HISTOLOGY OF FALLOPIAN OR UTERINE TUBES

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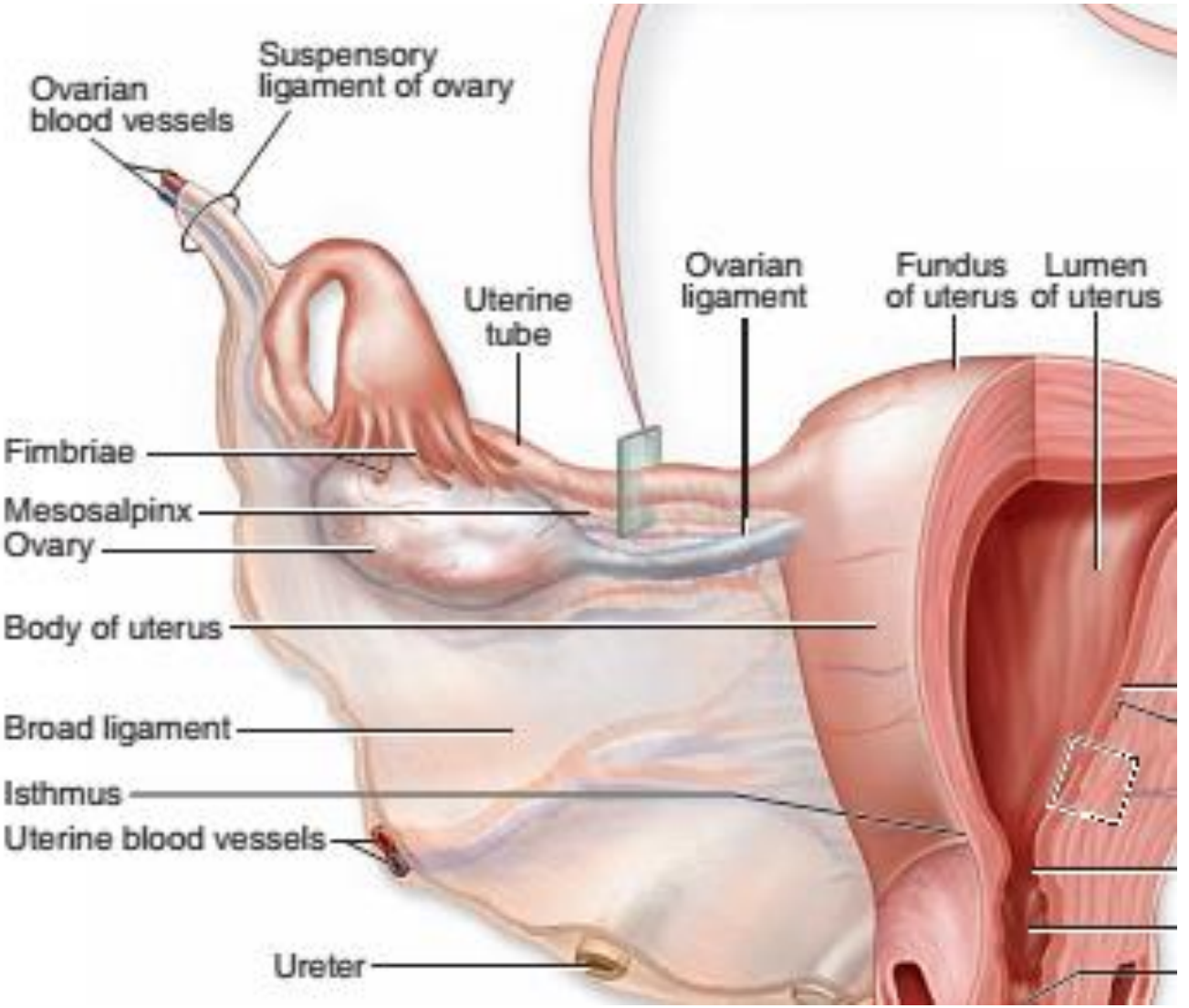
UTERINE TUBES

- Paired uterine tubes, or oviducts,
- Supported by ligaments
- Mesenteries that allow considerable mobility,
- Each measure about 10 to 12 cm in length .



UTERINE TUBES

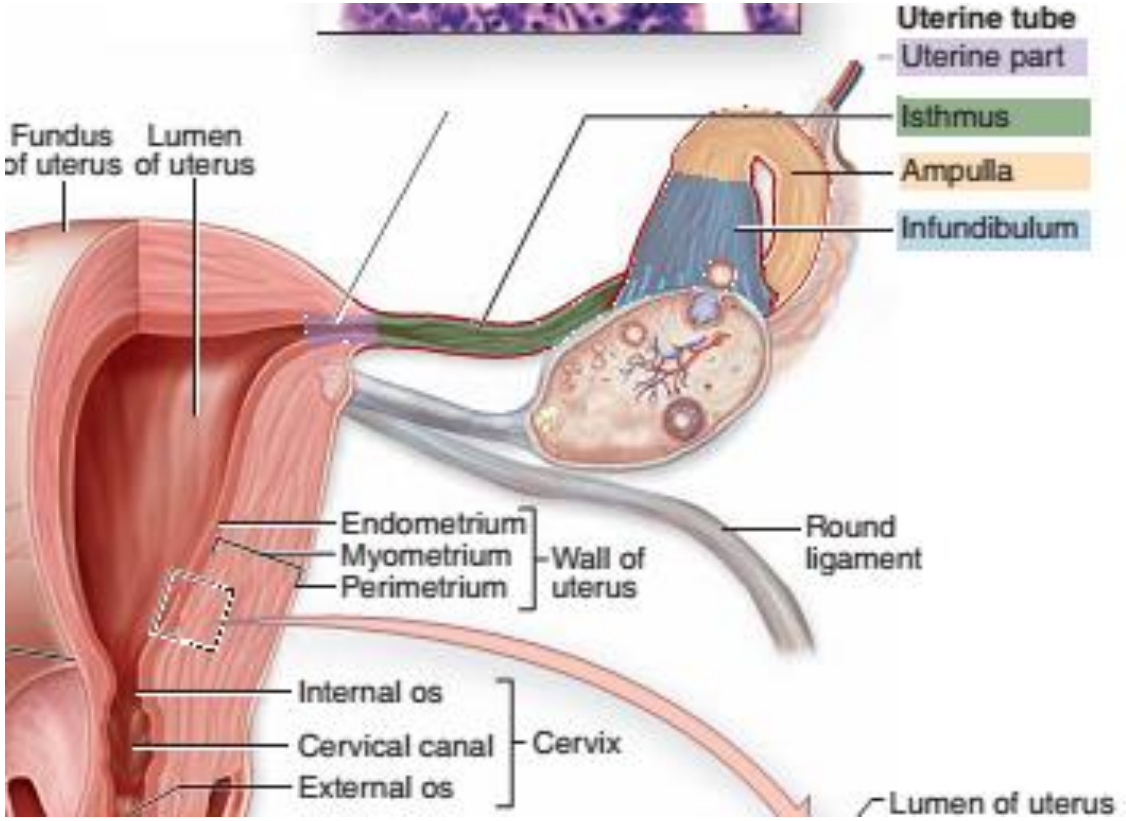
- Each opens into the peritoneal cavity near the ovary, with regions in the following sequence:

  ■ Th infundibulum, a funnel-shaped opening with fingerlike extensions called fimbriae next to the ovary;

  ■ The ampulla, the longest and expanded region where fertilization normally occurs;

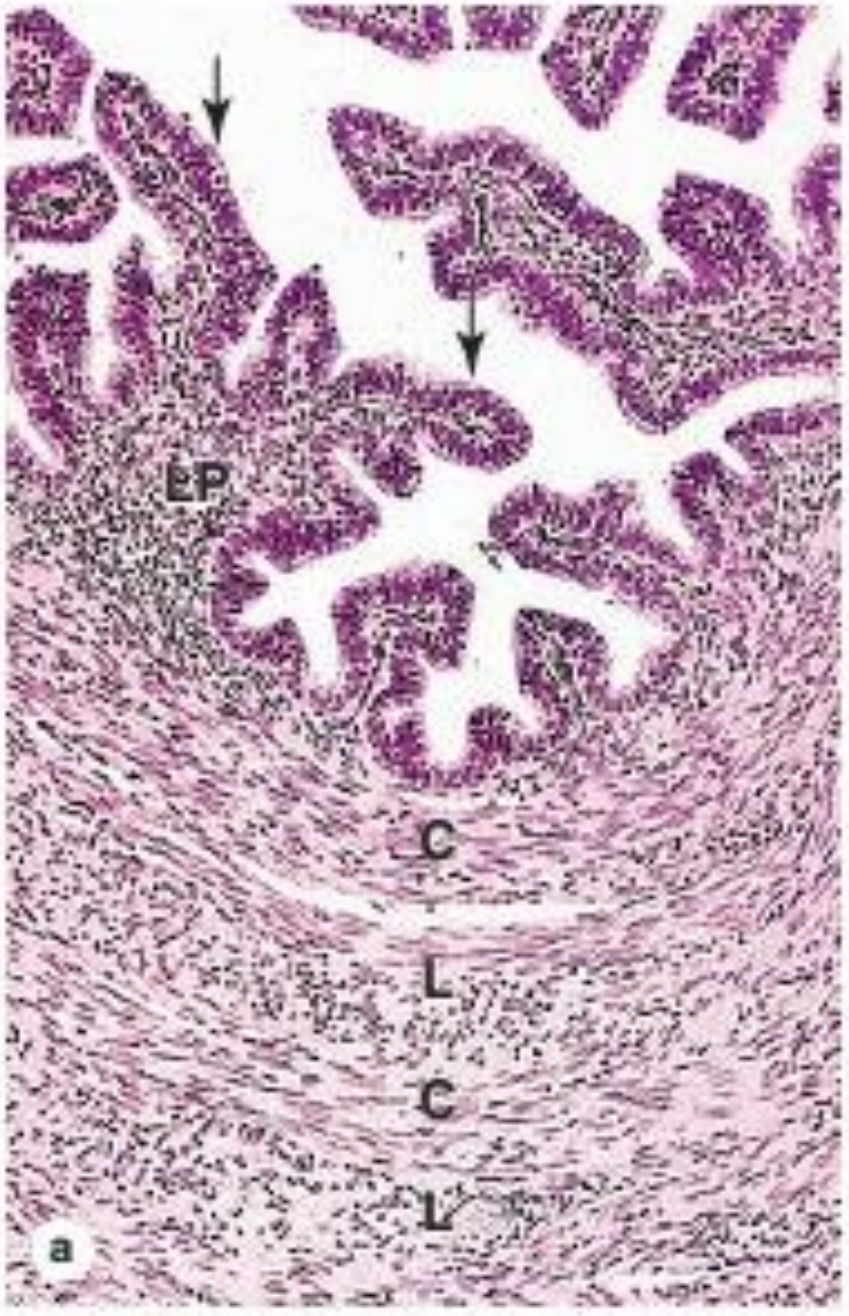
  ■ The isthmus, a more narrow portion nearer the uterus;

  ■ The uterine or intramural part, which passes through uterus.



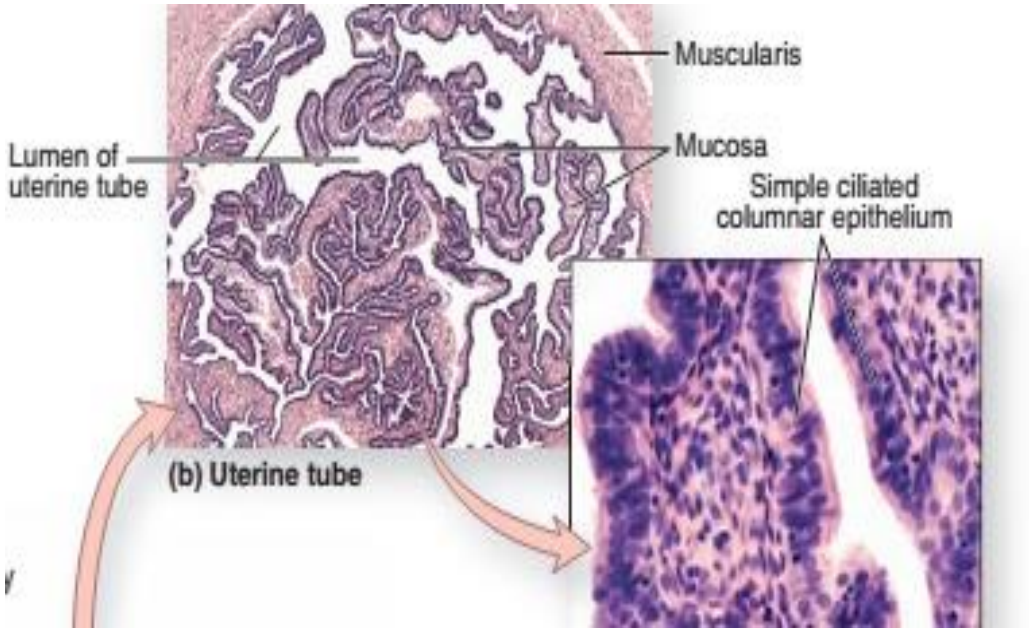
UTERINE TUBES

- The wall of the oviduct consists of a folded mucosa.
- A thick, well-defined muscularis
- with interwoven circular (or spiral)
- And longitudinal layers of smooth muscle
- And a thin serosa covered by visceral peritoneum with mesothelium.



UTERINE TUBES

- The numerous branching, longitudinal folds of the mucosa are most prominent in the ampulla
- which in cross section resembles a labyrinth .
- These mucosal folds become smaller in the regions closer to the uterus and are absent in the intramural portion of the tube.
- The mucosa is lined by simple columnar epithelium on a lamina propria of loose connective tissue .



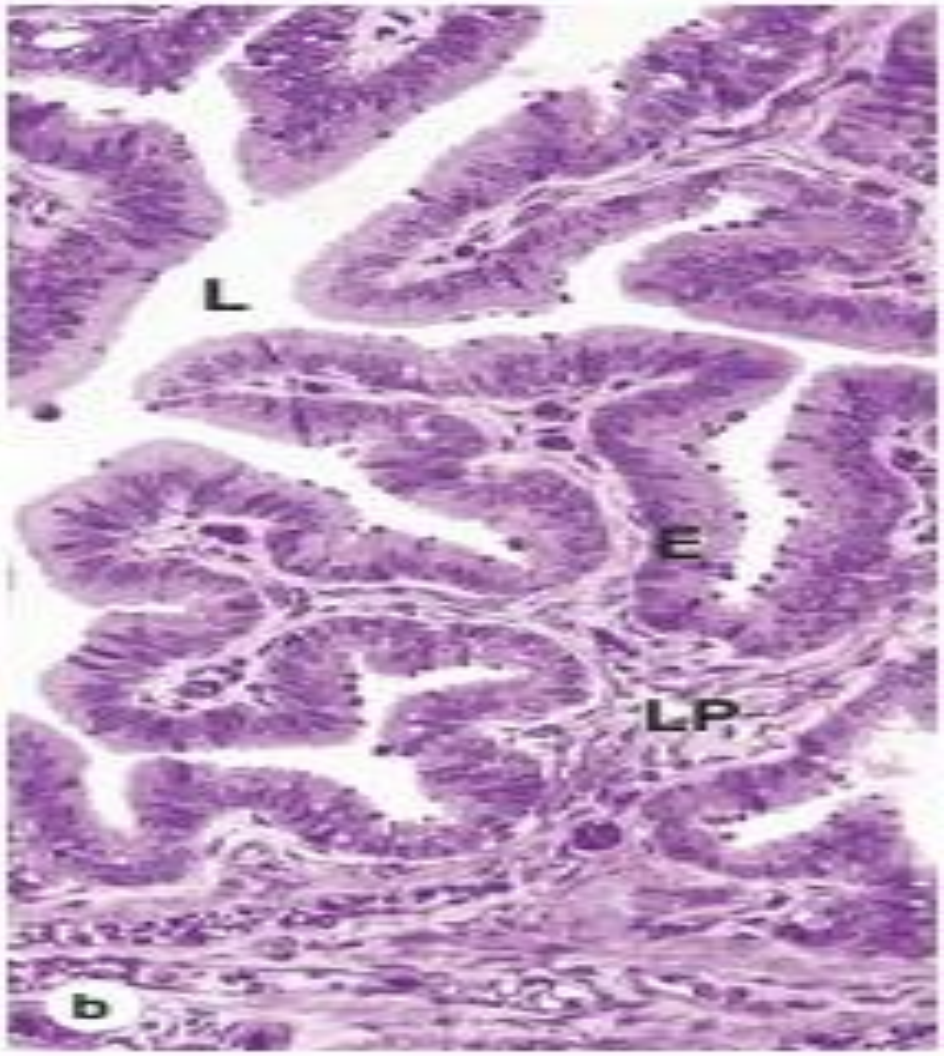
UTERINE TUBES

- The epithelium contains two interspersed, functionally important cell types:

  ■ Ciliated cells in which ciliary movements sweep fluid toward the uterus

  ■ Secretory peg cells, nonciliated and often darker staining

- Often with an apical bulge into the lumen
- which secrete glycoproteins



Phases changes of fallopian tube

Triggered primarily by estrogens

Follicular Phase

- The cilia elongate
- and both cell types undergo hypertrophy

luteal phase

- With loss of cilia during the late luteal phase.

At the time of ovulation

- Mucosal hypertrophy and increased local blood flow have enlarged and moved the uterine tubes.
- The infundibulum lies very close to the ovary and the fimbriae partially surround that organ.
- This favors the transport of the ovulated secondary oocyte into the tube.

Phases changes of fallopian tube

- Promoted by sweeping muscular contractions of the fimbriae and ciliary activity,
- The oocyte enters the infundibulum and moves to the ampulla.
- The secretion covering the mucosa has nutritive and protective functions for both the oocyte and the sperm,
- Including capacitation factors that activate sperm and make those cells able to fertilize an oocyte

Tubal ligation

- Tubal ligation is a common surgical type of contraception.

Salpingitis or Salpinges

- The uterine tube mucosa can become inflamed if infectious agents ascend from the lower genital tract,
- Producing a condition named salpingitis or salpinges.
- Mucosal damage or adhesions caused by chronic salpingitis can lead to infertility or an ectopic (tubal) pregnancy.
- if there is blockage of oocyte or embryo transport to the uterus.

In Tubal Pregnancies

- The lamina propria may react like the uterine endometrium and form decidual cells.
- Small diameter and inability to expand, the tube cannot expand and will rupture,causing potentially fatal hemorrhage.