



جامعة المستقبل
AL MUSTAQBAL UNIVERSITY
كلية العلوم
فيصل عزيقلا مسق

Anatomy

The Female Reproductive System

Dr. Kareem Obayes Handool

The Reproductive system includes the following:

- **Gonads:** or reproductive organs that produce gametes & hormones.
- **Ducts:** that receive and transport the gametes.
- **Accessory glands & organs** that secrete fluids (into the same glands or other excretory ducts).
- **External genitalia.**
- The male and female reproductive systems are functionally different:
 - *in an adult male, the testes or male gonads secrete sex hormones called androgens (**testosterone**) & produce $\frac{1}{2}$ **billion sperm each day**.
 - *in an adult female the ovaries or female gonads, typically release **only one immature gamete** (called oocyte) **per month**.

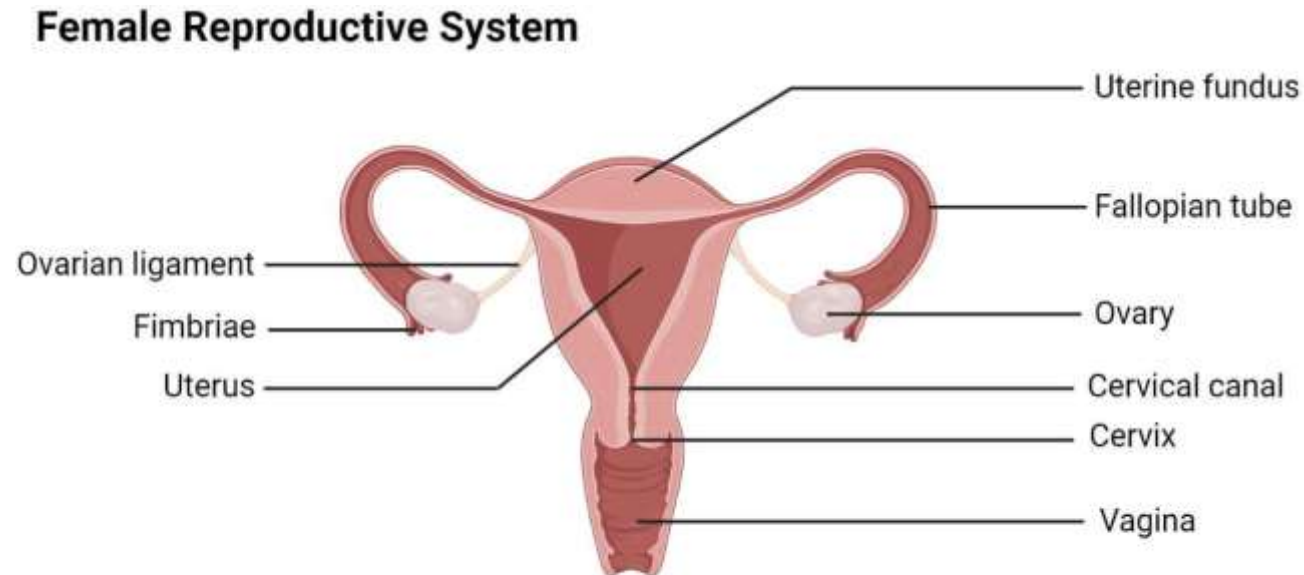
The Female Reproductive System

External Genitalia (Vulva)

The external organs in the female reproductive system are collectively termed, vulva consisting of labia majora, labia minora, clitoris, vaginal orifice, vestibular gland, and hymen.

Internal Genitalia

The internal genitalia is present in the pelvic cavity of a female and consists of a uterus, a vagina, two uterine tubes, and two ovaries.



The Female Reproductive System

The Ovaries

The female gonads are called the ovaries.

The ovaries are paired, oval organs attached to the posterior surface of the broad ligament of the uterus by the **mesovarium** (a fold of peritoneum, continuous with the outer surface of the ovaries).

Neurovascular structures enter the hilum of the ovary via the mesovarium.

The main functions of the ovaries are:

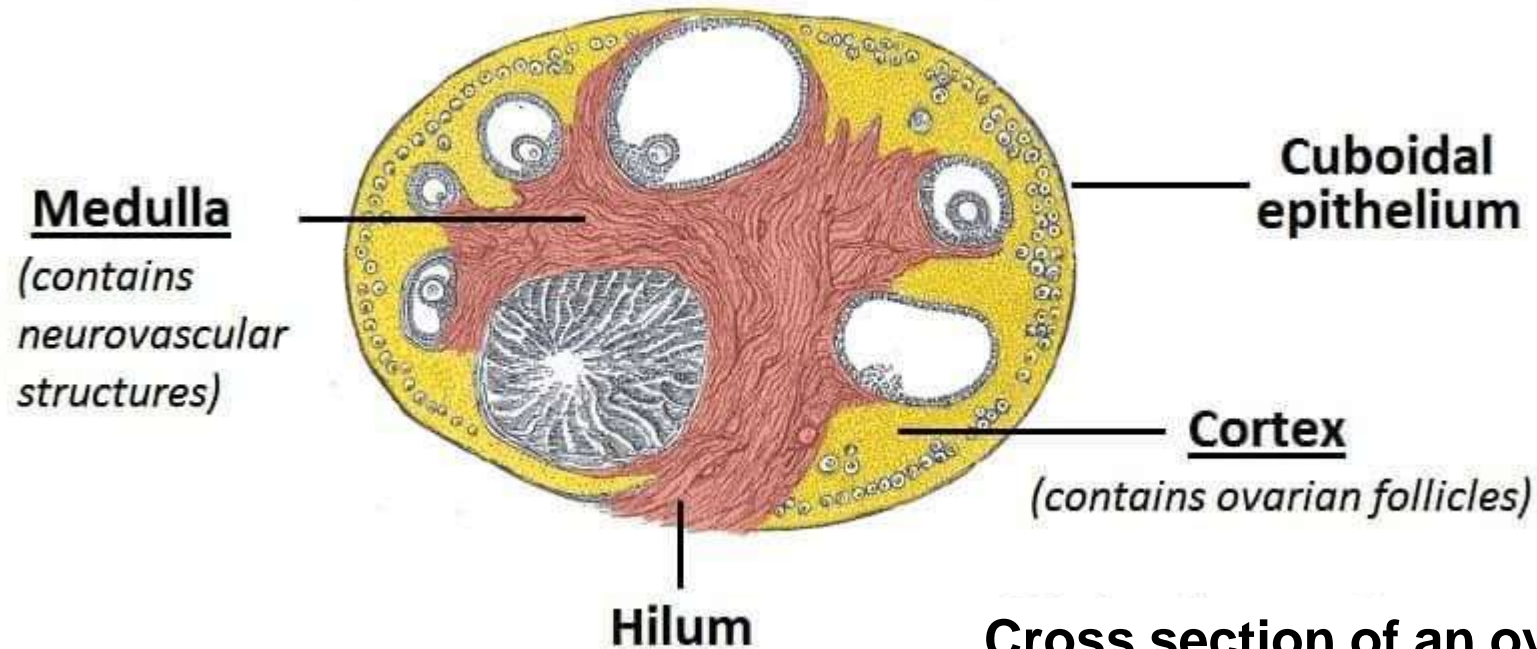
To produce **oocytes** (female gametes) in preparation for fertilisation.

To produce the sex steroid hormones **oestrogen and progesterone**, in response to pituitary gonadotrophins

Components of the Ovary

The ovary has three main histological features:

- **Surface** – formed by simple cuboidal epithelium (known as germinal epithelium). Underlying this layer is a dense connective tissue capsule.
- **Cortex** – comprised of a connective tissue stroma and numerous ovarian follicles. Each follicle contains an oocyte, surrounded by a single layer of follicular cells.
- **Medulla** – formed by loose connective tissue and a rich neurovascular network, which enters via the hilum of the ovary.

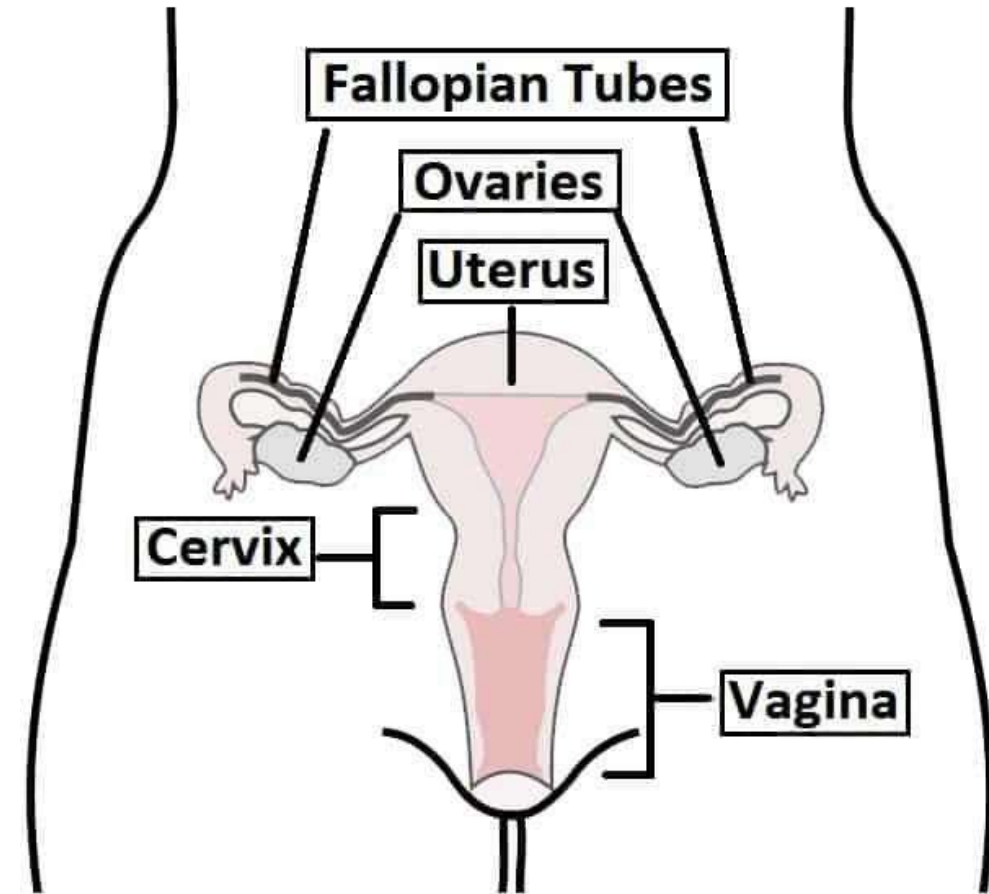


The uterus is a thick-walled **muscular** organ capable of expansion to accommodate a growing fetus. It is connected distally to the vagina, and laterally to the uterine tubes.

The uterus has three parts:

- **Fundus** – top of the uterus, above the entry point of the uterine tubes.
- **Body** – usual site for implantation of the fetus.
- **Cervix** – lower part of uterus linking it with the vagina.

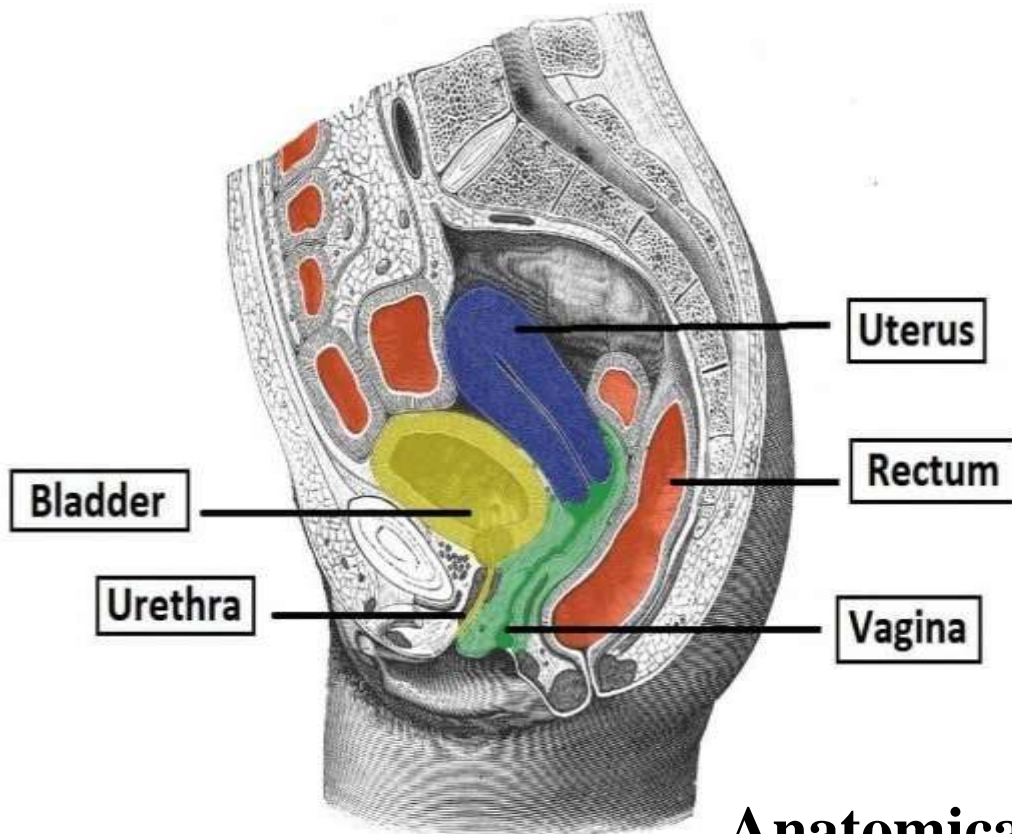
. This part is structurally and functionally different to the rest of the uterus.



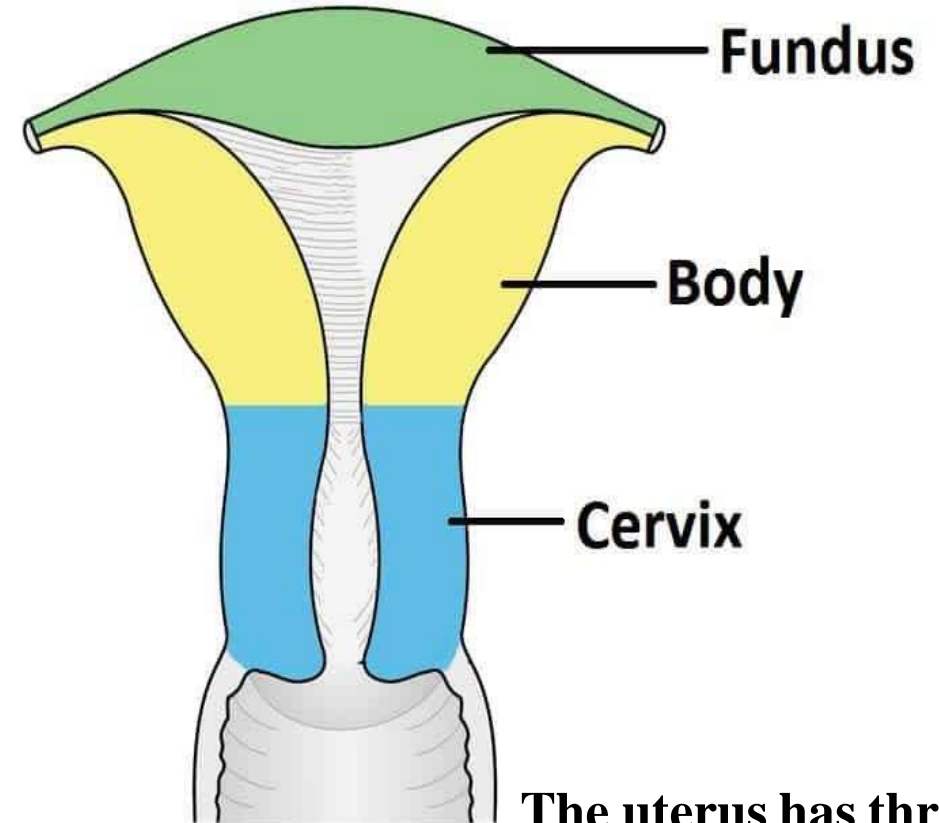
Anatomical Position

the uterus normally lies immediately posterosuperior to **the bladder**, and anterior to the **rectum**.

The blood supply to the uterus is via the **uterine artery**. Venous drainage is via a plexus in the broad ligament that drains into the **uterine veins**.



Anatomical Position

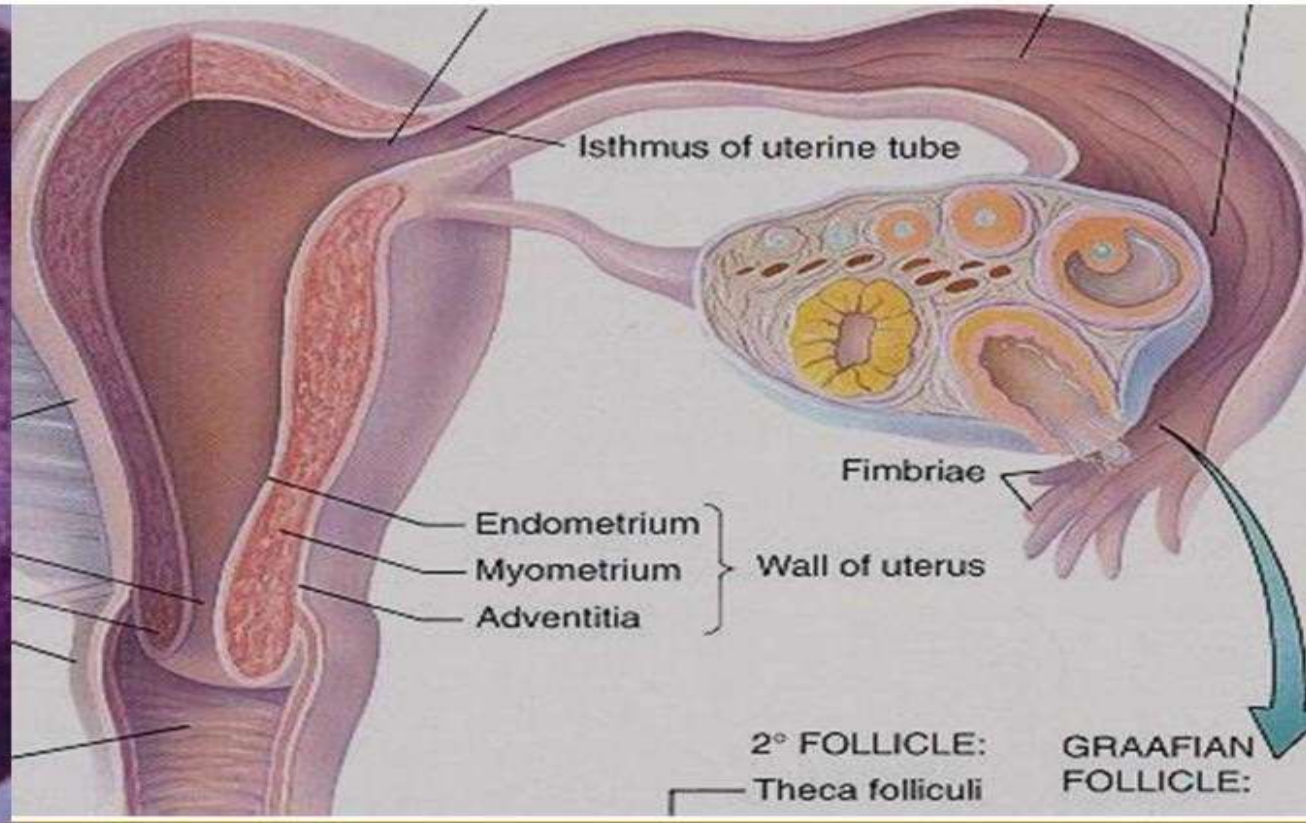
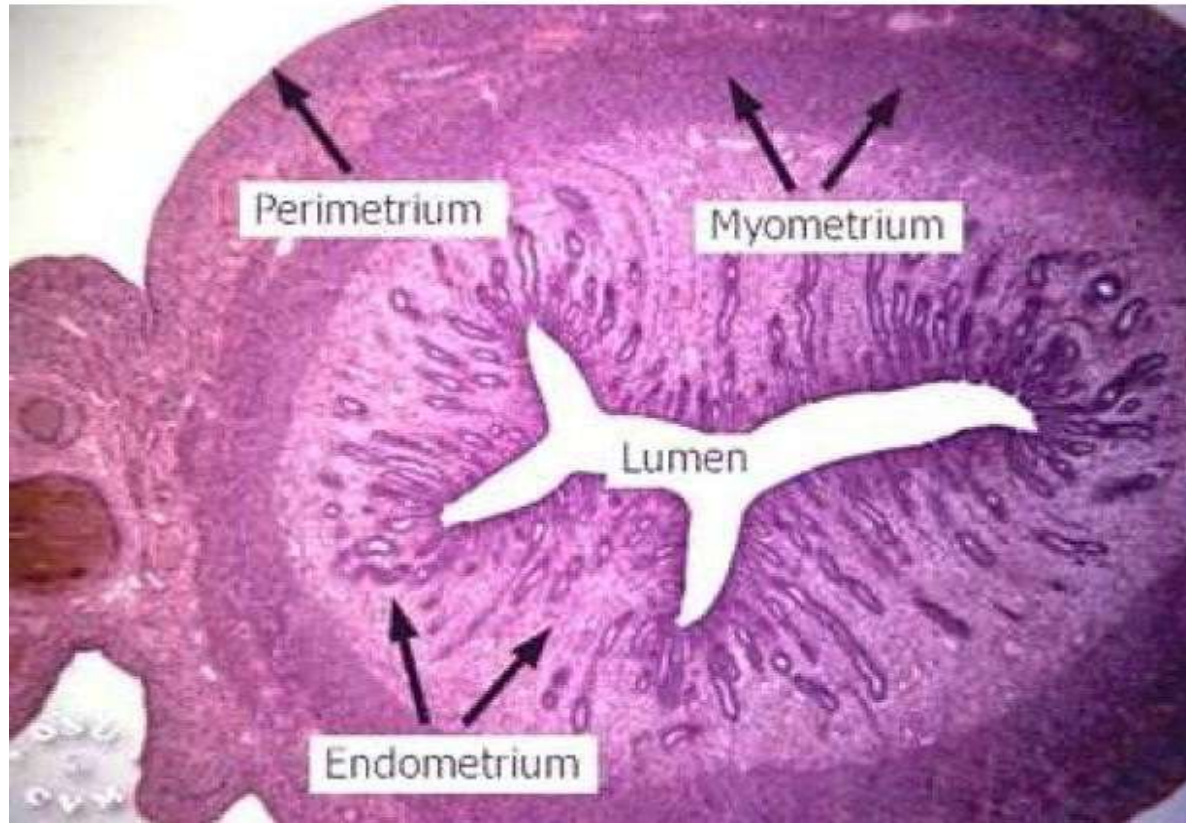


The uterus has three parts

Histological Structure

The fundus and body of the uterus are composed of three tissue layers;

- **Peritoneum** – a double layered membrane, continuous with the abdominal peritoneum. Also known as the perimetrium.
- **Myometrium** – thick smooth muscle layer.
- **Endometrium** – inner mucous membrane lining the uterus



The **uterine tubes** (or fallopian tubes, oviducts, salpinx) are muscular ‘J-shaped’ tubes, found in the female reproductive tract. The main function of the uterine tubes is to assist in the transfer and transport of the ovum from the ovary to the uterus

They lie in the upper border of the **broad ligament**, extending laterally from the uterus, opening into the abdominal cavity, near the ovaries.

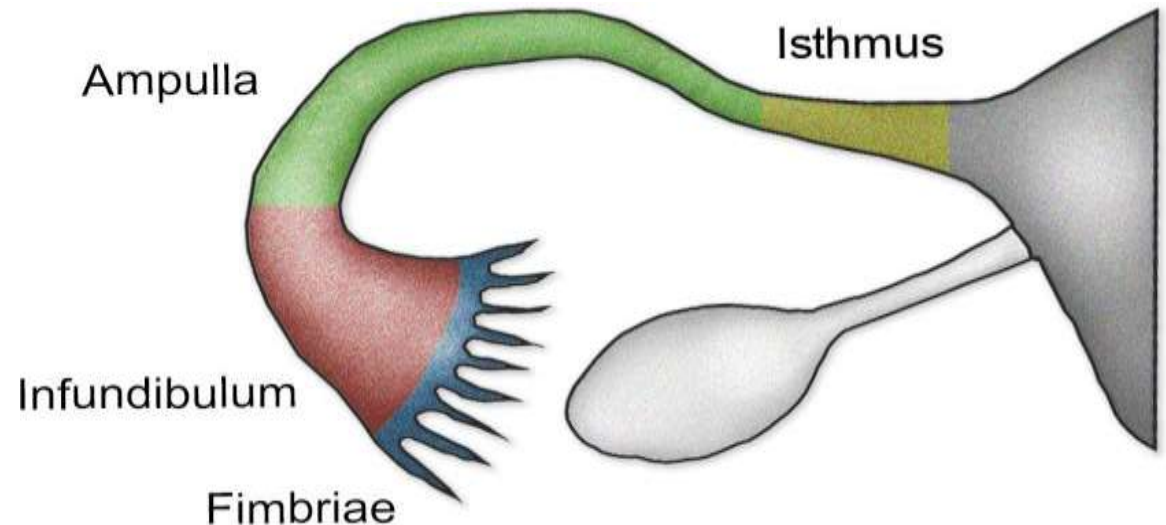
The fallopian tube is described as having four parts (lateral to medial):

Fimbriae: finger-like, ciliated projections which capture the ovum from the surface of the ovary.

Infundibulum: funnel-shaped opening near the ovary to which fimbriae are attached.

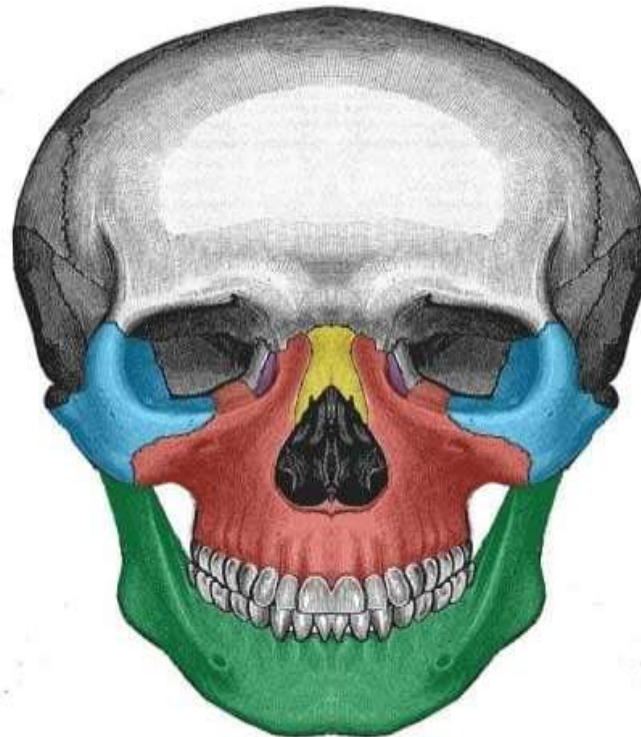
Ampulla: widest section of the uterine tubes. Fertilization usually occurs here.

Isthmus: narrow section of the uterine tubes connecting the ampulla to the uterine cavity.





THANK YOU!



-  Zygomatic
-  Maxilla
-  Nasal
-  Lacrimal
-  Mandible