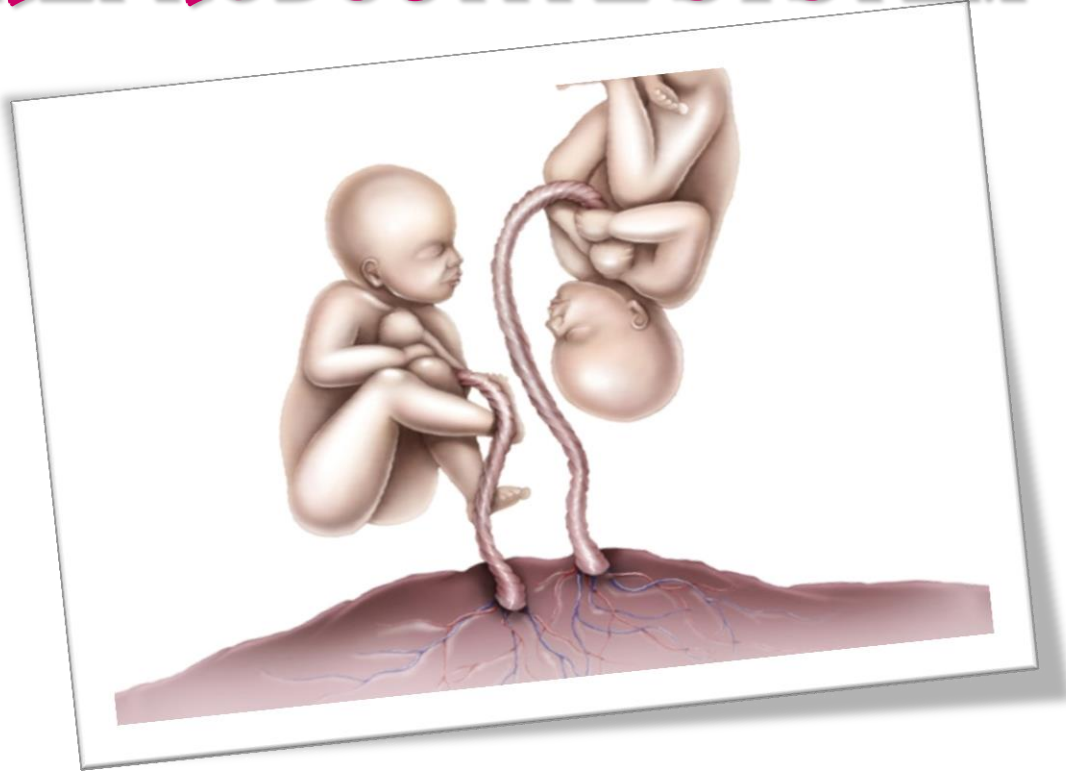




REPRODUCTIVE SYSTEM



LECTURE: FEMALE REPRODUCTIVE SYSTEM

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REVIEWED BY: BAYAN AL-MUGHEERAH

[If there is any mistake or suggestions please feel free to contact us:](#)

Anatomyteam32@gmail.com

Both - Black

Male Notes - BLUE

Female Notes - GREEN

Explanation and additional notes - ORANGE

Very Important note - Red

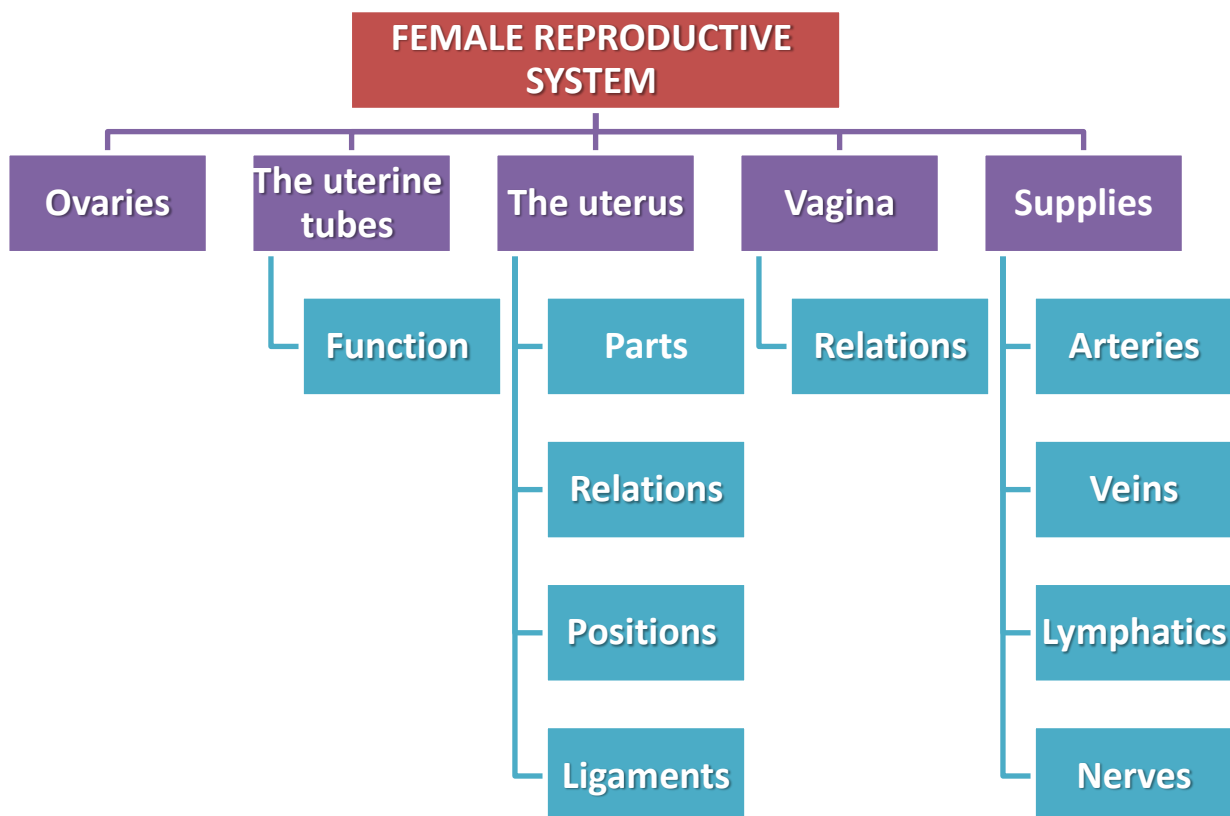


Objectives:

At the end of the lecture, students should be able to:

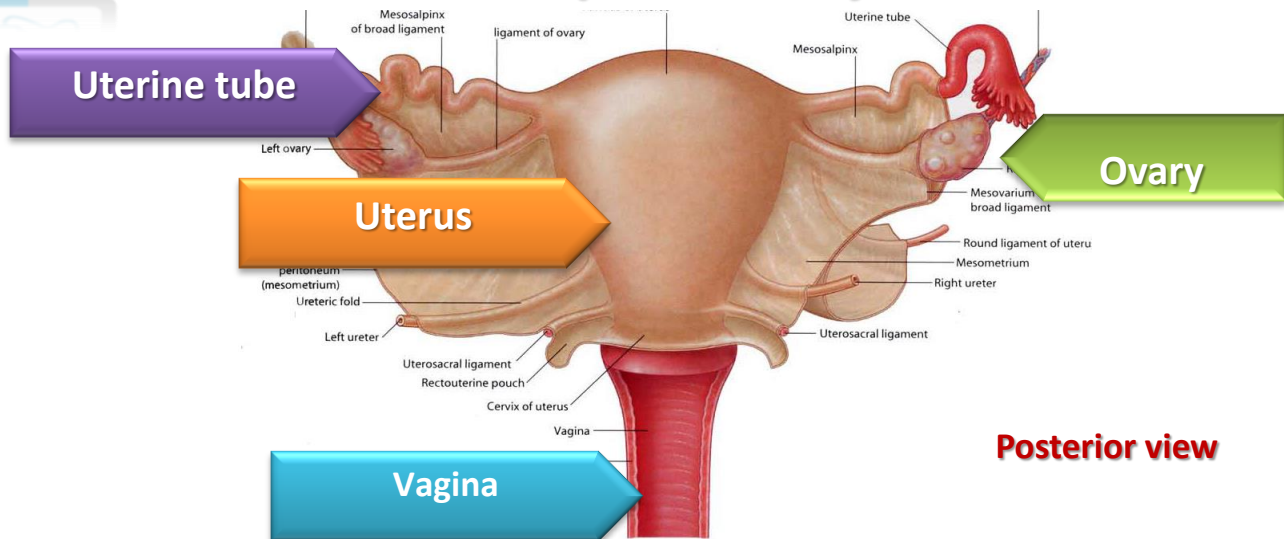
- ❖ List the organs of female reproductive system.
- ❖ Describe the pelvic peritoneum in female.
- ❖ Describe the position and relations of the ovaries.
- ❖ List the parts of the uterine tube.
- ❖ Describe the anatomy of uterus regarding: subdivisions, cavity, relations, ligaments & main support.
- ❖ Describe the anatomy of vagina regarding: structure, extent, length & relations.
- ❖ Describe the supply (arteries, veins, lymph, nerves) of female reproductive system.

Mind map:





Female reproductive system



Posterior view

* Pelvic peritoneum in female:

Rectouterine (Douglas) pouch:

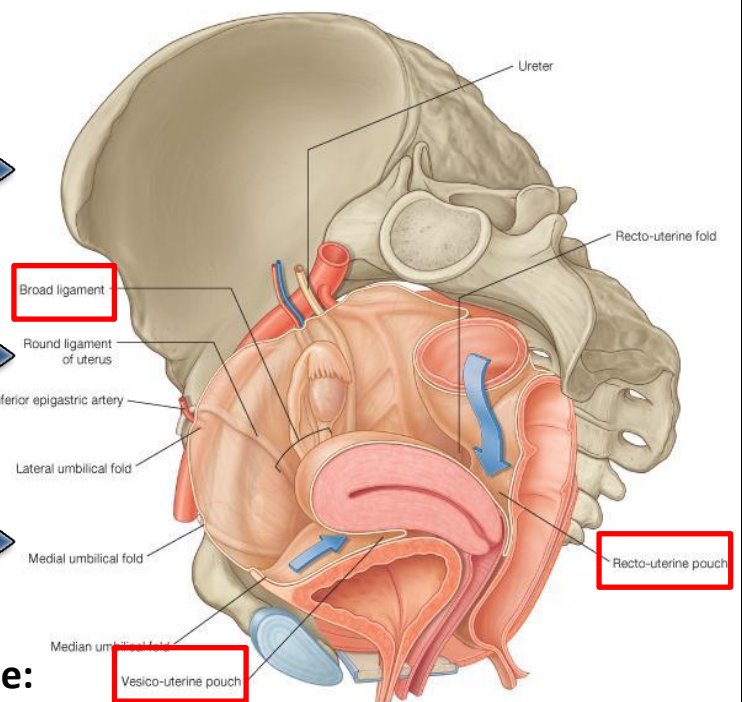
Reflection of peritoneum from rectum to upper part of posterior surface of vagina.

Uterovesical (vesicouterine) pouch:

Reflection of peritoneum from uterus to upper surface of urinary bladder.

Broad ligament of uterus:

Extension of peritoneum from lateral wall of uterus to lateral wall of pelvis, **encloses the uterine tubes.**



* Ovaries: primary sex organs in female:

It is an **almond-shaped** organ.

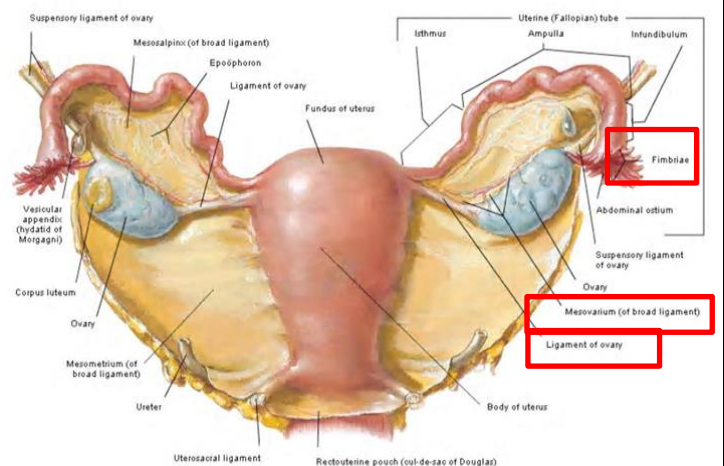
It is attached to the back of the broad ligament by a peritoneal fold (**mesovarium**).

Its medial end is attached to uterus by **ligament of ovary**.

Its lateral end is related to the **fimbriae of the uterine tube**.

Function:

- 1) Production of female germ cells
- 2) Secretion of female sex hormones





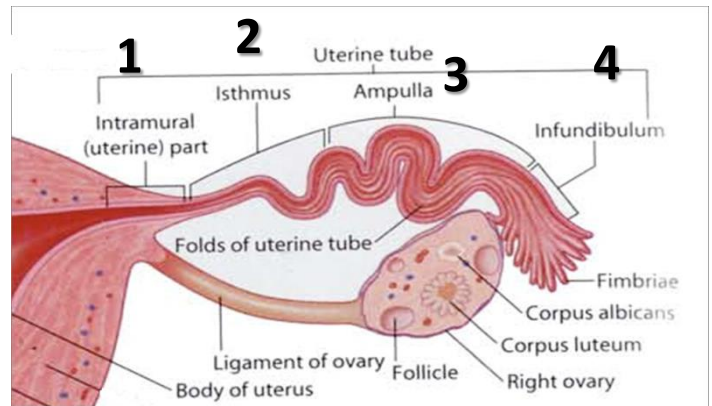
* **The uterine (fallopian) tubes:**

- Intramural part:**
 - opening into the uterine wall.
- Isthmus:**
 - narrowest part.
- Ampulla:**
 - widest part (site of fertilization).
- Infundibulum:**
 - funnel-shaped end, has finger-like processes (fimbriae), related to ovary.

- It is 10 cm long.
- It is enclosed in the broad ligament of uterus.

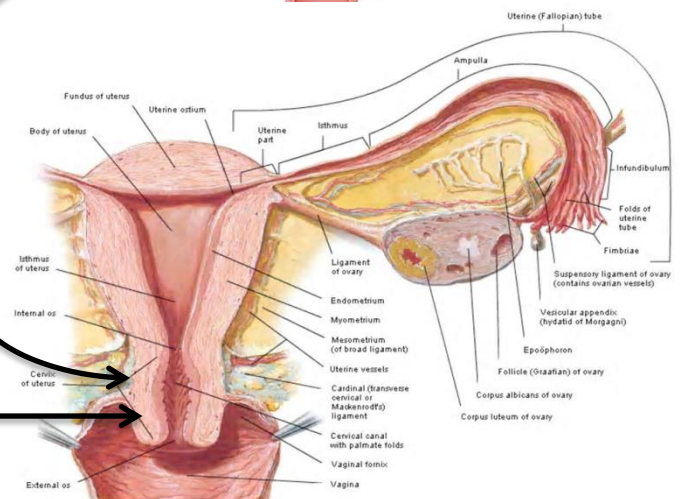
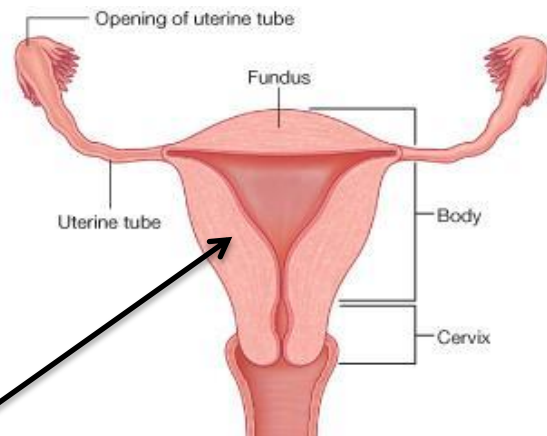
Functions:

- **Site of fertilization.**



* **the uterus:**

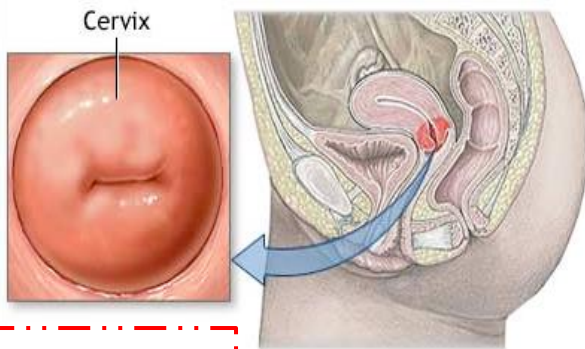
A hollow, pear-shaped muscular organ.	
Fundus:	<ul style="list-style-type: none"> • No cavity. • The part of uterus above the level of uterine tubes.
Body:	<ul style="list-style-type: none"> • Cavity is triangular. • The part of uterus from the level of uterine tube to the level of the isthmus of uterus.
Cervix:	<ul style="list-style-type: none"> • cavity is fusiform, divided into: <ul style="list-style-type: none"> *Supravaginal part. *Vaginal part. • The part of the uterus below the level of the isthmus of the uterus.



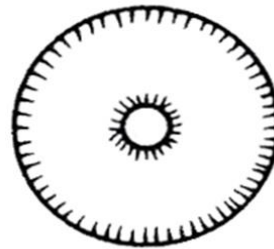


The cervical canal:

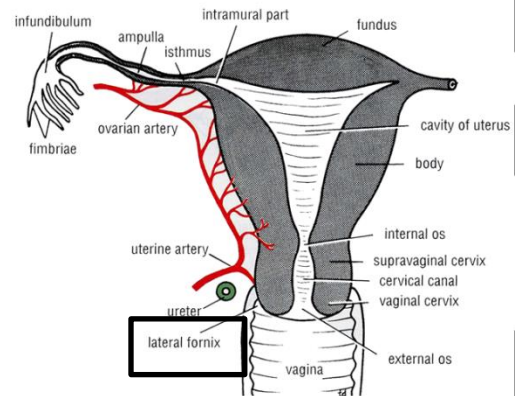
- **INTERNAL OS:** opening between cavity of body of uterus & cavity of cervix (cervical canal)
- **EXTERNAL OS:** opening between cervical canal & cavity of vagina
 - In a **nulliparous woman:** external os appears **circular**.
 - In a **multiparous woman:** external os appears as a **transverse slit** with an anterior & a posterior



Multiparous

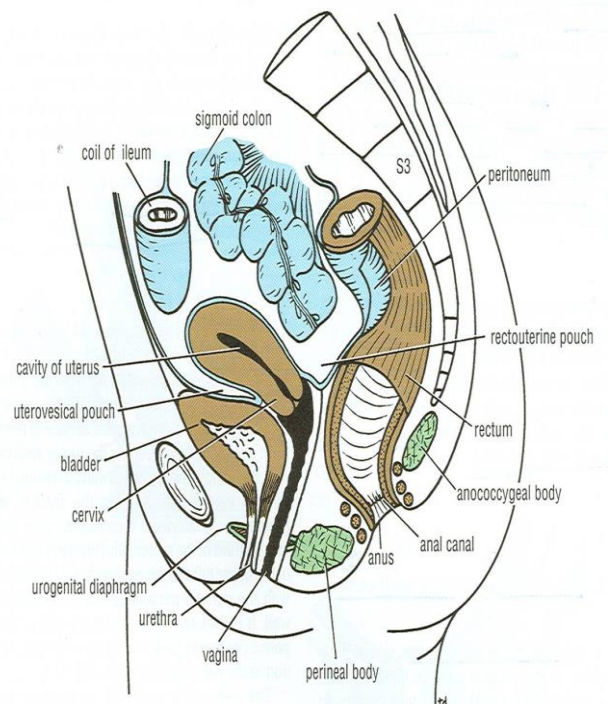


Nulliparous



Relations of uterus

Fundus + body + supravaginal part of cervix:	<ol style="list-style-type: none"> 1. Anterior: superior surface of urinary bladder 2. Posterior: sigmoid colon 3. Lateral: uterine artery
VAGINAL PART OF CERVIX:	<p>Surrounded by vaginal fornices.</p> <ol style="list-style-type: none"> 1. Anterior: anterior fornix of vagina 2. Posterior: posterior fornix of vagina 3. Lateral: lateral fornices of vagina



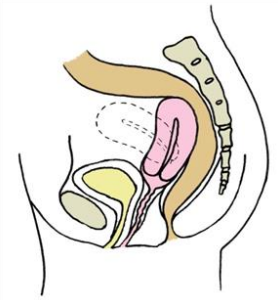


Positions of uterus



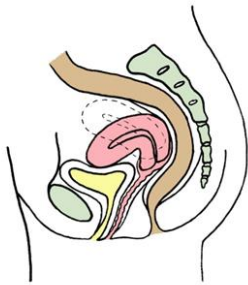
Anteverted uterus

- Long axis of whole uterus is **bent forward on long axis of vagina.**



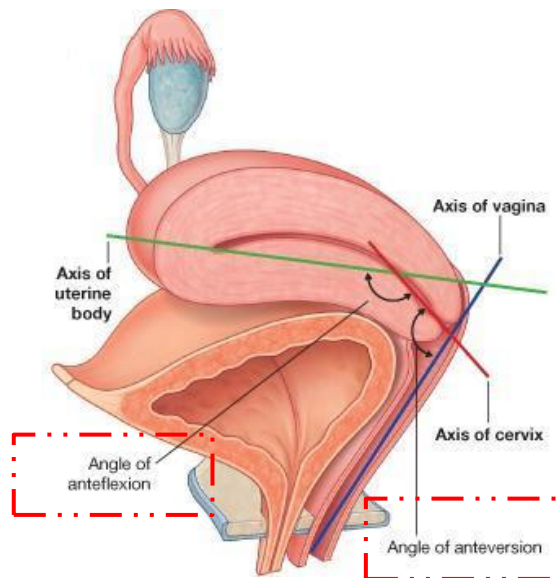
Retroverted uterus

- Fundus & body of uterus are bent backward on the vagina and lie in **rectouterine pouch**

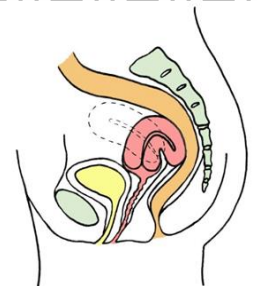


Anteflexed uterus

- Long axis of body of uterus is bent forward on long axis of cervix.



Usual position of uterus
Anteverted anteflexed uterus



Retroflexed uterus

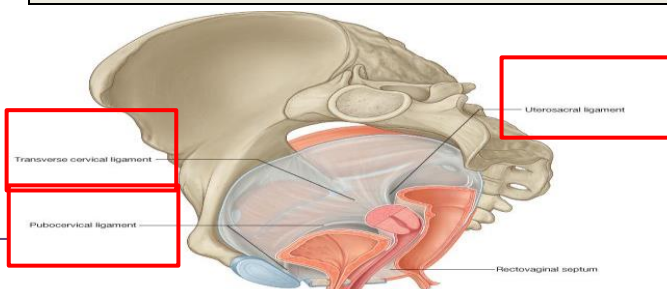
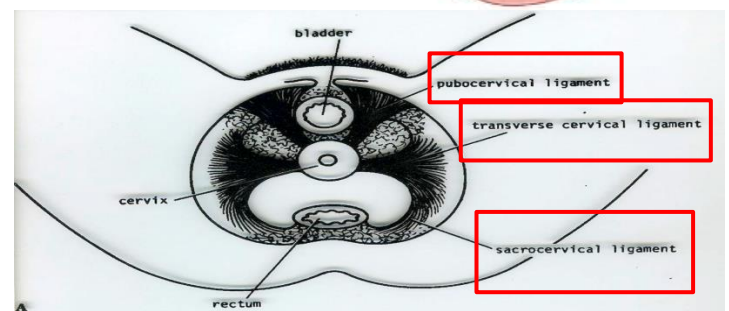
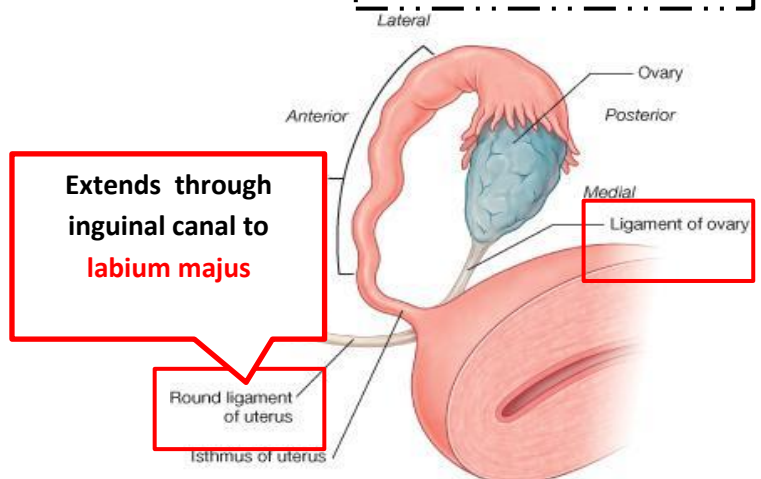
- Long axis of body of uterus is bent backward on long axis of cervix

Ligaments of uterus

1) Ligaments at junction between fundus & body of uterus
(At the level of uterine tube)

2) Ligaments of cervix: Extend from cervix to:

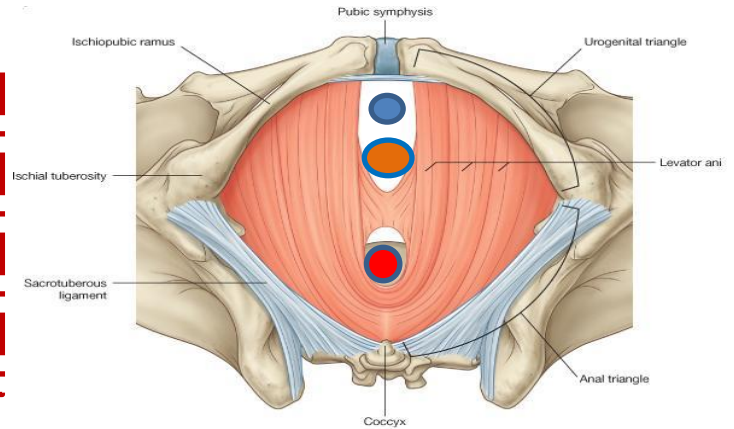
- anterior (pubocervical),
- lateral (transverse cervical or cardinal)
- posterior (uterosacral or sacrocervical)
- pelvic walls





Levator ani muscles:

- FORM THE PELVIC FLOOR: separate pelvis from perineum.
- FORM PELVIC DIAPHRAGM: traversed by **urethra, vagina & rectum**.
- SUPPORT PELVIC ORGANS.

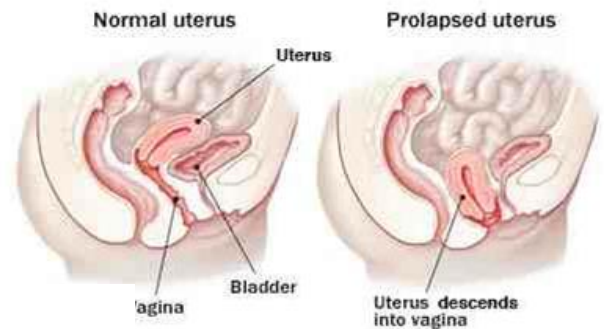


Support of uterus:

- Ligaments of cervix (especially transverse cervical)
- Round ligament of uterus (maintains anteverted anteflexed position)
- Levator ani muscles

Uterine prolapse:

- Downward displacement of uterus due to damage of:
 - Ligaments of uterus
 - Levator ani muscles

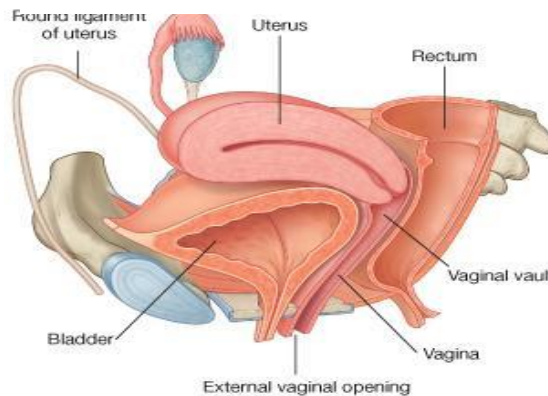


Structure:

Fibro-muscular tube.

Extent: From external os, along pelvis & perineum, to open in the vulva (female external genitalia), behind urethral opening

* Vagina:



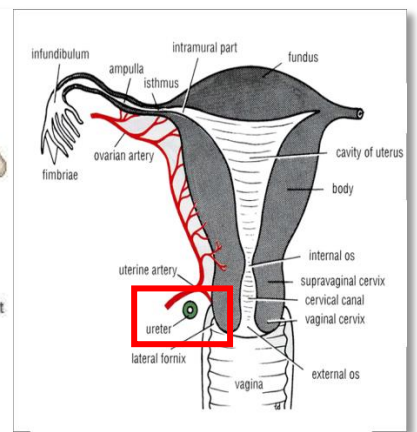
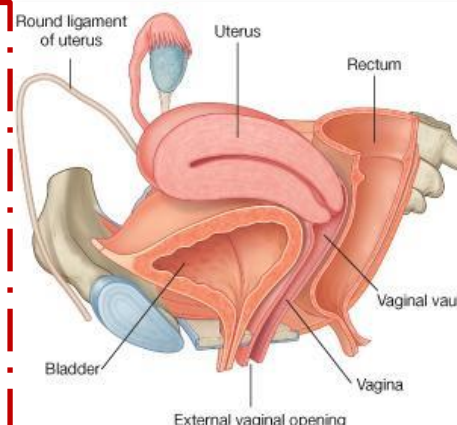
Length: Its anterior wall (7.5 cm) is shorter than its posterior wall (9 cm)

Function:

- Copulatory organ &
- Birth canal

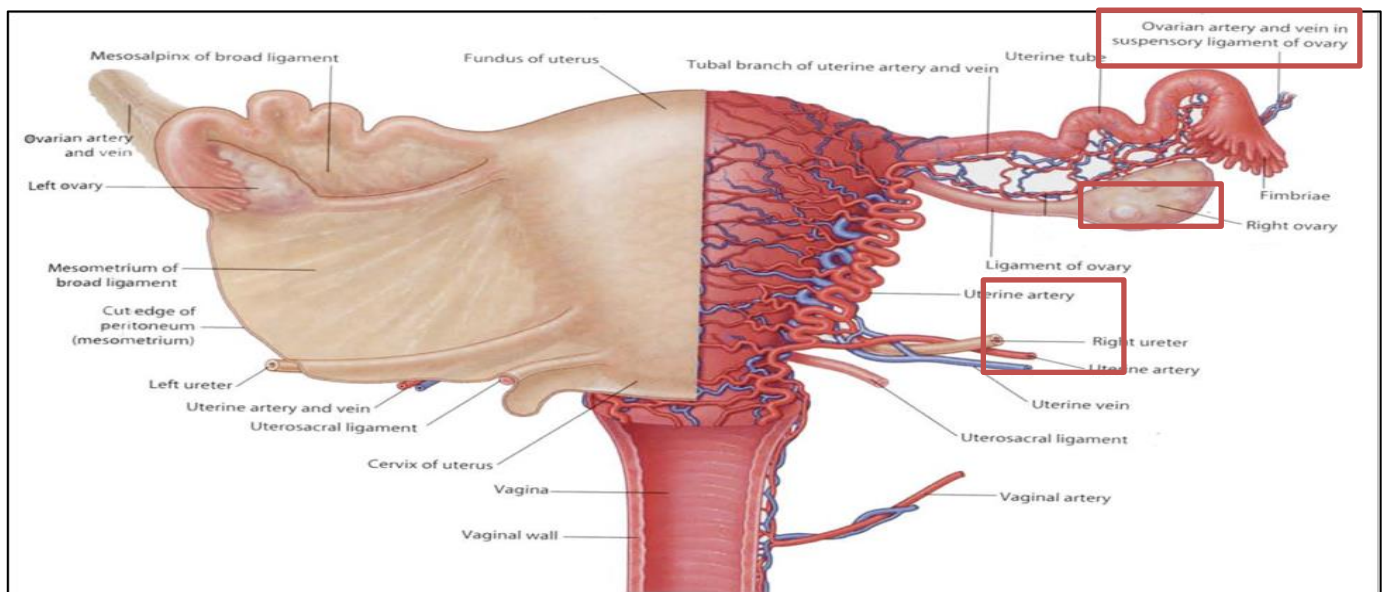
Relations of vagina:

- Anterior: Urinary bladder (in pelvis) & urethra (in perineum)
- Posterior: Rectum (in pelvis) & anal canal (in perineum)
- Lateral: ureters (in pelvis)





ORGAN	ARTERIES	VEINS	LYMPHATICS	NERVES (AUTONOMIC)
OVARIES	OVARIAN (ABDOMINAL AORTA)	OVARIAN (TO INFERIOR VENA CAVA & LEFT RENAL VEIN)	TO PARAAORTIC LYMPH NODES (IN ABDOMEN)	OVARIAN PLEXUS (IN ABDOMEN)
UTERINE TUBES	<ul style="list-style-type: none"> ▪ OVARIAN ▪ UTERINE 	<ul style="list-style-type: none"> ▪ OVARIAN ▪ UTERINE 	<ul style="list-style-type: none"> ▪ PARAAORTIC ▪ INTERNAL ILIAC 	<ul style="list-style-type: none"> ▪ OVARIAN ▪ INFERIOR HYPOGASTRIC
UTERUS	UTERINE (INTERNAL ILIAC ARTERY IN PELVIS)	UTERINE PLEXUS (TO INTERNAL ILIAC VEIN)	TO INTERNAL ILIAC LYMPH NODES (IN PELVIS)	INFERIOR HYPOGASTRIC PLEXUS (IN PELVIS)
VAGINA	VAGINAL (INTERNAL ILIAC ARTERY IN PELVIS)	VAGINAL PLEXUS (TO INTERNAL ILIAC VEIN)	TO INTERNAL ILIAC LYMPH NODES (IN PELVIS)	INFERIOR HYPOGASTRIC PLEXUS (IN PELVIS)



<http://www.youtube.com/watch?v=5-bz97yXH-Q&list=PLyB86UGwPphwq7G2g0RI9LWIpOE6UAzRH>





QUESTIONS :



1-Which one of the following structures is related (or attached) to the lateral end of the ovary:

- A. Fimbriae of uterine tube
- B. Ampulla of uterine tube
- C. Ligament of ovary
- D. Round ligament of uterus

2-Which one of the following structures is anterior to the uterus:

- A. Urinary bladder
- B. Ureter
- C. Sigmoid colon
- D. Ovary

3- which one of the following is the shape of ovary:

- A. Triangular shape
- B. Almond shape
- C. Funnel shape
- D. Non

4- the medial end of ovary attached to uterus by :

- A. Ampulla of uterine tube
- B. Mesovarium ligament
- C. Ligament of ovary

5- which one of the following the long of fallopian tube:

- A. 11 cm long
- B. 10 cm long
- C. 10.5 cm long



6- which one of the following is the site of fertilization:

- A. Isthmus
- B. Infundibulum
- C. Ampulla

7- Secretion of the female sex hormone, function of:

- A. Uterine tube.
- B. Ovarian
- C. Uterus

8- which one of the following is the posterior relation of body of ureters:

- A. Urinary bladder
- B. Sigmoid colon
- C. Fornix of vagina

9- which one of the following is the anterior ligament of cervix:

- A. Cardinal ligament
- B. Pubocervical ligament
- C. Vaginal ligament

10- which one of the following is posterior relation of vagina:

- A. Rectum
- B. Anal canal
- C. Both



Q	Answer
1	A
2	A
3	B
4	C
5	B
6	C
7	B
8	B
9	B
10	C

GOOD LUCK

Anatomy Team Leaders:

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&

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