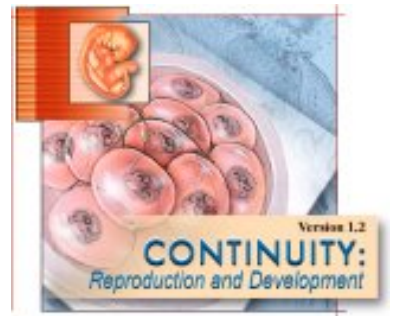


Hormonal Regulation of Female Reproductive System

Directions:

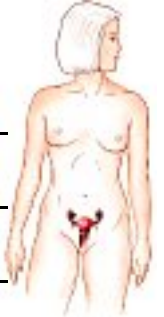
- a. Click the "Contents" button.
- b. Open the *Reproductive System* File.
- c. Click *Animations*.
- d. Click *Hormonal Regulation of Female Reproductive System*.



Introduction

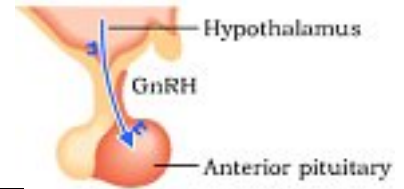
- 1. What organs are involved in regulation of the female reproductive cycle? _____

- 2. Identify the two female reproductive cycles. _____
- 3. Hormones regulate this cycle. Where does this regulation begin? _____

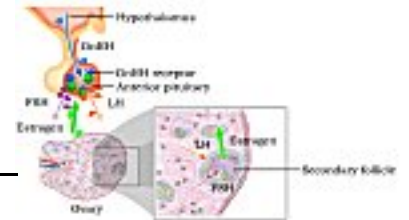


Hormonal Regulation of Female Reproductive Cycle

- 4. Gonadotropin releasing hormone (GnRH) is produced by the hypothalamus. Describe its affects.



- 5. a. FSH is produced by the anterior pituitary. Describe its affects on the ovaries.



- b. What affect does increasing estrogen have on FSH and LH release from the anterior pituitary?

- 6. a. What effect does HIGH estrogen levels have on the anterior pituitary? _____

- b. What effect does a rush of LH have on the ovary? _____

- c. Describe corpus luteum formation. _____

7. Describe the glandular function of the corpus luteum. _____

8. How do increasing estrogen and progesterone levels, as well as inhibin, affect the anterior pituitary? _____

9. What affect do declining LH and FSH levels have on the corpus luteum? _____

10. As blood hormone levels reach all reach a low point, how does the hypothalamus respond? _____

Ovarian Cycle

11. Name the three phases of the ovarian cycle. _____



12. a. Describe primary follicle development. _____



- b. Describe the glandular function of the primary follicle. _____

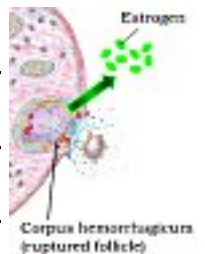
13. Describe mature, or graafian, follicle development. _____



14. Describe the condition of the following:
- a. Hormone levels - _____

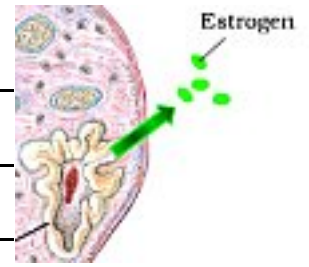
- b. Meiosis - _____

15. a. Describe what happens to the graafian follicle as a result of the LH surge. _____



- b. Why isn't another follicle stimulated at this stage? _____

16. a. What happens to the graafian follicle following ovulation? _____



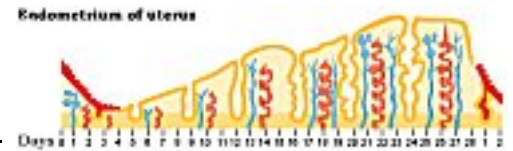
b. Describe the glandular function of the corpus luteum. _____

c. What affect does progesterone have on the uterus? _____

d. Contrast ovarian events if fertilization occurs with when it does not. _____

Uterine (menstrual) Cycle

17. a. What is the function of the uterine *endometrium*? _____



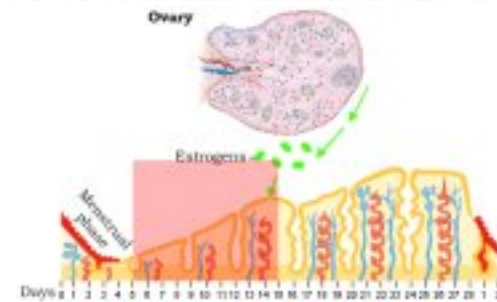
b. What regulates the uterine cycle? _____

c. Identify the three phases of the uterine cycle. _____

18. Conventionally, the beginning of the *menstrual phase* is marked by the monthly menstrual flow. How does the endometrium respond to declining progesterone levels?



19. Describe how the endometrium responds to rising blood estrogen levels during the *proliferative phase* of the uterine cycle.



20. a. Describe how the endometrium responds to rising progesterone and estrogen during the *secretory phase* of the uterine cycle.

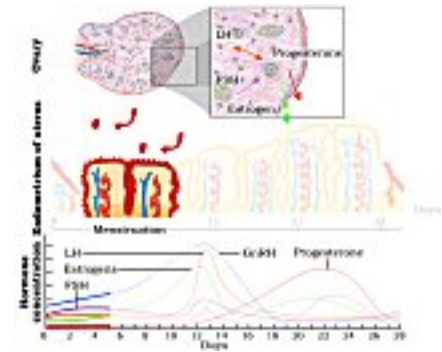


b. Once again, what is the function of the fully developed endometrium? _____

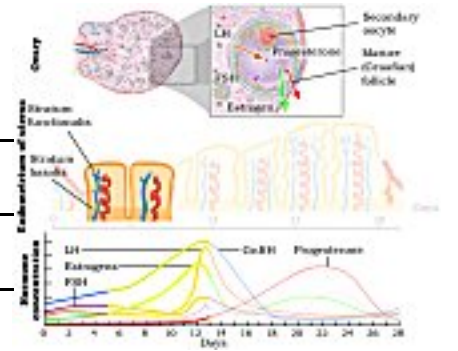
21. What occurs if the secondary oocyte is not fertilized? These activities mark the beginning of the menstrual phase, which is the beginning of a new cycle.

Summary of Female Reproductive Cycle

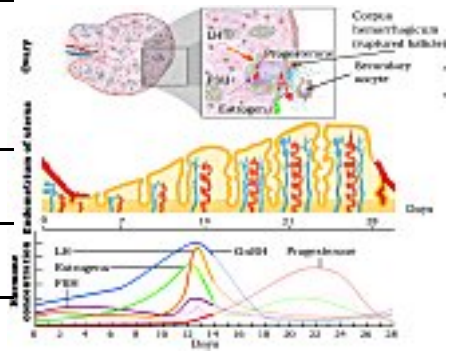
22. Describe the secretory and anatomical events during days one to five of the female reproductive cycle.



23. Describe the secretory and anatomical events during days six to thirteen of the female reproductive cycle.



24. Describe secretory and anatomical events of day fourteen of the female reproductive cycle.



25. Describe secretory and anatomical events during days fifteen to twenty-eight of the female reproductive cycle.

