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**COMMUNICABLE DISEASES
&
THE IMMUNE SYSTEM
10 points**

KEY VOCABULARY

1. A **bacteria** is a single-celled organism that lives almost everywhere on earth; many are harmless & essential for life.
2. A short-lived infection is known as a(n) **acute infection**.
3. A(n) **virus** is a piece of genetic material surrounded by a protein coat.
4. An organism that causes disease is known as a **pathogen**. There are 5 different types of these. They are:
 1. Viruses
 2. Bacteria
 3. Fungi
 4. Protozoa
 5. Worms
5. **Chronic infections** can last for weeks, months or even a lifetime.
6. A(n) **autoimmune disorders** develops when the body is unable to fight off an infection.
7. **Direct contact** includes actual contact with an infection person or their bodily fluids.
8. A(n) **infection** occurs when pathogens enter into the body, multiply and damage body cells.
9. **Viruses** may not initially cause symptoms to appear but can reactivate themselves over a period of months or years.
10. Diseases that spread from person to person or through the environment are known as **Infectious diseases**.
11. Contact with a contaminated object, food/water or a vector is known as **indirect contact transmission**.
12. Organisms that cause disease (such as ticks or mosquitoes) are known as **vectors**.

13. The body's network of cells, tissues, organs and chemicals that fight off pathogens is known as the **immune system**.

14. Name 3 diseases caused by *viruses*.

1. Influenza
2. Poliovirus
3. Human immunodeficiency virus

15. Describe in detail how **viruses** spread within the body

- Touch
- Exchanges of saliva, coughing, or sneezing
- Sexual contact
- Contaminated food or water
- Insects that carry them from one person to another

16. Describe in detail how **bacteria** spread within the body

The bacteria enters the body, for example through the mouth or nose, and continuously makes copies of itself (mitosis).

17. Name 3 diseases caused by *bacteria*.

1. Cholera
2. Leprosy
3. Tuberculosis

18. Describe the treatment for viral infections (include what *does* (2 options) and what *does not* work)

1. They must run their course until destroyed by the immune system
2. Antivirals (which must be given within 48 hours of the infection)

19. Describe the 2 methods of treatment for **bacterial infections**.

1. The immune system destroys many of them daily, doctors can also prescribe antibiotics to the patient.
2. Chemicals that work by either killing harmful bacteria in the body or preventing the bacteria from reproducing, which by doing this affects the production and existence of the good bacteria.

20. List 2 **physical** barriers of the immune system

1. Skin
2. Cilia (nose hairs, lashes)
3. Mucous membranes (lining of nose)

21. List 2 **chemical** barriers of the immune system

1. Saliva
2. Tears
3. Stomach acid

Put the steps to the immune response in the correct order from start to finish

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| 22. Step 1: H | A. Some B cells become memory cells |
| 23. Step 2: E | B. Phagocyte displays antigen on its surface |
| 24. Step 3: B | C. Antibodies attach to antigen on pathogen |
| 25. Step 4: J | D. Memory cells recognize same pathogen next time it enters |
| 26. Step 5: I | E. Phagocyte engulfs pathogen |
| 27. Step 6: G | F. Killer T cells attack & destroy cells marked with antibodies |
| 28. Step 7: C | G. B cells multiply & give off antibodies |
| 29. Step 8: F | H. Pathogens enter into the body |
| 30. Step 9: A | I. B cells bind to helper T cells & phagocyte |
| 31. Step 10: D | J. Helper T cells bind to the antigen on phagocyte |