



# DIPHTHERIA - FACT SHEET FOR HEALTH CARE WORKERS

## What is diphtheria?

Diphtheria is a contagious and potentially life-threatening bacterial infection caused by toxin-producing strains of *Corynebacterium diphtheriae* and *Corynebacterium ulcerans*.

## What are the symptoms?

Symptoms usually begin two to five days (range 1 - 10 days) after exposure to the diphtheria bacteria. Symptoms will depend on the site of infection but the most severe form of diphtheria affects the throat and tonsils. The first symptoms are usually a sore throat, loss of appetite and a mild fever. Within 2-3 days, a membrane forms over the throat and tonsils that can make it hard to swallow and breathe. The infection can also cause the lymph glands and tissues on both sides of the neck to swell ("bull neck").

The toxin formed by the diphtheria bacteria can also cause inflammation of the heart muscle and the nerves which can be fatal. Death occurs in 5-10% of cases of diphtheria.

Sometimes diphtheria can cause small skin sores that form larger ulcers, commonly on the legs. This form of diphtheria is more common in the tropics.

Illness can also occur with non-toxin-producing strains of the diphtheria bacteria, but the disease is generally milder.

## How is it spread?

Diphtheria bacteria can live in the mouth, nose, throat or skin on infected individuals.

Diphtheria is normally spread from person to person in airborne droplets after an infected person has coughed or sneezed. Rarely, diphtheria spreads from close contact with discharges from an infected person's mouth, nose, throat or skin.

Without antibiotic treatment, people with diphtheria are infectious for up to 4 weeks from the onset of symptoms. Some people become carriers and are infectious for longer.

*Corynebacterium ulcerans* infection is occasionally associated with consumption of unpasteurised milk or contact with animals.

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## Who is at risk?

Anyone who comes in contact with diphtheria during its infectious period who has not had diphtheria in the past or has not been fully immunised is at risk.

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## How is it prevented?

Diphtheria vaccination protects against the disease. It is part of the standard vaccination schedule and is given as Pentavalent/ Hexavalent vaccine, which contains combined vaccine against diphtheria, tetanus ; acellular pertussis, inactivated polio vaccine , Haemophilus Influenzae type b and Hepatitis B vaccine.

Diphtheria vaccine should be given at 6, 10 & 14 weeks with booster doses at 18 months, 6 years and at 12 years of age.

A high vaccination rate in the community is important to protect the population from resurgence of this disease.

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## How is it diagnosed?

A doctor can suspect diphtheria based on a clinical examination when the membrane is seen in the throat, and by testing nasal and pharyngeal swabs in a laboratory.

Special laboratory tests are needed to detect the toxin and confirm the diagnosis.

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## How is it treated?

Diphtheria infection is treated with antibiotics and antitoxin.

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## What is the public health response?

Laboratories, hospitals, school principals and directors of childcare centres are required to notify cases of diphtheria to the Department of Health. The Communicable Diseases Control unit will investigate cases and their contacts to identify possible sources of infection and prevent further spread. Cases are isolated until they are not infectious. All contacts are put on prophylactic treatment and may require booster doses of Diphtheria vaccine if

Not immunised/ not fully immunised .

