

The Immune System and Disease. Biology. Landis

Designation _____

Section 40–1 Infectious Disease (pages 1029–1033)

This section describes the causes of disease and explains how infectious diseases are transmitted.

Introduction (page 1029)

1. Any change, other than an injury, that disrupts the normal functions of the body, is a(an)
2. What are three ways diseases can come about?

3. Disease-causing organisms are called

The Germ Theory of Disease (pages 1029–1030)

4. State the germ theory of disease.

Agents of Disease (page 1031)

5. Is the following sentence true or false? Most of the bacteria and yeast that are found in the body are harmful and cause disease.

6. List two ways that bacteria can produce illness.

7. How does a virus reproduce inside a host cell?

8. Pathogens that live and feed inside infected organisms are called

Match each type of pathogen with a disease caused by that type.

Type of Pathogen

- 9. Virus
- 10. Bacterium
- 11. Protist
- 12. Worm
- 13. Fungus c. Tapeworm

Disease

- a. Athlete's foot
- b. Tetanus
- c. Tapeworm
- d. Influenza
- e. Malaria

How Diseases Are Spread (page 1032)

14. List three ways that infectious diseases are spread.

15. Animals that carry disease-causing organisms from person to person are called

16. Circle the letter of each choice that is a sexually transmitted disease.

- a. syphilis b. gonorrhea c. AIDS d. malaria

Fighting Infectious Diseases (page 1033)

17. Compounds that kill bacteria without harming the cells of humans or animals are called

18. Circle the letter of each sentence that is true about antibiotics.

- a. They work by interfering with the cellular processes of microorganisms.
- b. Many of them are produced by living organisms.
- c. They were first discovered in the 1940s.
- d. They are effective against viruses.

19. How do antiviral drugs fight viral diseases?

Section 40–2 The Immune System (pages 1034–1040)

This section describes the body's defenses against disease-causing organisms and explains what immunity is.

Nonspecific Defenses (pages 1034–1035)

20. The body's primary defense against pathogens is the

Match the type of defense with its role in the body.

Defense

- 21. Nonspecific
- 22. Specific

Role

- a. Destroying harmful pathogens that enter the body
- b. Preventing pathogens from entering the body

23. List the four components of the body's first line of defense.

24. When does the body's second line of defense come into play?

25. Why does an increase in the number of white blood cells indicate that the body is dealing with a serious infection?

26. An elevated body temperature is called a(an)
27. Circle the letter of each sentence that is true about elevated body temperature.
- a. It kills many pathogens.
 - b. It speeds up the action of white blood cells.
 - c. It decreases heart rate.
 - d. It slows down chemical reactions.
28. Is the following sentence true or false? Interferon is a protein that helps fight bacterial infections.

Specific Defenses (pages 1036–1039)

29. What is the immune response?
30. What are some examples of antigens?
31. List the two different immune responses.
32. A protein that helps destroy pathogens is called a(an)
33. What happens to a clump of viruses and antibodies?

Match the type of cell with its role in humoral immunity.

Type of Cell

34. B cell

35. T cell

Role

a. Assisting plasma cells

b. Producing antibodies

36. How does permanent immunity develop?

37. Circle the letter of each sentence that is true about cell-mediated immunity.

a. It relies on lymphocytes.

c. It involves antibodies.

b. It involves killer T cells.

d. It causes pathogen cells to rupture and die.

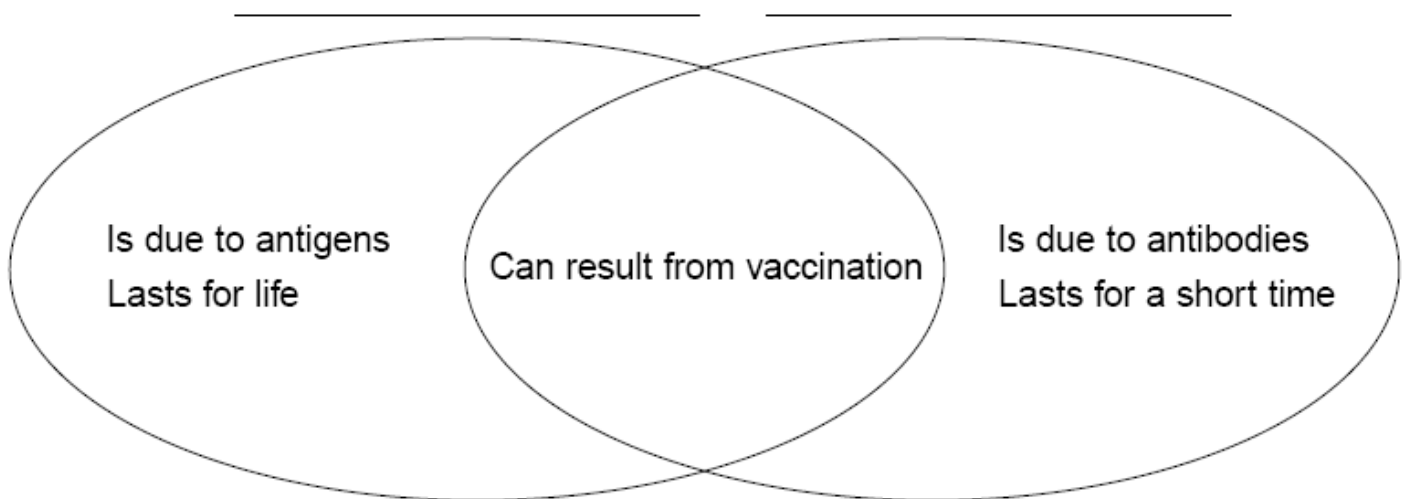
Active Immunity (pages 1039-1040)

38. What is vaccination?

39. How do vaccines work?

Passive Immunity (page 1040)

40. Complete the Venn diagram comparing types of immunity.



Section 40-3 Immune System Disorders (pages 1041-1044)

This section describes diseases that affect the immune system.

Allergies (pages 1041-1042)

41. An overreaction of the immune system caused by antigens is called a(an)

Autoimmune Disease (page 1042)

42. What produces an autoimmune disease?

AIDS (pages 1042-1044)

43. What do the letters *A*, *I*, *D*, and *S* stand for?

44. Circle the letter of the choice that refers to the cells that are attacked by HIV.

- | | |
|-------------------|--------------------|
| a. Helper T cells | c. Red blood cells |
| b. Killer T cells | d. Helper B cells |

45. Circle the letter of each choice that is true about the spread of HIV.

- a. It is usually spread by casual contact.
- b. It is spread only by sexual contact.
- c. It can be spread by sharing intravenous drug needles.
- d. It is spread only by contact with infected blood or other body fluids.