



Physical Education

9-12/Health

April 13, 2020

9-12 Health

Lesson: April 13, 2020

Objective/Learning Target:

Chapter 12.1 Infectious Diseases

- Differentiate between infectious and noncommunicable diseases
- Compare signs with symptoms for detecting the presence of disease
- Understand how infections affect the body
- Summarize the stages of infection in the body.
- Compare the various microorganisms that can affect the body

Bell Work

Take the following self assessment:

Personal Profile

What's Your Risk for Infectious Disease?

These questions will help you assess your risk for acquiring and transmitting infectious diseases.

I get my flu vaccine each year. **yes no**

I wash my hands before I eat or handle food. **yes no**

I use "respiratory etiquette" when I sneeze and cough. **yes no**

I get enough sleep each night. **yes no**

I eat regular nutritious meals. **yes no**

I understand how colds, flu, and common infections are transmitted. **yes no**

I do not share food or drinks with people. **yes no**

I understand how to store and prepare food safely. **yes no**

Add up your number of yes answers to assess your risk for acquiring or transmitting infectious diseases. The more no answers you have, the higher your risk of infection.

Germ Theory

- A scientific concept stating that specific microorganisms cause specific diseases

Infectious Diseases

- Caused by microorganisms living in or on humans, animals or plants
 - communicable diseases are caused by pathogens that can be transmitted from one living thing to another

Figure 12.1 Comparing Two Types of Disease

	Disease	Cause
Communicable	pneumonia	bacteria and viruses
	influenza (flu)	virus
	strep throat	bacteria
Noncommunicable	diabetes	genetics, diet, lifestyle
	lung cancer	genetics, tobacco smoking
	heart disease	genetics, diet, lifestyle

Incubation Period

- The time between the pathogen's entrance into the body and the first appearance of symptoms
 - Varies from disease to disease

Clinical Stage

- Signs and symptoms characteristic of the disease arise

Convalescent Stage

- After the immune system successfully destroys the pathogen

Bacteria

- Single celled organisms living in nearly every possible place that can sustain life

Virus

- A pathogen that infects cell and uses their energy because it cannot reproduce or grow on its own

Fungi

- Built from larger cells that resemble animal cells far more than bacterial cells
 - Mycosis - fungal infection
 - Opportunistic infection - takes advantage of bodies weakened immune system

Parasites

- Organisms that must live inside or on another living thing

Protoza

- Single celled organisms; they possess a nucleus and other complex structures and are larger than bacteria

Activity

Real World Health

Divide a sheet of paper into four parts, or quadrants. Label each quadrant with the name of a microorganism mentioned in this lesson: *bacteria*, *viruses*, *fungi*, or *parasites*. Research each type of microorganism. Within each quadrant, draw a general picture of each microorganism and include a short definition. Though some of these microorganisms are generally helpful, they can also cause disease. In each microorganism's quadrant, list two diseases caused by that microorganism, along with the method of treatment for each disease.