

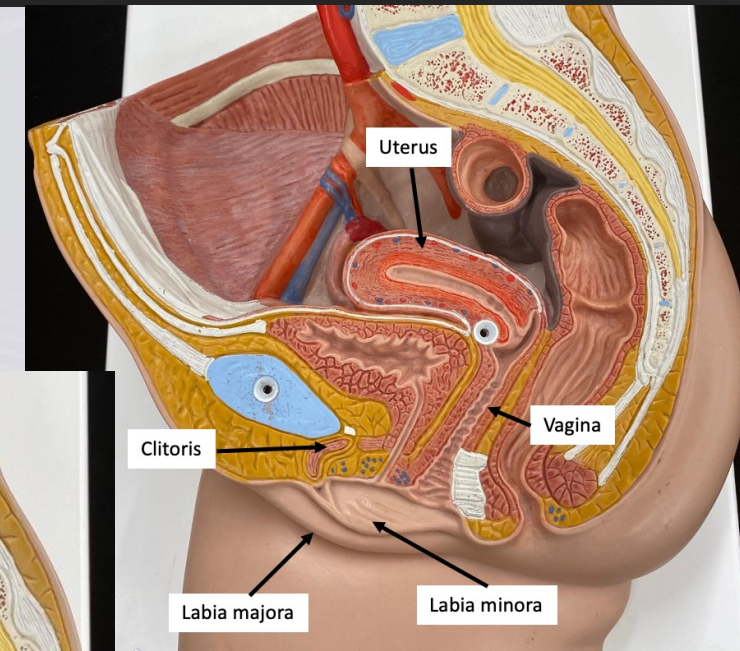
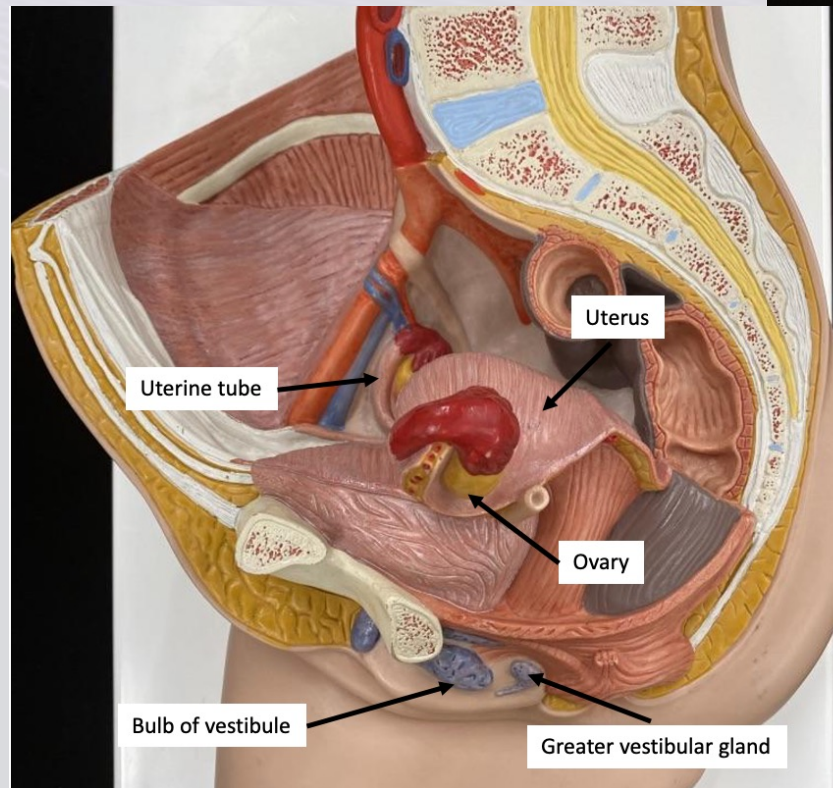
# Female Reproductive System: Ovaries

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# Structures of Female Reproductive System

- Ducts
  - ❖ Uterine tube
    - Fimbriae
- Gonad
  - ❖ Ovaries
- External genitalia
  - ❖ Clitoris
  - ❖ Labia minora
  - ❖ Labia majora
  - ❖ Mons pubis
- Accessory gland
  - ❖ Greater vestibular gland
- Uterus
  - ❖ Perimetrium
  - ❖ Myometrium
  - ❖ Endometrium
  - ❖ Cervix
- Vagina
  - ❖ Fornix
  - ❖ Bulb of vestibule



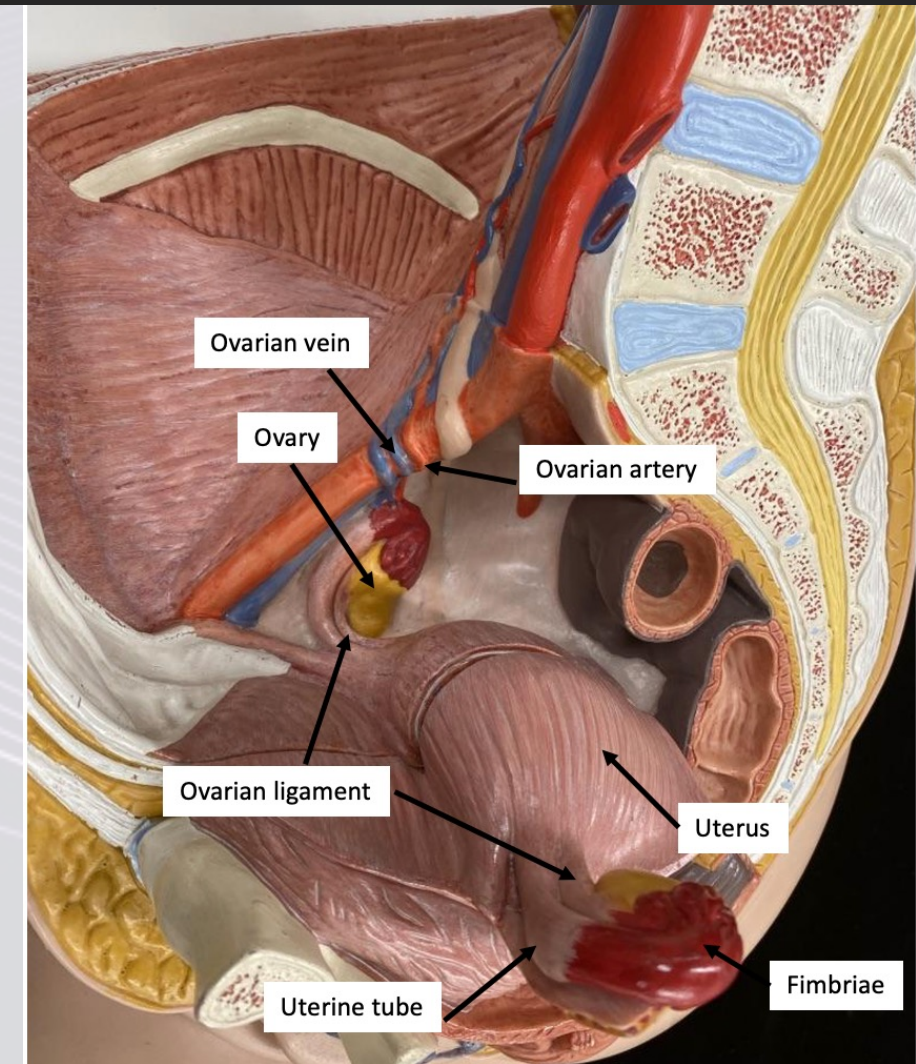
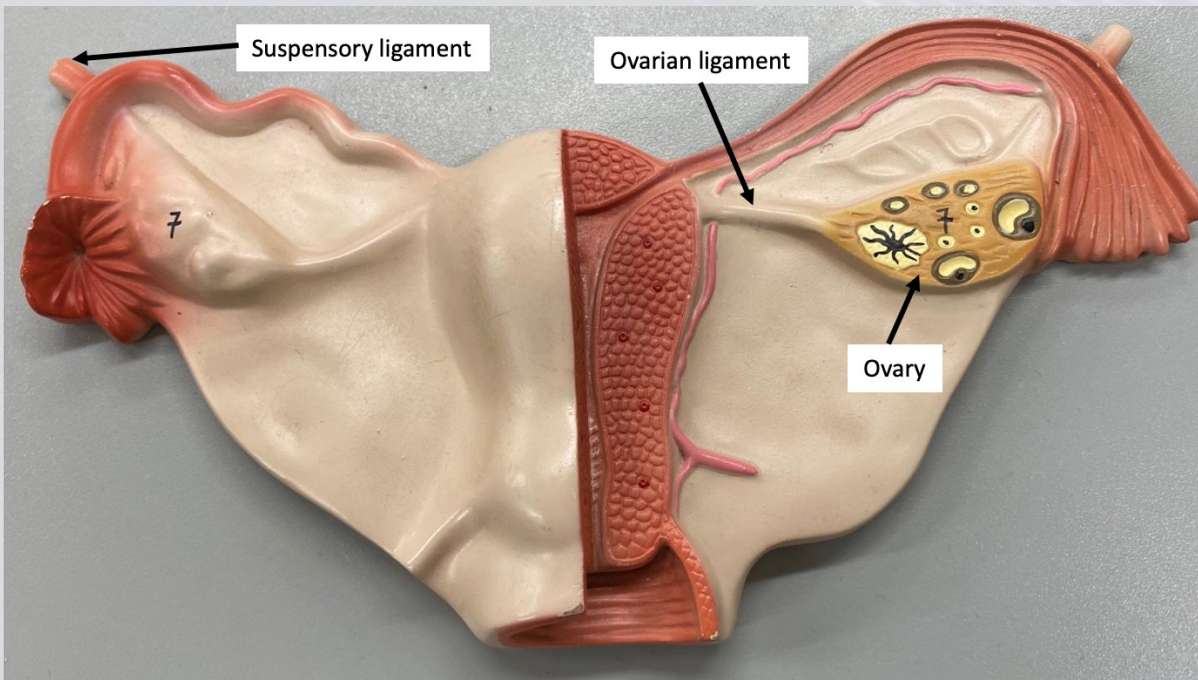
# Functions of Female Reproductive System

- Functions:
  - ❖ Produces oocytes
  - ❖ Protects and supports a developing embryo and fetus
  - ❖ Nourishes a newborn infant



# Ovaries

- Responsible for:
  - ❖ Producing oocytes
  - ❖ Secreting hormones
- Stabilization
  - ❖ Ovarian ligament
  - ❖ Suspensory ligament



# Oogenesis

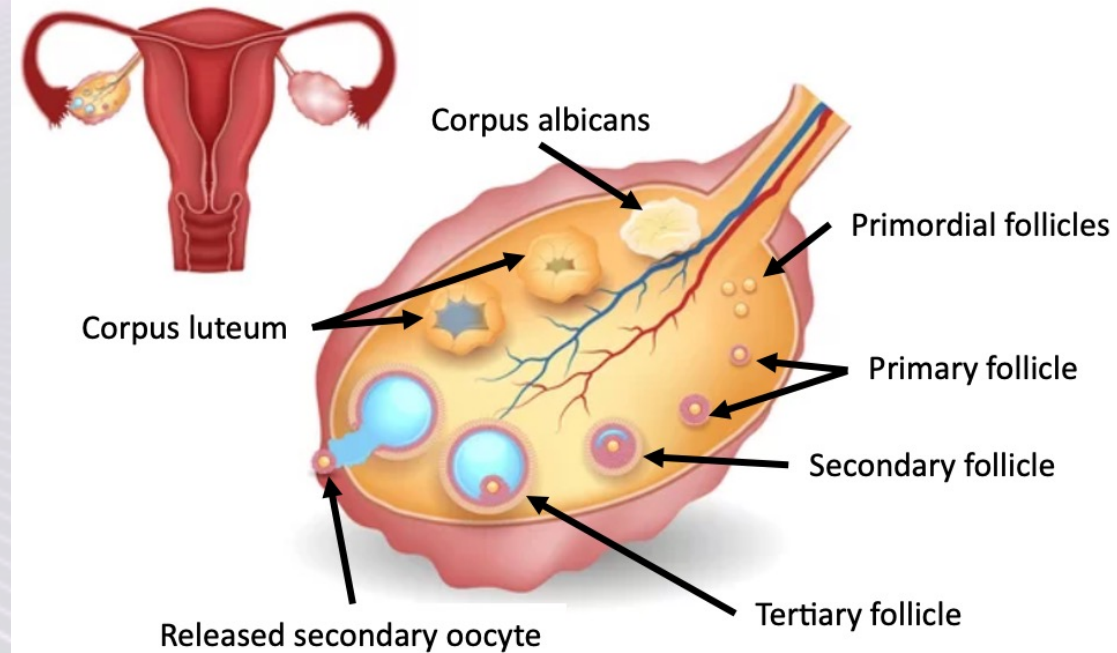
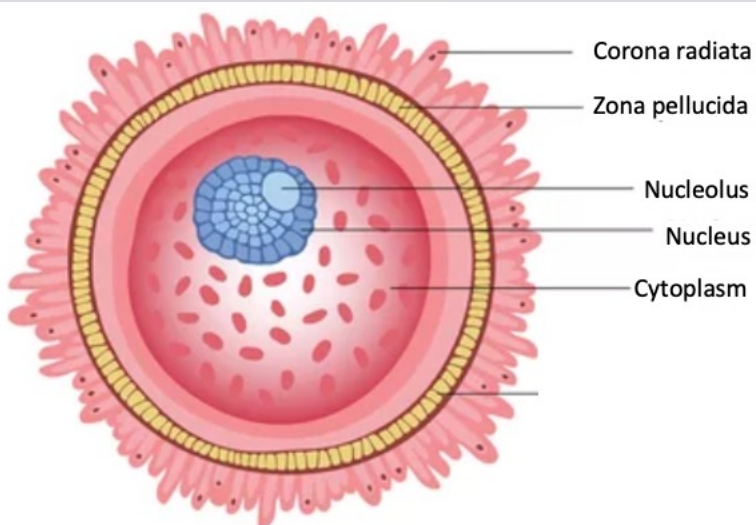
- Processes female reproductive undergo to ensure species continuation
  1. Oogenesis – production of oocytes
  2. Ovarian cycle – maturation of oocyte
  3. Uterine cycle – prepares uterus for implantation of fertilized oocyte
- Oogenesis
  - ❖ Begins – before birth
  - ❖ Accelerates – at puberty
    - ↑ FSH → start of ovarian cycle
  - ❖ Ends - menopause



# Follicular Development

1. Primordial ovarian follicles
2. Formation of primary ovarian follicle
  - Granulosa cells – nutrients
3. Formation of secondary ovarian follicle
4. Formation of tertiary ovarian follicle
  - Mature (Graafian) follicle
  - Granulosa cells – corona radiata
  - Thecal endocrine cells
5. Ovulation
6. Formation of corpus luteum
7. Formation of corpus albicans

} Estrogens



- Zona pellucida – outer layer formed by proteins
- Corona radiata – protective layer
- Estradiol
  - ❖ Muscle and bone growth
  - ❖ Female secondary characteristics
  - ❖ CNS activity
  - ❖ Function of glands and organs
  - ❖ Repair and growth of uterine lining

# Ovarian Cycle

- Follicular phase
  - ❖ Follicular maturations
- Luteal phase
  - ❖ Corpus luteum matures and disintegrates

—————→ ovulation

