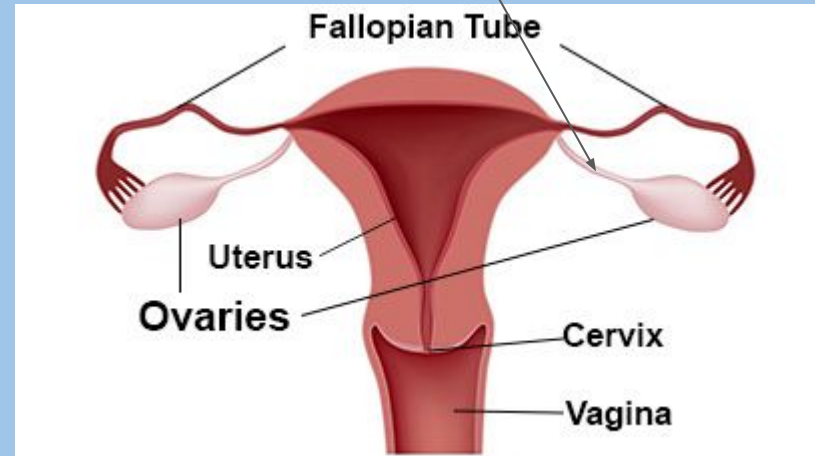


You need to:

- define and describe oogenesis in the female using proper terminology

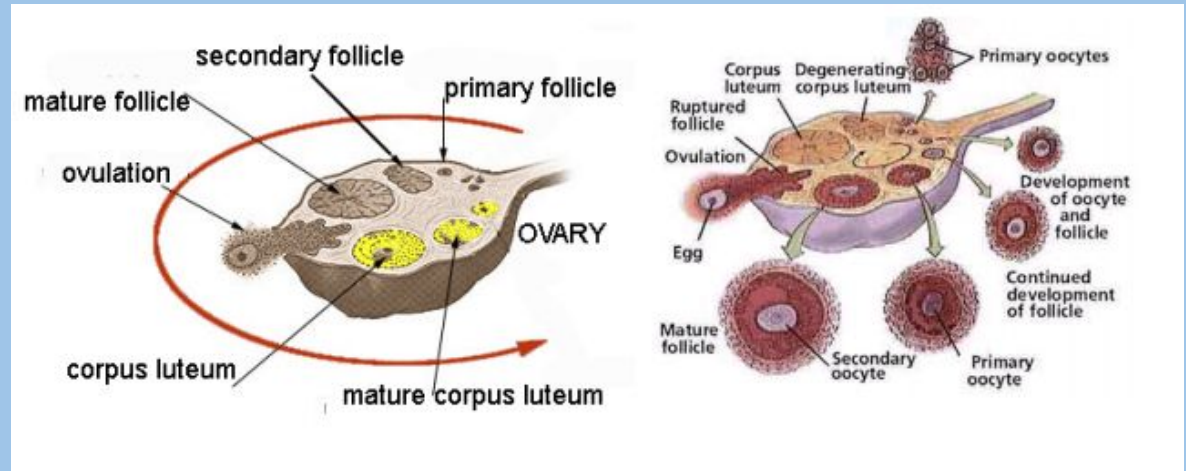
Ovaries

- Two primary sex organs that are located at the back of the abdominal cavity
- held in place by ligaments which loosely attach ovaries to the uterus (ovarian ligaments)
- suspensory ligaments that attach them to the pelvis



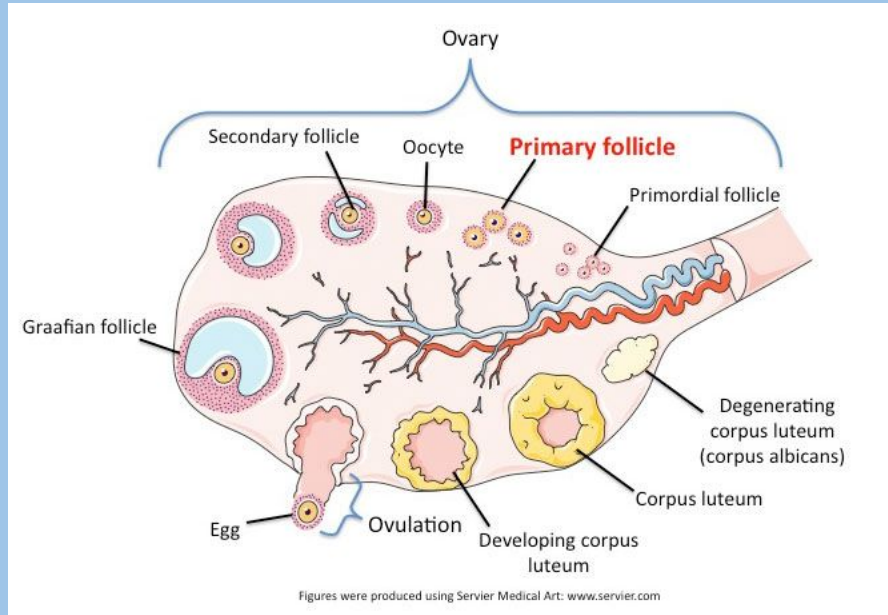
Follicle Development (oogenesis)

- (similar to male) each ovary has an outer layer of specialized germinal epithelial cells
- inside layer consists of connective tissue containing follicles
- within each follicle is a primitive egg or ovum
- at birth the female child has approximately 400 000 tiny follicles in each ovary



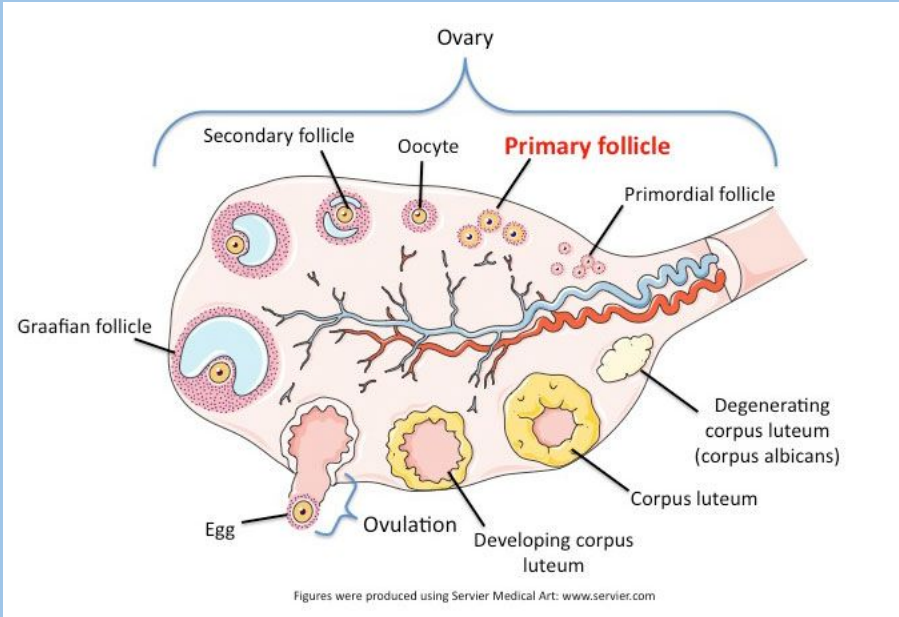
Primary Follicle

- follicle - layer of cells surrounding the ovum which produce hormones
- consists of each egg and its surrounding follicular cell that are partly developed at birth
- there are approximately 400 primary follicles that ever reach maturity and get released
- remaining degenerate and one/month is released during reproduction life of female



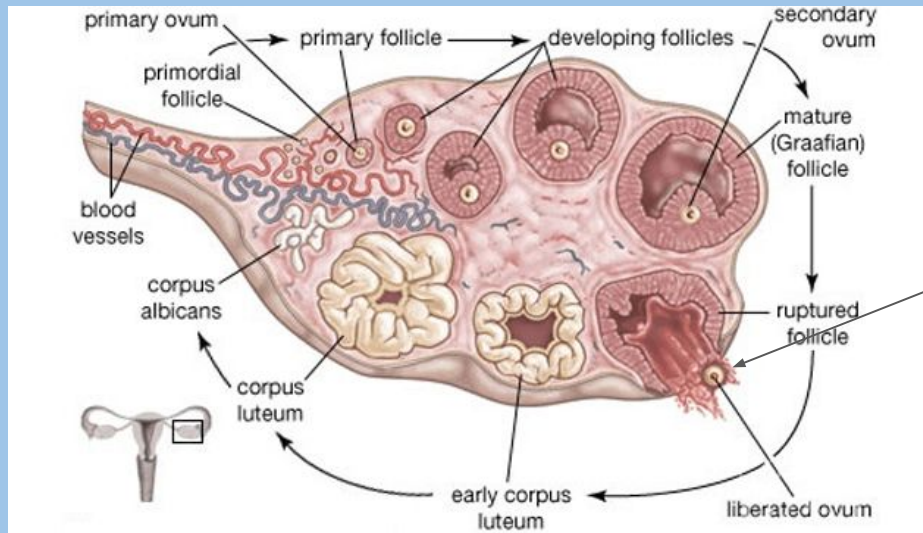
Secondary Follicle

- develops from a primary follicle and occurs as FSH (pituitary) level rises
- follicular cells around ovum multiply
- ovum goes through the process of meiosis which results in half the chromosome number (haploid)
- the most mature follicle that releases the ovum each month is called the **Graafian follicle**



Ovulation

- a number of follicles start to develop each month but only one fully enlarges and is released
- enlarged follicle causes a bulge in the ovary
- eventually ovum bursts through the membrane and begins its journey through the fallopian tube (oviduct)



Ovulation

Hormones Produced by Ovaries

- estrogen is produced by the developing secondary follicle and secreted into the bloodstream
- after release of the ovum some of the follicular cells under the influence of LH are organized into a yellow mass called the corpus luteum
- the **corpus luteum** produces **progesterone** and **estrogen**
- progesterone is responsible for preparing the lining of the uterus (endometrium) to receive a fertilized egg
- lining thickens and the tissue and fluid increased
- if fertilization occurs - progesterone and estrogen are continuously secreted
- if fertilization does not occur (after 10 days) the corpus luteum shrinks, degenerates, and leaves a little white scar called the **corpus albicans**

