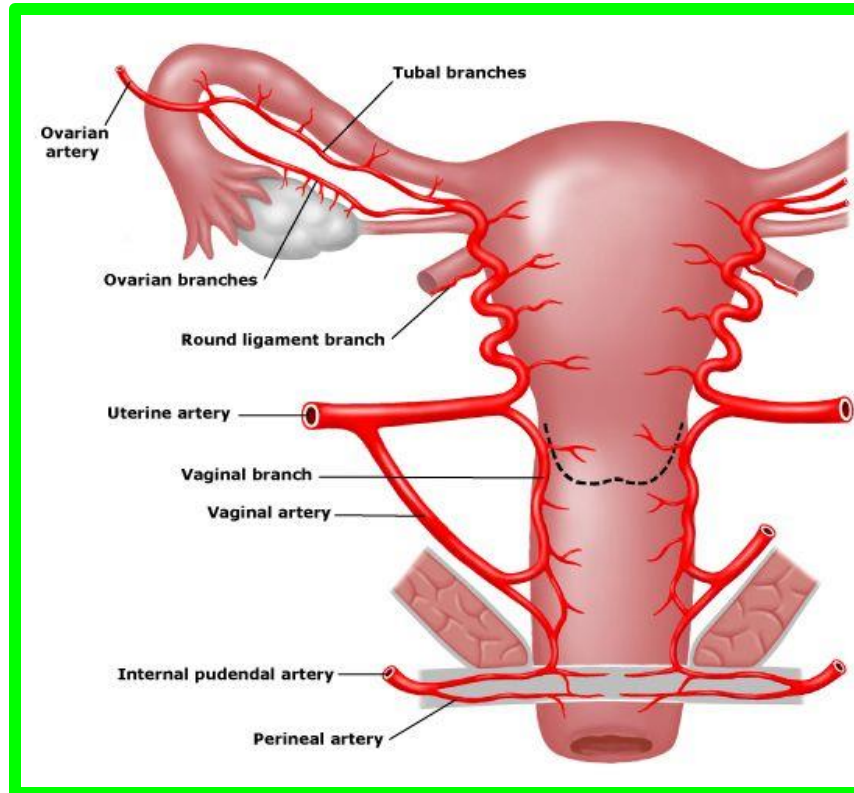
## \*\* Fornices of the vagina:

- These are the recesses of the upper part of the vagina which surrounds the vaginal part of the cervix (**anterior, posterior and 2 Lateral**).



**\*\* Peritoneal covering of the vagina:**

**Only the upper part of the posterior wall by peritoneum of rectovaginal pouch.**



**\*\* Arterial supply:**

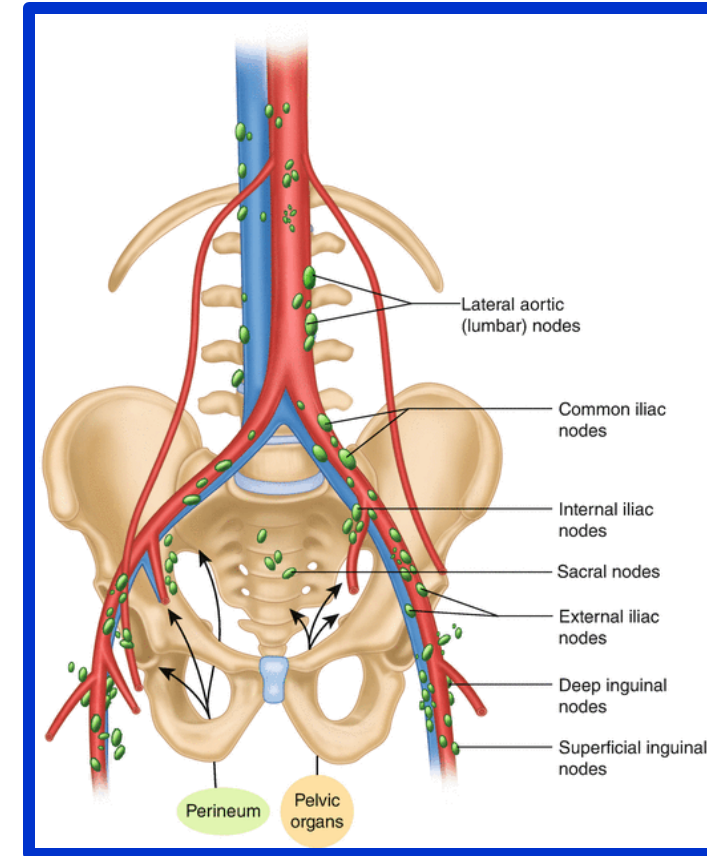
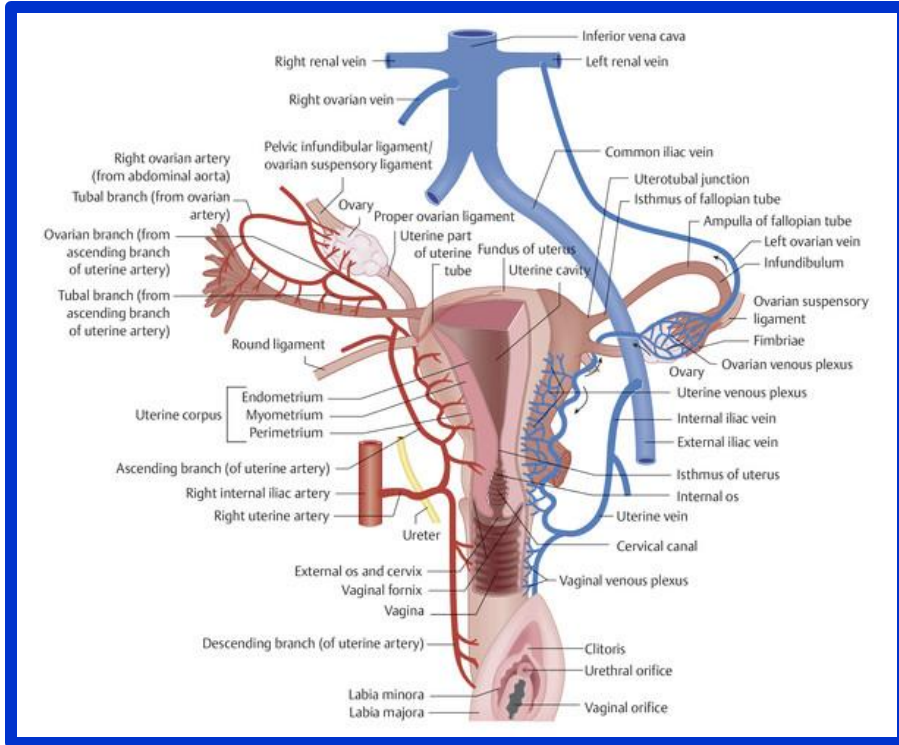
1) Vaginal artery.

2) Uterine artery.

3) Internal pudendal artery.

4) Middle rectal artery.

**\*\* Venous drainage: to the vaginal venous plexus → internal iliac vein.**



**\*\* Lymphatic drainage:**

- The upper part** drains into the **external iliac lymph nodes**.
- The middle part** drains into the **internal iliac lymph nodes**.
- The lower part** drains into the **superficial inguinal lymph nodes**.

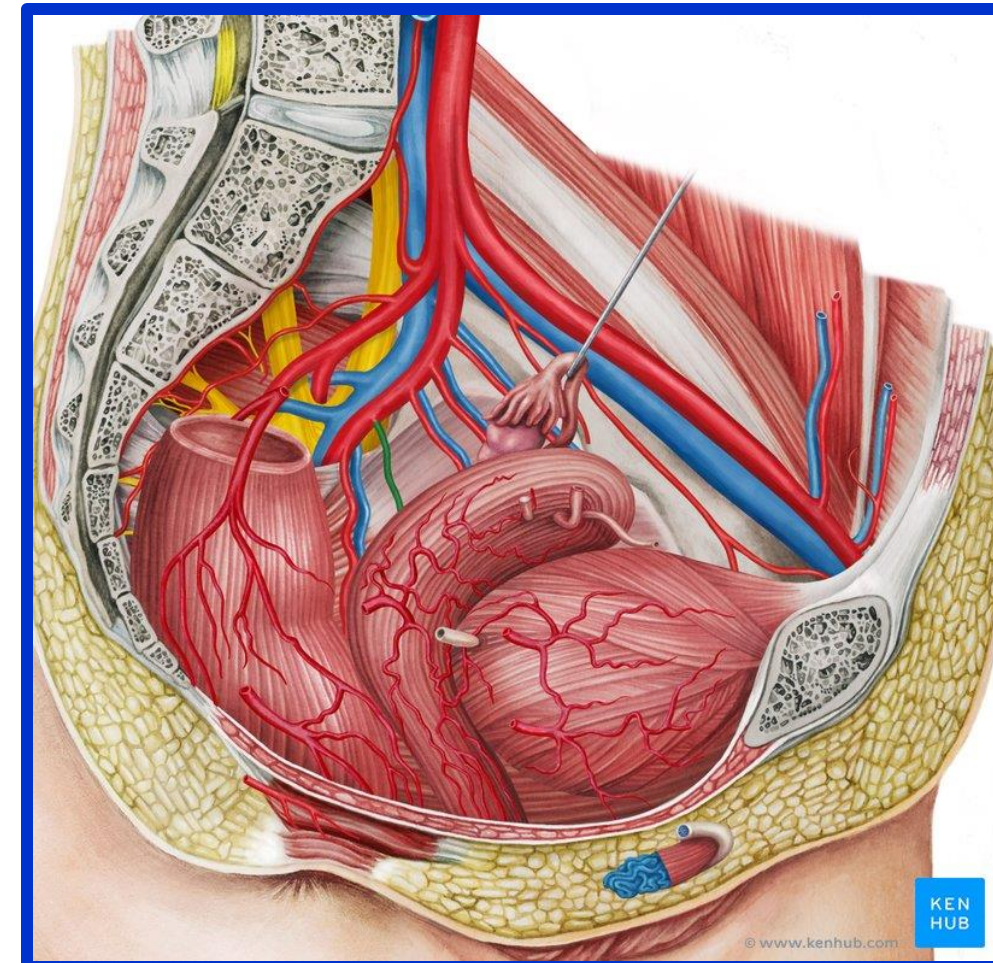
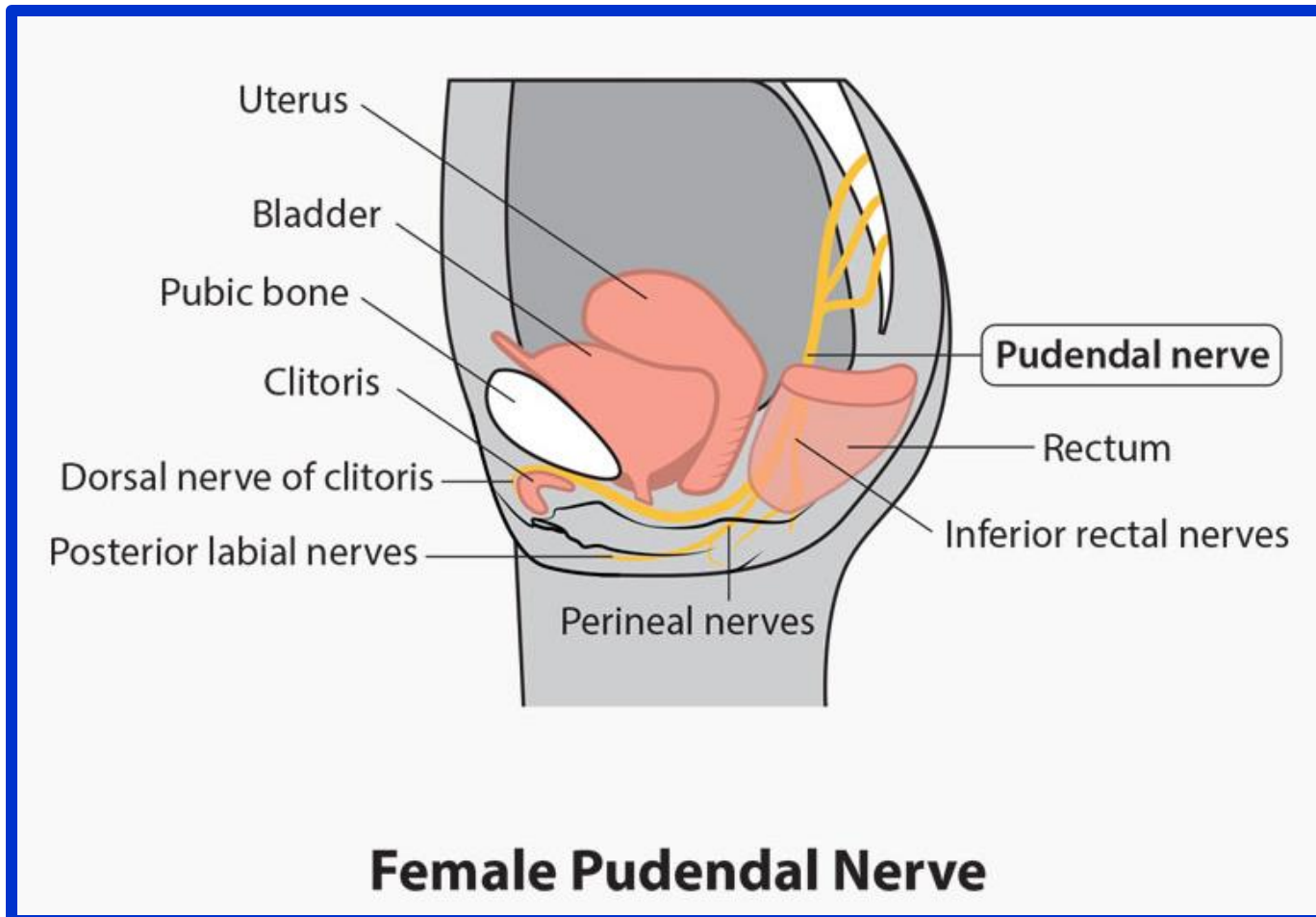
# Vagina

Dr. Aiman Qais Al Maathidy  
Tuesday 12 May 2026

18

## \*\* Nerve supply:

- ❖ Upper 2/3 supplied by sympathetic and parasympathetic.
- ❖ Lower 1/3 pain sensitive and supplied by pudendal nerve.

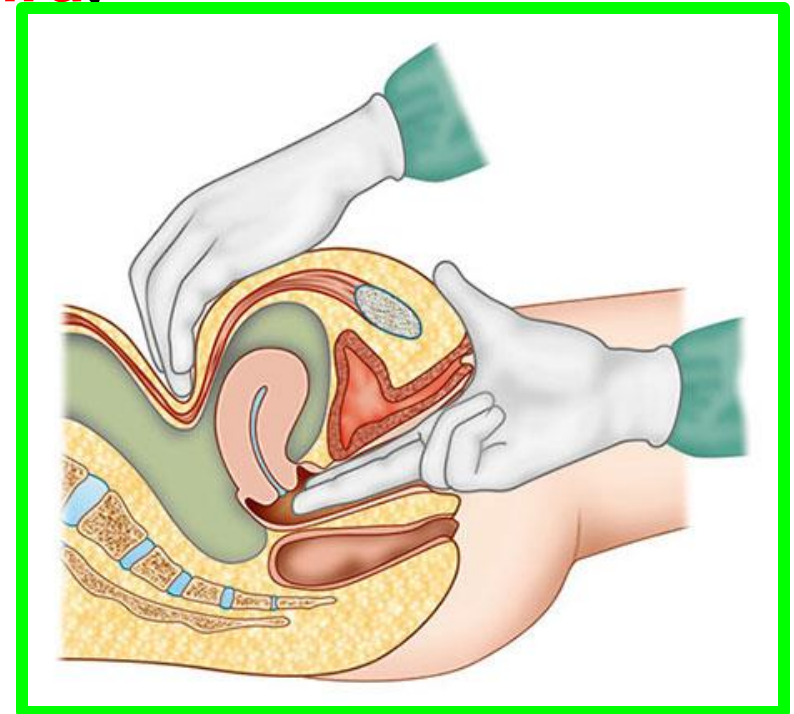


# Vagina

## \*\* Applied anatomy:

### 1. Vaginal examination:

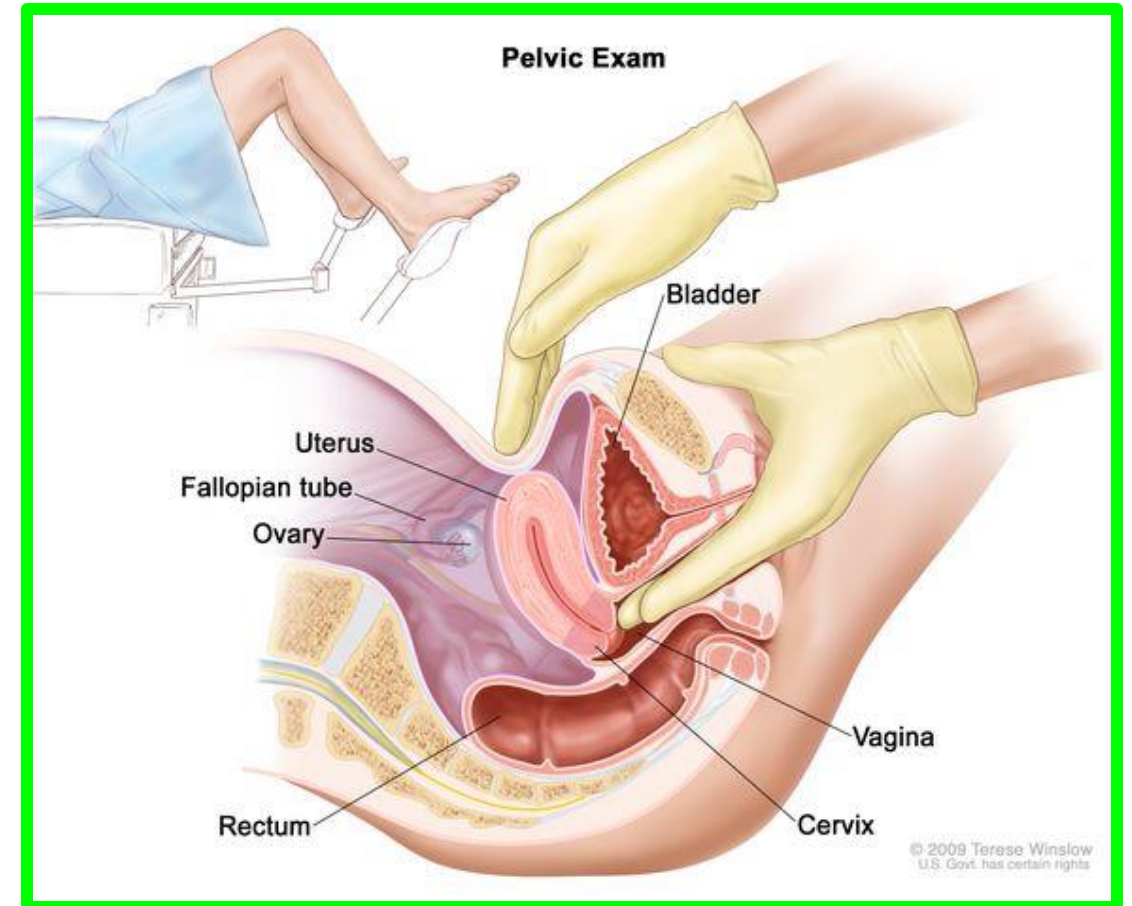
- ✓ This is done by inserting both index and middle fingers through the vagina.
- ☐ The structures felt are:
  - ✓ Cervix of the uterus and Fornices of the vagina
  - ✓ Anteriorly: The base of **urinary bladder** and **urethra**.
  - ✓ Posteriorly: Rectovaginal (**Douglas**) pouch.



# Vagina

**2. Bimanual examination:** With the two fingers of the right hand inserted high up into the vagina, pressure is done by the left hand on the suprapubic part of the anterior abdominal wall.

❖ By this method, the size and characteristics of the uterus can be evaluated.

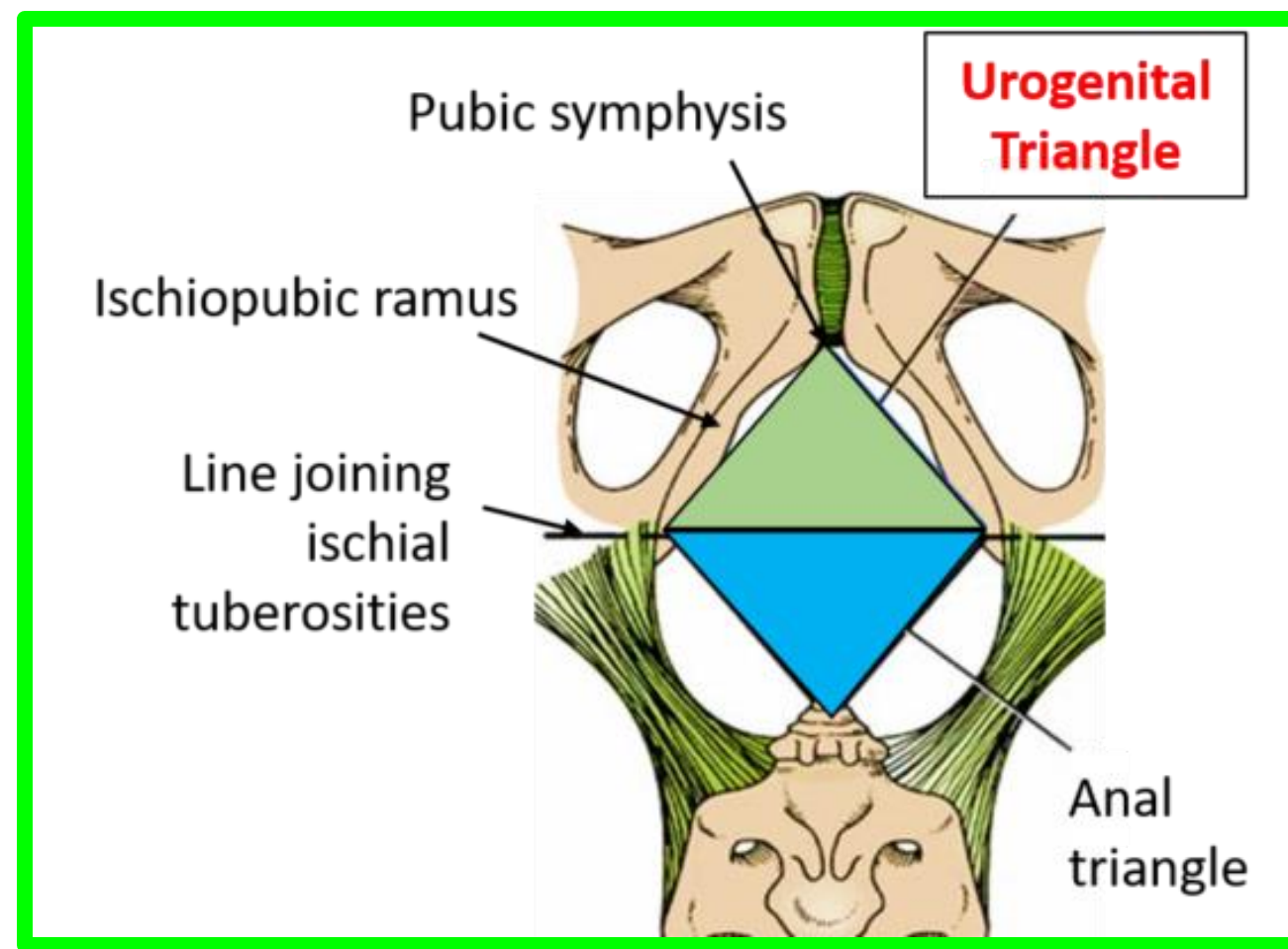


# Ischioirectal Fossa

## ANAL TRIANGLE

❖ Diamond-shaped perineum divided by a broken line into the:

- ❖ Urogenital triangle
- ❖ Anal triangle.



- 1) **Urogenital triangle** anteriorly, contains **superficial and deep perineal pouch**.
- 2) **Anal triangle** posteriorly, contains **anal canal and ischioirectal Fossa**.

# Ischiorectal Fossa

\*\* **Shape:** a wedge-shaped

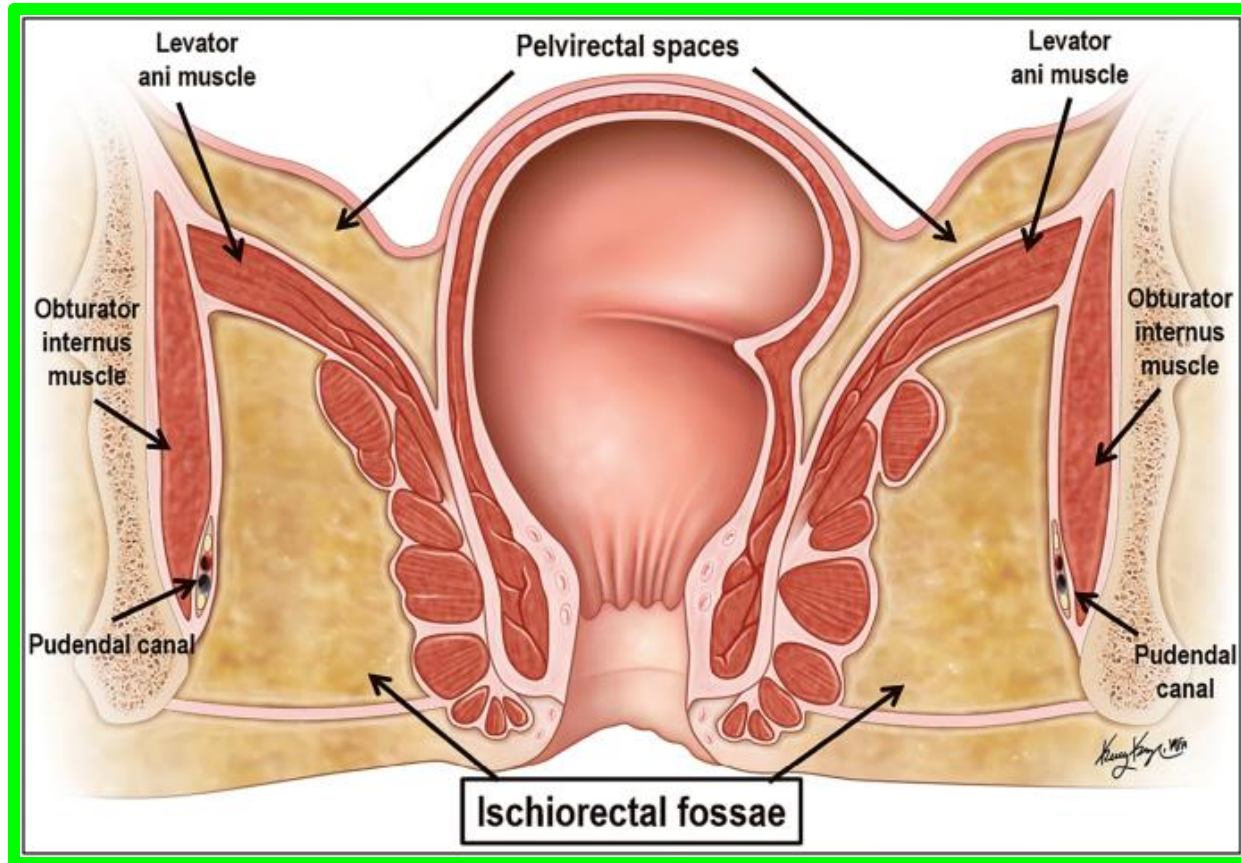
\*\* **Position:** space on each side of the anal canal.

\*\* **Boundaries (walls):**

1. **Lateral wall:** vertical.

❖ It is formed by the obturator internus, obturator fascia and ischial tuberosity.

❖ The obturator fascia is split to form the **pudendal canal** (its contents **pudendal nerve** and **internal pudendal vessels**).



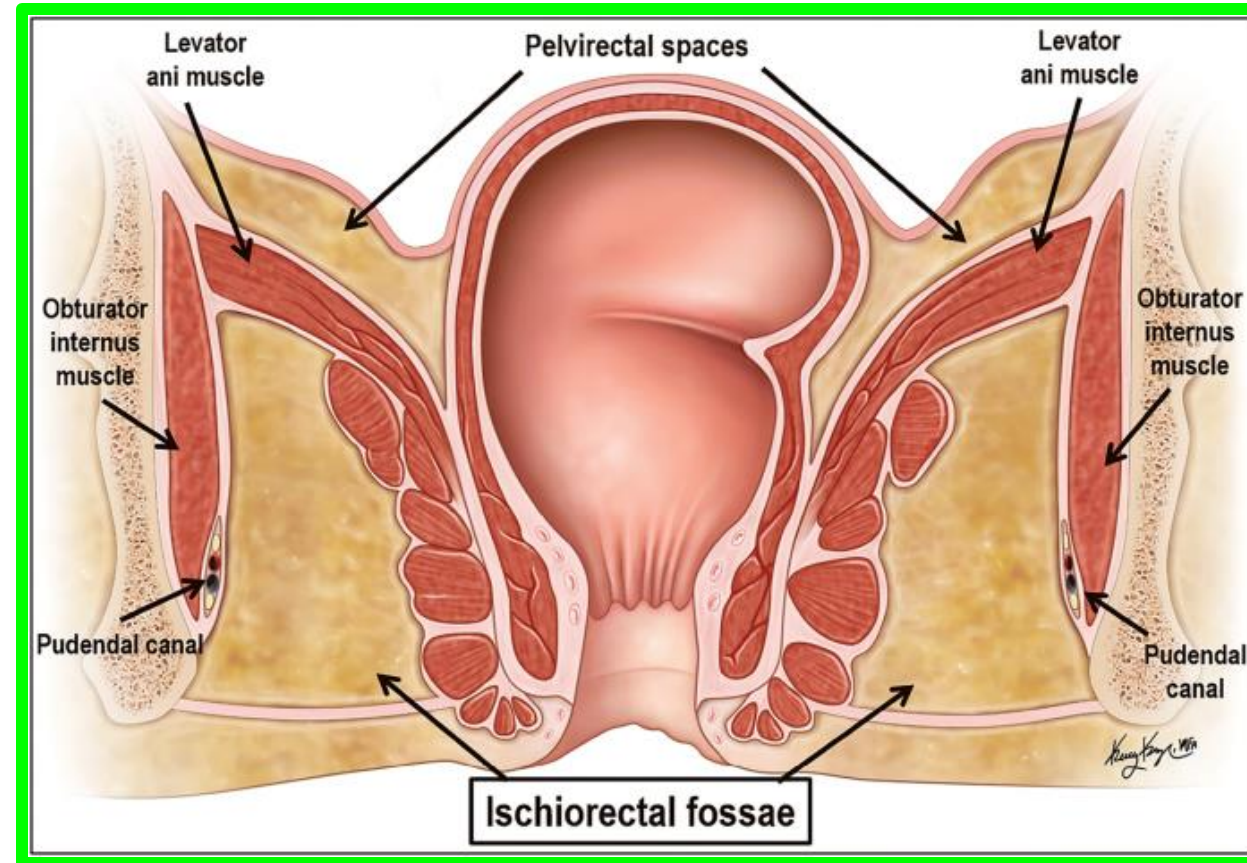
# Ischiorectal Fossa

## 2. Medial wall: sloping

- Upper part: the levator ani muscle.
- Lower part: the external anal sphincter.

3. **The base:** is directed downward and is formed by the peri-anal skin and fascia.

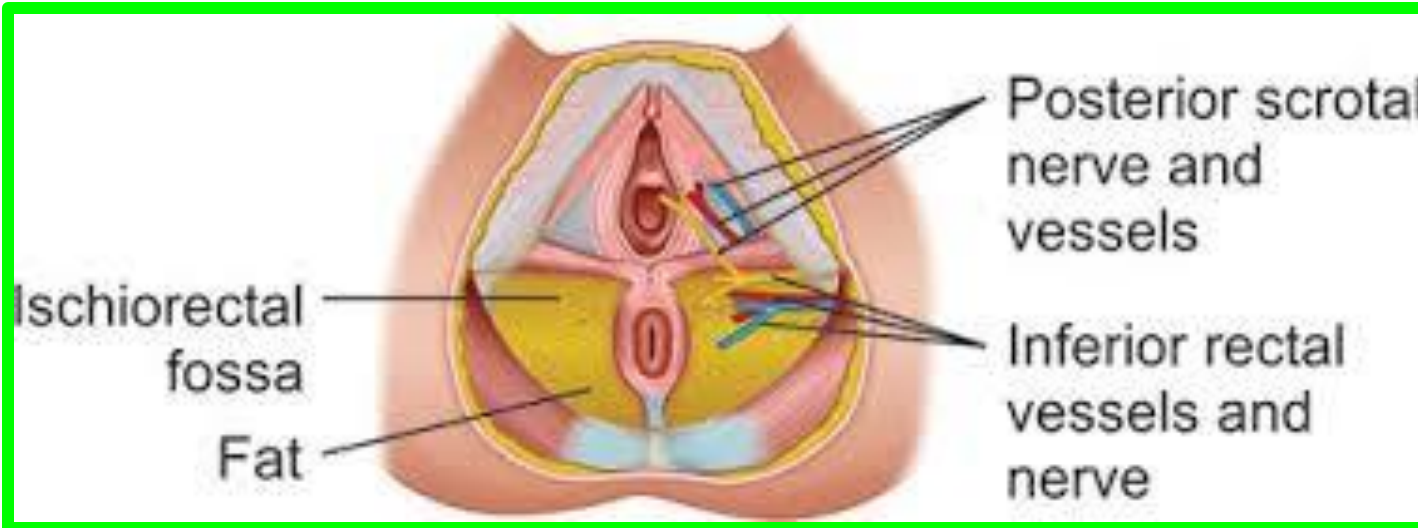
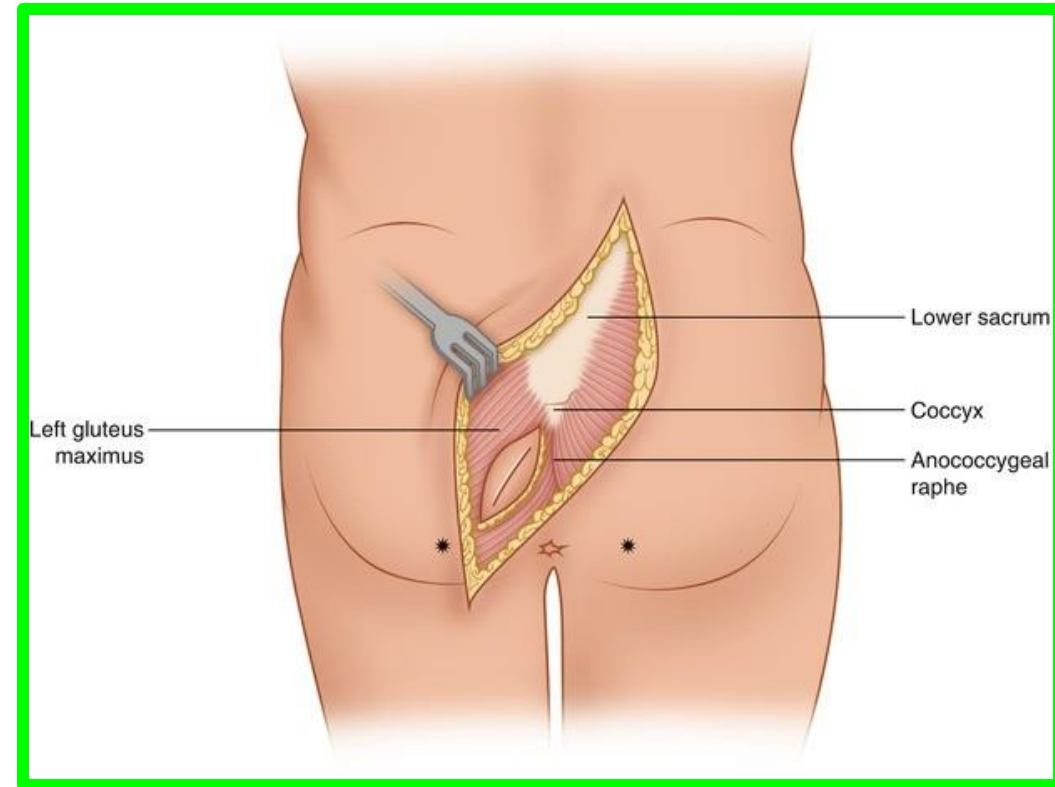
4. **The apex:** is directed upward and is formed by the meeting obturator internus and levator ani muscles.



# Ischiorectal Fossa

**5. Anterior boundary:** superficial and deep perineal pouches and their contents.

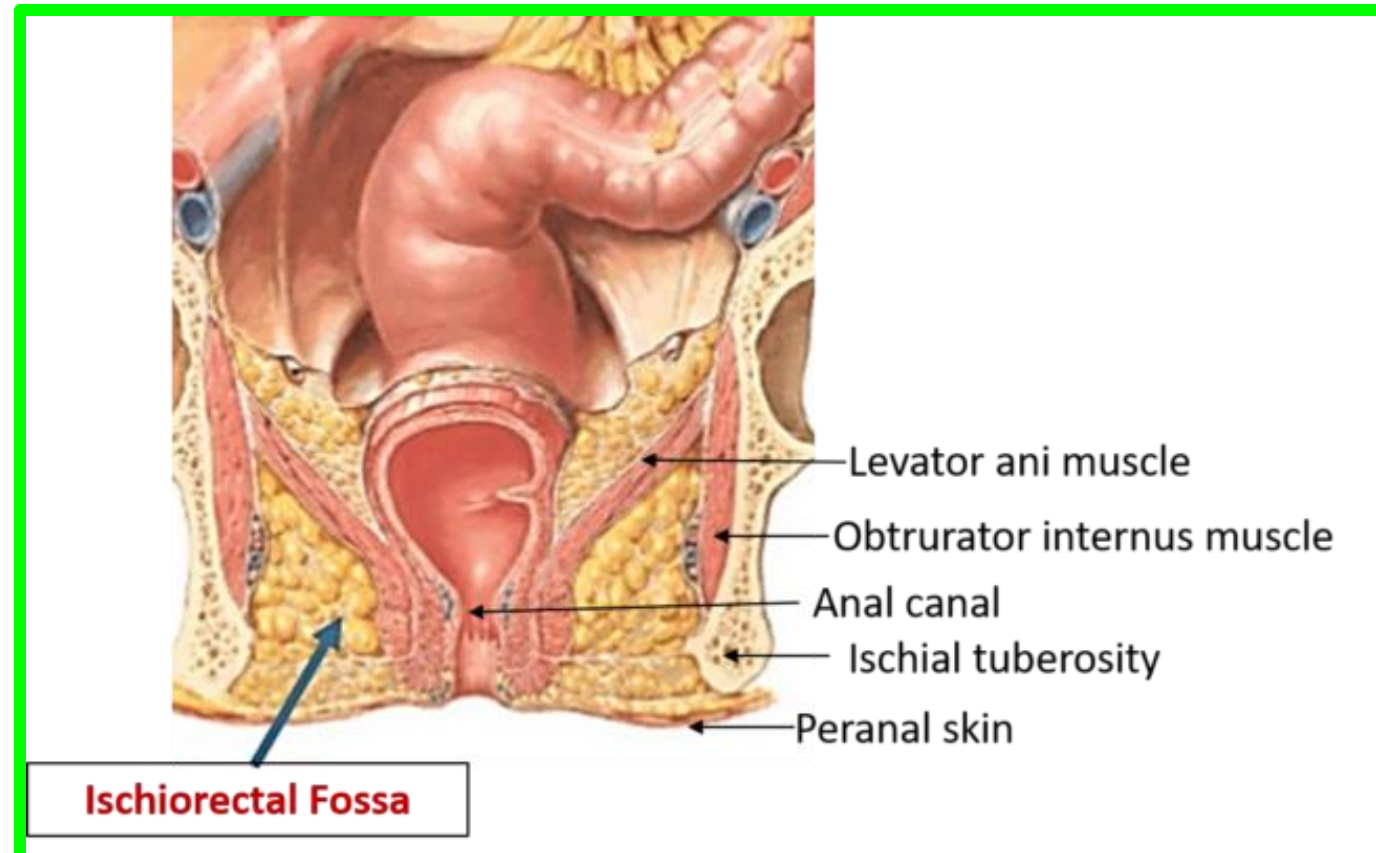
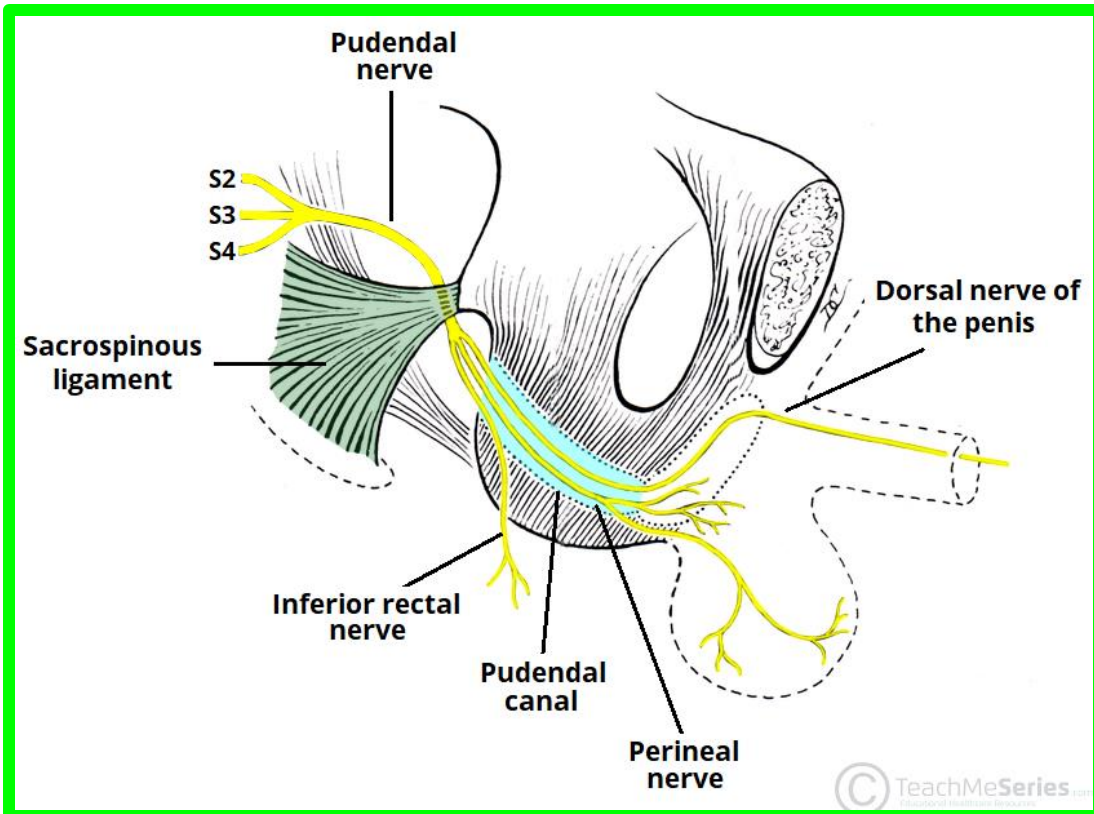
**6. Posterior boundary:** sacrotuberous ligament and gluteus maximus muscle.



# Ischiorectal Fossa

## \*\* Contents:

- 1. Ischiorectal pad of fat:** allows distension of the anal canal during defecation.
- 2. Pudendal canal and its contents** (pudendal nerve and internal pudendal vessels).

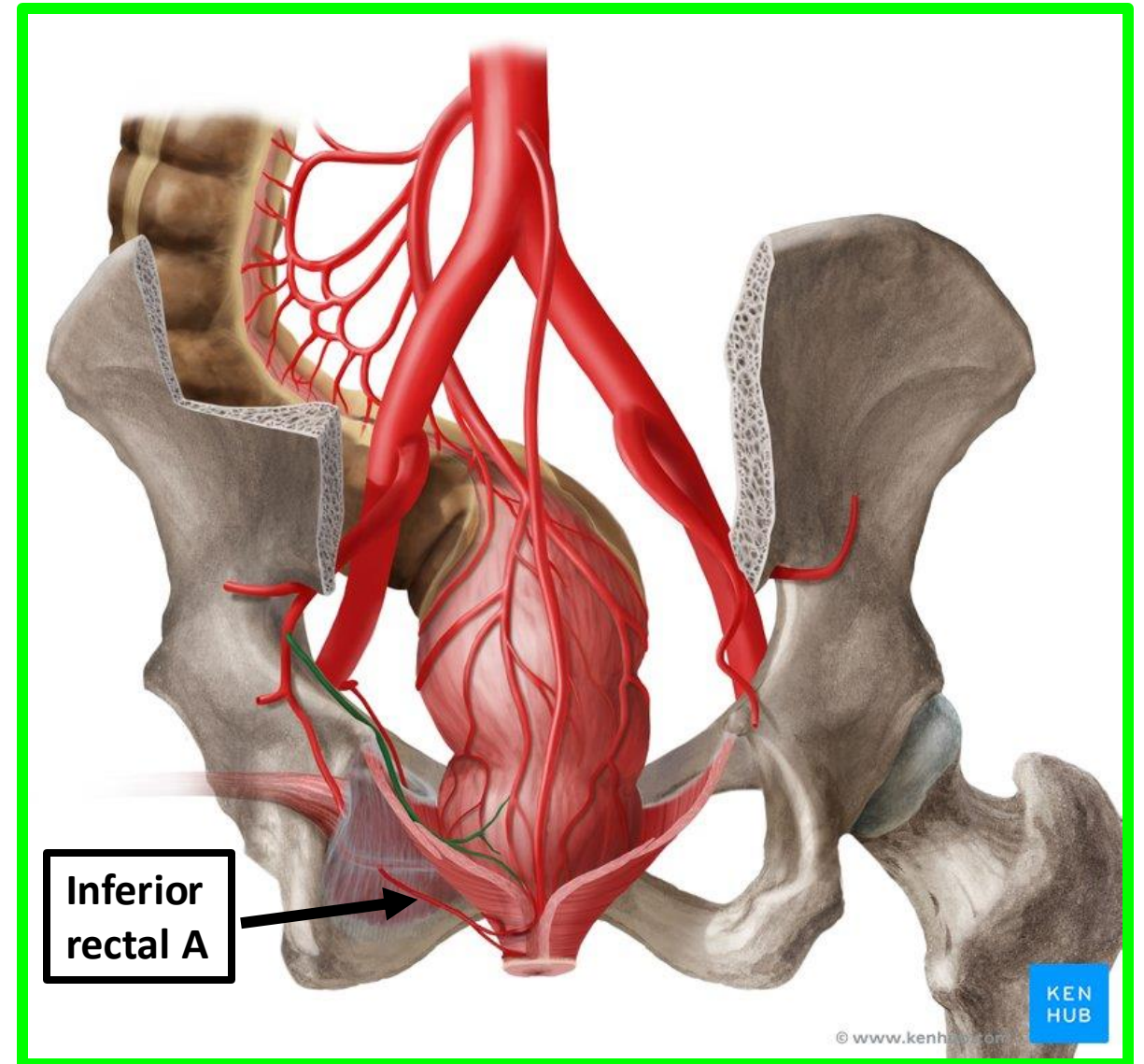


# Ischiorectal Fossa

## \*\* Contents:

### 3. Inferior rectal vessels:

- ❖ The artery arises from the **internal pudendal artery** in the **pudendal canal**.
- ❖ It crosses the fossa to reach the anal canal.



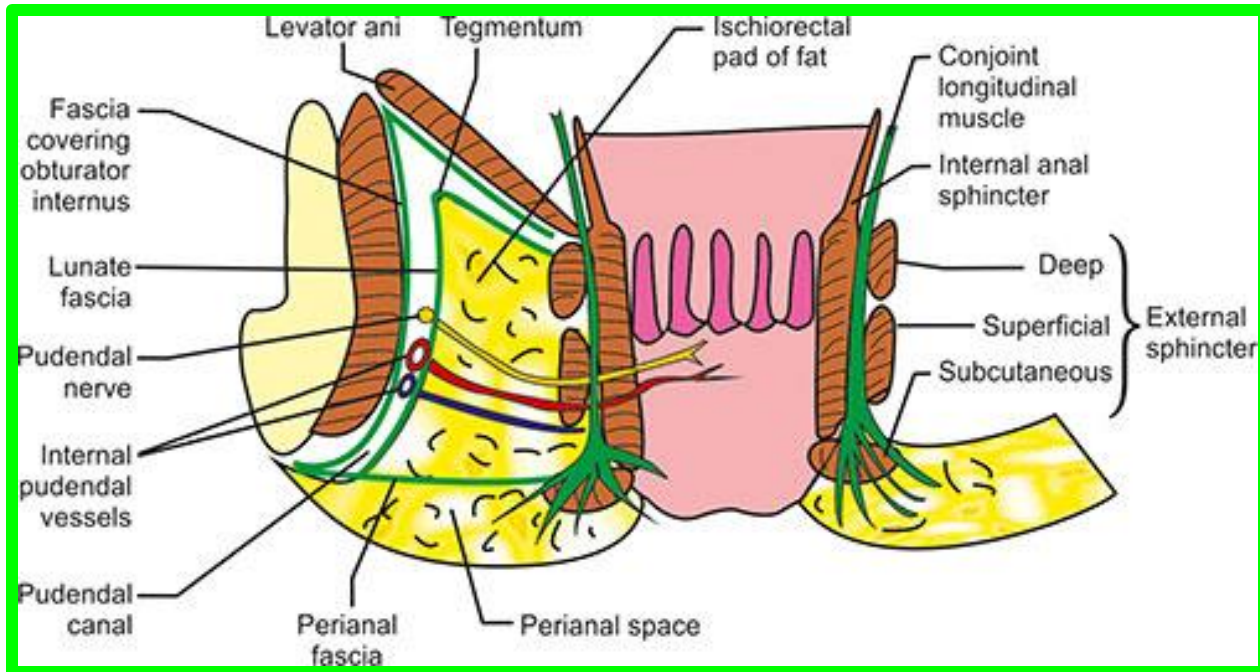
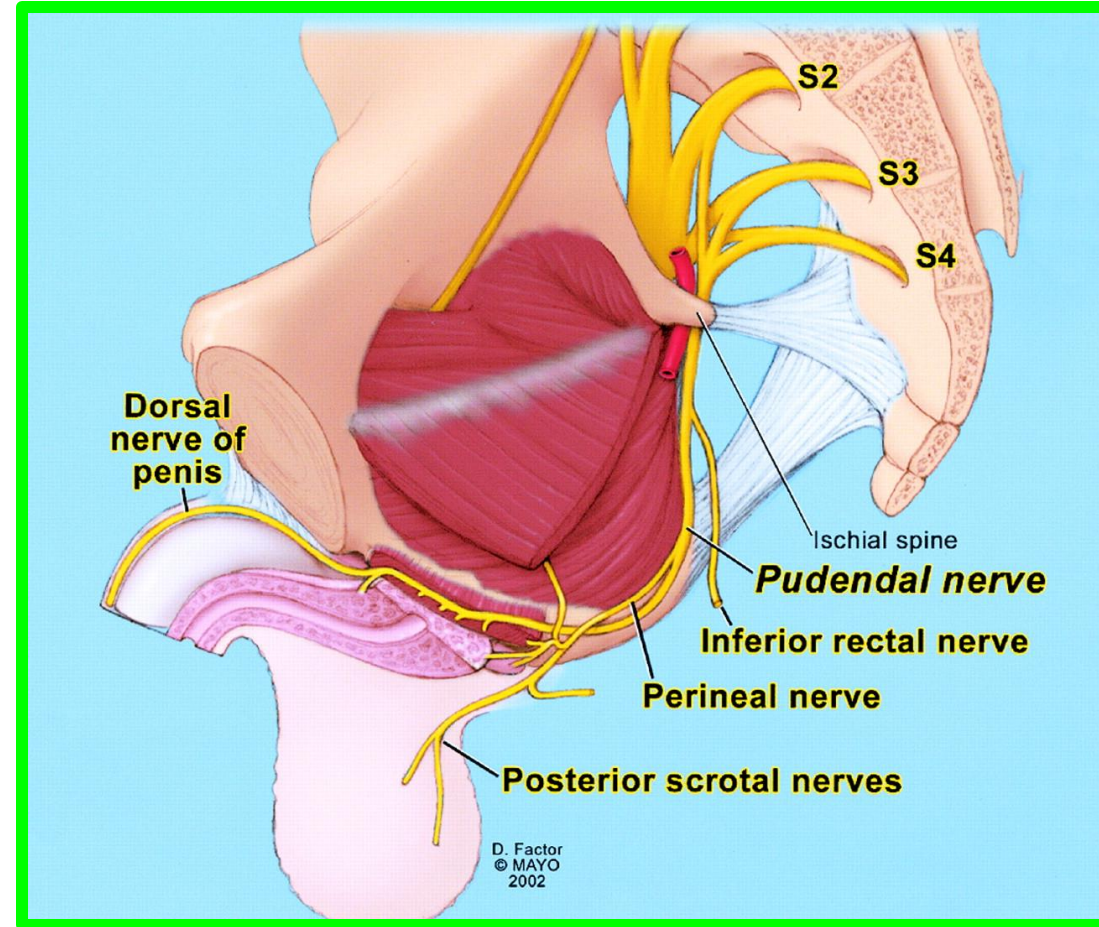
# Ischiorectal Fossa

Dr. Aiman Qais Al Maathidy  
Tuesday 12 May 2026

\*\* Contents:

## 4. Inferior rectal nerve:

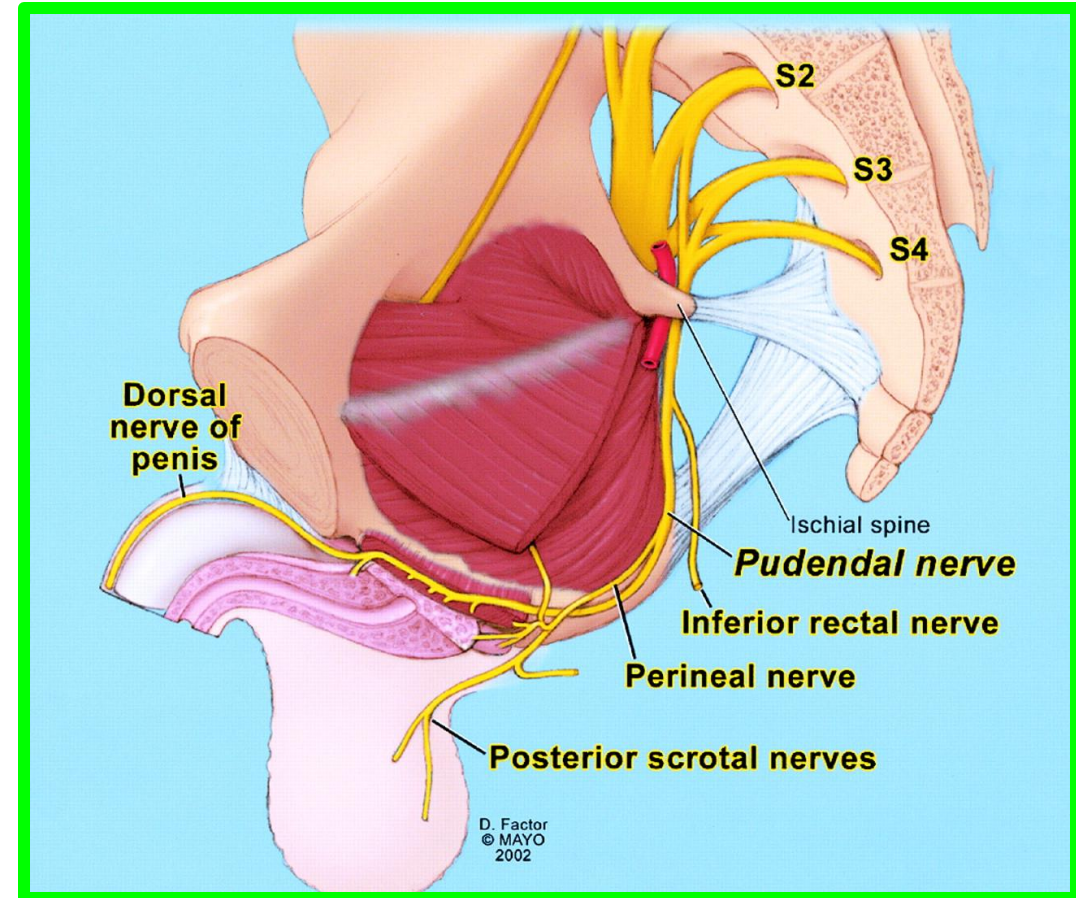
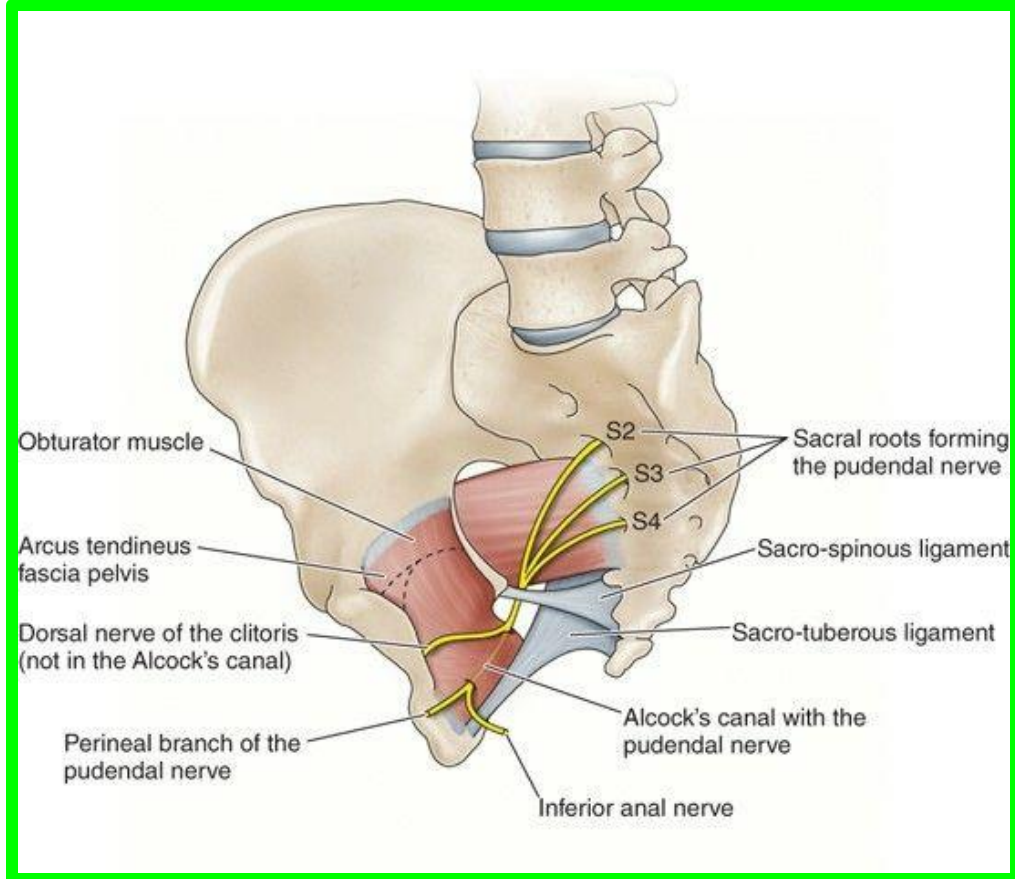
- ❖ It is a branch of the pudendal nerve in the pudendal canal.
- ❖ It crosses the fossa to supply the levator ani, and external anal sphincter.



# Ischiorectal Fossa

## \*\* Contents:

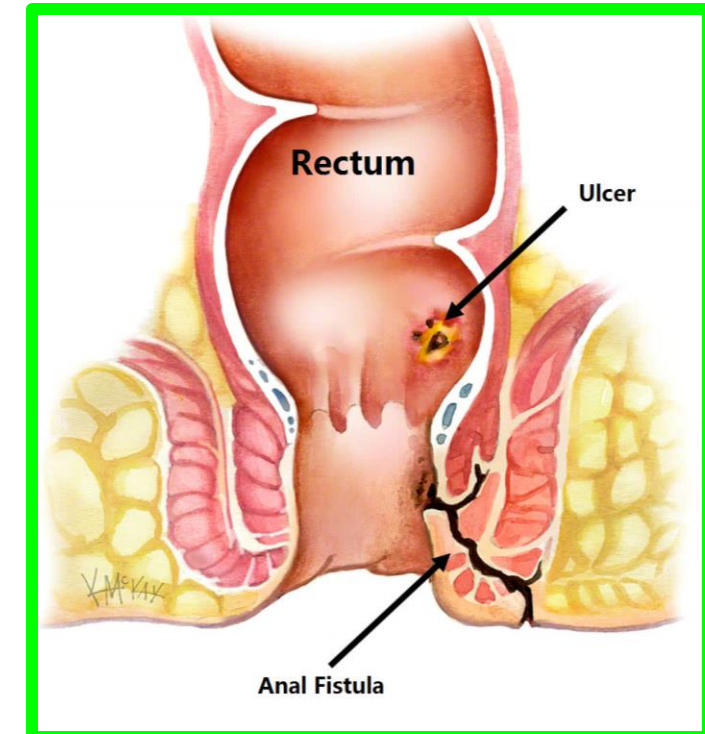
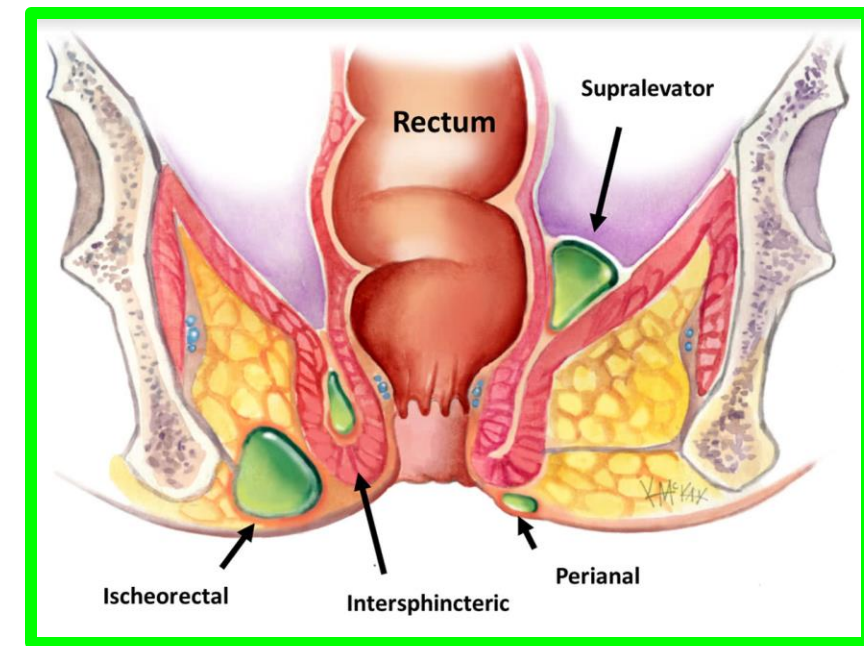
5. Perineal branch of the 4th sacral nerve.
6. Posterior scrotal nerves and vessels: to the scrotum (in male)
7. Posterior labial nerves and vessels: to the labia majora (in female).



# Ischiorectal Fossa

## \*\* Applied anatomy:

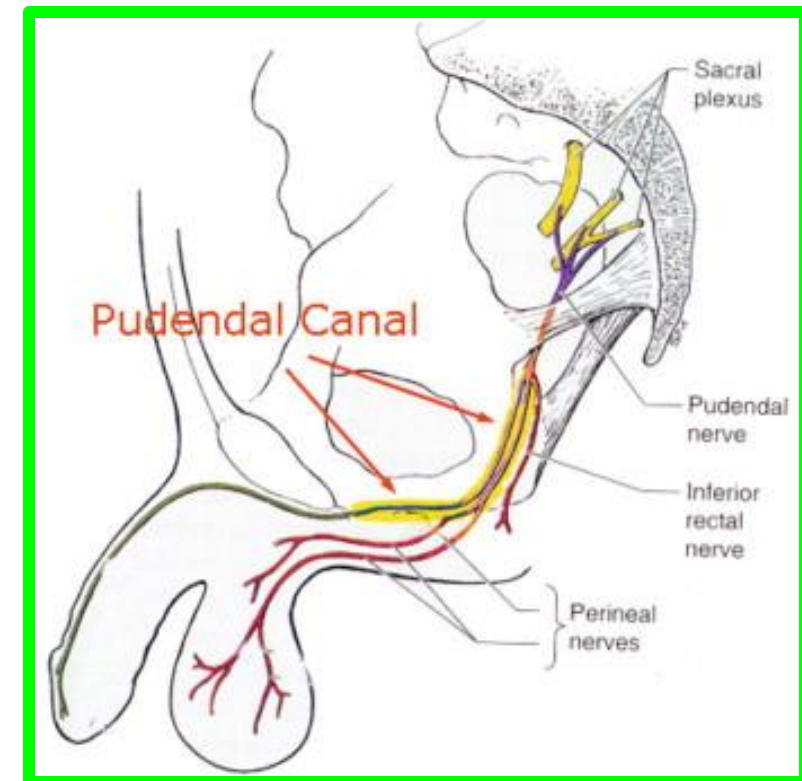
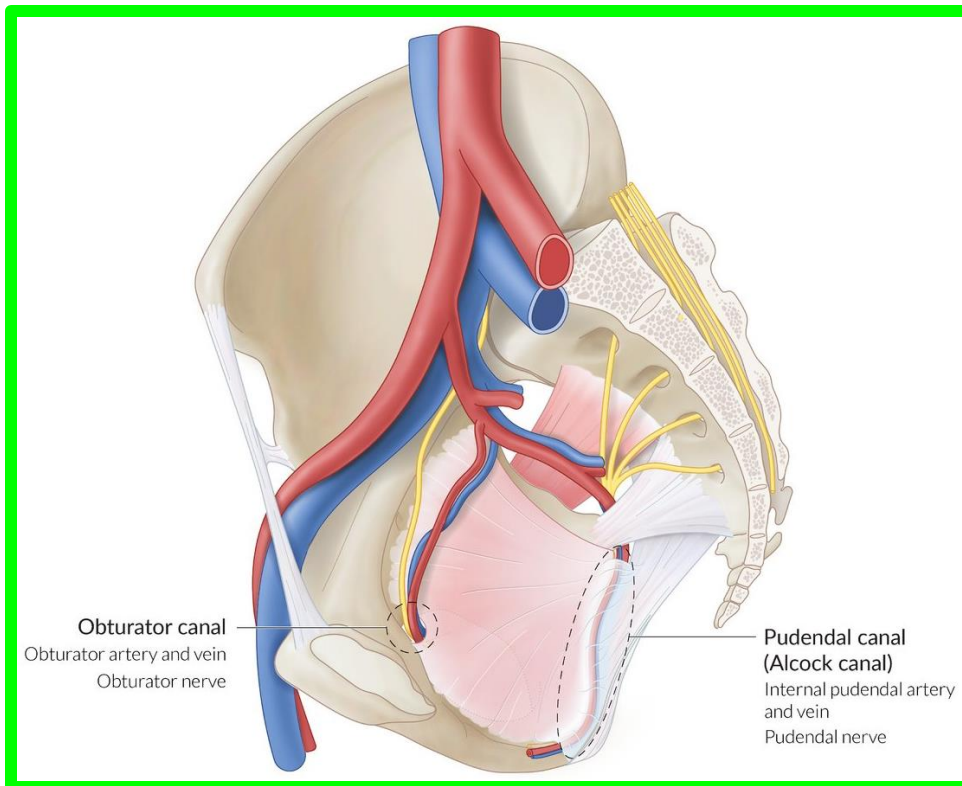
1. Infection of the ischiorectal fossa leading to an **ischiorectal abscess**.
2. If the abscess opens into the anal canal, it produces **anal fistula**.
3. If the abscess opens into the skin, it produces **an external sinus**.




# Ischiorectal Fossa

# Pudendal canal

- \*\* **Definition:** It is a tunnel in the lateral wall of the ischiorectal fossa.
- \*\* **Formation:** It is formed by splitting of the obturator fascia.
- \*\* **Begins:** at the lesser sciatic foramen.
- \*\* **Ends into** the deep perineal pouch.
- \*\* **Contents:** Pudendal nerve and internal pudendal vessels.



A photograph of a well-maintained green lawn. In the foreground, there is a low, dense hedge of green bushes with small yellow flowers. The lawn is lush and green, with shadows cast by trees. In the background, there are several trees, including a large palm tree. A building with a glass facade is visible, and a blue bus is parked on the street to the right. The text "Dr. Aiman Al Maathidy" and "Tuesday 12 May 2026" is overlaid on the image in a bold, black font.

**Dr. Aiman Al Maathidy**  
**Tuesday 12 May 2026**