

Diphtheria

Diphtheria is highly infectious bacterial infection typically spread by coughing and sneezing, close contact with infected people or contaminated clothes and bedding

Diphtheria is a highly infectious bacterial infection that can affect the nose and throat (respiratory diphtheria), and sometimes the skin (cutaneous diphtheria). Respiratory diphtheria is spread typically by coughing and sneezing and close contact with infected people. There is a safe and effective vaccine.

The bacterium can infect the nose and throat and release a toxin. The main symptoms are sore throat, difficulty and/or pain on swallowing, husky voice, fever, cough and headache. A grey/yellow membrane of dead tissue may develop over the tonsils and throat which can lead to airway obstruction and breathing difficulties. Lymph glands become swollen, prominent and tender, producing a 'bull neck'. The toxin produced may affect other organs and it can be fatal.

In countries where hygiene is poor, cutaneous diphtheria is the main source of infection causing painful, non-healing skin ulcers which often become infected with other bacteria. Severe illness is unusual. This type of diphtheria is spread by contact with discharge from contagious skin lesions.

Diphtheria is still a risk for unvaccinated travellers to countries where the uptake of diphtheria containing vaccines is low.

Prevention

Vaccination is the most effective way to prevent infection. Travellers should ensure they are up to date with their routine vaccines according to the [UK routine immunisation schedule](#).

Some types of diphtheria bacteria can spread from animals to humans. Travellers should be advised not to consume raw dairy products, to avoid close contact with cattle/farm animals and to follow good personal hygiene rules to minimise risk of infection.

Specific country diphtheria vaccine recommendations are not routinely provided on TravelHealthPro country pages.

Diphtheria vaccine

In the UK immunisation programme, a minimum of five diphtheria-containing vaccines should be offered, at appropriate intervals, to all individuals. The primary UK vaccination course consists of three doses of diphtheria-toxoid containing vaccine at 8, 12 and 16 weeks of age and at 18 months of age. A first booster should be administered at around 3 years and 4 months and a second booster between 13 to 18 years of age.

Vaccine schedules

Vaccine	Schedule and age range
The 6-in-1 vaccine : diphtheria, tetanus, acellular pertussis, polio, <i>Haemophilus</i>	Three doses: given at 8, 12 and 16 weeks of age and a fourth dose at 18 months of age

<i>influenzae</i> type b and hepatitis B (DTaP/IPV/Hib/HepB)	
The 4-in-1 vaccine : diphtheria, tetanus, acellular pertussis and polio (dTaP/IPV)	Single pre-school booster dose: given at 3 years, 4 months old or soon after
The 3-in-1 vaccine : tetanus, diphtheria and polio (Td/IPV)	Single booster dose: given at 13/14 years of age A low dose diphtheria-containing vaccine should be offered to anyone aged 10 years or over whether they require the vaccine as part of a primary course or as a booster
Diphtheria, tetanus, and acellular pertussis (Tdap) From July 2024, a non-polio (IPV) containing pertussis vaccine is preferred but the diphtheria, tetanus, acellular pertussis, polio vaccine (dTaP/IPV) can be used for pregnant women if Tdap is contraindicated or unavailable [8]	Single booster dose: offered to pregnant women 16 to 32 weeks gestation*

***Recommended for pregnant women between 16 to 32 weeks to protect unborn child against whooping cough (pertussis). Women may still be immunised after week 32 of pregnancy, but this may not offer as high a level of protection to the baby.**

For more information see [UK Health Security Agency: Immunisation against infectious disease](#).

Resources

- [UKHSA: Diphtheria: guidance, data and analysis](#)
- [WHO: Diphtheria](#)
- Further details on the vaccines can be found on the [Summary of Product Characteristics \(SPC\) on the electronic medicines compendium](#)