# Diphtheria

## What is Diphtheria?

Diphtheria is an acute, sometimes fatal, disease caused by a bacillus. The specific diphtheria bacillus produces a toxin which destroys tissues and membranes and later gets absorbed into the blood stream for distribution throughout the body tissues. It most commonly attacks the upper respiratory area including the tonsils, nose, and throat. This disease has a 10 percent case fatality rate.

## Who gets Diphtheria?

Diphtheria is now a rare disease in the United States, however, recent increases have been noted in the former Soviet Union and eastern Europe. Persons of all ages who have not received the basic diphtheria toxoid series or who have not received booster doses of diphtheria toxoid containing vaccine such as tetanus-diphtheria toxoid (Td) can acquire diphtheria. Similar to tetanus, diphtheria often affects those adults who lack initial vaccination, have incomplete vaccination, or lack booster doses.

## How is Diphtheria spread?

Transmission occurs most often from person-to-person. It is spread via the respiratory tract. Rarely it can occur from contact with skin lesions or soiled articles with discharges from infected persons.

#### What are the symptoms of Diphtheria?

Early symptoms of respiratory diphtheria are a sore throat, slight fever, and chills and later, difficulty swallowing or blockage of the airway by a membrane which may be seen by a physician. Symptoms of diphtheria associated with the outer skin are usually painful, swollen, and reddened skin lesions.

#### How soon do symptoms occur?

Symptoms usually occur within 2-5 days, following exposure to an infected person. Human carriers exist and are often asymptomatic.

## How is Diphtheria diagnosed?

Diphtheria is usually diagnosed by physicians based upon various clinical signs and can involve any mucous membrane. Laboratory culture tests of affected tissue or lesions are generally necessary to confirm the diagnosis.

### What is the treatment for Diphtheria?

There is no real treatment against diphtheria, however, following the proper and timely physician directed treatment protocols with the administration of antibiotics and diphtheria antitoxin injections, may help affect a positive outcome.

It is very important that close contacts to diphtheria cases be carefully monitored and evaluated. They should be promptly cultured, started on antibiotic therapy, and be given a dose of diphtheria toxoid containing vaccine.

### How long is an infected person infectious to others?

Diphtheria can be infectious to others from about 2 days to 4 weeks following disease onset. Persons considered chronic carriers may shed and possibly transmit organisms for 6 months. Once antibiotic therapy has been started, by an infected person, communicability generally lasts less than 4 days.

# Should an infected person be excluded from work or school?

In general, such persons should be excluded for up to 14 days following the onset of antibiotic therapy or upon receipt of two negative culture results.

## How can Diphtheria be prevented?

Suspect cases need to be reported immediately to local or state health authorities for epidemiologic investigation and follow-up.

Avoid contact with soiled articles with discharges from infected persons.

Having a previous case of diphtheria does not necessarily confer immunity to future infections. All persons should have received a primary series of at least 3 doses of a diphtheria vaccine, such as diphtheria-tetanus-pertussis (DTP), Td, diphtheria-tetanus (DT), or diphtheria-tetanus-acellular pertussis (DTaP), followed by a booster dose every 10 years, usually Td.

Source: NJ Department of Health and Senior Services