

# Cryptococcus gattii

September 2017 • Information for Pierce County Medical Providers

Communicable Disease Division  
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## What is it?

- *C. gattii* is a fungus closely related to *C. neoformans* that can infect the pulmonary and central nervous systems of both animals and humans.
- Until recently, *C. gattii* was only found in certain subtropical and tropical environments. In 1999 it emerged on Vancouver Island, British Columbia (BC), Canada. Between 1999 and 2006, 176 cases were reported in BC. *C. gattii* has been isolated from native tree species on Vancouver Island and from the surrounding soil and air, primarily from the east coast of Vancouver Island. Cases have also occurred on the lower BC mainland. The endemic area is now thought to extend along the Pacific Coast.
- As of August 2017, 52 human cases, including seven deaths and 60 animal cases have been identified in Washington State. Most of these have been in the upper counties or in people who have traveled to endemic areas.
- About 100 infections have been reported in the United States 2004–2011, almost all from Oregon and Washington State.

## Clinical Features

- The incubation period is long and variable. Illness onset can be two to fourteen months after exposure, with a median of six to seven months.
- Cases may have pulmonary infiltrates, nodules, or cavitary lesions; approximately twenty percent develop meningitis. A wide spectrum of illness from asymptomatic infection to respiratory failure is possible. Symptoms are nonspecific and include:
  - Fever and chills
  - Shortness of breath
  - Chest pain
  - Neck pain/stiffness
  - Cough
  - Headache
  - Decreased alertness
- Most cases respond to antifungal medications; consult with an infectious disease specialist for treatment recommendations. The case-fatality rate is under 5%.

## How is it Spread?

- The infection is acquired by inhaling *C. gattii* spores. It is not transmitted from animal-to-person or person-to-person.
- Soil disturbance activities may increase the risk for infection.

## Who is at Risk?

- Unlike *C. neoformans* which primarily affects immunocompromised person, *C. gattii* usually causes disease in immunocompetent persons.
- Persons over sixty years of age and persons with underlying medical conditions, including lung disease or immune system compromise due to disease or medications may be at some increased risk. Pediatric cases have been rare.
- Because the risk is low even for people living in endemic areas, there are no special precautions or travel restrictions recommended.

## How is it Diagnosed?

- Suspect *C. gattii* in individuals with atypical pneumonia or fungal meningitis who live or travel in areas where *C. gattii* is found.
- Cryptococcal infections may be diagnosed by microscopic examination or culture of tissue or body fluids such as blood, CSF, or sputum. Rapid antigen tests can be performed on blood and CSF.
- **When Cryptococcus is identified in a respiratory specimen or cerebrospinal fluid, do not assume that it is *C. neoformans*; additional testing is required for speciation.**
- To differentiate *C. gattii* from the more common *C. neoformans*, culture the isolate on canavanine-glycine-bromothymol (CGB) agar.
- If your laboratory does not currently use CGB agar for all Cryptococcus isolates, consider adding this to your laboratory's protocol. Another option is to send isolates to the University of Washington Clinical Microbiology Laboratory for speciation.
- After consultation with Tacoma-Pierce County Health Department, isolates identified as *C. gattii* should be submitted to the Washington State Laboratory for genotyping.
- Reportable in Washington State since autumn 2011.

## Additional Resource

Washington State Department of Health's epiTRENDS bulletin, August 2017:

[www.doh.wa.gov/Portals/1/Documents/5100/420-002-epitrends2017-08.pdf](http://www.doh.wa.gov/Portals/1/Documents/5100/420-002-epitrends2017-08.pdf)

## To report, call Tacoma-Pierce County Health Department:

Communicable Disease Control ..... (253) 798-6410 (Press "0" for an operator)  
24-Hour Disease Reporting Line ..... (253) 798-6534  
Confidential Fax Line..... (253) 798-7666