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Diphtheria in the Caribbean and South America

A reminder for travellers to be up to date with diphtheria vaccine



Clusters of diphtheria cases have recently been reported in the Caribbean and South America. As of 15 November 2017, the Pan American Health Organization has reported suspected/probable and/or confirmed diphtheria cases in Brazil, the Dominican Republic, Haiti and the Bolivarian Republic of Venezuela. The largest number of cases was reported in Venezuela, with a total of 511 cases (365 probable and 146 laboratory confirmed) reported in 2017, as of the end of October, in 17 federal territories [1].

Diphtheria is an acute infectious disease of the upper respiratory tract and the skin. It is caused by a diphtheria toxin produced by toxigenic *Corynebacterium diphtheriae* or by *Corynebacterium ulcerans*. Transmission is by droplet spread (coughing and sneezing) and by contact with soiled articles like clothes or bed linen. Symptoms of upper respiratory tract diphtheria include the formation of a membrane in the pharynx, sore throat, fever, enlarged lymph nodes and oedema, often causing a 'bull neck' appearance. In countries with poor hygiene, a form of diphtheria affecting the skin (cutaneous diphtheria) is common. Human infection is associated with consumption of raw dairy products and contact with animals [2].

Diphtheria is reported in travellers to endemic countries, although this is rare due to high vaccine coverage in the UK [3].

Small numbers of toxigenic diphtheria cases however, continue to be reported in Europe, including the UK. From 2010 to 2014, a total of 131 toxigenic diphtheria cases were reported in the European Union/European Economic Area [4].

European travellers may become infected and are more likely to develop cutaneous diphtheria

while travelling or working in endemic countries. Data indicates that most imported cases did not receive booster vaccinations before travelling. If travellers are not appropriately vaccinated and are exposed to overcrowding and poor hygienic conditions in endemic countries, they are at potential risk for acquiring toxigenic diphtheria and of transmitting the infection on their return to other incompletely immunised contacts [4].

Advice for travellers

Vaccine is the most effective way to prevent diphtheria. As part of your travel preparation, make sure you are up-to-date with all currently recommended UK vaccines according to the [NHS vaccination schedule](#), including diphtheria vaccine. In the UK, diphtheria, tetanus and polio are combined in a single vaccine for those aged 10 and over, so if you receive a tetanus or polio booster you will also be vaccinated against diphtheria.

Whilst travelling, do not to eat or drink raw dairy products, avoid close contact with cattle/farm animals and follow good personal hygiene rules to reduce your risk of diphtheria infection.

Advice for health professionals

Guidance on diphtheria vaccination is available in [Immunisation against infectious disease Chapter 15](#). Advice on immunisation against diphtheria is also available for those whose [immunisation status is uncertain](#). In the UK, diphtheria is a [notifiable disease](#). Any case of suspected diphtheria should be notified immediately to the [local Health Protection Team](#).

[Guidance on the management of suspected cases and their contacts.](#)

Resources

- [European Centre for Disease Prevention and Control. Diphtheria](#)
- [Public Health England: Diphtheria: guidance, data and analysis](#)
- [Diphtheria in brief](#)

References

1. [Pan American Health Organization/World Health Organization. Epidemiological Update: Diphtheria. 15 November 2017. \[Accessed 21 November 2017\]](#)
2. [Public Health England. Diphtheria. Chapter 15. Immunisation against Infectious Disease. 19 April 2013. \[Accessed 21 November 2017\]](#)
3. [US Centers for Disease Control and Prevention. Diphtheria. Chapter 3. Infectious Diseases Related to Travel. Health Information for International Travel. 12 June 2017. \[Accessed 21 November 2017\]](#)
4. [European Centre for Disease Prevention and Control. Annual Epidemiological Report 2016 – Diphtheria. 30 December 2016. \[Accessed 21 November 2017\]](#)