

# Infectious Diseases

Infectious, or communicable, diseases are illnesses that can be passed from person to person. These illnesses are caused by pathogens, disease-causing organisms that are passed by direct contact (such as touching hands) or indirect contact (such as inhaling water droplets from another person's sneeze). Pathogens include bacteria, viruses, and fungi. Infectious diseases include the common cold, chickenpox, measles, mumps, influenza, pneumonia, hepatitis, mononucleosis, athlete's foot, and sexually transmitted diseases such as AIDS and syphilis.

The immune system is the body's means of protecting itself from disease. The skin is the first line of defense. Oil and perspiration produced by the skin help protect the body by killing pathogens on the skin's surface. Tears contain chemicals that destroy pathogens trying to enter the body through the eyes. Mucus and tiny hairs inside the nose trap pathogens, preventing them from traveling to the lungs. Tiny hairs called cilia in the windpipe also prevent pathogens from traveling to the lungs. The lymphatic system helps maintain fluid balance in the body by carrying fluid away from body tissues to the circulatory system, or bloodstream. The lymphatic system also filters blood so that pathogens are removed from the body.

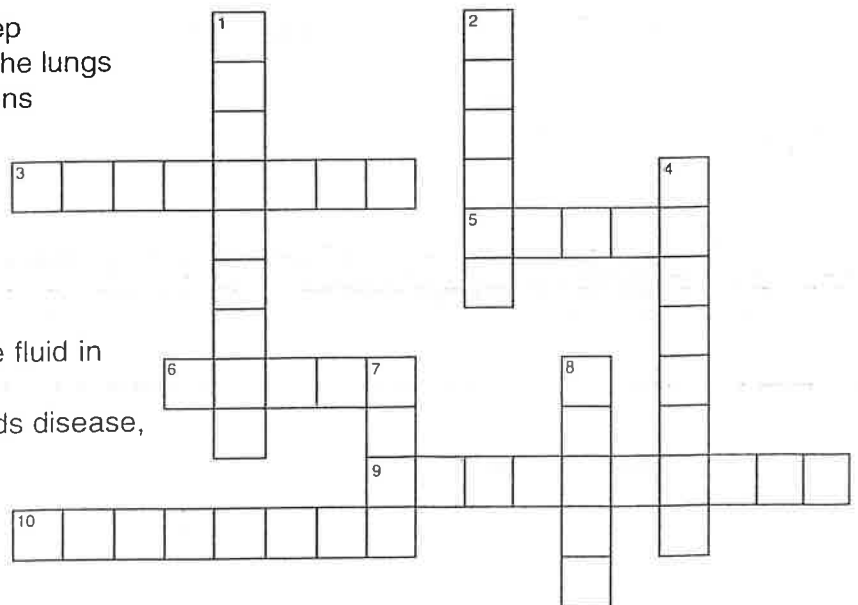
Although specific methods of prevention vary according to the illness, there are several ways people can reduce their chances of acquiring a communicable disease. Perhaps the most obvious methods are to receive proper immunizations during childhood and to develop habits that promote good health. You should also stay away from a person who is contagious and avoid behaviors that might put you at risk of infection. Frequent hand washing can help remove pathogens from the skin. These behaviors, along with several others, can help a person reduce the chance of acquiring or spreading an infectious disease.

## ACROSS

3. cilia in this internal organ keep pathogens from getting into the lungs
5. tiny hairs that block pathogens
6. one type of pathogen
9. communicable
10. a disease-causing organism

## DOWN

1. system which helps regulate fluid in the body
2. a type of contact that spreads disease, such as touching hands
4. one type of pathogen
7. this organ covers the body and helps protect it from pathogens
8. substance in the nose that keeps pathogens from getting into the lungs



# Noninfectious Diseases

Noninfectious diseases are not contagious. They result from a variety of factors, including genetics, aging, poor diet, and environmental influences.

Some diseases are passed from parent to child through genes that carry the genetic code for the specific disease. Some of these diseases are noticeable at birth, but others may not be discovered until later in life. Muscular dystrophy and cystic fibrosis are examples of genetic diseases. Sometimes genetics may simply make a person susceptible to getting a particular disease. The occurrence of heart disease in a person's family, for example, is a good indication that certain genes will make that person susceptible to heart disease. However, that person can minimize the risk through a healthy lifestyle which includes a nutritious diet, adequate exercise, and not smoking.

Some noninfectious diseases result from the deterioration of tissues and organs that occurs as a person ages. One type of arthritis which affects older adults is caused by the deterioration of joints, especially the knee, hip, and finger joints.

A poor diet can result in a number of diseases. In many undeveloped countries, people suffer from malnutrition because they cannot get enough to eat. Lack of vitamins can cause diseases such as rickets and scurvy. In the United States, obesity is a condition which typically results from people eating too much "junk" food. Obesity can contribute to heart disease and diabetes mellitus.

Exposure to certain environmental factors can also cause various diseases. For example, a person exposed to radiation, specific chemicals, and tobacco smoke, would be more likely to develop cancer or heart disease.

Although there are no cures for most noninfectious diseases, certain behaviors can make living with these illnesses easier. Taking proper medication, eating a well-balanced diet, exercising, and controlling stress can contribute to a healthier life.

1. How are infectious and noninfectious diseases different?

---

---

---

2. Will a person definitely develop heart disease if there is a history of the disease in his or her family? Explain.

---

---

3. Describe the relationship between diet and disease.

---

---

---