



# Diphtheria

## What is diphtheria?

Diphtheria is a bacterial disease that causes inflammation of the throat, nose and tonsils, as well as high fever. It can interfere with swallowing and may cause suffocation. The bacteria may also produce toxins that circulate through the blood, damaging the heart, kidneys, and nervous system. Death occurs in five percent to ten percent of cases of diphtheria. Diphtheria once was a major cause of illness and death among children. Starting in the 1920s, rates dropped quickly in the U.S. and other countries that began widely vaccinating. Although diphtheria disease is rare in the United States, cases continue to occur in other parts of the world.

## Who gets diphtheria?

In the past when diphtheria was more common, children under 15 years of age who had not been immunized were the most likely to get diphtheria. In recent years, cases have occurred among all persons of all age groups that are unimmunized or inadequately immunized persons.

## How is diphtheria spread?

Diphtheria is spread from person to person, usually through nose and throat droplets, from coughing or sneezing. Rarely, spreading may occur from skin lesions, like an abnormal sore, or clothes that are contaminated with discharges from lesions on an infected person. A person can also get infected with diphtheria by coming in contact with an object, like a toy, that has been contaminated with the bacteria that cause diphtheria.

## What are the symptoms of diphtheria?

When the bacteria that cause diphtheria invade the nose and throat, they produce a poison (toxin) that can cause weakness, sore throat, fever, and swollen glands in the neck. Within two to three days, a thick coating can build up in the throat or nose, making it very hard to breathe and swallow. This thick gray coating is called a “pseudomembrane” and it can build up over the nasal tissues, tonsils, voice box, and throat.

The pseudomembrane is formed from dead tissue caused by the toxin that is produced by the bacteria. The pseudomembrane sticks to the tissue below and may get in the way of breathing. The toxin may be absorbed into the blood stream and may cause damage to the heart, kidneys and nerves.

## How long is an infected person able to spread diphtheria?

Usually an infected person is able to spread diphtheria for 2 to 4 weeks after symptoms develop. The rare chronic carrier (a person with continual infection) may be infectious for 6 months or longer. Treatment with antibiotics will prevent an infected person from spreading diphtheria.

## What is the treatment for diphtheria?

Antibiotics and antitoxin are used to treat diphtheria. Also, breathing treatments are often given.

## Should persons who have been around a person infected with diphtheria be treated?

People who live in the same household as a person with diphtheria and people who have close, personal contact with a diphtheria patient will be notified by a county health department public health nurse and recommended to receive antibiotics to prevent them from becoming ill. Public health officials may also advise exposed people to be tested for diphtheria and examined every day for seven days for signs of the disease. Also, some may need to be immunized with diphtheria vaccine.

## How can diphtheria be prevented?

The main way that diphtheria is prevented is by receiving DTaP vaccination (diphtheria, tetanus, and pertussis). The shot series starts with the first dose at 2 months of age and ends with a booster dose given before age seven with a total of five doses. Adults should receive a booster dose of Td (tetanus, diphtheria) every ten years.