

Human Systems and Disease Unit Review

All work must be done on another sheet of paper!

1. Define homeostasis completely.
2. Give examples of the body maintaining homeostasis.
3. Compare/contrasts homeostasis with single celled organisms and multi-cellular organisms.
4. In multi-cellular organisms, homeostasis is controlled mainly by which two body systems?
5. Identify the two main types of biological feedback and explain each.
6. Homeostasis depends on.....?
7. Failure of homeostasis leads to....?
8. Identify the eleven body systems and their role in homeostasis.
9. Define the following terms: *disease, pathogen, vector (give examples), vaccine*.
10. Identify the 4 main types of pathogens.
11. Name three different types of non-communicable diseases and give an example of each.
12. List characteristics of prokaryotes. What is a plasmid?
13. What are the three main shapes of bacteria? Draw an example of each.
14. Draw the following: *streptobacillus, diplococcus, staphylococcus, spirillum*
15. How does bacteria reproduce?
16. Most bacteria are heterotrophs, which means....? Explain the difference between saprophytes and parasites.
17. How do antibiotics work at controlling bacterial infections? Do they work on viruses? Explain.
18. Explain the structure of a virus. Why are they not considered a living organism?
19. During *Viral Replication*, explain what happens during: *attachment, entry, replication, and lysis*.
20. Identify the three main lines of defense against infection in your body.
21. *Inflammatory Response* is your body's initial reaction to an injury. Explain what this is.
22. Explain the difference between a vaccine and an antibiotic.
23. Antibiotics destroy pathogens by causing their cell walls to rupture. Why don't antibiotics have an effect on viruses?
24. Define the following: *immunity, active immunity, and passive immunity*.
25. The following are types of white blood cells. Give a brief description of what they do for your immune system: *macrophage, T4 lymphocyte, B-lymphocyte, T8 lymphocyte*.
26. B-lymphocytes grow and divide into what two types of cells? What is the purpose of each.
27. T8-lymphocytes can produce both *cytotoxic killer cells* and *suppressor cells*. What is the purpose of each.

28. *Interleukin-2* is a chemical that is not a type of white blood cell. What is its role in the immune system?
29. Study **NOTES**, worksheets, and labs!