

# Recent Diphtheria Case a Reminder to Be Ready

## Update to York Region health care providers as of October 23, 2019

York Region Public Health recently investigated a confirmed case of classic, respiratory diphtheria in a non-resident visitor to Canada. Diphtheria is a disease of public health significance and should be reported immediately to public health if suspected as it requires urgent public health follow up. Diphtheria is very rare in Canada due to a successful immunization program that starts in childhood, and is considered a medical emergency if found. Treatment requires antitoxins and antibiotics, administered as soon as possible, to eliminate the bacteria and toxin and prevent transmission.

This most recent case did not result in any further transmission but represents a very good reminder that: 1) diphtheria can still present in Canada (in 2017 for example, 10 cases of diphtheria were reported across the country, the highest total since 1983); and 2) it is vital to ensure your patient's immunizations are up to date, especially if they are traveling or new to Canada. While we don't typically think of diphtheria as being a travel vaccine, it is a particularly important vaccine for those that visit endemic areas.

### Contact York Region Public Health immediately if you suspect a diagnosis of diphtheria

Remember to keep diphtheria in mind in your differential diagnosis and if suspected, contact York Region Public Health's Control of Infectious Disease team right away at:

**1-877-464-9675 ext. 73588** (Monday to Friday 8:30 a.m. to 4:30 p.m.) or  
after hours - 905-953-6478 (Before 8:30 a.m. and after 4:30 p.m. Monday to Friday or 24 hours per day on weekends/holidays)

Ensure your staff and other health care providers in your facility have up-to-date immunization records readily accessible in case of potential exposure.

### Identifying Diphtheria

Source: Ministry of Health, Appendix A:

[http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/docs/diphtheria\\_chapter.pdf](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/diphtheria_chapter.pdf)

**Respiratory diphtheria** (particularly pharyngeal and tonsillar) can initially present with low-grade fever, sore throat, difficulty swallowing, malaise and anorexia. The characteristic lesion is an asymmetrical adherent greyish white membrane with surrounding inflammation visible on the tonsils and oropharynx within two to three days of illness. Neck swelling and enlarged cervical lymph nodes may give the appearance of a "bull neck" and can progress quickly to acute respiratory distress and systemic complications.

**Cutaneous diphtheria** is localized to the area of infection and rarely associated with systemic complications. This type of diphtheria is often associated with infections acquired in tropical countries and has also been observed among disadvantaged populations such as homeless persons and injection drug users. Lesions may vary from scaly rash to ulcers with demarcated edges.

### PUBLIC HEALTH

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1-877-464-9675 ext. 73588  
[york.ca/healthprofessionals](http://york.ca/healthprofessionals)



Regardless of the type of diphtheria presenting, a few key points remain:

- Incubation period is typically two to five days, but can range from one to 10 days.
- Diphtheria can either be toxin producing or non-toxin producing: only toxin producing diphtheria requires public health follow-up due to its serious nature. Public health follow-up includes the identification of close contacts, assessing and swabbing (i.e., NP and throat bacterial swabs) close contacts, and intervening with both chemoprophylaxis and immunoprophylaxis (as warranted) to interrupt transmission.

Consult with public health prior to laboratory testing to discuss specimen collection and testing requirements. The toxin identification process is multi-stepped and both treatment and public health action can and should proceed while awaiting laboratory results.

Early detection and treatment of diphtheria provides better results for the patient and lessens the community risk from the disease.

### **Contact York Region Public Health**

If you have any questions about Diphtheria, contact our Control of Infectious Disease team at **1-877-464-9675 ext. 73588**.

### **Resources**

Ministry of Health: Diphtheria Guide for Health Care Professionals

[www.health.gov.on.ca/en/pro/publications/disease/pdf/2015-05-22-diphtheria-guide-health-care-professionals.pdf](http://www.health.gov.on.ca/en/pro/publications/disease/pdf/2015-05-22-diphtheria-guide-health-care-professionals.pdf)

Health Canada: Diphtheria: For Health Professionals

[www.canada.ca/en/public-health/services/immunization/vaccine-preventable-diseases/diphtheria/health-professionals.html](http://www.canada.ca/en/public-health/services/immunization/vaccine-preventable-diseases/diphtheria/health-professionals.html)