

Female Reproductive System

Components

- Paired ovaries
- Paired oviducts or Fallopian tubes
- Uterus
- Vagina

Functions

- Produces female germ cells, *ova* (singular, *ovum*)
- Produces female sex hormones, estrogen, and progesterone
- Receives sperm
- Site of fertilization
- Transports female germ cells, sperm, and conceptus
- Houses and nourish conceptus during pregnancy
- Expels fetus at parturition

Ovary

- Flattened, ovoid, paired glands
- Exocrine function. Maturation and release of oocytes, developing female germ cells
- Endocrine function. Secretion of estrogen and progesterone

- Subdivisions

1. Cortex

- Covered with a serosa
- *Germinal epithelium*. Simple cuboidal epithelium (mesothelium)
- *Tunica albuginea* Underlying, dense connective tissue.

The exact contents depend on age of the ovary and the stage of the ovarian Cycle including:

- *Follicles*: Spheres of epithelial cells surrounding an oocyte.
- *Corpus luteum*: Formed from the wall of the ovulating follicle after the oocyte is ovulated. The corpus luteum secretes progesterone and estrogen and is present during the second half of the ovarian cycle.
- *Atretic follicles*: Degenerating follicles that are not ovulated

- *Corpus albicans*: Degenerating corpus luteum

2- Medulla

Inner region composed of connective tissue, blood vessels, nerves

Follicles

- *Primordial follicle*: Is the only follicle present until puberty
- Primary follicles:
 - 1- *Primary unilaminar follicle*
 - 2- *Primary multilaminar follicle*
- *Secondary follicle*
- *Mature (Graafian) follicle*.
- *Atretic follicles* '

Corpus Luteum

- The *corpus luteum* is large, spherical, infolded body functional during the second half of the ovarian cycle .

@ Functional stage:

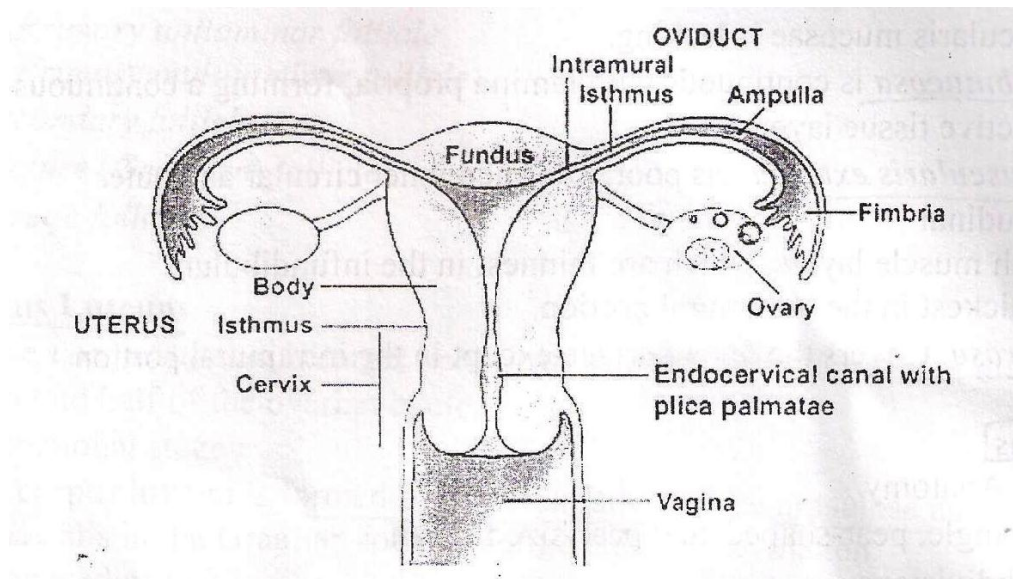
- The corpus luteum is formed by differentiation of the granulosa and theca interna cells in the Graafian follicle before and after ovulation.

It composed of:

- *Granulosa lutein cells*.
- *Theca lutein cells*.

Secretes progesterone and estrogen

- Degenerating stage. *Corpus albicans*
- Consists of a white mass of scar tissue composed of much collagenous material and scattered fibroblasts
- Results from the degeneration of the corpus luteum



Schematic representation of the female reproductive system