

FEMALE GENITAL ORGANS
The Uterine tube, Ovaries & Vagina

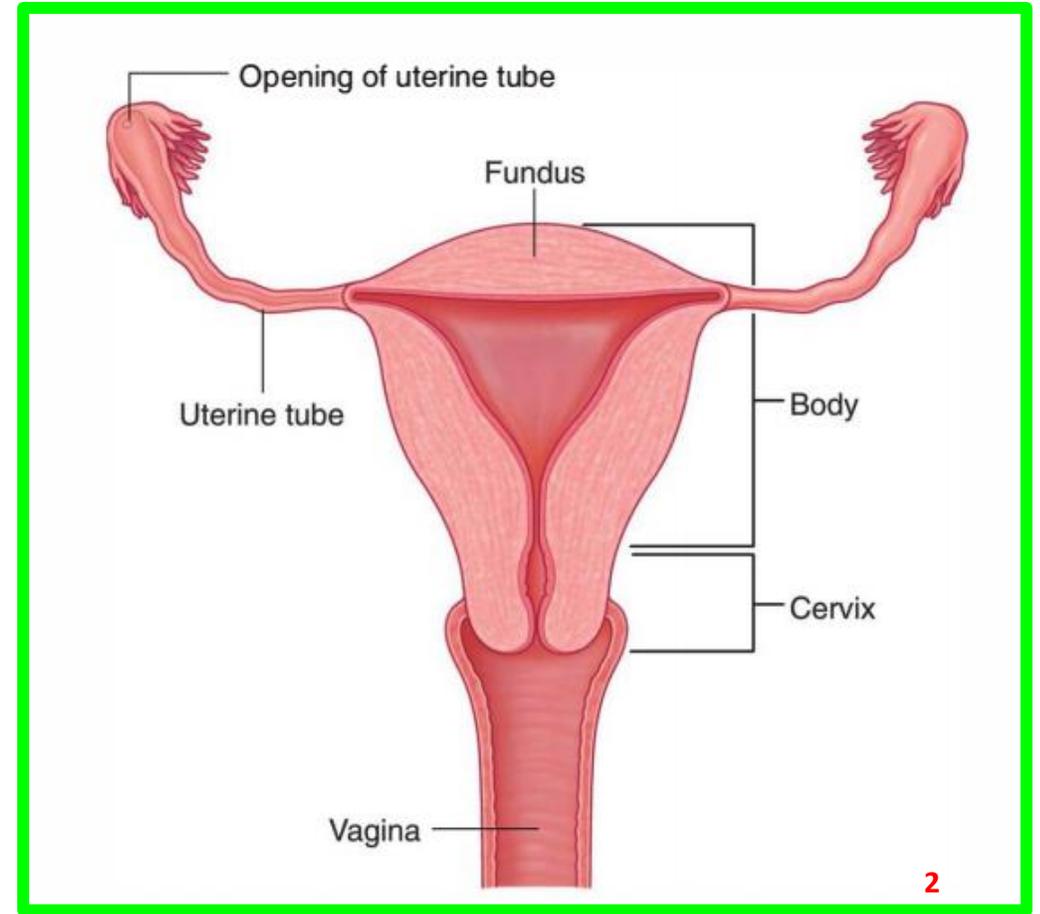
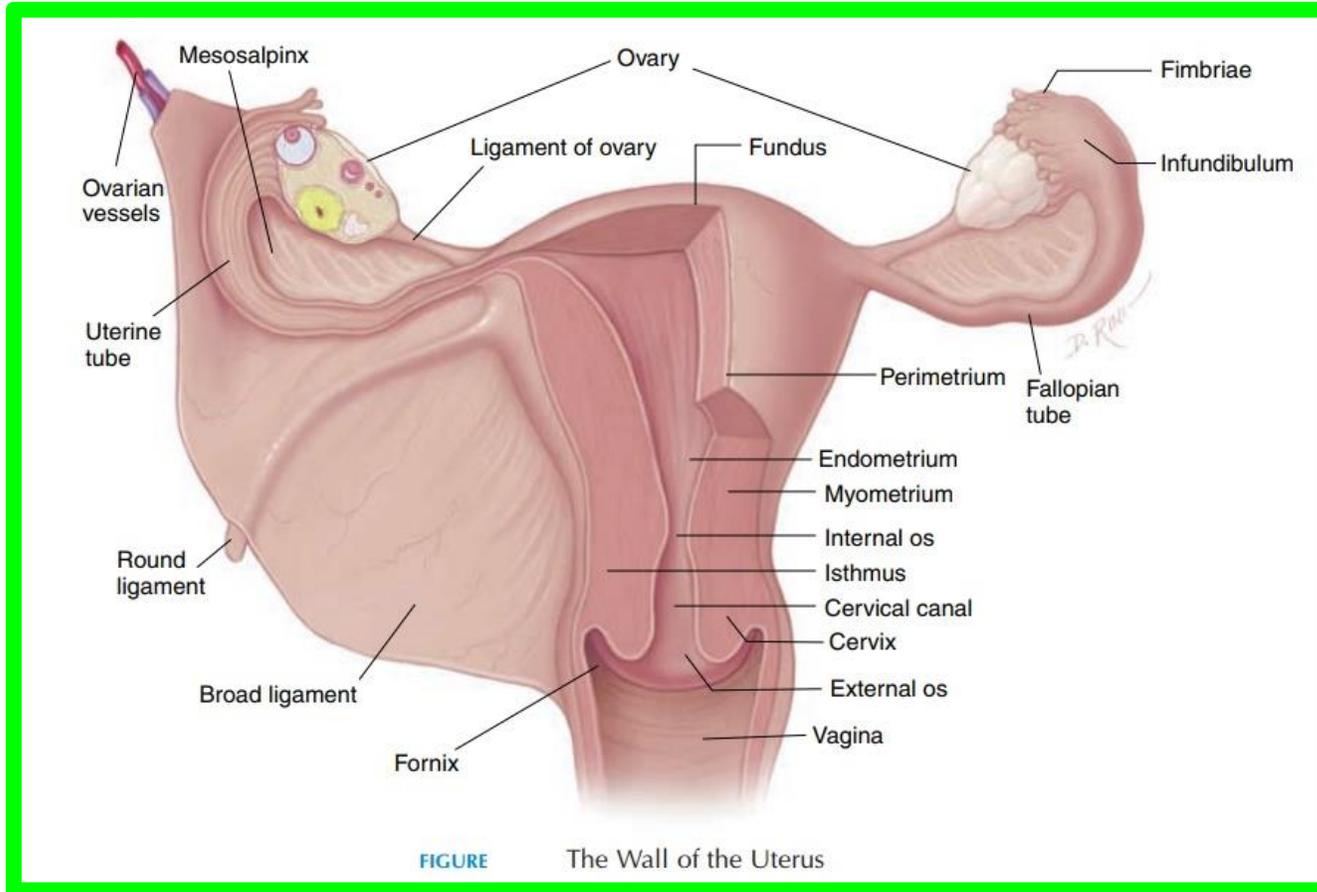
Dr. Aiman Qais Afar
Surgical Anatomist

College of Medicine / University of Mutah

Tuesday 23 May 2023

Uterine Tube

- 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**.



Uterine Tube

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

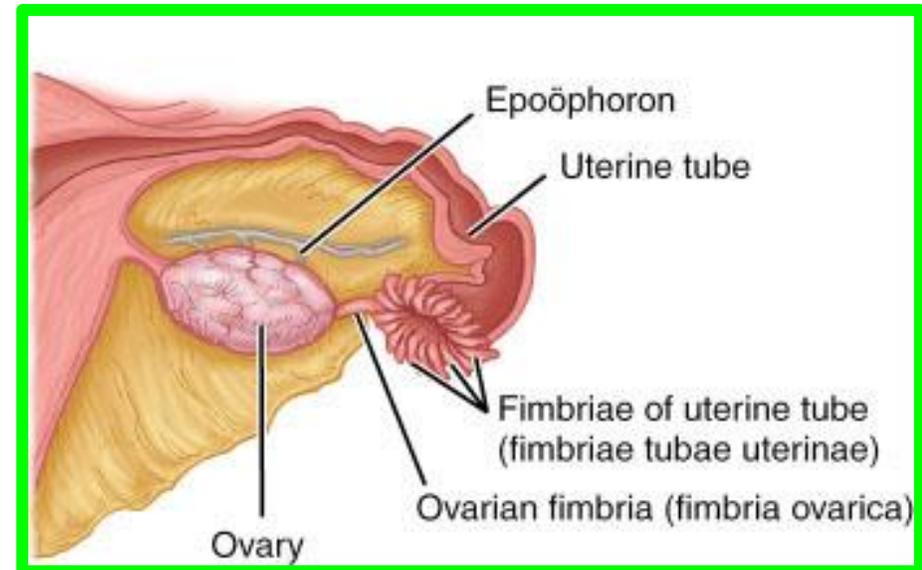
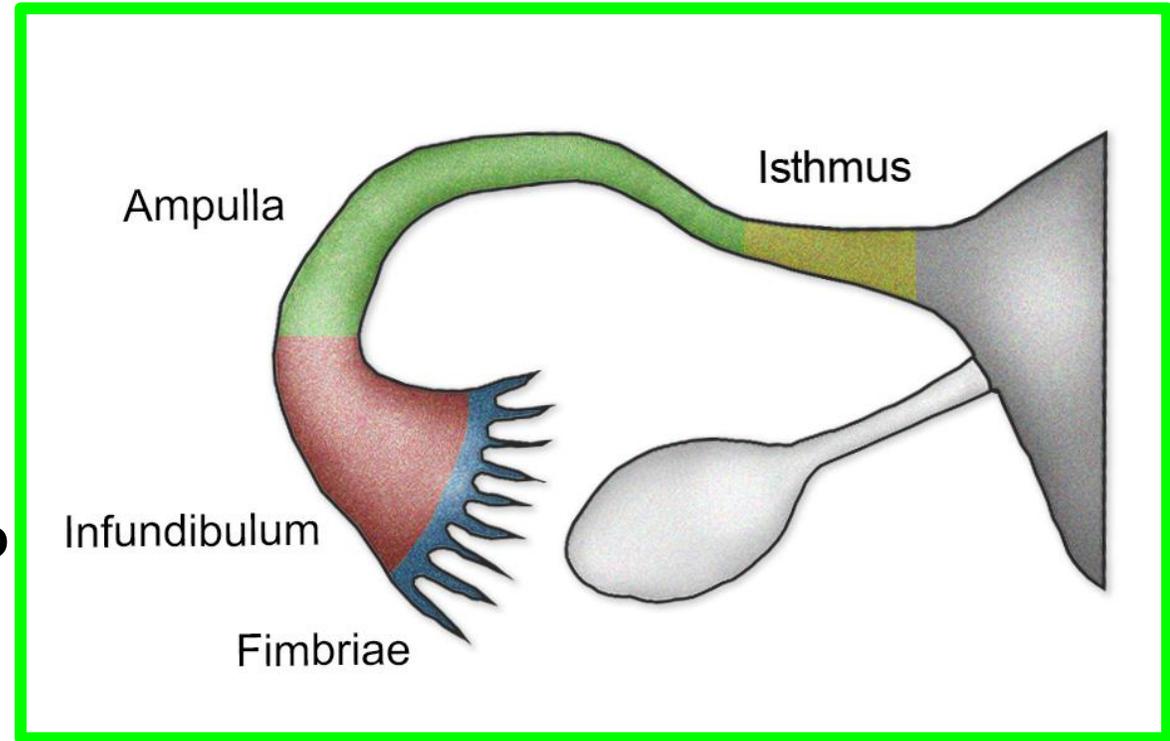
1- Infundibulum: a funnel-shaped which open in the peritoneal cavity.

- 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.

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

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**** 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.

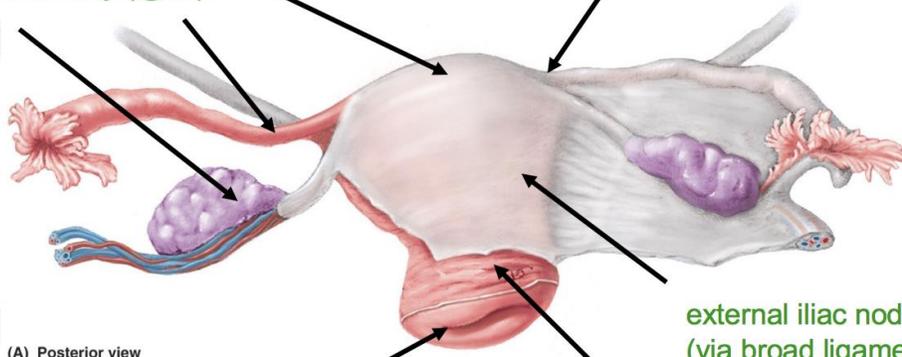
**** Lymphatic drainage:** to the preaortic and para-aortic **lymph nodes.**

**** Nerve supply:** - Sympathetic from **T 10 to L 2.** - Parasympathetic **S2,3,4.**

Lymphatic drainage

aortic nodes at root of ovarian artery (@L2)

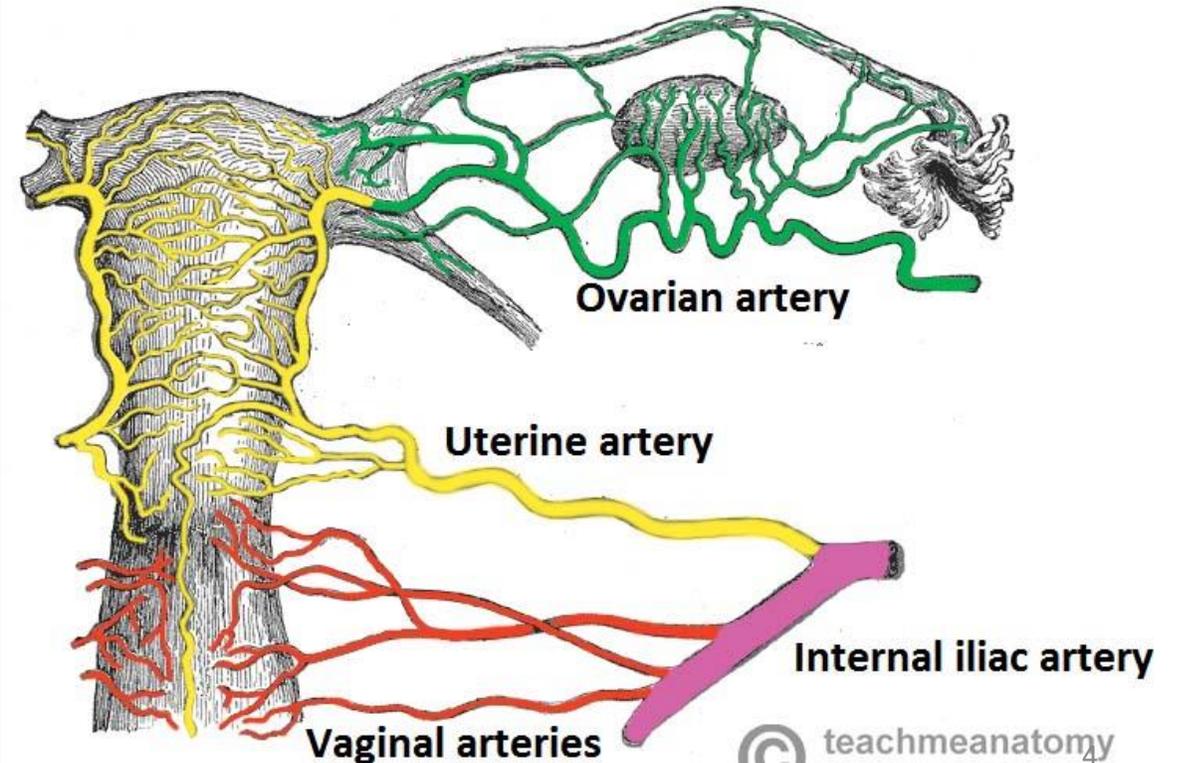
superficial inguinal nodes



internal iliac then superficial inguinal nodes

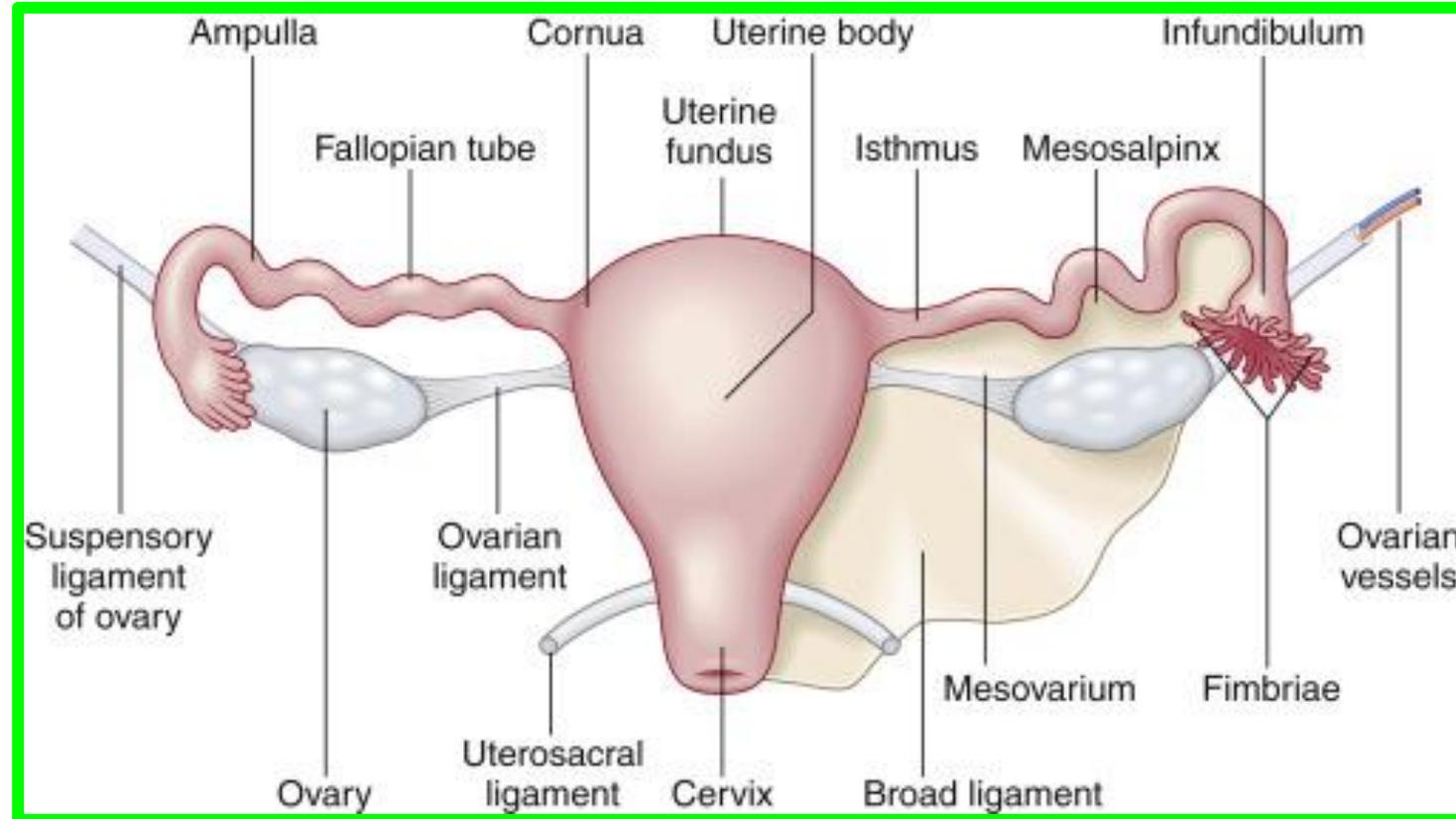
external iliac nodes (via broad ligament)

internal iliac nodes (some to sacral)



Ovaries

- 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:

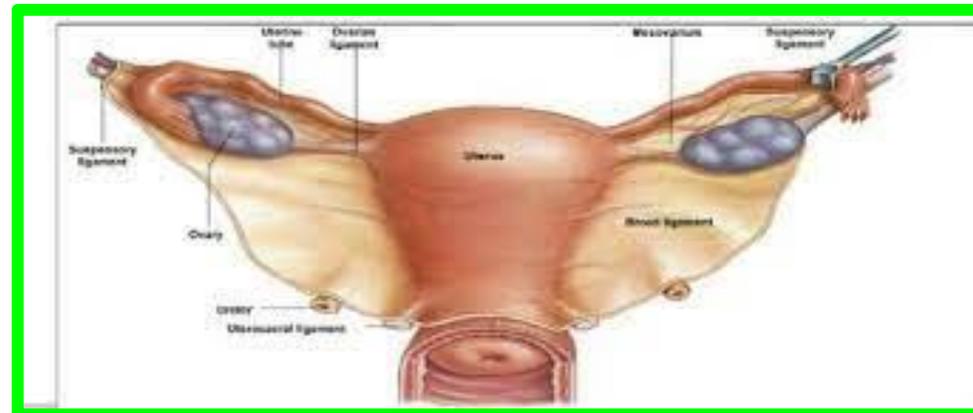
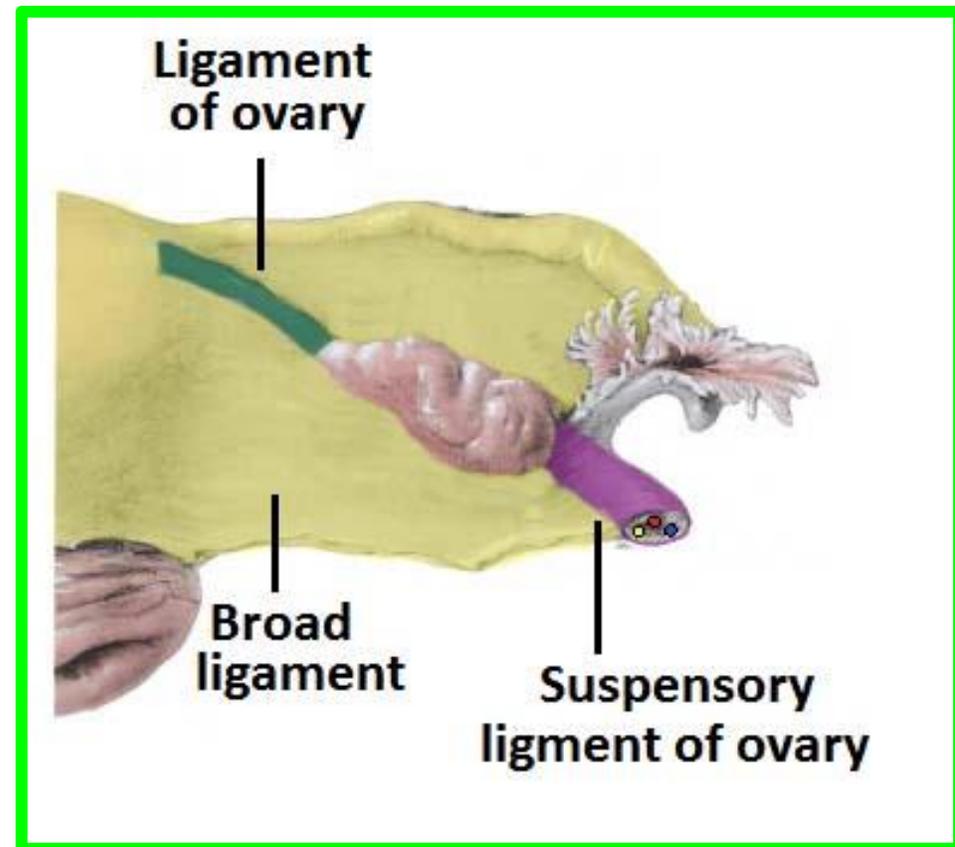
- 1- Lateral surface:** lies in the floor of the ovarian fossa.
- 2- Medial surface:** is covered by the uterine tube.

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.**

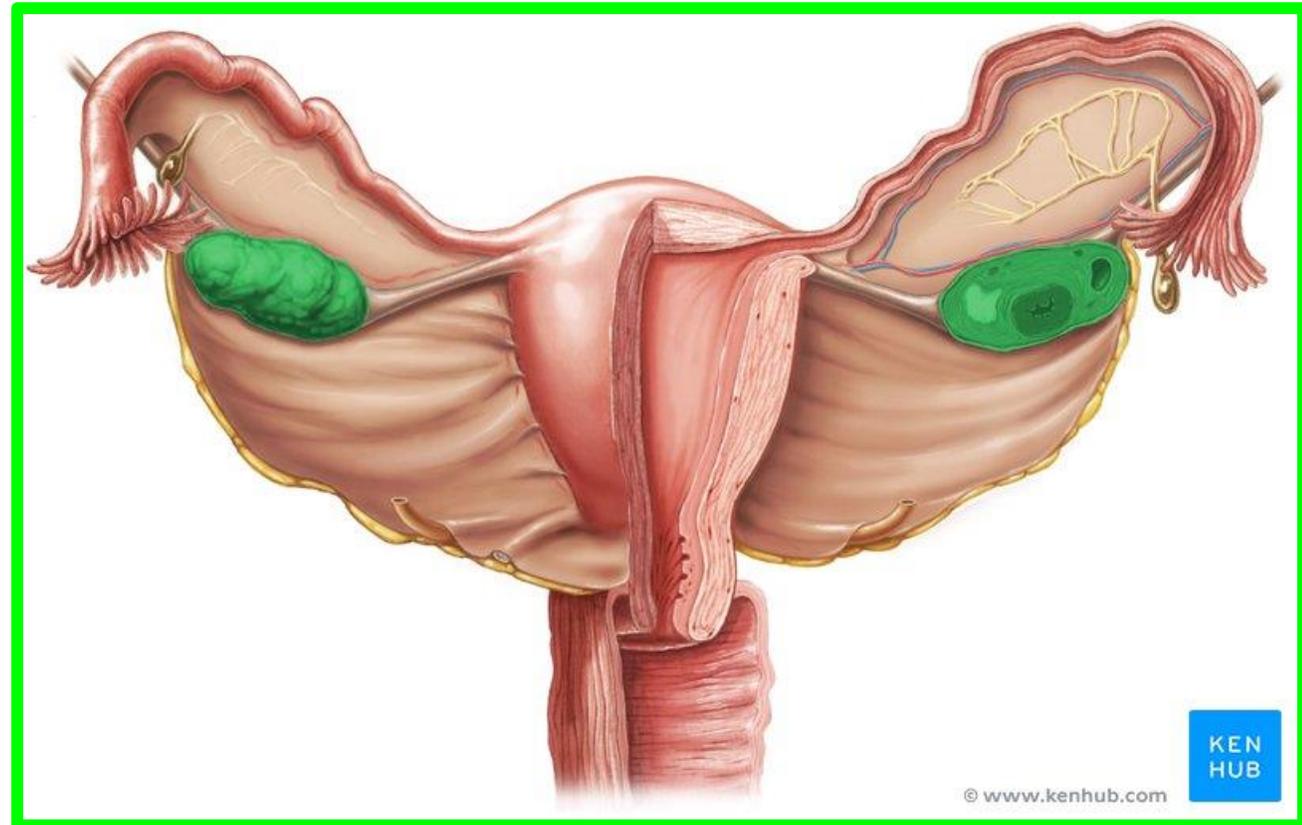
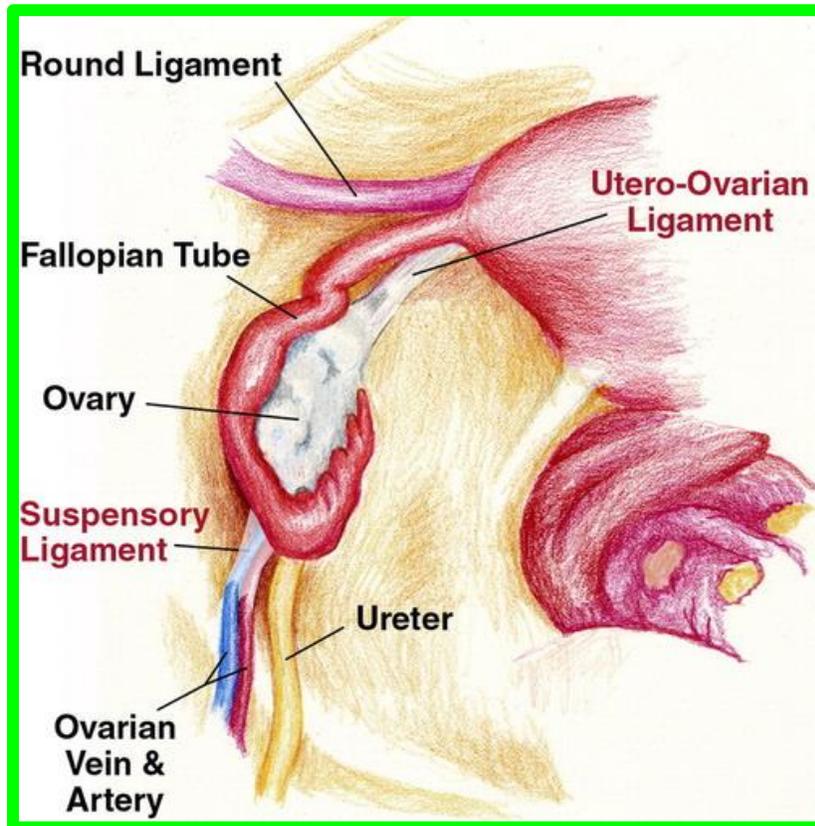


Ovaries

C- 2 borders:

1- **Free border:** directed backward.

2- **Attached border:** attached to the upper layer of the broad ligament by the mesovarium.



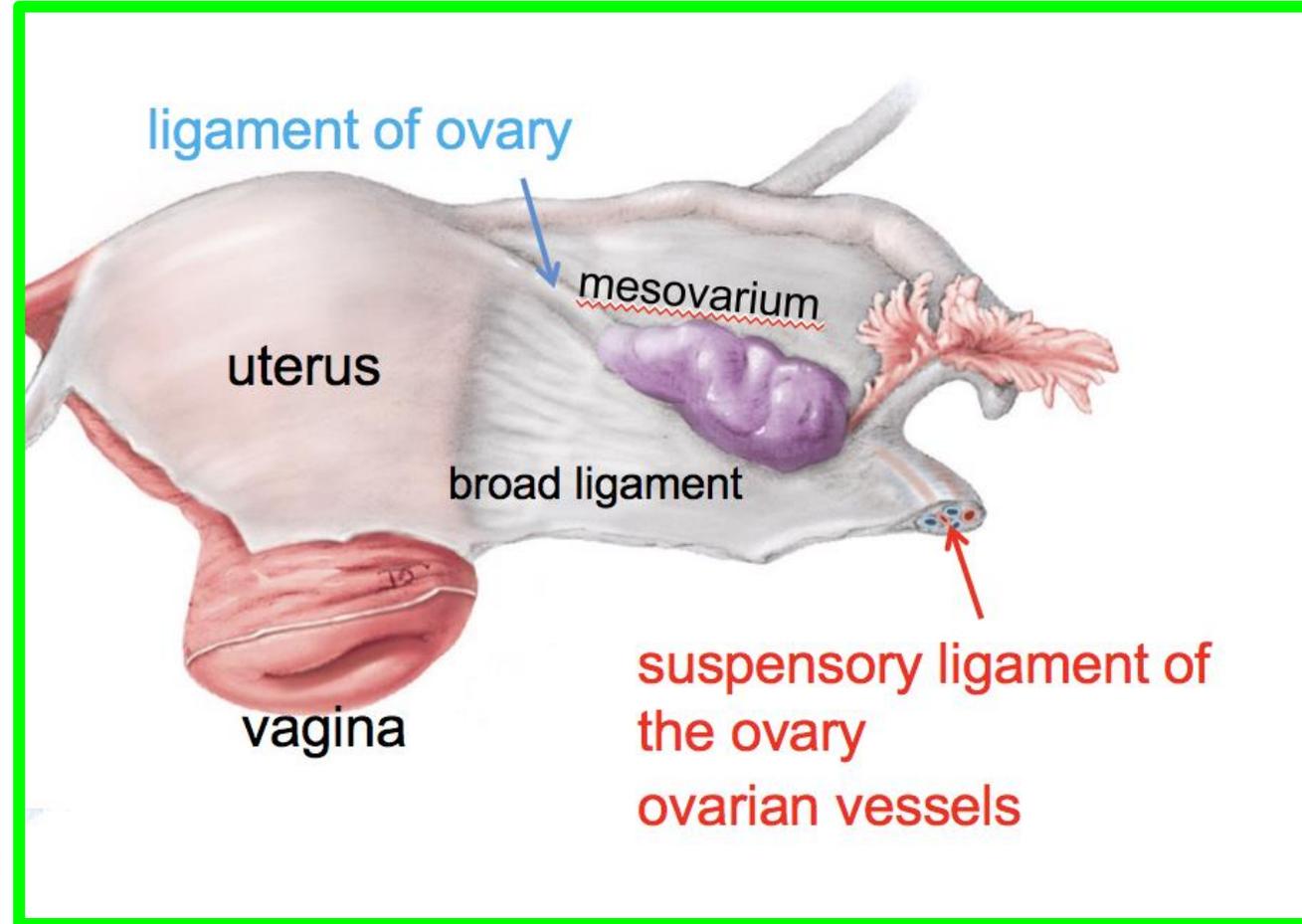
Ovaries

** 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.



Ovaries

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

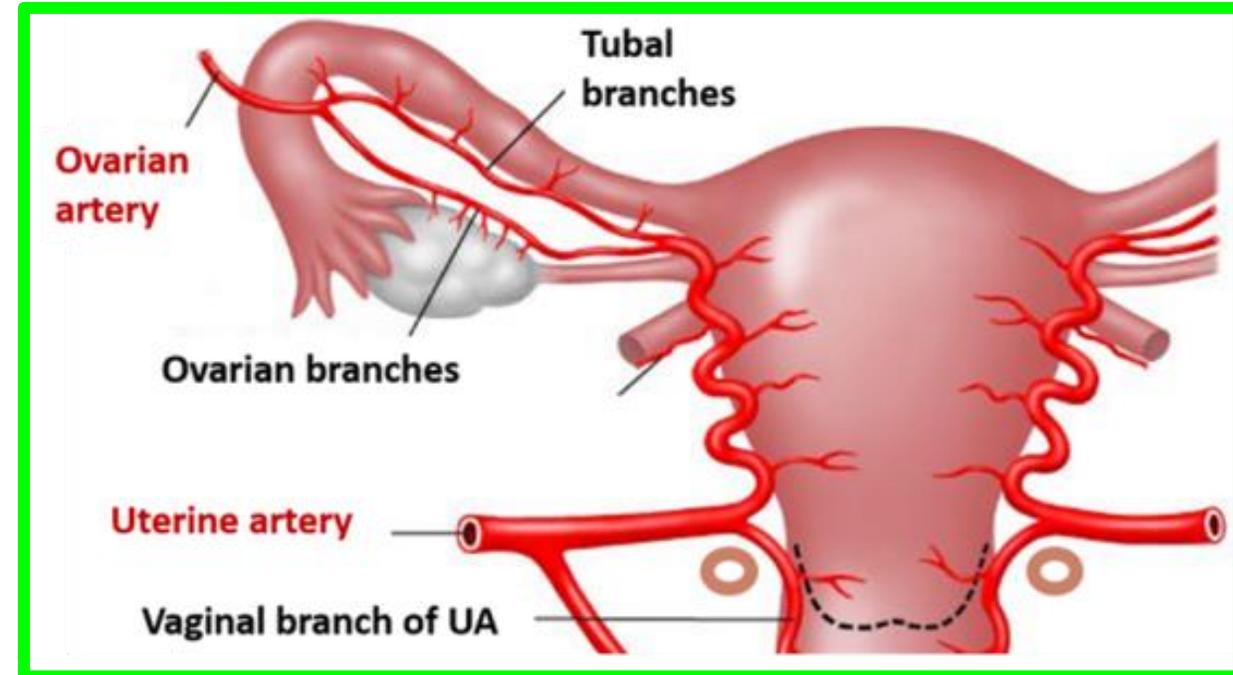
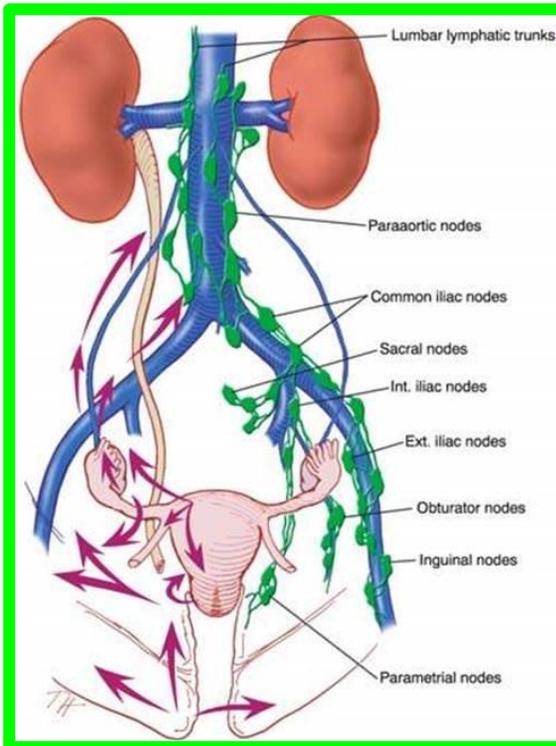
**** Venous drainage:** The ovarian veins.

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

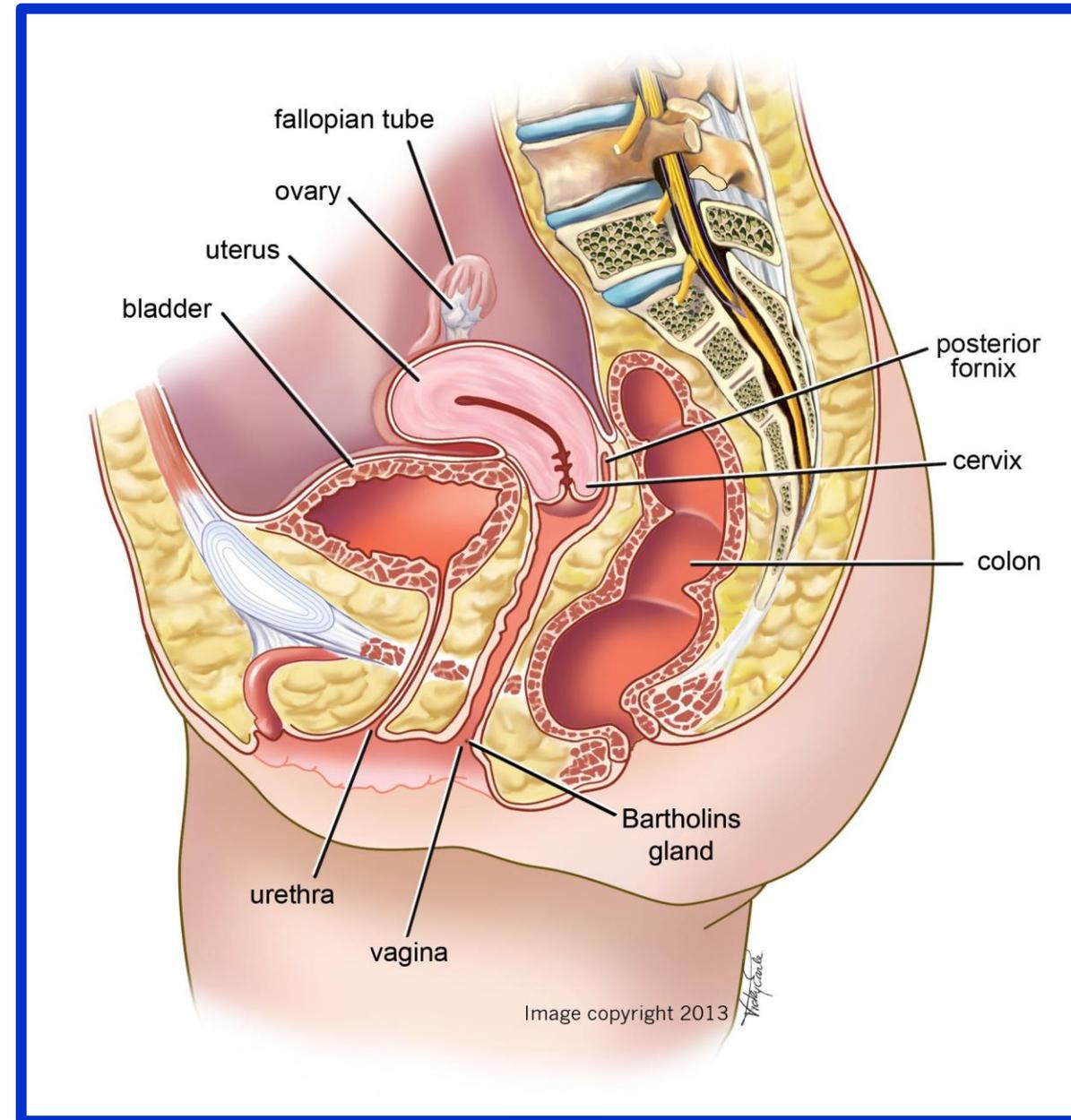
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- This is the canal connecting the uterus with the vestibule,

**** Direction;** - From below, it is directed upwards and slightly backwards.

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

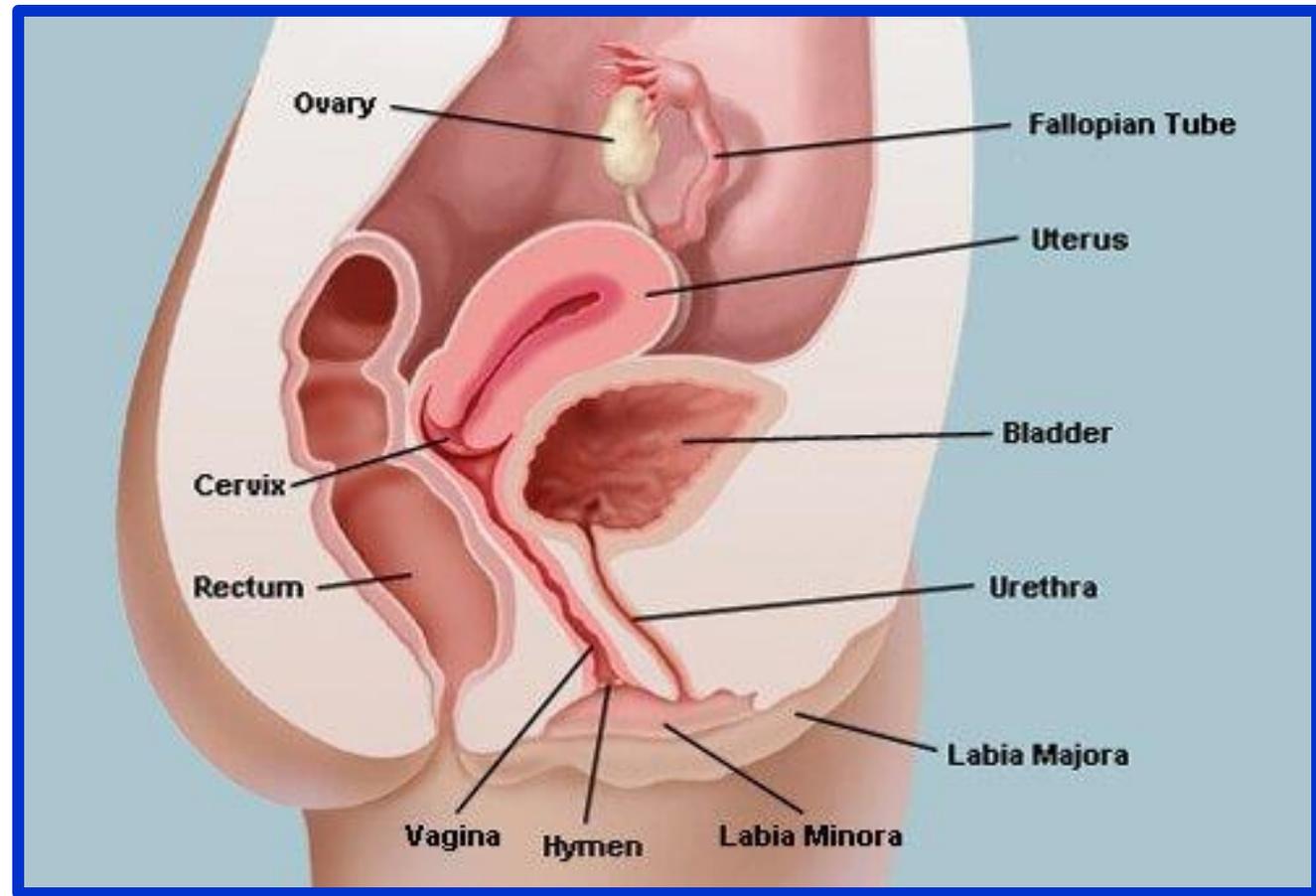
**** Diameter;** lower part 2.5 cm while the upper part 5 cm.



Vagina

** 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.

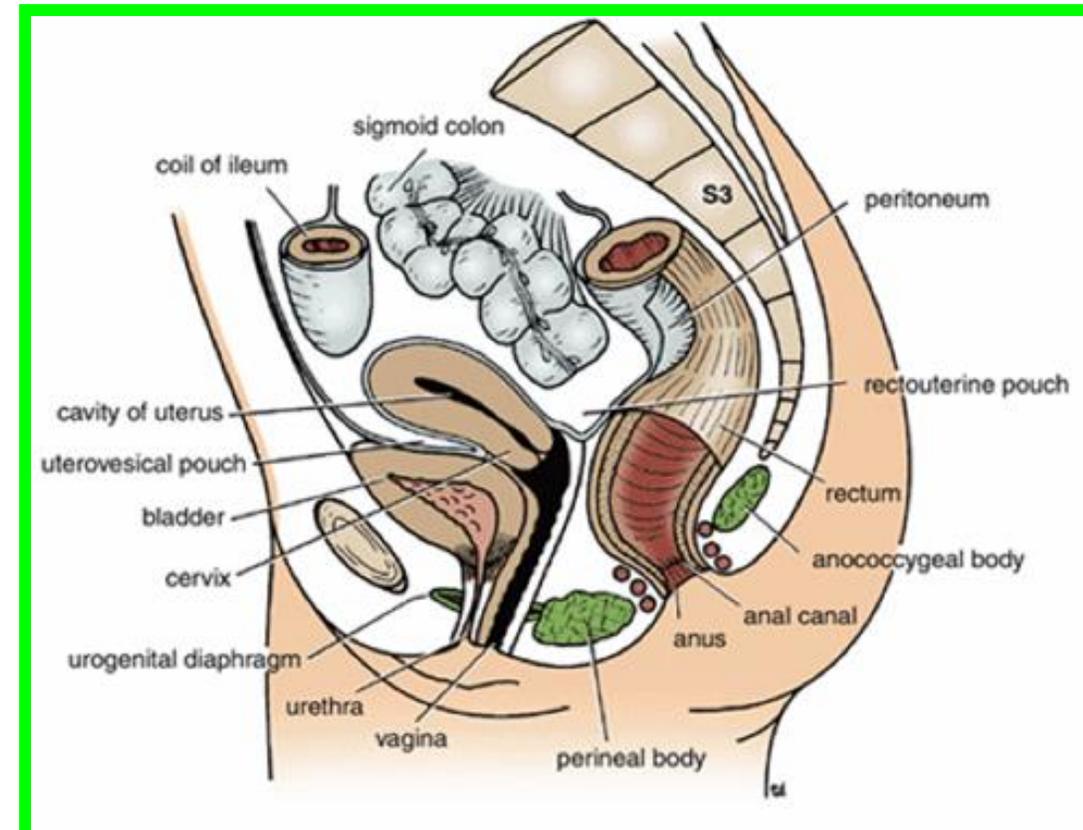
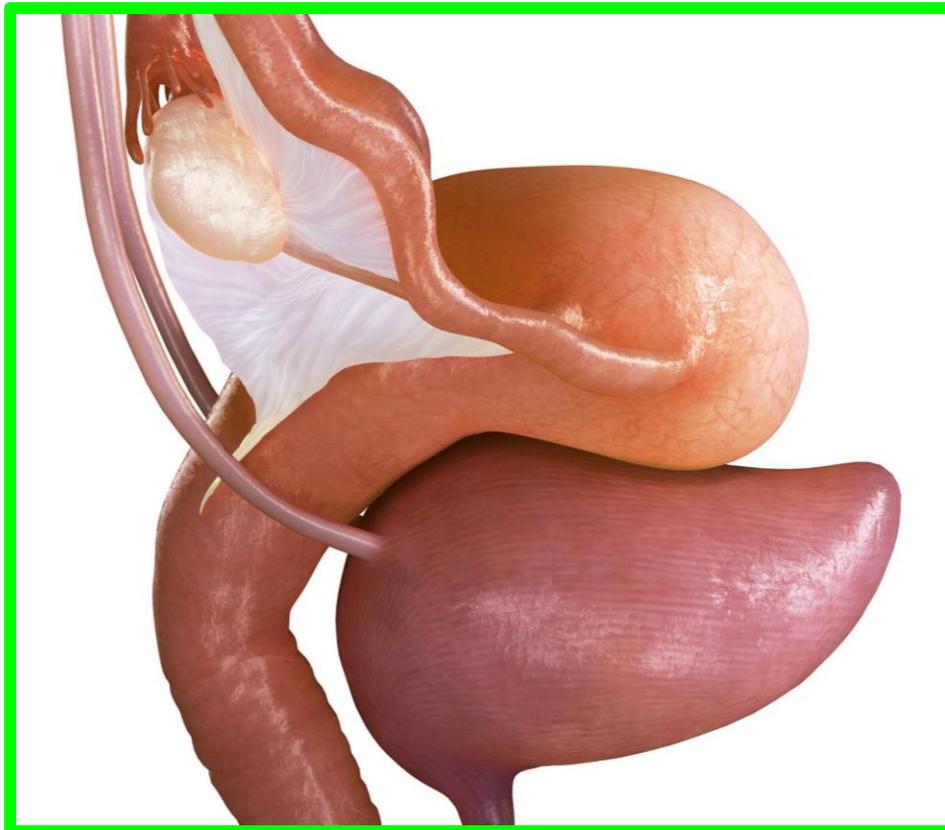
Vagina

3- Laterally:

a- **Upper part** is related to the ureter.

b- **Middle part** is to the levator ani.

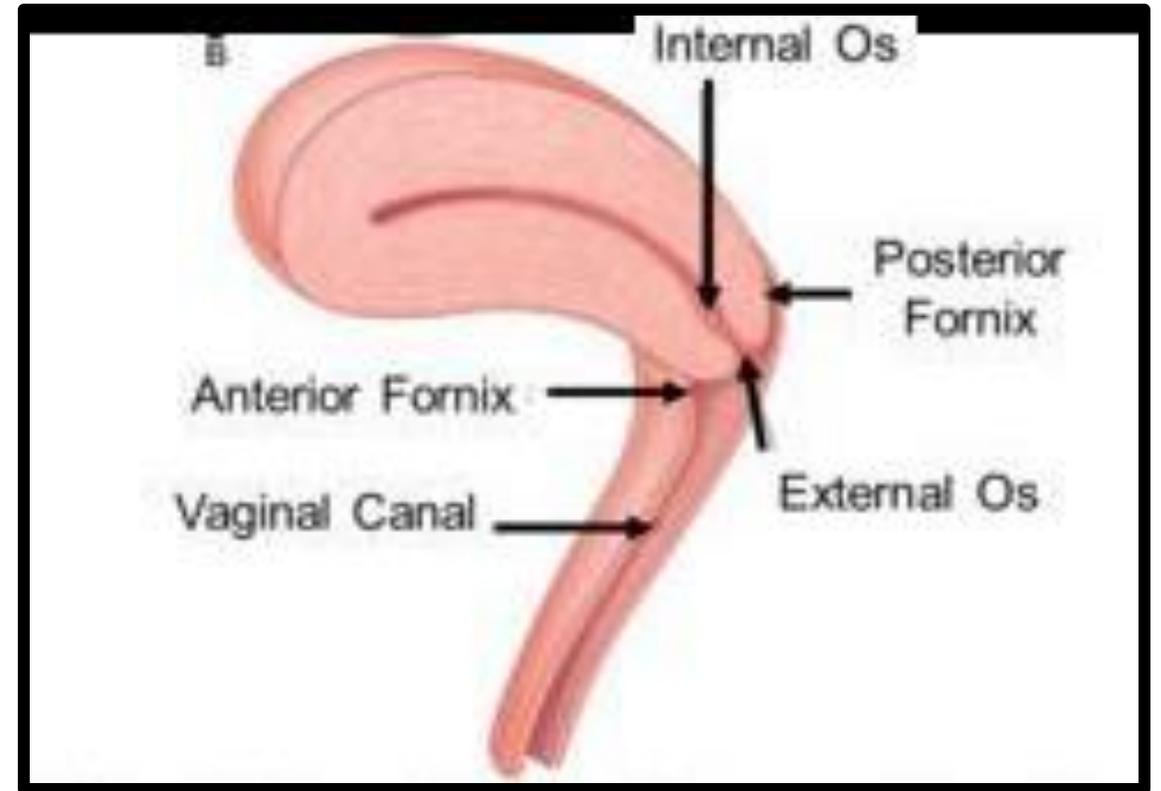
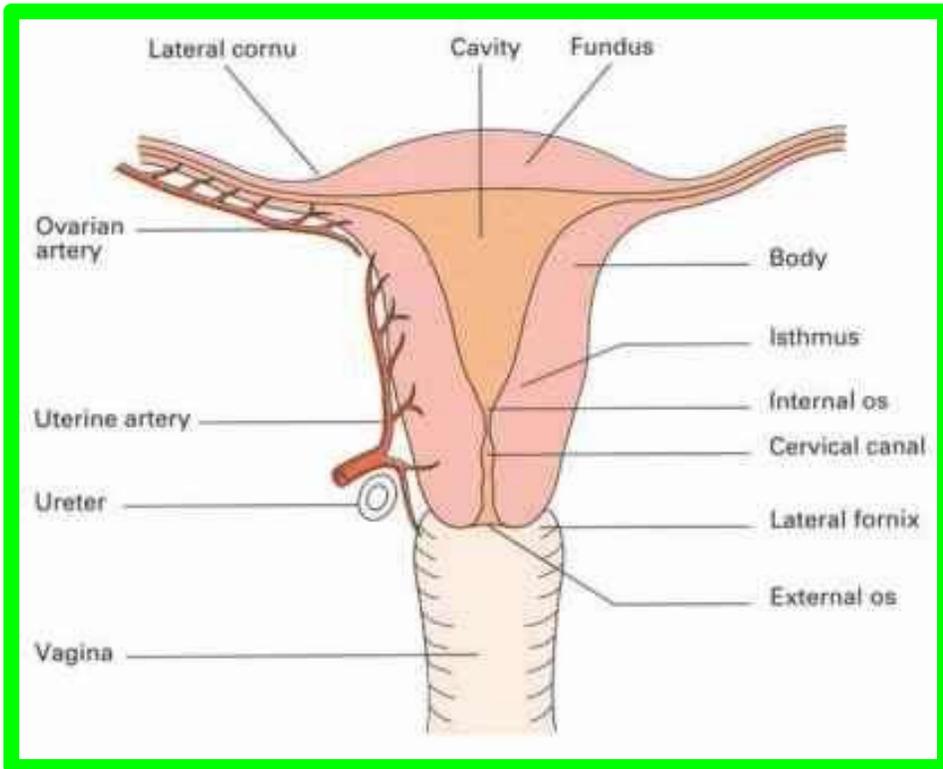
c- **Lower part** transverses the deep and superficial perineal pouches.



Vagina

** Fornices of the vagina:

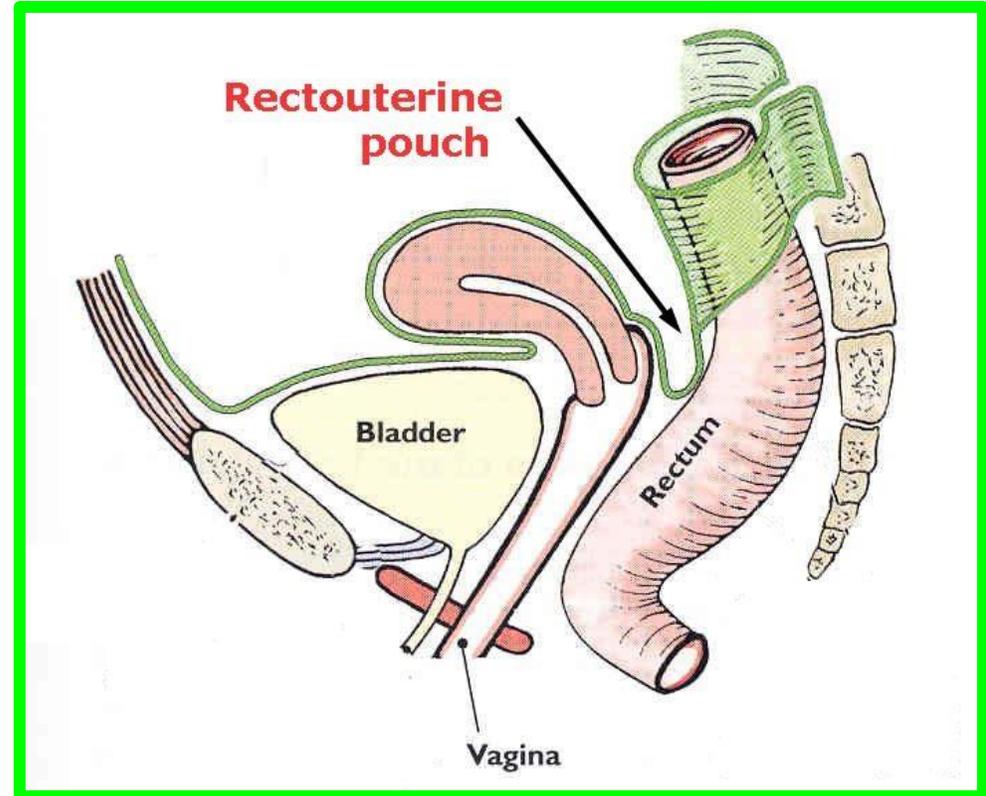
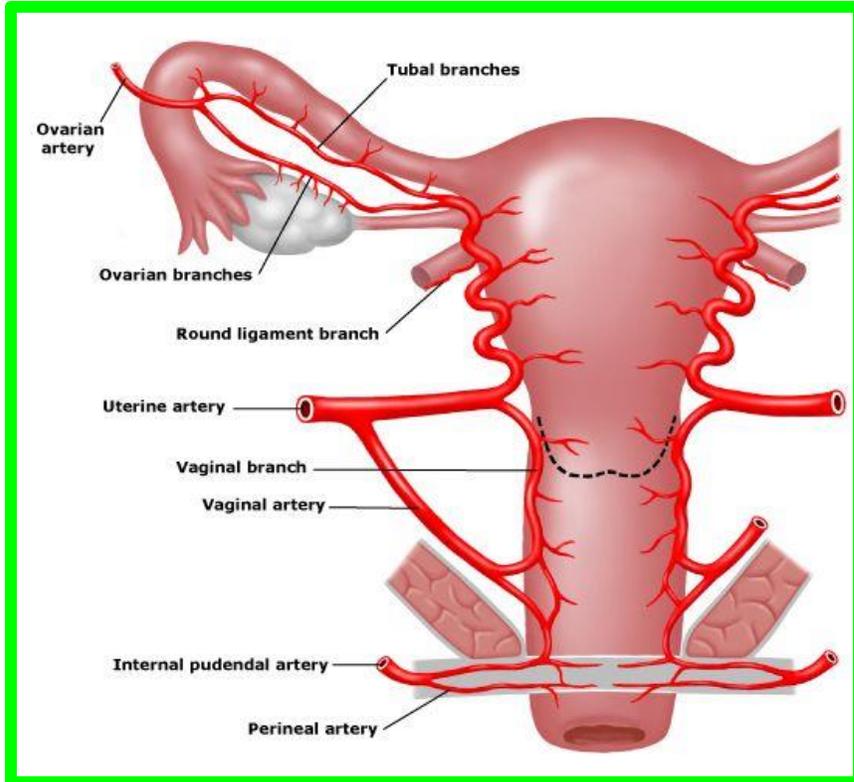
- These are the recesses of the upper part of the vagina which surrounds the vaginal part of the cervix (**anterior, posterior and 2 Lateral**).



Vagina

** Peritoneal covering of the vagina:

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

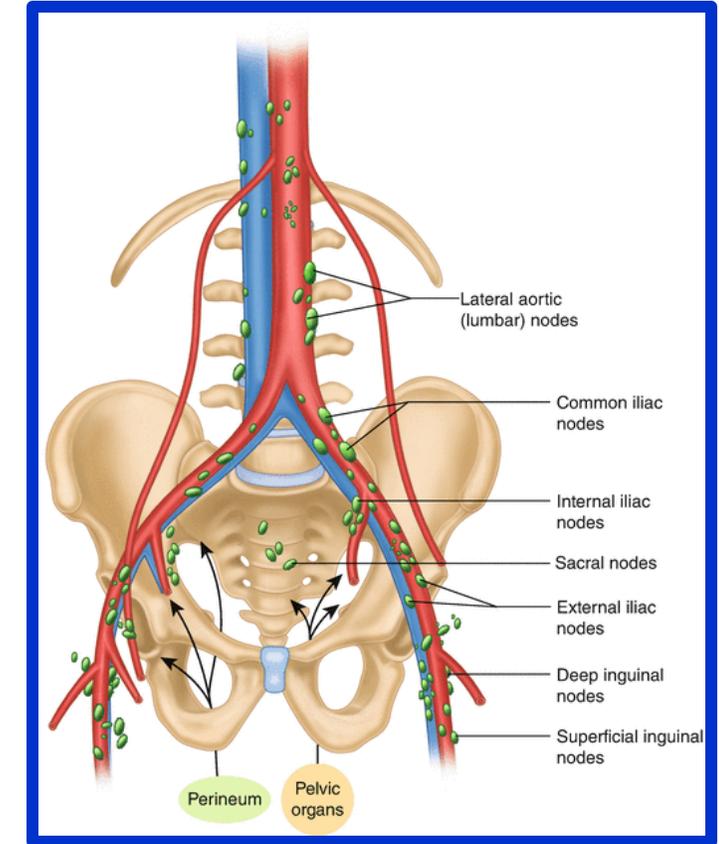
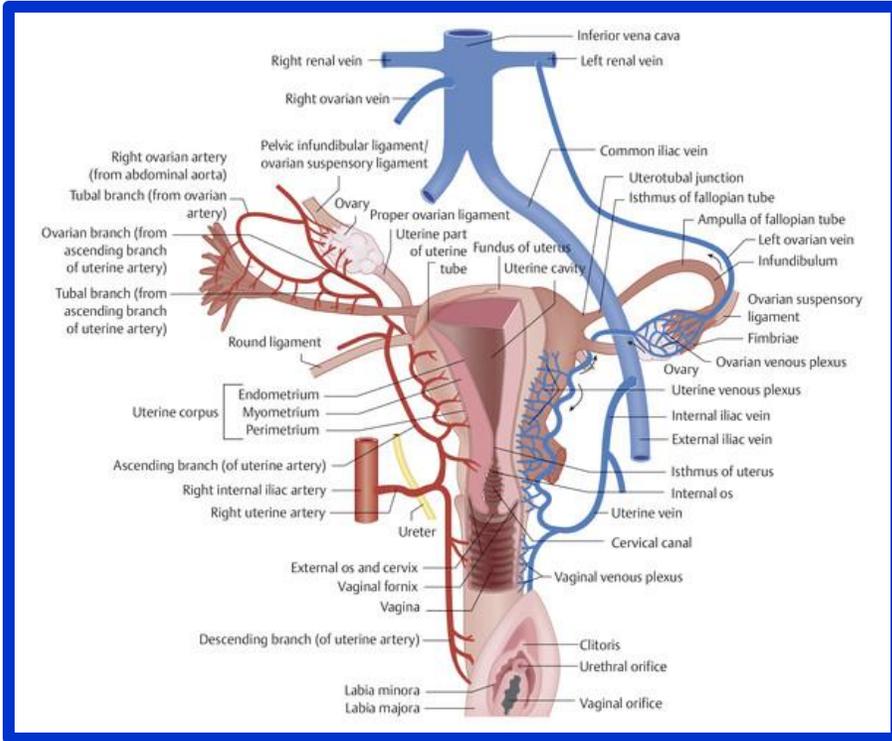


** Arterial supply:

- 1) Vaginal artery.
- 2) Uterine artery.
- 3) Internal pudendal artery.
- 4) Middle rectal artery.

Vagina

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



**** Lymphatic drainage:**

a- The upper part drains into the external iliac lymph nodes.

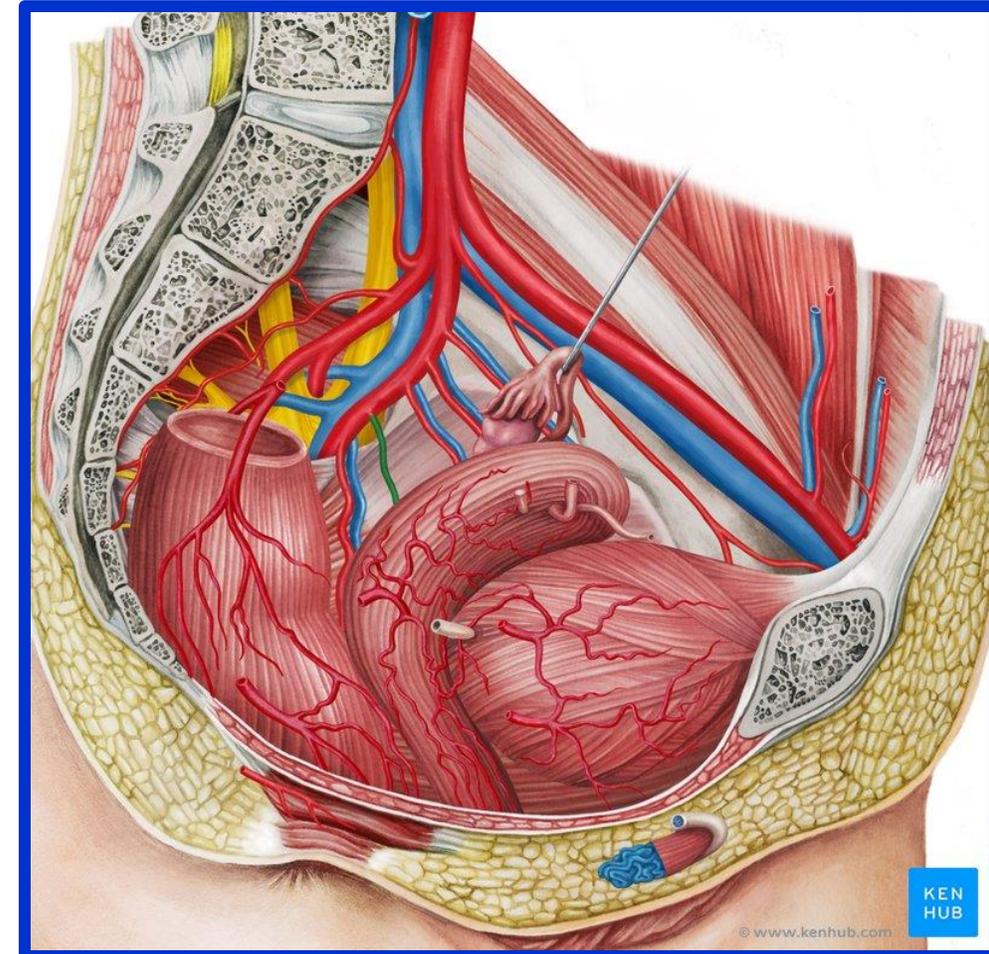
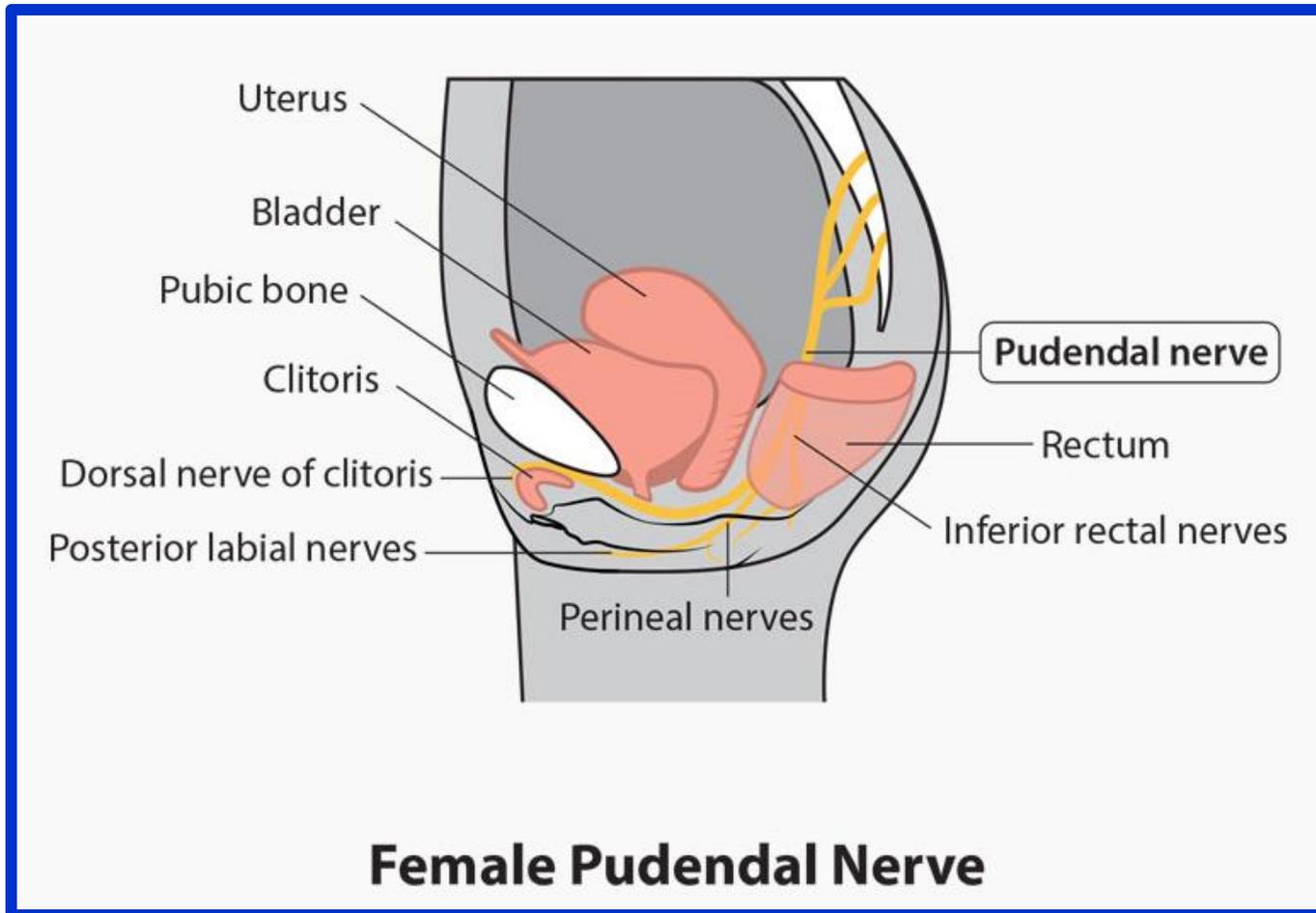
b- The middle part drains into the internal iliac lymph nodes.

c- The lower part drains into the superficial inguinal lymph nodes.

Vagina

** Nerve supply:

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

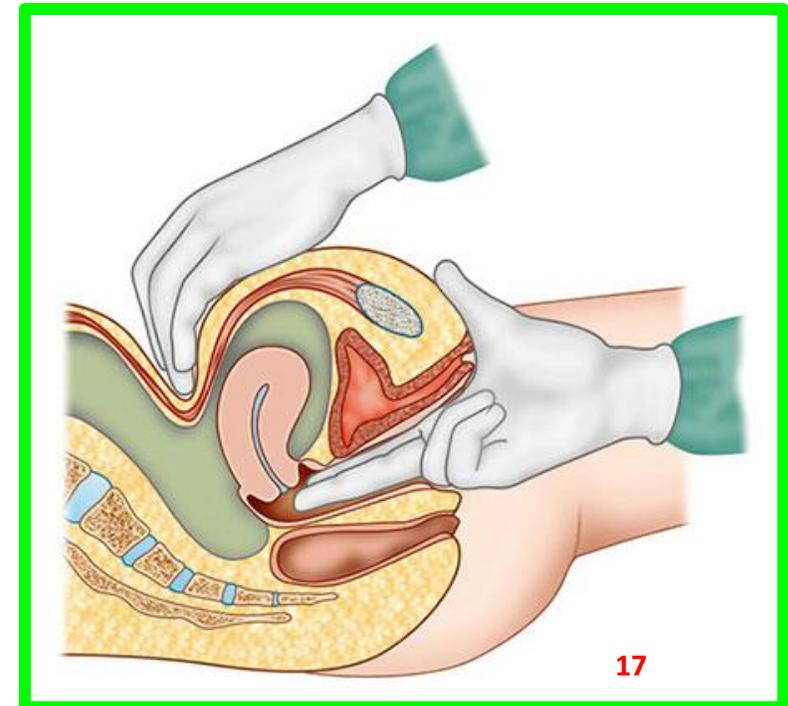


Vagina

** Applied anatomy:

1- Vaginal examination:

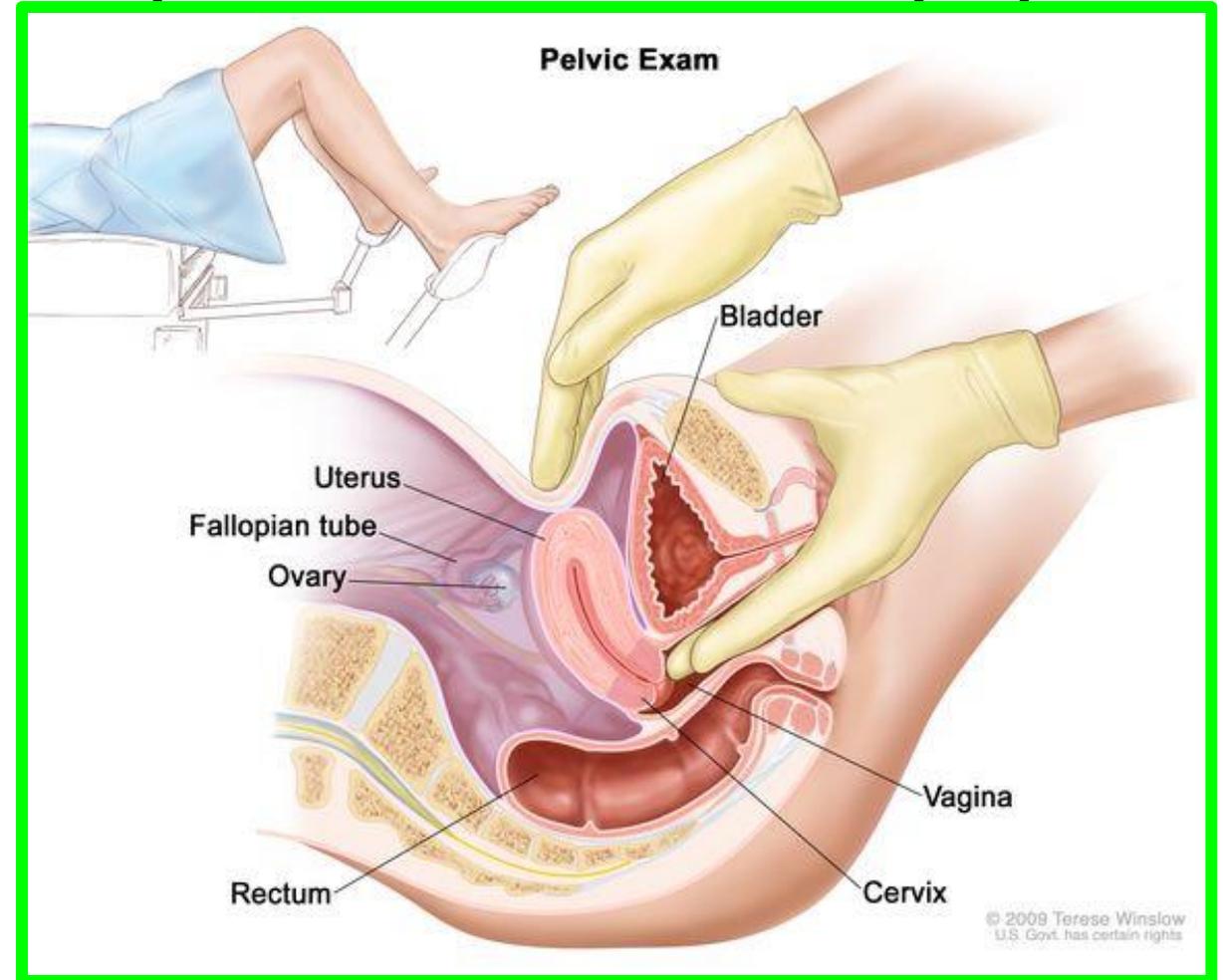
- This is done by inserting both index and middle fingers through the vagina.
- The structures felt are:
 - cervix of the uterus and Fornices of the vagina
 - Anteriorly: The base of **urinary bladder** and **urethra**,
 - Posteriorly: Rectovaginal (**Douglas**) **pouch**.



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.



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