Week 7 Study Guide

Microbiology

**Reading:** Chapter 17 from pp. 504-512; Chapter 18

**Chapter 17:**

1. Describe the 5 types of vaccines. What are the advantages and disadvantages of each type?
2. How are recombinant genetic techniques promising re: improving vaccine safety and efficacy?
3. Define: contact immunity
4. Define: herd immunity
5. What are some of the risks of vaccine administration?
6. What is passive immunotherapy? Why would this form of immunization be selected over active immunization?

**Chapter 18:**

1. Explain the 2-part mechanism by which type 1 hypersensitivity occurs. Which disease conditions result from type 1 hypersensitivity reactions?
2. Which three inflammatory mediators are released from mast cell granules?
3. What are (cytotoxic) type II hypersensitivity reactions? Give an example of this type of reaction.
4. What is a type III (immune complex-mediated hypersensitivity) reaction? Give an example of this type of reaction.
5. What is a type IV (delayed or cell-mediated) hypersensitivity reaction? Give an example of this type of reaction.
6. Describe the significance of the tuberculin test.
7. Familiarize (don’t memorize) yourself with the proposed causes of autoimmune disease.
8. What’s the difference between an acquired and a primary immunodeficiency?
9. Describe 5 acquired conditions that suppress immunity? (hint: see p. 543)
10. Define AIDS.
11. What is the difference between a disease and a syndrome?
12. What role do helper T cell populations play in the development of AIDS?
13. How is AIDS diagnosed, treated, and prevented?
14. How does HIV replicate (8 steps)?