

Diphtheria is an infection of the throat and nose caused by a toxin produced by the bacterium *Corynebacterium diphtheria*.

Diphtheria has been rare in Australia since the introduction of an effective vaccine, but a century ago, was the most common infectious cause of death. Outbreaks still occur in countries where vaccination rates are not high.

How diphtheria is spread?

People can carry the diphtheria bacterium harmlessly in the nose and throat ('carriers'). The diphtheria bacterium is spread when an infected person (patient or carrier) talks, coughs or sneezes small droplets containing infectious agents into the air. The droplets in the air may be breathed in by those nearby. The diphtheria bacterium is also spread by indirect contact with hands, tissues or other articles soiled by nose and throat discharges, or by indirect contact with skin sores.

Signs and symptoms

Symptoms include:

- sore throat
- swollen neck glands
- Discharge from the nose.
- The bacteria can also produce a toxin capable of damaging nerves or the heart. Occasionally these bacteria can cause skin infections, usually in people with poor health or poor hygiene.

Diagnosis

Diphtheria is suspected when a white or grey membrane is seen on the back of the throat and is confirmed when the bacteria are seen under the microscope and grown in the laboratory.

Incubation period

(Time between becoming infected and developing symptoms). Usually 2 to 5 days.

Infectious period

(Time during which an infected person can infect others). Without antibiotic therapy, usually less than 2 weeks but occasionally as long as 6 months. A person is no longer infectious after treatment with appropriate antibiotics.

Treatment

Specific treatment with antibiotics and an antidote to the toxin is available.

Prevention

- People with diphtheria need to be kept in isolation until they are certified to be free of the disease by SA Health's Communicable Disease Control Branch (CDCB).
- Contacts of people with diphtheria need to be investigated for the disease, receive antibiotics and receive vaccination if required. A contact is any person who has been close enough to an infected person to be at risk of having acquired the infection from that person.
- Family or household contact with diphtheria should be excluded from childcare, preschool, school and work until cleared to return by the CDCB.
- Contacts whose work involves food handling or caring for unimmunized children are excluded from work until they are certified to be free of the disease by the CDCB.
- Widespread immunization against diphtheria is the only effective control. The diphtheria vaccine is administered through the National Immunization Program. The first dose of diphtheria vaccine, in combination with other vaccines, is now recommended to be given at 6 weeks of age. For adolescents and adults, the combined diphtheria, tetanus, pertussis vaccine is preferred, if not given previously, as it provides additional protection against whooping cough (pertussis).
- People travelling to countries where diphtheria is common should have received a full course of immunization and consider a booster dose of vaccine in discussion with their doctor.