

Chapter 28 - Reproductive System

Anatomy and Physiology Text and Laboratory Workbook; Davenport, Stephen

MALE REPRODUCTIVE SYSTEM

1. Why are the testicles suspended outside the abdominopelvic cavity?
2. What does the extensions of the tunica albuginea divide each testis into? What do these divisions contain?
3. Sperm leave the testis and enter what structure? Where and of what function are the interstitial cells (Leydig cells)?
4. What happens to sperm in the epididymis? How are they transported out of the epididymis?
5. What is the route of the ductus deferens? What is formed as it joins the duct of the seminal vesicle? What is its function? How is this function accomplished?
6. List and describe the locations for the three regions of the male urethra.
7. Where are the seminal vesicles located? What does their secretion contain? Where does their ducts terminate?
8. Where is the prostate gland located? What does its secretion contain and function in?
9. Where are the bulbourethral glands (Cowper's glands)? What does its secretion contain and function in?
10. What comprises the external genitalia? What is the glans penis? What is removed during circumcision? How many columns of erectile tissue does the penis contain; name them and describe their location.
11. What does semen contain? What is the function of fructose? What is the pH of semen? Why is this pH necessary?
12. Define: spermatogenesis. What is the difference in the outcome of mitosis and meiosis? Define: diploid and haploid. What are homologous chromosomes? How many pairs of homologous chromosomes does the human have? Compare the events of mitosis and meiosis.
13. Where are the spermatogonia located? What type of division do they undergo and what do they produce? What happens to Type B daughter cells? List the order of the offspring.
14. Define: spermiogenesis. What is another name for a sperm. What are the three regions and what is their functions? What is the acrosome?
15. Where are the sustentacular cells (Sertoli cells)? What are the two compartments formed? Where and what is the function of the blood-testis barrier? What are the functions of the sustentacular cells of the central compartment?
16. What happens to the arterioles supplying the erectile tissue of the penis during sexual excitement? Which

autonomic division causes this? What happens to venous return?

17. Which autonomic division serving the genital organs cause ejaculation?
18. Briefly discuss the hormonal regulation of testicular function, the brain-testicular axis. List several functions of testosterone.

FEMALE REPRODUCTIVE SYSTEM

19. Describe the location of the ovaries. What are the three ligaments which position the ovaries? Distinguish according to structure the primary, growing, and mature (Graafian) follicles. What is ovulation? What happens to the mature follicle following ovulation?
20. Where and what is the function of the uterine or fallopian tubes. Where and what is the function of the fimbriae? How does the structure of the uterine tube aid the transport of the oocyte?
21. Describe the location of the uterus. Describe the anatomical regions of the uterus. What are the three layers of the uterine wall? What are the two layers of the endometrium? What are their functions?
22. Describe the location of the vagina. What are several functions?
23. Describe the location of the female external genitalia. What is the function of the clitoris? Where is the perineum?
24. Briefly discuss the internal structure of the mammary glands.
25. Define: oogenesis. Where, when, and to what, do the oogonia develop? What are the final products of oogenesis? Does the human produce "mature" ova (eggs) during ovulation?
26. Briefly describe the three phases of the ovarian cycle as to time and function.
27. Briefly describe the feedback interaction involved in the regulation of ovarian function.
28. Briefly describe the uterine (menstrual) cycle. Correlate the uterine cycle to the ovarian cycle, especially as to hormones.
29. Describe several functions of estrogen and progesterone.
30. Sexual excitement is accompanied by what events?
31. Describe the events of puberty.
32. Describe the events of menopause.