



# \*Reproductive System\*



\*Anatomy Team\*

\*430\*

\*This Lecture is Done By:\*

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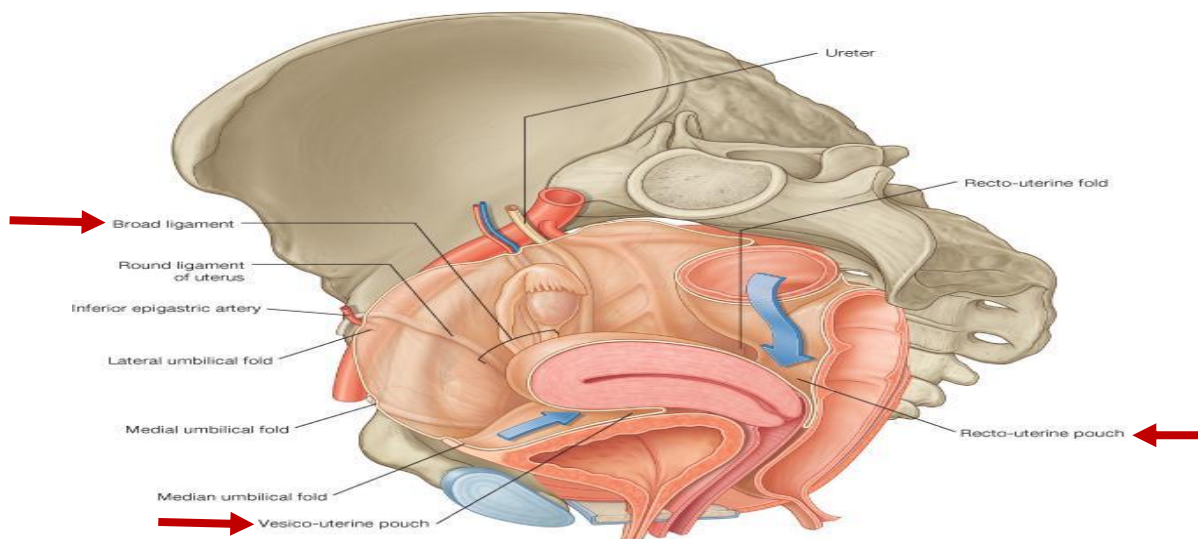
## *\*anatomy of the female reproductive system\**

-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;**

- It is 10 cm long.
- It is enclosed in the **broad ligament** of uterus.
- It is divided into:
  - 1) **Intramural part: opening into the uterine wall**
  - 2) **Isthmus: narrowest part**
  - 3) **Ampulla: widest part (site of fertilization)**
  - 4) **Infundibulum: funnel-shaped end, has finger-like processes (fimbriae), related to ovary**

**\*\*Function;**

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

**- the uterus;**

A hollow, pear-shaped muscular organ

**\*\*Divided into:**

- Fundus: no cavity. The part of uterus above the level of uterine tubes.
- Body: cavity is triangular. The part of uterus from the level of uterine tube to the level of the isthmus of uterus.

-Cervix: The part of the uterus below the level of the isthmus of the uterus, it has a fusiform cavity, divided into:

\*Supravaginal part.

\*Vaginal part.

- 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.

- Relations of uterus;.

-fundus + body + supravaginal part of cervix:

\*anterior: superior surface of urinary bladder

\*posterior: sigmoid colon

\*lateral: uterine artery

-vaginal part of cervix: surrounded by vaginal fornices

\*anterior: anterior fornix of vagina

\*posterior: posterior fornix of vagina

\*lateral: lateral fornices of vagina

## - positions of uterus;.

### \*\*First Position;.

-**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.

### \*\*second Position;.

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

-**retroflexed uterus**; Long axis of body of uterus is bent backward on long axis of cervix.

\*\*\*The Most usual position is the first position (**anteflexed uterus- anteverted uterus**).

## - ligaments of uterus;.

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

-ligament of ovary

-round ligament of uterus (extends through inguinal canal to labium majus )

2)Ligaments of cervix, **Extend from cervix to:**

-anterior (pubocervical),

- lateral (transverse cervical or cardinal)

- posterior (uterosacral or sacrocervical)

- 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; ,

- 1-Round ligament of uterus (maintains anteverted anteflexed position)

- 2- Ligaments of cervix (especially transverse cervical)

- 3- Levator ani muscles

- uterine prolapsed; ,

**Downward displacement of uterus** due to damage of:

- 1-Ligaments of uterus.

- 2- Levator ani muscles.

- 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)

\*Female Reproductive system Arterial supply, venues  
drainage ,nerve and lymphatic drainage ;,

| organ         | arteries   | veins   | lymphatics   | nerves<br>(autonomic)                            |
|---------------|--|---|--|--|
| ovaries       | ovarian<br>(abdominal<br>aorta)                    | ovarian (to<br>inferior<br>vena cava<br>& left<br>renal vein) | to<br>paraaortic<br>lymph<br>nodes (in<br>abdomen) | ovarian<br>plexus (in<br>abdomen)                |
| uterine tubes | -ovarian<br>-uterine                               | -ovarian<br>- uterin  | -paraaortic<br>-internal<br>iliac                  | -ovarian<br>-inferior<br>hypogastric             |
| uterus        | uterine<br>(internal<br>iliac artery<br>in pelvis) | uterine<br>plexus (to<br>internal<br>iliac vein)              | to internal<br>iliac lymph<br>nodes (in<br>pelvis) | inferior<br>hypogastric<br>plexus (in<br>pelvis) |
| vagina        | vaginal<br>(internal<br>iliac artery<br>in pelvis) | vaginal<br>plexus (to<br>internal<br>iliac vein)              | to internal<br>iliac lymph<br>nodes (in<br>pelvis) | inferior<br>hypogastric<br>plexus (in<br>pelvis) |



## *★Summary★*

-pelvic peritoneum in female;,,

Rectouterine (Douglas) pouch- Uterovesical (vesicouterine) pouch-  
Broad ligament of uterus.

- ovaries;. primary sex organs in female

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;,,

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**\*\*Function;**

1-Site of fertilization.

2-Transport of fertilized ovum into the uterus.

- the uterus;.

**\*\*Divided into:**

Fundus, Body and

Cervix which is divided into ;



\*Supravaginal part.

\*Vaginal part.

- the cervical canal;. consists of ;

INTERNAL OS,EXTERNAL OS

-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.

- positions of uterus;.

\*\*First Position;.

anteverted uterus\_ anteflexed uterus

\*\*second Position;.

retroflexed uterus \_retroverted uterus

\*\*\*The Most usual position is the first position (anteflexed uterus-anteverted uterus).

- levator ani muscles;.

support pelvic organs.

- support of uterus;.

1-Round ligament of uterus (maintains anteverted anteflexed position)

2- Ligaments of cervix (especially transverse cervical)

3- Levator ani muscles

- uterine prolapsed;.

Downward displacement of uterus

-vagina;.

function: 1) copulatory organ & 2) birth canal

\*Female Reproductive system Arterial supply, venous drainage, nerve and lymphatic drainage ;

| 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 | -ovarian<br>-uterine                      | -ovarian<br>-uterine                              | -paraaortic<br>-internal iliac            | -ovarian<br>-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) |

☆ *Good Luck* ☆