



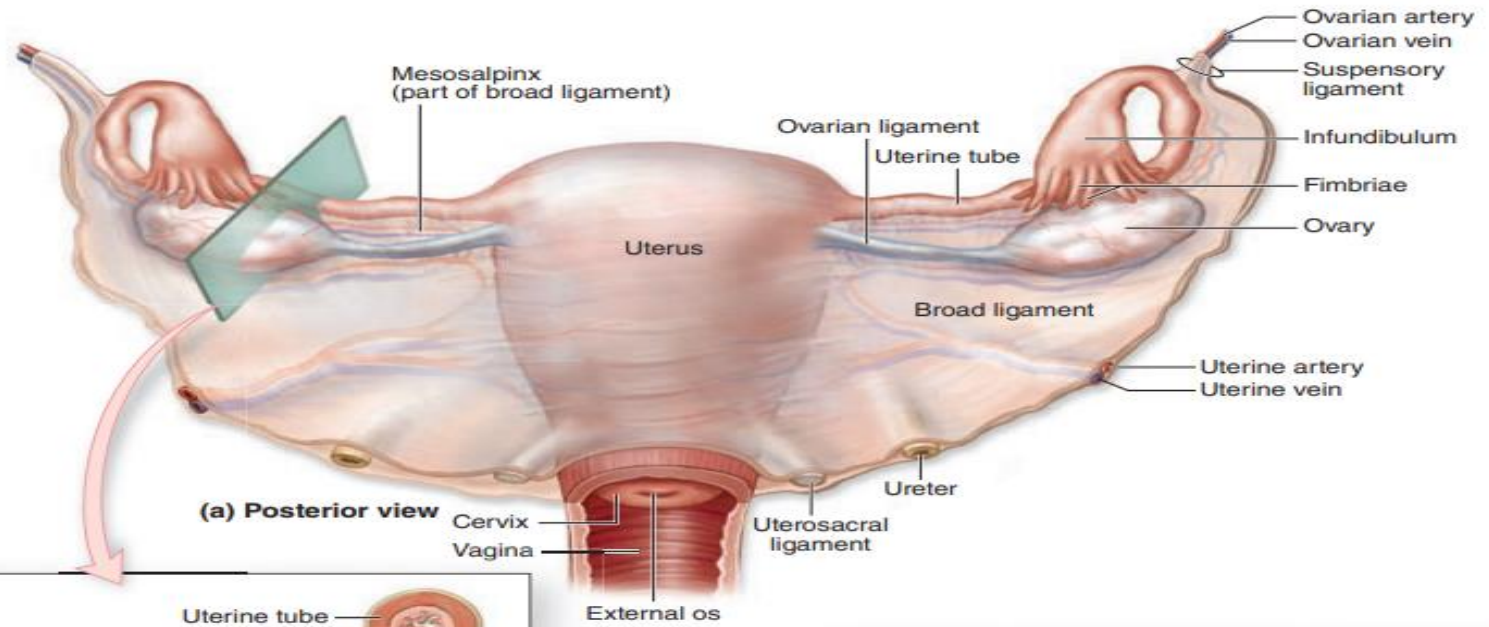
FEMALE REPRODUCTIVE SYSTEM



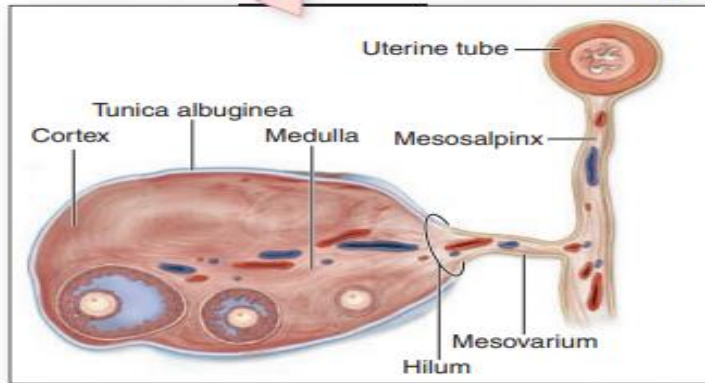
Female reproductive system

The female reproductive system consists of :

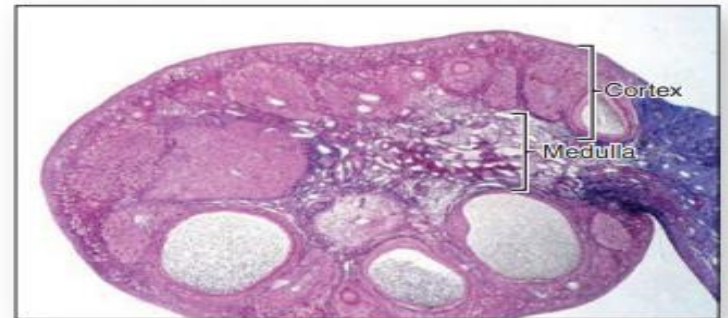
- Paired ovaries and
- Paired oviducts (or uterine tubes),
- Uterus
- Vagina,.



(a) Posterior view



(b) Lateral sectional view



(c)



Functions

1. Produces the female gametes (oocytes).
2. Provides the environment for fertilization.
3. Holds the embryo during its complete development through the fetal stage until birth.
4. Ovaries produce steroidal sex hormones that control organs of the reproductive system.

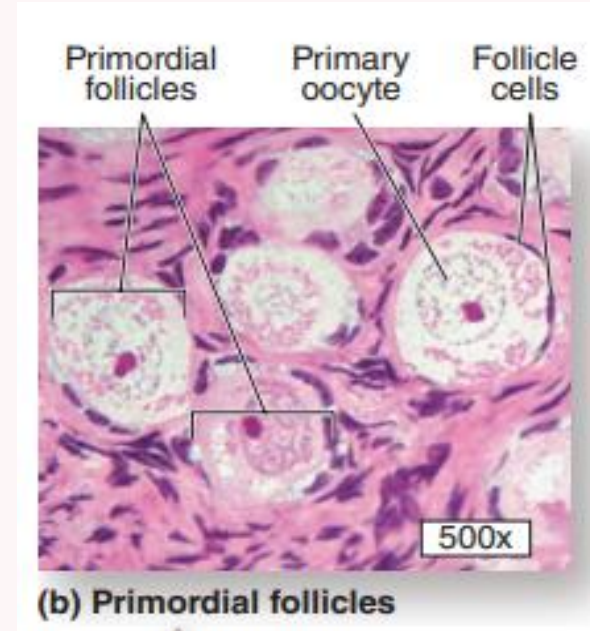
OVARIES

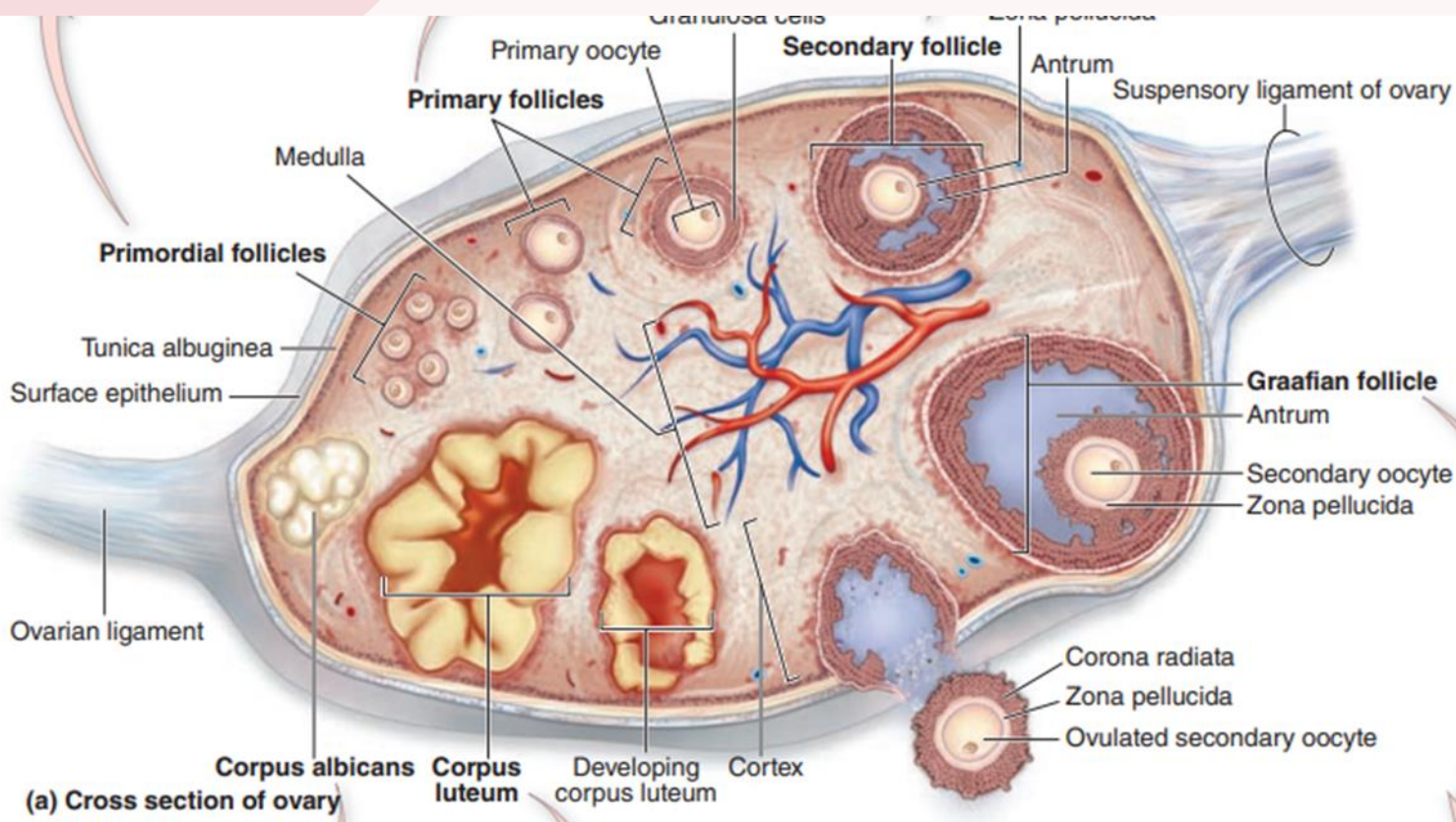
- Ovaries are almond-shaped bodies approximately 3-cm long, 1.5-cm wide, and 1-cm thick.
- Each ovary is covered by a simple cuboidal epithelium, the surface (or germinal) epithelium, continuous with the mesothelium and overlying a layer of dense connective tissue capsule, the tunica albuginea.





- Most of the ovary consists of the **cortex**, a region with a stroma of highly cellular connective tissue and many ovarian follicles varying greatly in size surrounded by a layer of flat epithelial follicular cells .
- The most internal part of the ovary, the **medulla**, contains loose connective tissue and blood vessels entering the organ.
- There is no distinct border between the ovarian cortex and the medulla.





UTERINE TUBES



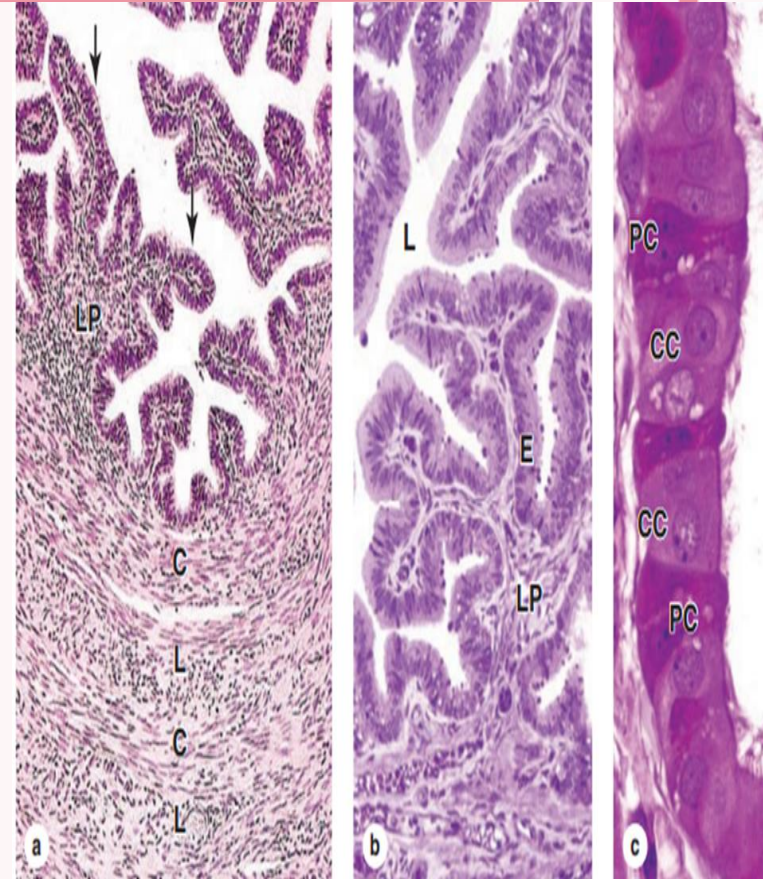
- The paired uterine tubes, or oviducts, supported by ligaments, each measure about 10-12 cm in length .
- They convey ova from ovaries to uterine cavity and serves as the site for fertilization.
- Each opens into the peritoneal cavity near the ovary, with **regions** in the following sequence:
 1. **Infundibulum**, a funnel-shaped opening lies adjacent to ovary, it has fingerlike extensions called fimbriae .
 2. **Ampulla**: the longest and expanded region where fertilization normally occurs.
 3. **Isthmus** : It is the narrowest portion nearer the uterus.
 4. **Uterine or intramural part**, which passes through the wall of the uterus and opens into uterine cavity.

The wall of the oviduct consists of :

- **Mucosa**, folded , lined by simple columnar epithelium on a lamina propria of loose connective tissue

The epithelium contains two functionally important cell types:

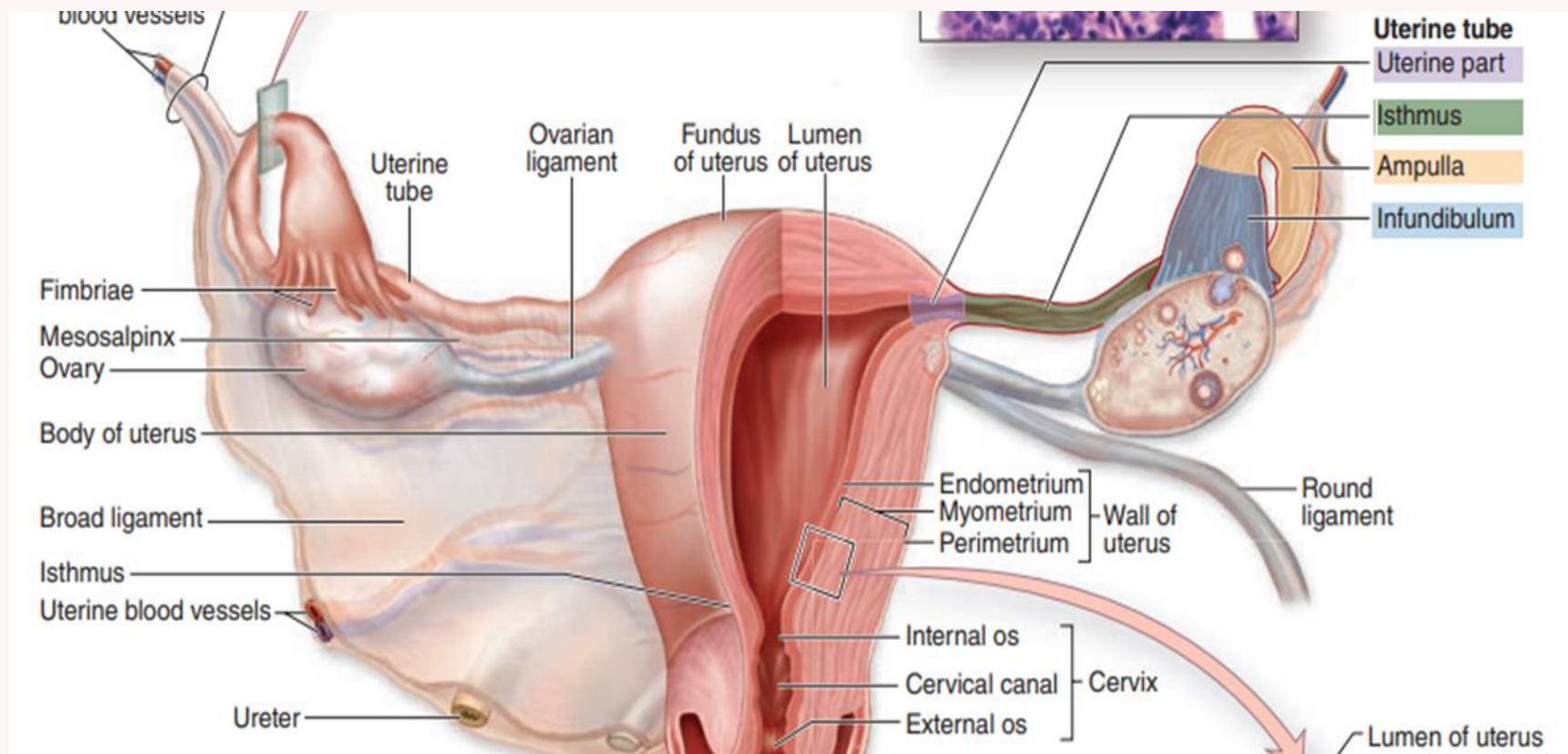
- **Ciliated cells** : in which ciliary movements sweep fluid toward the uterus.
- **Secretory peg cells**: nonciliated cells secrete glycoproteins film that covers the epithelium.
- **Muscularis**: Thick, well-defined ,with interwoven circular (or spiral) and longitudinal layers of smooth muscle
- **Serosa**: Thin, covered by visceral peritoneum with mesothelium.





UTERUS

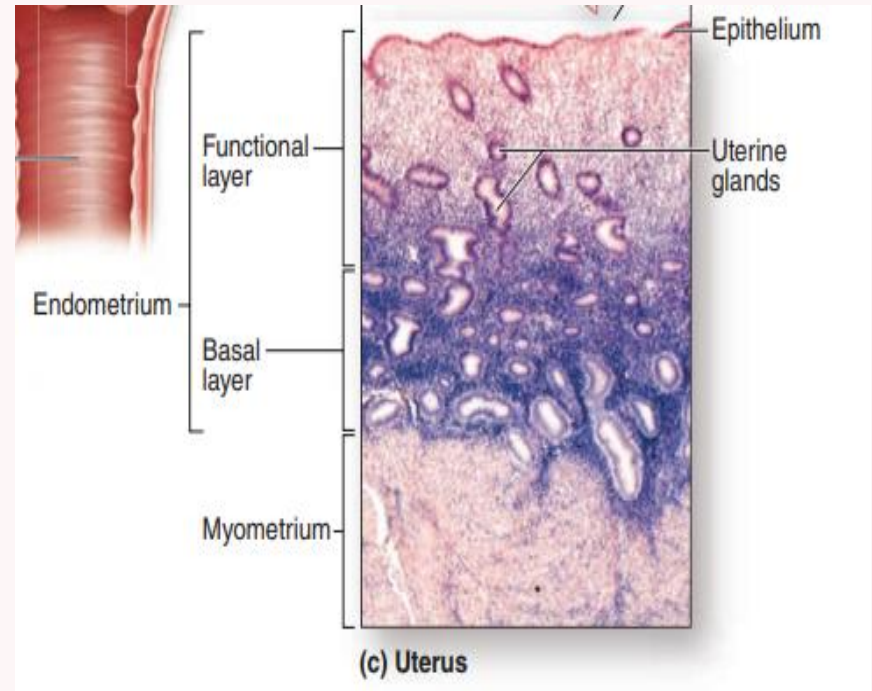
- Is a pear-shaped organ with thick, muscular walls.
- Supported by the set of ligaments and mesenteries.
- Has the following parts:
 1. **Body**: Its largest part, that extends between cervix and openings of the fallopian tubes.
 2. **Fundus**: the curved, superior area between the tubes.
 3. **Cervix**: the uterus narrows in the isthmus and ends in a lower cylindrical structure, the cervix.





The uterine wall has three major layers :

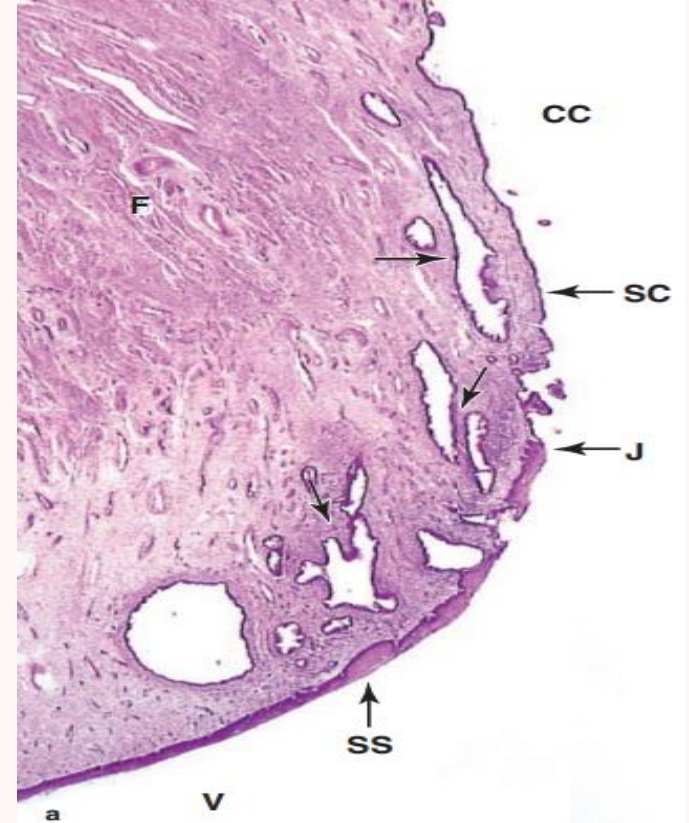
1. **Endometrium**: mucosa, lined by simple columnar epithelium with uterine glands
2. **Myometrium** : thickest layer of highly vascularized smooth muscle.
3. **Perimetrium**: mesothelium and vascular connective tissue layer.





Cervix

- Is the lower, cylindrical part of the uterus.
- The endocervical mucosa is a simple columnar epithelium on a thick lamina propria, with many large, branched, mucus-secreting cervical glands.
- The deeper wall consists mainly of fibromuscular dense connective tissue, with less smooth muscle.

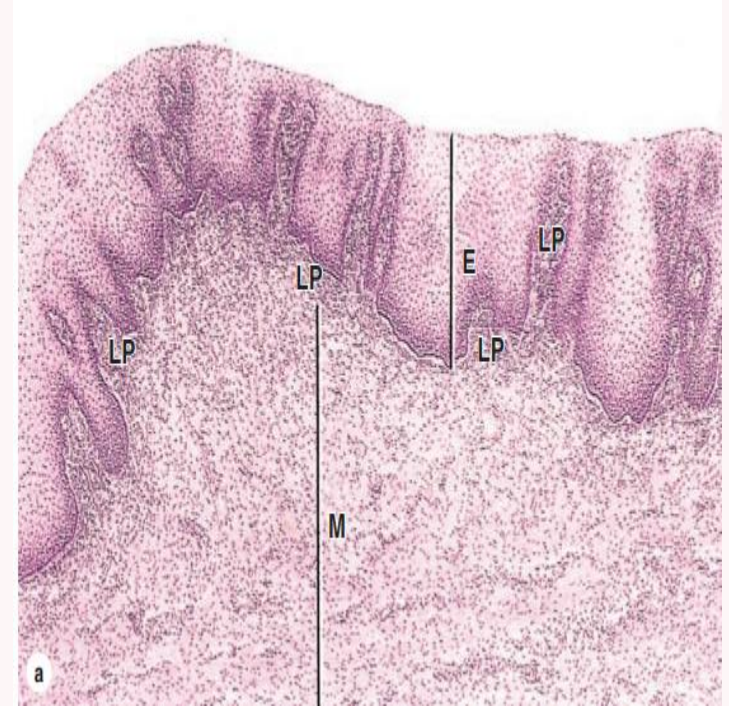


VAGINA



The wall of the vagina lacks glands and consists of :

- **Mucosa** : Nonkeratinized stratified squamous epithelium with lamina propria rich in elastic fibers.
- **Muscular layer** : has two indistinct layers of smooth muscle arranged in a circular manner near the mucosa and longitudinally near the adventitia.
- **Adventitia**: dense connective tissue ,rich in elastic fibers, making the vaginal wall strong and elastic while binding it to the surrounding tissues.



Thank you

