

## Chapter 6 Reading Guide

1. Explain the 5 circles of Sexuality.
2. If you are a male, do you have a Y chromosome? Do you have an X chromosome if you are a male? What if you are a female? (see lecture below for more info)□
3. To what does the term “secondary sex characteristics” refer? What are some examples in males? Females?
4. Name the male gonads and the female gonads. What hormones are produced by each?
5. What are some of the many factors that work to shape sexual orientation?
6. Define “transgendered,” “androgyny,” and “transsexuality.”
7. What is intersexuality? Describe the forms discussed in the text.
8. Describe the external and internal female sexual anatomy (mention all bolded terms from the book)□
9. Where is the hypothalamus? The pituitary gland? The gonads (name the female and male gonads)?□
10. What hormones are produced by the ovaries?
11. What hormones from the pituitary gland cause the above hormones to be released?□
12. What hormone from the hypothalamus causes the above hormone to be released?□
13. Explain how Gonadotropin Releasing Hormone, Leutenizing Hormone, Follicle Stimulating Hormone, estrogen and progesterone direct the changes of the menstrual cycle. Be sure to describe what's happening in the uterus and ovaries.□
14. What are some ways a woman can try to prevent PMS?
15. What is Toxic Shock Syndrome? What are some symptoms? What specific practice is it associated with?
16. What is dysmenorrhea?
17. What is menopause?
18. Describe external and internal male sexual anatomy (mention all bolded terms from the book).□
19. What are some risks and benefits of circumcision?
20. Describe the physiological (ie, physical, such as muscular contractions etc) events of excitement, plateau, and orgasm in both men and women.
21. What questions does the text suggest you ask about sex, rather than considering “normal vs abnormal?”
22. Discuss the many “Options for sexual expression.” Which carry the most risk of spreading/introducing infection, and what are some precautions you can take to avoid infection?
23. What are some examples of variant sexual behavior? Which are harmful to self or others?
24. Describe sexual aversion disorder, erectile dysfunction, female orgasmic disorder, dyspareunia and vaginismus. Discuss possible causes and treatments.□
25. Think about situations that you, a friend or acquaintance have been in, in which you (or they) made a dangerous or potentially dangerous sexual decision while under the influence of alcohol or drugs. Would you (or they) have made the same

- decision while sober? What are some strategies that you could implement or recommend to prevent these types of decisions/behaviors?
26. Explain the roles of dopamine, norepinephrine, oxytocin and vasopressin in the sensation of “love.” Which is particularly important during sex? What other roles does it play? Which seem to help carry a relationship long term? (these are from the required link, HowStuffWorks: Love)

## **Supplemental Lecture**

### **I. The genetics of gender**

Male mammals have one X chromosome and one Y chromosome, so we say they are XY. Female mammals have 2 X chromosomes, so we say they are XX.

### **II. The hormones and events of the menstrual cycle**

The first thing I'd like to make clear about the events of the menstrual cycle is that they are all designed to prepare the uterus for pregnancy: make the walls nice and thick and secrete a nutritious fluid to feed the embryo for the first few days. If no pregnancy occurs, there is a back-up plan: get rid of all that excess tissue. It's expensive! Then, rebuild the uterine wall and glands and try again next month. That's what the cycle is all about. You might also want to check out Figure 7.9, page 213, as you read over this. Here's how the ovaries and uterus coordinate:

#### **In the ovaries,**

on Day 1 of the cycle, an egg is picked from one ovary to be ovulated, with the hope it will be fertilized. It will spend 2 weeks maturing. Eggs are all about quality! The other cells of the ovary are producing lots of estrogen, which will tell the uterus what's going on. On Day 14, the mature egg will be released from the ovary, and punted into the fallopian tube. It will travel slowly toward the uterus. If it is going to be fertilized by a sperm, it will happen here, in the fallopian tube. More on that in the next chapter.

Back in the ovary, the cells that were producing estrogen are now producing progesterone, and will continue to do so for another 14 days or so. Progesterone lets the uterus know that there could potentially be an embryo to support in a few days, if the egg gets fertilized.

If there is no fertilization, both estrogen and progesterone levels drop dramatically around Day 28. This tells the uterus "no embryo."

#### **In the uterus,**

Let's start with Day 14. Recall, on this day an egg was ejected from the ovary in the hopes of being fertilized. And recall, the ovary started making a lot of progesterone.

Progesterone tells the uterus "possible pregnancy to support!" and causes the uterine lining (endometrium) to become very thick and glandular. This will help to feed and support an embryo, which would be arriving in the uterus in a few days.

If no fertilization occurs, there is no embryo, and the egg will be shed. In this case, recall that around Day 28, estrogen and progesterone from the ovary drop dramatically. This tells the uterus "no pregnancy," and all that extra tissue that was built by the uterus will be shed: menses (menstruation). Menses occurs from about Day 1- Day 7.

But remember, on Day 1 back in the ovary, a new egg is picked to try again. The other cells in the ovary start producing some estrogen. By Day 7, estrogen levels are high enough to tell the uterus "we're trying again!". So, now the uterine lining starts to rebuild again.

On Day 14, the uterus will again start to become thick and glandular in hopes of an embryo.

**To recap:**

Estrogen from the ovaries encourages the uterus to rebuild it's lining. This occurs between Day 7-Day 14.

Progesterone from the ovaries encourages the uterus to become thick and glandular. This occurs between Day 14-Day 28.

If no pregnancy occurs, a lack of estrogen and progesterone cause the uterus to shed its thick lining. This occurs between Day 1- Day 7.

We'll see what happens in the event of a pregnancy in the next chapter!

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