Infectious Diseases

Disease = the normal body functions are disrupted

Noninfectious diseases are not spread from one person to another

Ex: 1) Cancer (habits and genetics)

2) Heart disease (habits and genetics)

3) Hemophilia (genetics)

A. Infectious disease – disease passed from one living thing to another

- caused by pathogens (virus, bacteria, fungi, protists, worms)

1) Pathways to pathogens

a) Air – some pathogens travel through air

1. Like the thousands of tiny droplets of moisture released by a sneeze

b) Contaminated objects

1. A sick person may leave viruses and bacteria on many objects like drinking glasses, doorknobs, combs, and towels that can spread pathogens

c) Person to person

1. Kissing

2. Shaking hands

3. Touching sores

d) Animals

1. Get fungus called ringworm from infected dog or cat

2. Ticks carry bacteria that cause Lyme Disease and Rocky Mountain Spotted Fever

e) Food and water

1. Broken water lines can allow microorganisms to enter and grow in the water lines

2. Undercooked food allows bacteria on food to remain alive

3. Uncooked food that sits out can allow growth of bacteria. Refrigeration slows growth of many pathogens

2) Cleanliness can stop the spread of many pathogens

a) Pasteurization

1. mid-1800s, Louis Pasteur (French scientist) discovered that microorganisms in wine caused it to spoil

2. Devised a method of using heat to kill most of the bacteria in wine

3. Called the method pasteurization. It is still used today. Milk is pasteurized.

b) Vaccines – a substance that helps your body develop immunity to disease

a. Used all over the world to prevent many serious diseases

b. Contain pathogens that are killed or specially treated so they won’t make you sick

c) Antibiotics – a substance that can kill bacteria or slow the growth of bacteria

d) Antifungal – a substance that can kill fungi or slow the growth of fungi

e) Antiviral – a drug that destroys viruses or prevents their replication