Cryptococcus Gattii Yeast or Fungus Meeting Kit

WHAT IS CRYPTOCOCCUS GATTII YEAST OR FUNGUS?

Cryptococcus gattii (C. gattii) is a fungus that can cause a disease called cryptococcosis. Cryptococcosis usually affects the lungs or the central nervous system (the brain and spinal cord), but it can also affect other parts of the body. Brain infections caused by C. gattii and other types of Cryptococcus are called cryptococcal meningitis. C. gattii lives in soil and on certain trees, primarily in tropical and subtropical regions across the world. People can become infected with C. gattii after breathing in the microscopic fungus from the environment.

SYMPTOMS FROM C. GATTII

In the lungs: A C. gattii infection in the lungs can cause a pneumonia-like illness. The symptoms are often similar to those of many other illnesses, and can include:

- Cough
- Shortness of breath
- Chest pain
- Fever

In the Brain (Cryptococcal Meningitis): Cryptococcal meningitis is an infection caused by C. gattii and other types of Cryptococcus after it spreads from the lungs to the brain, but patients can have a brain infection without a lung infection. The symptoms of cryptococcal meningitis include:

- Headache
- Confusion or changes in behavior
- Fever

- Neck pain
- Nausea and vomiting
- Sensitivity to light

Symptoms from C. gattii infection can take between two to fourteen months to appear after exposure. Infection may cause a pneumonia-like illness, with shortness of breath, coughing, nausea, and fever. Another common form of C. gattii infection is central nervous system infection, such as meningoencephalitis. Symptoms may include fever, headache, or a change in mental status.

WHO GETS C. GATTII INFECTIONS? Anyone can be infected with C. gattii if they've been in an area where the fungus lives in the environment. However, in different parts of the world, different characteristics may make some people more likely to get C. gattii infections than others. C. gattii infections are thought to be more common among:

- People who are otherwise healthy,
- Males, and
- Aboriginal peoples

IS C. GATTII INFECTION CONTAGIOUS? – No. The infection can't spread between people, or between people and animals.

CAN PETS GET C. GATTII INFECTIONS? – Yes. Pets can get C. gattii infections, but it is very rare. The infection cannot spread between animals and people. The symptoms of C. gattii infection in pets such as cats and dogs are similar to the symptoms in humans.

HOW TO PREVENT C. GATTII INFECTION: There are no formal recommendations to prevent C. gattii infection. Most people breathe in small amounts of many fungi every day but never become sick. If you have symptoms that you think may be caused by C. gattii, you should see a healthcare provider as soon as possible.

C. GATTII INFECTIONS TREATMENT: People who have C. gattii infection need to take prescription antifungal medication for at least 6 months, often longer. The type of treatment usually depends on the severity of the infection and the parts of the body that are affected.

- For people who have asymptomatic infections or mild-to-moderate pulmonary infections, the treatment is usually fluconazole.
- For people who have severe lung infections or infections in the central nervous system (brain and spinal cord), the recommended initial treatment is liposomal amphotericin B in combination with flucytosine. After initial antifungal therapy, patients usually need to take fluconazole for an extended time to clear the infection. Some people will need lumbar punctures to get rid of increased pressure in the brain. Some people will also need corticosteroids.

CRYPTOCOCCUS GATTII EXPOSURE FOR OUTSIDE WORKERS

Workers who spend time outdoors in wooded areas may be exposed to Cryptococcus gattii (C. gattii), a microscopic fungus that releases spores which may be inhaled and cause an infection called cryptococcal disease.

C. gattii grows on leaves and soil in forested areas, primarily in the Greater Vancouver area, in the Fraser Valley, and on central and southern Vancouver Island. Activities that disturb the fungus – such as walking through wooded areas, clearing trees, and pruning or chipping trees where C. gattii is growing – may release spores into the air. Inhalation of these spores can result in cryptococcal disease, which may include symptoms such as headaches, fever, vomiting, weight loss, shortness of breath, prolonged cough, and pneumonia. In more severe cases, the fungus can potentially travel through the bloodstream to the central nervous system, resulting in a more serious disease, such as meningitis, or even death.

INDUSTRIES AT RISK

- Forestry
- Agriculture
- Park, campground, or trail maintenance

- Landscaping, lawn, or garden maintenance
- Weed control

C. GATTII TAKEAWAYS

- C. gattii infections are rare
- If you are a smoker, you can decrease your risk of infection by quitting smoking. There are no other particular precautions that can be taken to avoid Cryptococcus gattii infection.
- Cryptococcus gattii infection is not easy to diagnose because the disease is rare, the combination of symptoms can be unusual, and symptoms can be mild and last a long time before a patient seeks medical attention.
- People are advised to see their doctor if they experience symptoms if the symptoms persist or are severe. People should remind their doctor that they live in or visited an area where the fungus can be found.
- Doctors can request tests for patients who show symptoms. They can test for Cryptococcus in blood, lung or spinal fluid samples.

FINAL WORD

Cryptococcus gattii has not been a household word but that is changing. Affects to the nervous system, specifically cryptococcal meningitis are especially noteworthy. Surveillance is empowering public health authorities to monitor trends in the number of C. gatti cases.