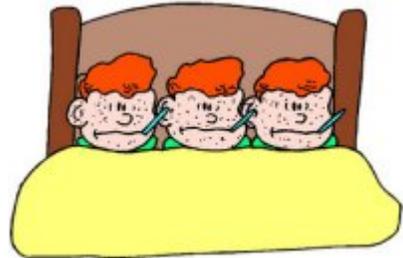


Infectious Diseases

By Jennifer Kenny

¹ What is an infectious disease? It is any disease caused by something like germs (bacteria or viruses) that have invaded the human body. All of these things are called pathogens, or agents that cause disease. Maybe the pathogen was passed from person to person. It could come from food. It might come from an animal. It could come from something around you.



² Bacteria are one example of a pathogen. Bacteria can't be seen without a microscope because they are single-celled. Some bacteria cause disease. Many of them, though, are harmless and actually helpful like the ones in your mouth or intestines. The bacteria that are harmful, however, can cause tuberculosis, tetanus, and sinus infections.

³ Viruses can also cause disease. They don't live freely on their own. Instead, they take control of cells in your body and have them make new ones. The new ones attack other cells and have them make new ones, too. The cold, the flu, chickenpox, and measles are all caused by viruses.

⁴ Fungi, protozoans, and animal parasites also cause infections. Fungi absorb and use the nutrients of other organisms, dead or alive. Some are safe. Others, though, cause things like athlete's foot and ringworm. Protozoans are also single-celled organisms. Malaria is caused by protozoans. Animal parasites aren't as common in the United States but they cause many diseases around the world. They feed on other things. Examples include head lice and tapeworms.

⁵ Infectious diseases are spread in four main ways - person to person, food and water, environment, and animals. For example, the cold and the flu travel from person to person. People can get sick by eating meat with a parasitic worm's eggs. Typhoid travels through contaminated water. The tetanus bacteria can live in soil and enter your body through a cut. Finally, animals can carry Lyme disease, which is caused by bacteria.

⁶ Each pathogen is unique and will be treated differently. A doctor needs to try to identify the pathogen in order to help the person feeling sick. Antibiotics are medicines used to treat bacteria. Examples of antibiotics include penicillin and tetracycline. Antibiotics, however, don't work on viruses.

⁷ Viruses, fungal infections, and protozoan infections needed to be analyzed

individually as well. Antiviral medicines relieve the symptoms of the virus more than anything else. They can also stop the production of new ones. Your body's immune system is the best defense against viruses. Fungal infections such as athlete's foot can be treated with over the counter medicine. More serious fungal infections need prescriptions. Protozoan infections can often be prevented with good cleaning. However, certain prescriptions are available for treatment.

⁸ Do you remember that head lice are parasites? Well, head lice can be prevented by not sharing combs with others. However, if someone gets head lice anyway, medicated shampoos can help.

⁹ Medical research is constantly focusing on what causes certain infections and how to stop the spread of all diseases.

Name _____

Science Pd: _____

Infectious Diseases

1. _____ are agents that cause disease. _____	2. Bacteria are one example of a pathogen. <input type="radio"/> A False <input type="radio"/> B True
3. All bacteria cause disease. <input type="radio"/> A False <input type="radio"/> B True	4. The flu is caused by _____. <input type="radio"/> A Protozoa <input type="radio"/> B Bacteria
5. Which is an example of an infection caused by fungi? <input type="radio"/> A Head lice <input type="radio"/> B Cold <input type="radio"/> C Tuberculosis <input type="radio"/> D Ringworm	6. Infectious diseases are spread in _____ ways. <input type="radio"/> A Five <input type="radio"/> B Four <input type="radio"/> C Two <input type="radio"/> D Three
7. Antibiotics are medicines used to treat viruses. <input type="radio"/> A False <input type="radio"/> B True	