

- **BIOMEDICAL SCIENCES 136 – BIOLOGY OF HUMAN SEXUALITY**
- **REVIEW SHEET FOR THE FINAL EXAMINATION**

THIS REVIEW SHEET IS MEANT TO BE AN AID TO YOU IN YOUR STUDIES FOR THE EXAM. IT DOES NOT NECESSARILY INCLUDE ALL OF THE INFORMATION WHICH WAS PRESENTED IN LECTURE AND LAB FOR THE EXAM. THIS REVIEW SHEET IS NOT A SUBSTITUTE FOR REGULAR, DILIGENT STUDY OF THE COURSE MATERIAL.

SOME REVIEW QUESTIONS:

1. What is lactational amenorrhea? Hormonally, what causes it?
2. Briefly, how does a bacteria differ from a virus.
3. For each of the following STIs briefly describe the:
 - cause (virus or bacteria, be able to identify the name of the organism and match it to its appropriate infection – you will not have to write out the names)
 - symptoms and transmission (long or short incubation period; note any differences between males and females and whether or not a person can be asymptomatic; can the infection be passed from the mother to the fetus)
 - general method of diagnosis (eg. blood test, mucous smear, swab of an organ, special staining technique)
 - treatment (antibiotics, freezing warts, anti-viral drugs, etc.; note whether or not the infection can be cured or not)

Gonorrhea, Syphilis, Chlamydia, Genital Herpes, Genital Warts (HPV), Molluscum Contagiosum, Viral Hepatitis B, HIV/AIDS, Crabs (*Pedulosis Pubis*)
4. How does the *Columbian Theory* for the origin of Syphilis differ from the *Evolutionary Theory* for the origin of Syphilis?
5. How did Syphilis get its name?
6. Briefly be able to describe the differences between the 4 stages of Syphilis.
7. Describe one difference between the Herpes Simplex 1 and Herpes Simplex 2 viruses.
8. What government organization is responsible for monitoring HIV infection rates and AIDS in the U.S? What world organization is responsible for monitoring HIV infection rates worldwide?
9. Roughly, what is the cumulative number of AIDS cases currently reported to the CDC (United States)? How many have died?
10. Roughly, what is the cumulative number of AIDS cases currently reported to the WHO (worldwide)? How many have died?
11. How does pattern I differ from pattern II with regard to the HIV/AIDS epidemic?
12. List three risky behaviors that could lead to HIV infection.
13. How does HIV infection (a person with HIV) differ from a having a full-blown AIDS diagnosis?
14. What is a retrovirus? What is reverse transcriptase?
15. What cells of the immune system are infected by HIV?
16. What is the normal function of the immune cell most commonly infected with HIV? How is this related to HIV's ability to breakdown the immune system?
17. How does the drug AZT work?
18. Why can HIV remain asymptomatic for many years?
19. List four opportunistic infections which are associated with HIV infection.
20. Why is it so difficult for researchers to find a good vaccine against HIV?
21. How does a protease inhibitor work to help prevent HIV replication?
22. What is the current "cocktail" of drugs given to HIV positive individuals and people with AIDS?
23. List three problems with the "cocktail" of drugs currently used to fight HIV infection.
24. For each of the following barrier, hormonal and IUD modes of contraception we discussed in class:
 - Briefly describe how they prevent pregnancy
 - Do they protect against STIs?

- What are some side effects/dangers or disadvantages to each technique
No method, Withdrawal, Intrauterine Device (IUD), Male Condom, Female Condom, Diaphragm/Cervical Cap, Norplant, Depo-Provera (“The Shot”), Combination Pill (E & P), Minipill (P only), Spermicides, Fertility Awareness Method

25. Which mode of contraception is the most effective? Which is the least effective?
26. List the following in order of decreasing effectiveness: withdrawal, condom, diaphragm, combination pill, Depo-Provera, no method, fertility awareness.
27. What are the most common methods of contraception among college aged men and women?
28. How does the combined oral contraceptive prevent pregnancy as compared to the minipill?
29. List 3 different progesterone-only contraceptives? How do progesterone only contraceptives prevent pregnancy?
30. List two reasons why it is beneficial to use a spermicide with nonoxynol-9 together with a barrier method.
31. What is a vasectomy? What is tubal ligation? Are these always reversible?
32. What is the morning-after pill? How does it work to prevent pregnancy and when can it be taken?
33. What is RU-486? How does it work to cause a chemical abortion?
34. What is an induced versus a spontaneous abortion?
35. When are most induced abortions performed in the U.S.?
36. How do each of the following cause an induced abortion: menstrual regulation, prostaglandins, RU-486, methotrexate?
37. How does vacuum aspiration differ from dilation and curettage (D & C)? When can each abortion technique be performed?
38. What is a dilation and evacuation (D & E) abortion?
39. List some reasons why a woman might have a second-trimester induced abortion.
40. What are 4 causes of female infertility? Briefly describe how each might be treated.
41. How do each of the following drugs work to increase a woman’s chance of ovulating: clomiphene, hMG, bromocriptine?
42. What are at least 4 causes of male infertility?
43. What are the two basic types of treatments used to treat male infertility?
44. If a man had obstructive azoospermia, his blood FSH level would most likely be: abnormally high, abnormally low, normal. What would you expect the FSH level to be in a man who has had a vasectomy?
45. How do each of the following techniques help a couple have a baby when they are having difficulty becoming pregnant (basically be able to briefly describe each procedure): artificial insemination, gamete storage, in vitro fertilization (IVF), embryo transfer, gamete intrafallopian transfer (GIFT), surrogate pregnancy, and adoption (see pages 324 – 332 in JONES).
46. Describe the basic anatomy of the mammary glands, be able to identify on a diagram of the mammary gland the following: nipple, areola, mammary alveolus, mammary (lactiferous) ducts, myoepithelial cells around mammary alveolus, adipose (fat) tissue.
47. Describe the hormonal control of lactation. (what do prolactin and oxytocin each specifically do?)
48. Briefly describe how the suckling reflex leads to milk letdown (ejection).
49. Describe three differences between cow’s milk and human milk.
50. What are 6 advantages to breast feeding versus formula?
51. What are 3 disadvantages to breast feeding?
52. What is a woman’s risk for developing breast cancer at age 20 and at age 60?
53. List some differences between inherited breast cancer and non-inherited breast cancer?

54. How does the timing of the first birth affect a mother's risk for developing breast cancer? If so, who is statistically at a higher risk for developing breast cancer, a woman over 30 or a woman younger than 30 (relative to a woman who has never had children = nulliparous).
55. How can breast cancer be treated?
56. Briefly describe the 4 major types of mastectomy surgeries.
57. Briefly describe how the breast should be self-examined to detect breast cancer (see fig. 2-16).
58. What is a mammogram and how often when should women get a mammogram performed?
59. Why is the drug tamoxifen used to treat some types of breast cancer? What are some side effects of the drug?
60. What is the difference between an estrogen-dependent and an estrogen dependent breast cancer?