



Physical Education

9-12/Health

April 15, 2020

9-12 Health

Lesson: April 15, 2020

Objective/Learning Target: Chapter 12.3 Immunity to Infection

- Explain how the immune system protects the body
- Identify the key components for each line of defense
 - Describe different ways to take medications.
- Summarize each component's role in fighting infection
- Understand how the immune system's “,memory” works

First Line of Defense against Infection

Integumentary System

Respiratory System

Digestive System

Urinary System

Integumentary System

- Mucous Membrane - a barrier lining the body cavities and passages that open to the outside world
- Mucous - a thick, watery substance that shields the body from pathogens

Respiratory System

- Cilia - fine, short, hair like appendages that move mucus up and away from lungs
- Mucous - a thick, watery substance that shields the body from pathogens

The Second Line of Defense against Infection

- Phagocyte - a white blood cell that specializes in engulfing and destroying microorganisms, especially bacteria
- Inflammation - a response to infection or injury
- Fever - the body's temperature rises above its normal level of about 98 degrees Fahrenheit

The Third Line of Defense against Infection

- T Cells - a cell that coordinates the body's immune response and attacks cells that have been infected by a virus
- B Cells - a cell that produces antibodies
- Antibody - a molecule that attaches to and marks a pathogen as foreign, signaling white blood cells to destroy it

Assignment

Real World Health

Vaccines, or *immunizations*, introduce the body to antigens from a pathogen. The immune system responds and retains memory of that chemical. If the body is later exposed to that pathogen, the immune system remembers it and knows how to fight it. As a student, you must receive certain vaccines to attend school. Obtain a copy of your "Shot Chart." Make a table of the immunizations you have received, the disease each immunization prevents, and your age at the time of immunization. Research to find any additional vaccines you might need in the future and add this information to your table. If you plan to attend college or the military after high school, will you need to get additional immunizations? Research and chart these as well.