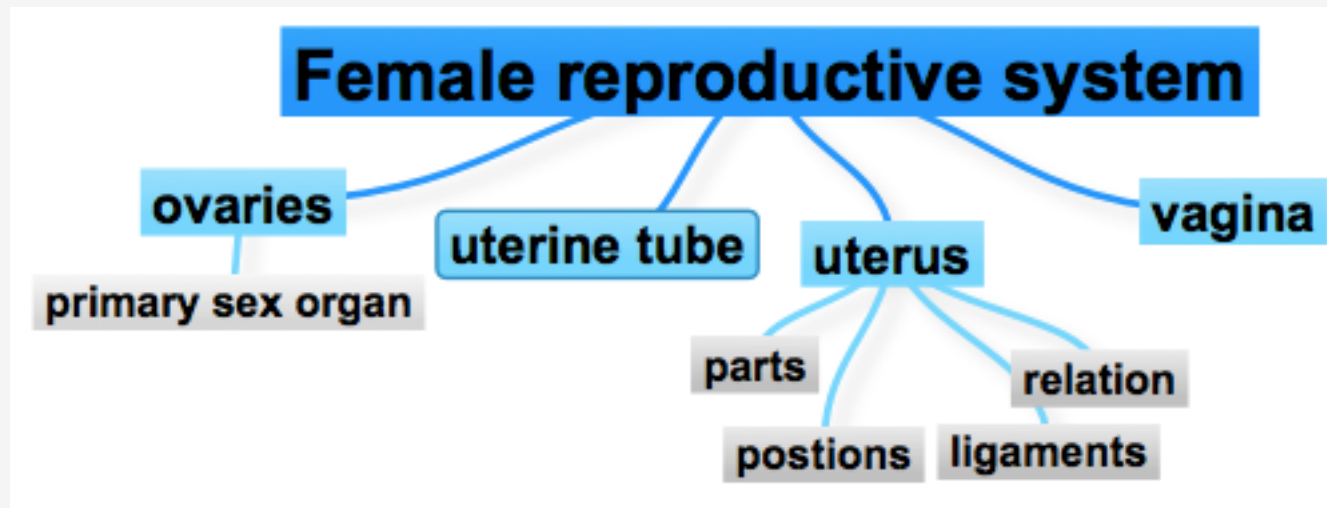




2 Female reproductive system

MIND MAP



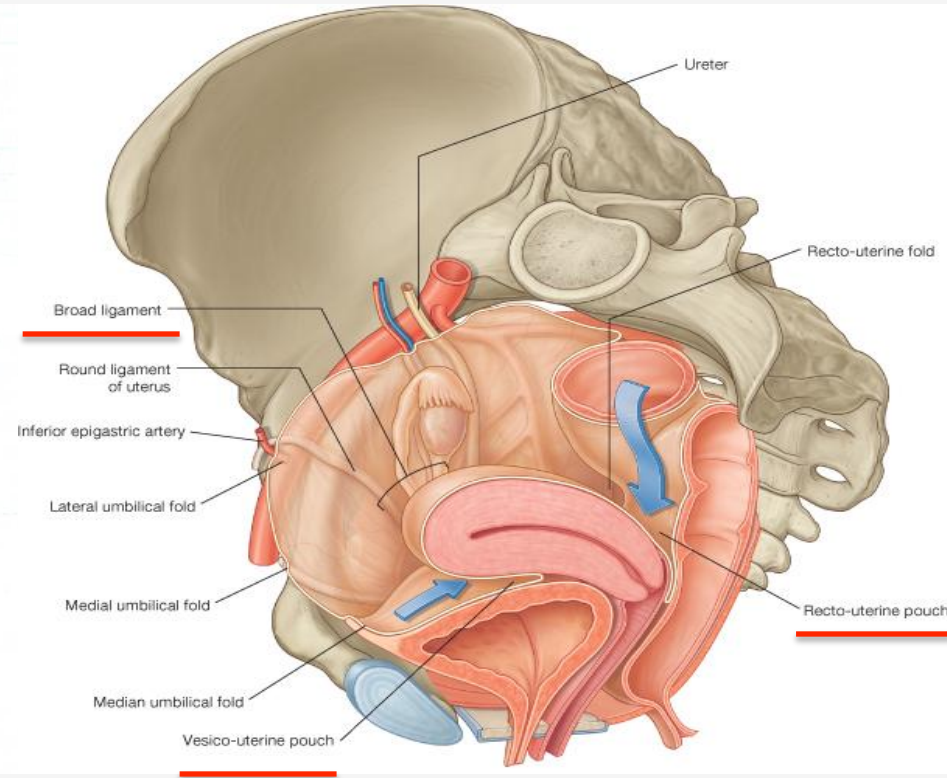
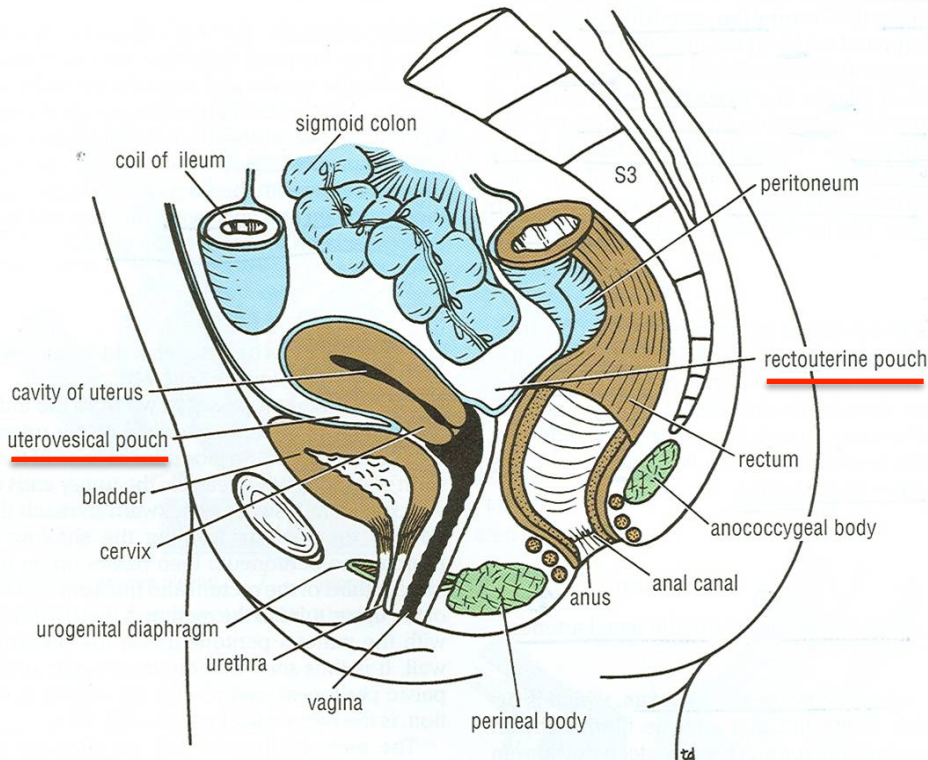
Female reproductive system

[ovaries & utrine tube](#)

[uterus](#)

[cervix](#)

[position of uterus](#)

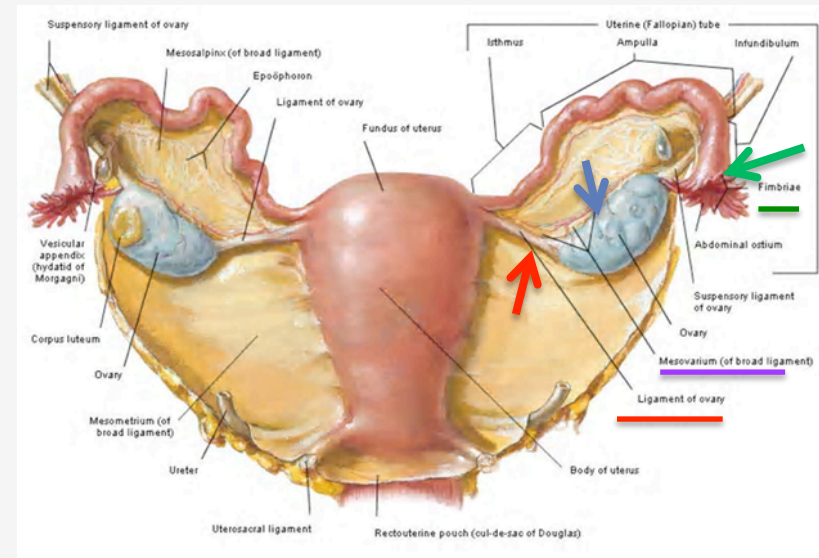


- ❖ **Rectouterine (Douglas) pouch:** Reflection of peritoneum from rectum to upper part of posterior surface of vagina
- ❖ **Uterovesical (vesicouterine) pouch:** Reflection of peritoneum from uterus to upper surface of urinary bladder
- ❖ **Broad ligament of uterus:** Extension of peritoneum from lateral wall of uterus to lateral wall of pelvis, encloses the uterine tubes

The Ovaries



- 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**.

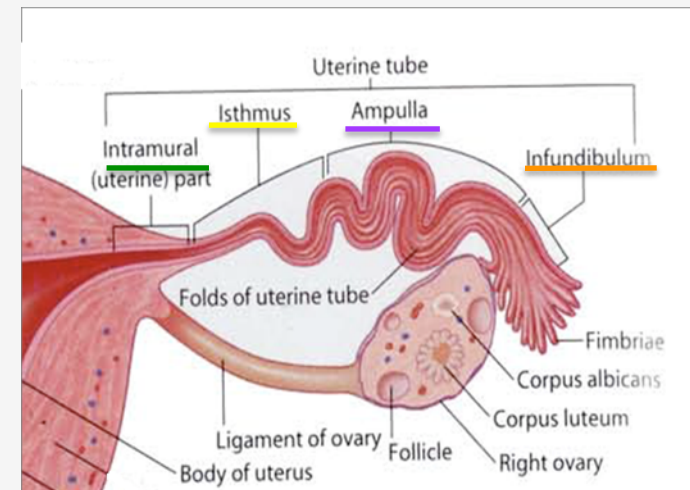


THE UTERINE (FALLOPIAN) TUBES

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

It is divided into:

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

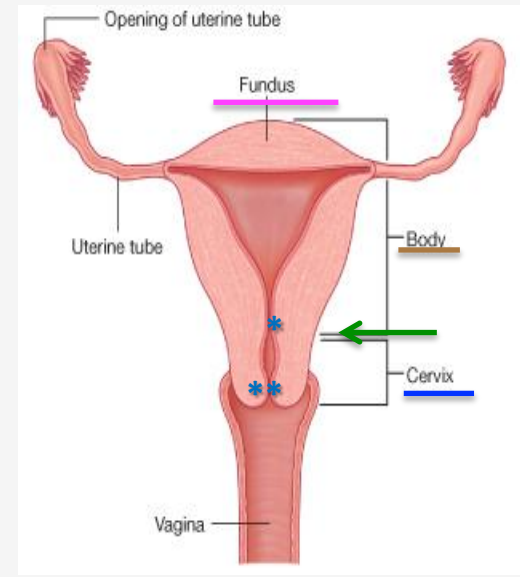


Uterus



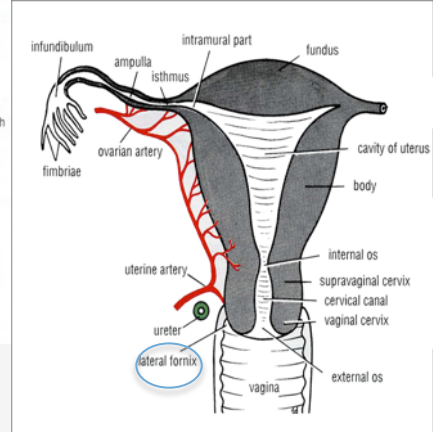
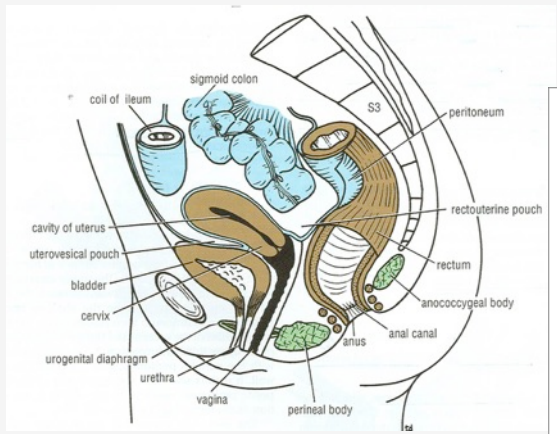
A hollow, pear-shaped muscular organ ,Divided into:

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 divided into: *Supravaginal **Vaginal	<ul style="list-style-type: none"> - cavity is fusiform - The part of uterus below the level of the isthmus of the uterus.



RELATIONS OF UTERUS

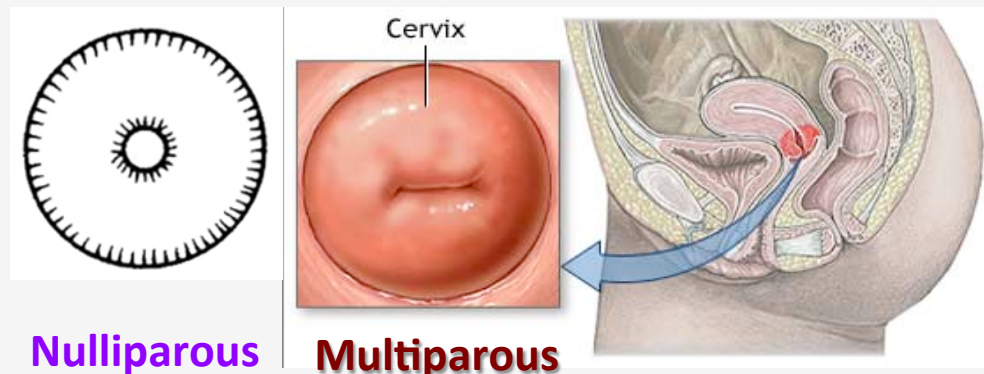
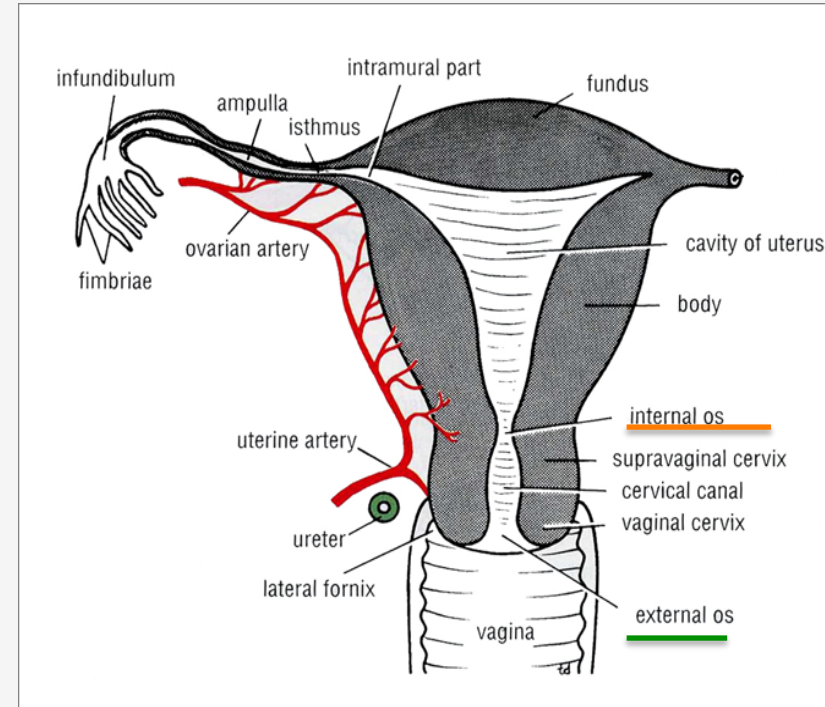
FUNDUS + BODY + SUPRAVAGINAL PART OF CERVIX	<p>Anterior: superior surface of urinary bladder</p> <p>Posterior: sigmoid colon</p> <p>Lateral: uterine artery</p>
VAGINAL PART OF CERVIX (surrounded by vaginal fornices)	<p>Anterior: anterior fornix of vagina</p> <p>Posterior: posterior fornix of vagina</p> <p>Lateral: lateral fornices of vagina</p>



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 lip.



Nulliparous: Never having given birth to a child.
Multiparous: having borne more than one child.

Functions of



◆ OVARIES: PRIMARY SEX ORGANS IN FEMALE

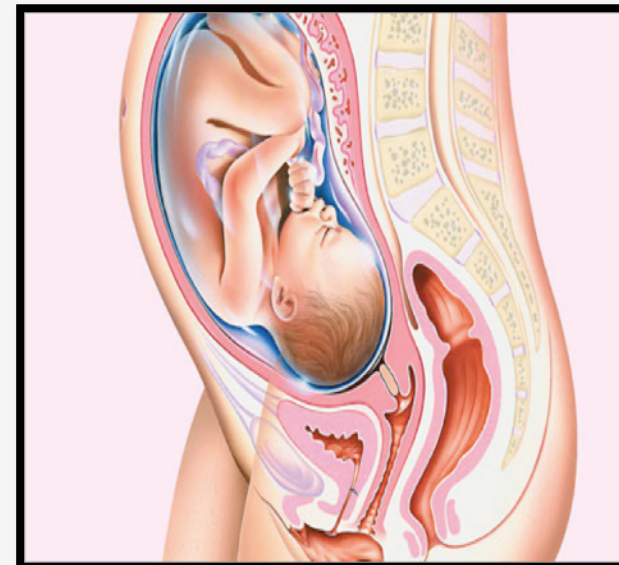
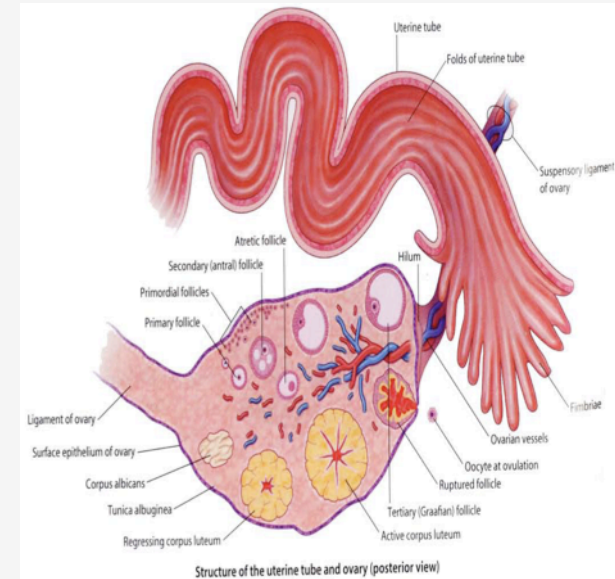
- 1) Production of female germ cells
- 2) Secretion of female sex hormones

◆ UTERINE TUBES:

- 1) Site of fertilization
- 2) Transport of fertilized ovum into the uterus

◆ Function of The Uterus

it is responsible for the development of the embryo and fetus during pregnancy.



POSITIONS OF UTERUS



ANTEVERTED UTERUS

Long axis of whole uterus is bent forward on long axis of vagina



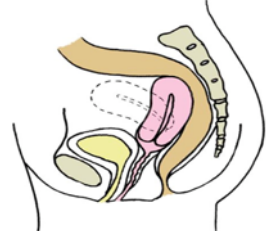
ANTEFLEXED UTERUS

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



RETROVERTED UTERUS

Fundus & body of uterus are bent backward on the vagina and lie in recto - uterine pouch.



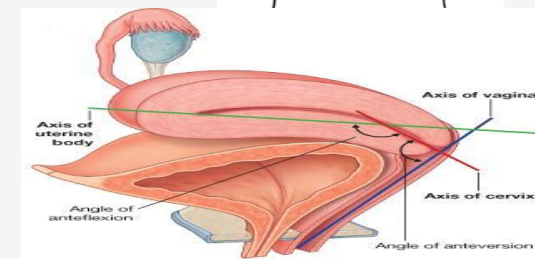
RETROFLEXED UTERUS

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



ANTEVERTED ANTEFLEXED UTERUS

USUAL POSITION OF UTERUS





1) Ligaments at junction between fundus & body of uterus

(At the level of uterine tube)

(1) Round ligament of uterus:

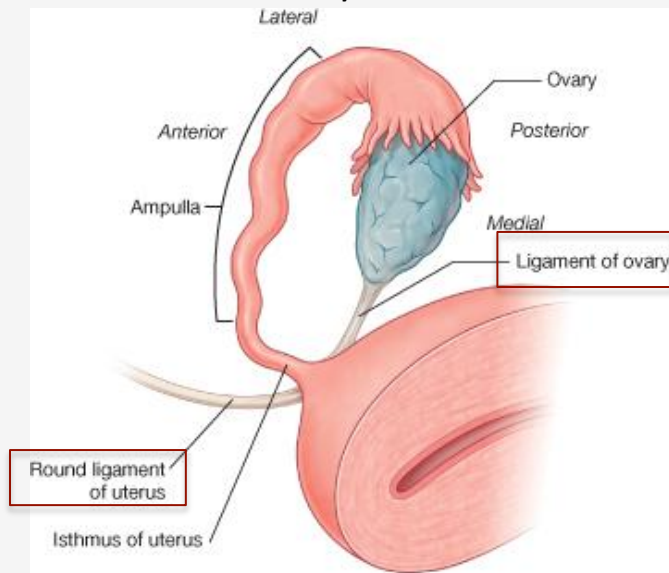
Extends through inguinal canal to labium majus (external genitalia).

(lies anterior to the uterine tube)

(2) Ligament of ovary:

B/t ovary & uterus

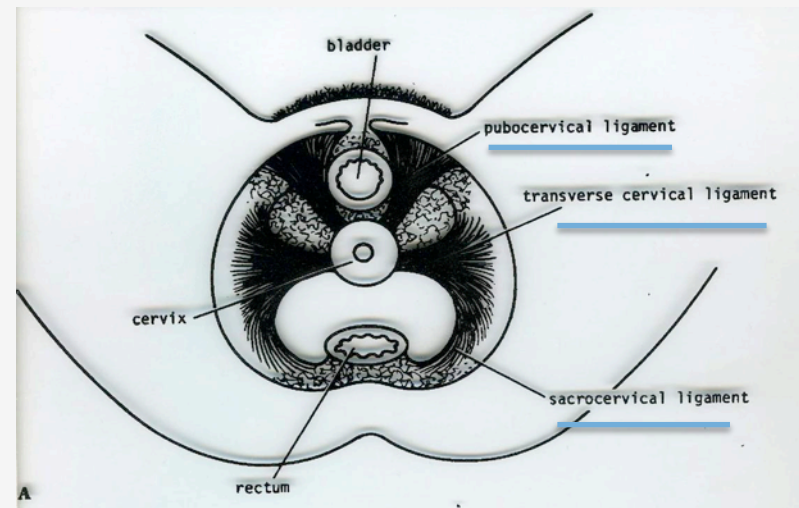
(lies posterior to the uterine tube)



2) Ligaments of cervix :

Extend from cervix to:

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



LEVATOR ANI MUSCLES

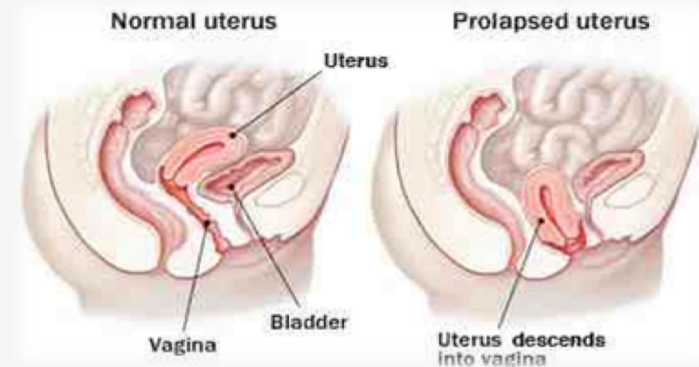


- ✓ **FORM THE PELVIC FLOOR:** separate pelvis from perineum.
- ✓ **FORM PELVIC DIAPHRAGM:** traversed by urethra, vagina & rectum.
- ✓ **SUPPORT PELVIC ORGANS.**

SUPPORT OF UTERUS:

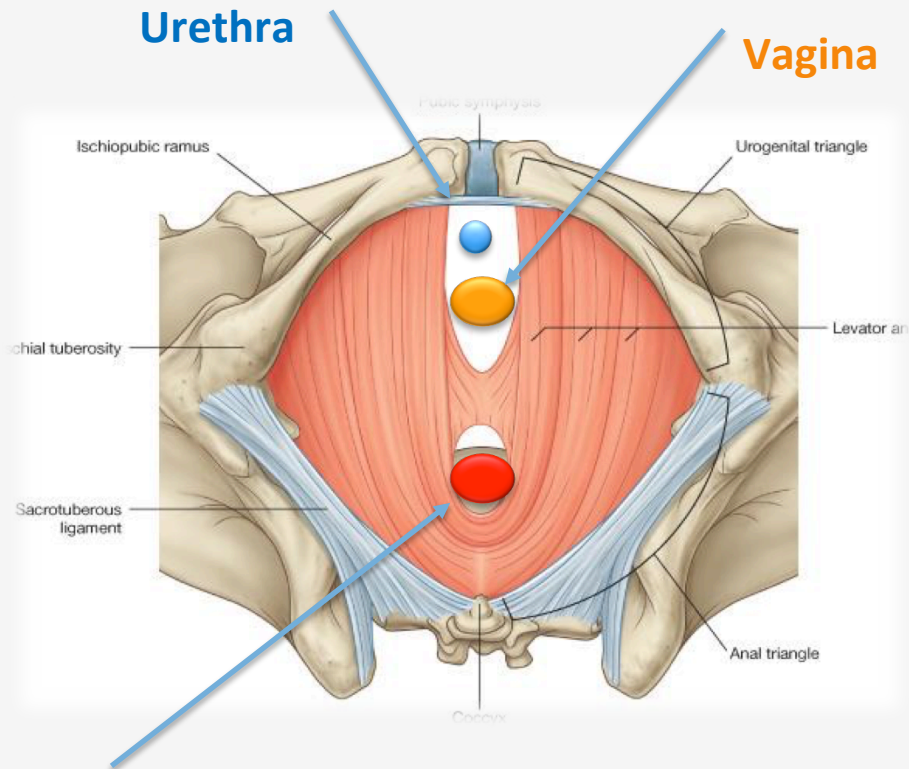
- ✓ Round ligament of uterus (**maintains anteverted anteflexed position**).
- ✓ Ligaments of cervix (especially **transverse cervical**).
- ✓ Levator ani muscles.

UTERINE PROLAPSE :



Downward displacement of uterus due to damage of:

- ✓ Ligaments of uterus.
- ✓ Levator ani muscles.



Rectum



VAGINA

STRUCTURE

Fibro-muscular tube

EXTENT

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

LENGTH

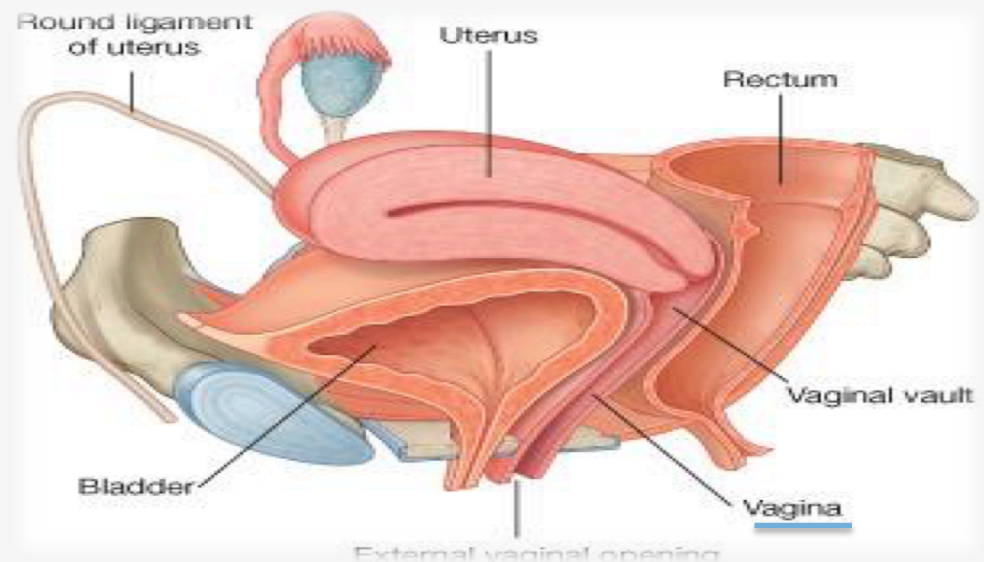
Its anterior wall (7.5 cm) is shorter than its posterior wall (9 cm).

FUNCTION

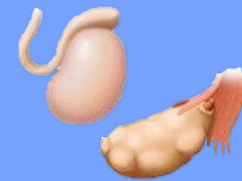
1) Copulatory organ & 2) Birth canal.

RELATIONS OF VAGINA

- ✓ **ANTERIOR:** Urinary bladder (in pelvis) & urethra (in perineum).
- ✓ **POSTERIOR:** Rectum (in pelvis) & anal canal (in perineum).
- ✓ **LATERAL:** ureters (in pelvis).



ARTERIAL SUPPLY



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)

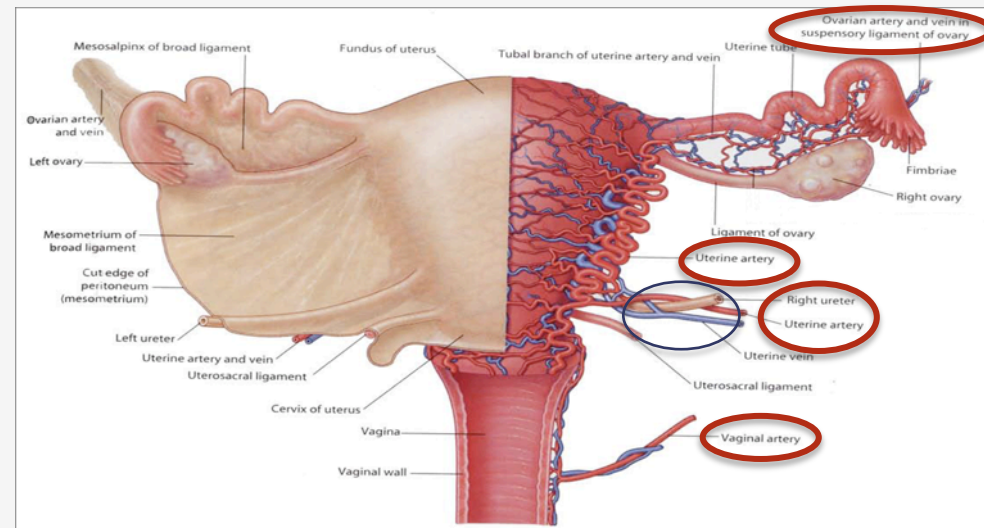
The Relation of uterine artery & ureter

Clinical Correlation: Hysterectomy

A hysterectomy is the **surgical removal** of the uterus, usually as a result of cervical or uterine cancer.

When performing a hysterectomy, a good knowledge of regional anatomy is needed to prevent accidentally damaging other structures in the pelvic region.

The uterine artery crosses the **ureters** approximately 1 cm laterally to the internal os. Care must be taken not to damage the ureters during clamping of the uterine arteries during hysterectomy. The relationship between the two can be remembered using the phrase 'water under the bridge'. Water refers to the ureter (urine), and the uterine artery is the bridge.



GOOD LUCK

Done by :

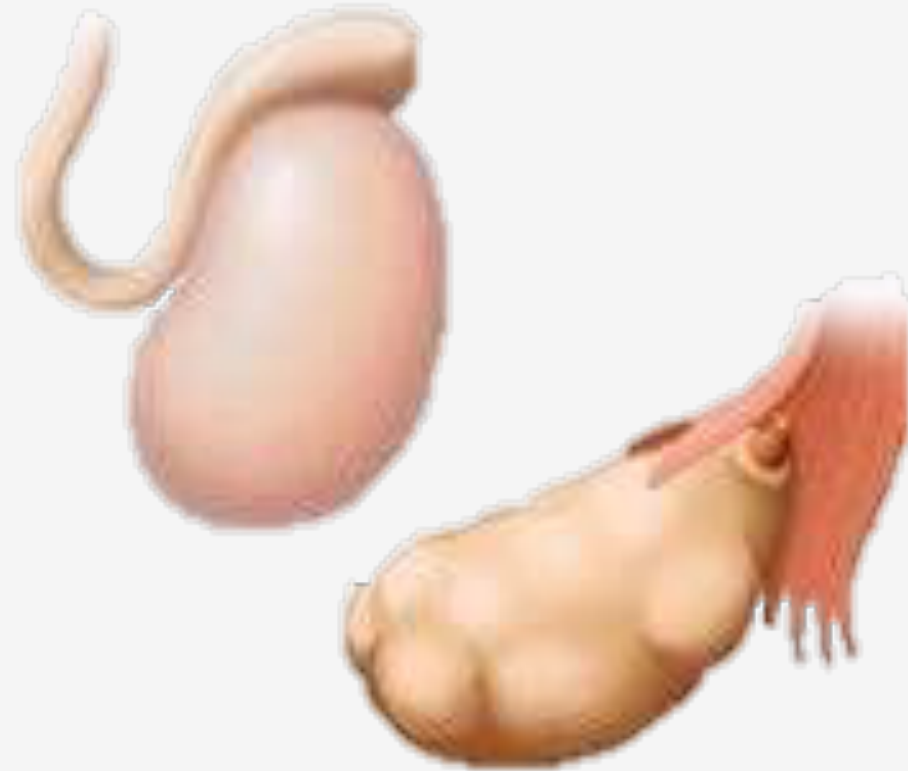
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