



## **Important Primary Care and Public Health Alert: Blastomycosis**

**To:** All community health nurses (CHNs) in Ontario Region Nursing Stations, Health Centres, and Health Centres without Treatment  
**From:** Dr. James Brooks, Director, Health Protection Unit, and Ms. Shari Glenn, Director, Primary Health Care  
**Date:** August 15, 2022  
**Re:** Blastomycosis

**Purpose:** To raise awareness of blastomycosis which **can be fatal if not diagnosed and treated early**

**Activation date:** Immediately

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### **Summary of practice implications for CHNs:**

- Increased diagnostic suspicion for blastomycosis, especially with respiratory infections not responding to antibiotics
- When consulting with a physician, especially with respiratory infections not responding to antibiotics, inform the physician about the possibility of blastomycosis and request an order for a sputum for fungal culture and a chest x-ray. They may also decide to order additional testing.
- Community outreach to raise awareness of blastomycosis so individuals seek care early; the community's environmental health protection officer (EPHO) can assist with outreach

### **Background information**

#### What is it?

Blastomycosis is an infection caused by breathing in spores of the soil fungus, blastomyces. It usually begins as a lung infection. Mild blastomycosis can often be treated at home. However, if left untreated, the infection can become more severe, require hospitalization, and may cause death. Severe infections are often the result of late presentation or late diagnosis due to a lack of awareness among the public and health care practitioners, respectively. The incidence of blastomycosis in Ontario may be increasing.

#### Where is it found?

The fungus causing blastomycosis is found across Ontario, with the highest rate of infection in the north. It can grow in moist soil or damp or rotting organic matter like wood or leaves. It is often found close to bodies of water, particularly in Northwestern Ontario, around the shores of the Great Lakes and along the St. Lawrence Seaway.

#### Epidemiology in Ontario Region

Since 2018, 62 cases of blastomycosis have been reported in First Nation communities in Ontario. These cases have been spread among 21 First Nations with most of these communities seeing only one case. However, an unusually large outbreak of blastomycosis

was reported in a northeastern Ontario First Nation in 2021-2022. Approximately fifty people became sick and tragically, five community members lost their life to this illness.

### Clinical aspects

Blastomycosis primarily affects the lungs but can become a systemic infection with extra-pulmonary manifestations, such as cutaneous disease. Signs of illness typically take up to three months to develop but late presentations do occur. Clinical presentation can include cough, difficulty breathing, chest pain, fever, night sweats, weight loss, myalgia, arthralgia and fatigue. Although most hospitalizations due to blastomycosis are seen in the late fall, suggesting people were exposed to blastomyces in the spring or summer, it can be diagnosed any time of the year. About half the individuals exposed to the fungus will be asymptomatic and recover on their own.

### Transmission

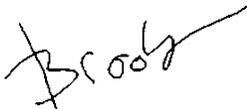
Blastomycosis is an infection caused by breathing in fungal spores in the environment. Blastomycosis is not spread person-to-person or from dogs to people.

### Public health measures

Because blastomyces is a natural part of the environment, it cannot be eliminated. Once endemic areas are identified through reporting and surveillance, strategies to improve awareness among residents and health care providers can be put into place to allow early recognition of possible blastomycosis infection and prompt treatment.

### [Link to Ontario Public Health Standards on Blastomycosis](https://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/Blastomycosis_chapter.pdf)

[https://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/docs/Blastomycosis\\_chapter.pdf](https://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/Blastomycosis_chapter.pdf)



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