

**Chapter 45-Reproduction -in class follow along lecture notes**

**Central Questions:** check to see if you can answer these!

- 1) Explain the hormonal regulation of the male and female reproductive cycles that lead to production and release of sperm/egg.
- 2) Describe the structure and function of the male and female reproductive system.
- 3) Compare spermatogenesis with oogenesis.

**BACKGROUND:**

1) How is asexual reproduction better than sexual reproduction; and what are some disadvantages?

2) Define parthenogenesis – what is its purpose?

c) Do hermaphrodites mate? Why?

3) What do the differences in the types of fertilization (internal vs external) indicate about the life history and evolution of animals?

4) a) Describe the male reproductive organs and relate them to the function of each part.

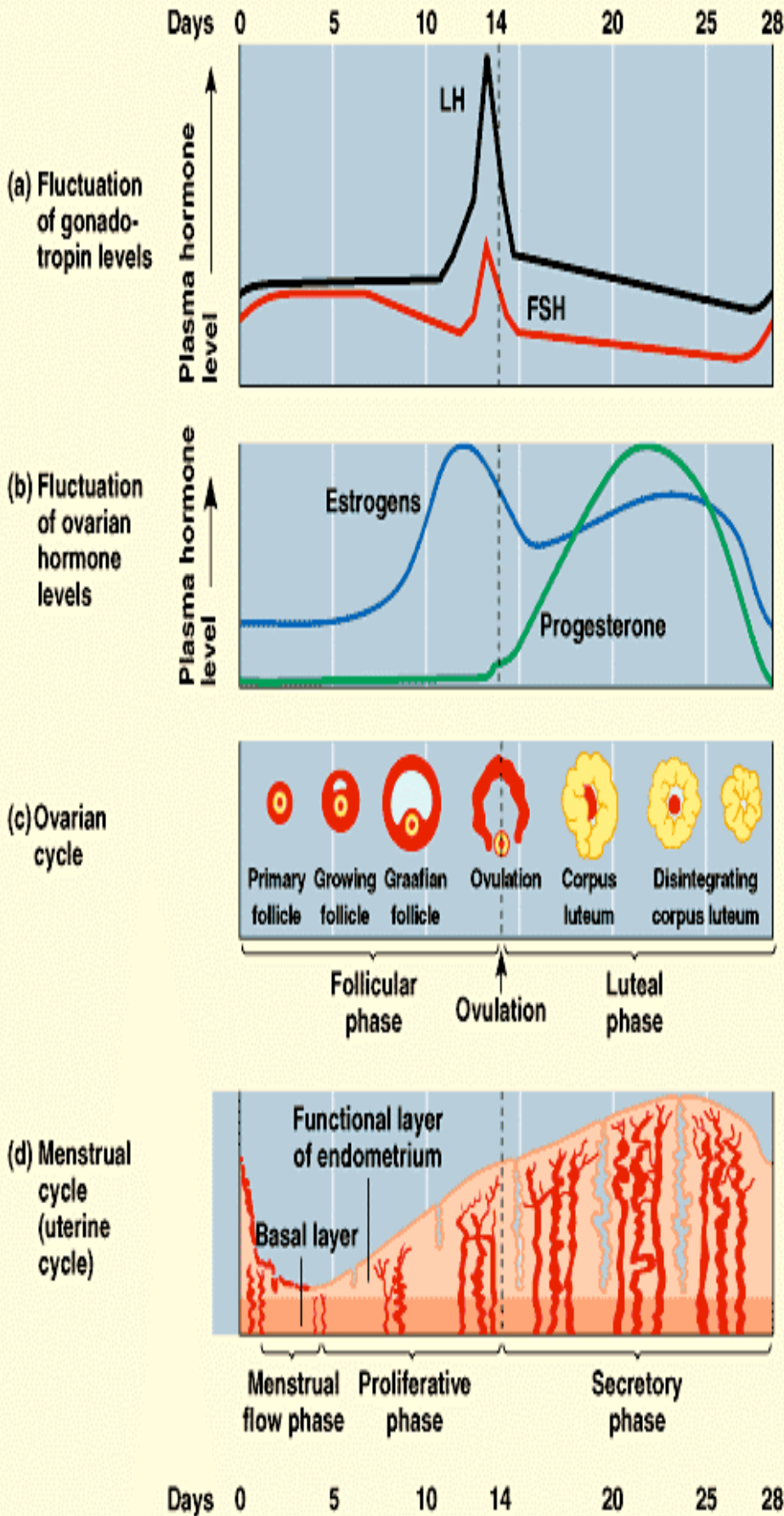
5) What physical changes occur in the ovary as each menstrual cycle is completed?

-What is the function of the 3 types of glands in the male reproductive system – be specific about what they secrete and why?

6) What are the differences between spermatogenesis and oogenesis?

8) Describe the ovarian and menstrual cycles – clearly state how the hormone levels of estrogen and progesterone coincide with the events during these cycles. Also describe how these sex hormones are regulated by FSH/LH at each stage of the cycle. Finally how does the hypothalamus control these events? IMPORTANT.

7) What are primary and secondary sex characteristics? b) How does the master regulator – the hypothalamus, control the development of primary (sex organs) and secondary sex characteristics? Show the negative feedback loops.



9) Describe in words what these pictures show and during which phases.