

What is melioidosis?

Melioidosis is an infectious disease caused by the bacterium *Burkholderia pseudomallei*. Melioidosis is a disease that can infect humans and animals. Predominately a disease of tropical climates, and is found in contaminated water and soil. Humans and animals become infected when they come into direct contact with contaminated water and soil.

Who is at risk for melioidosis?

Melioidosis can infect anyone. People with chronic conditions such as diabetes, liver disease, renal disease, cancer, immune-suppressing conditions or chronic lung diseases are at higher risk. However, in the United States, cases usually occur among military troops, travelers and immigrants coming from places where the disease is widespread. Areas with the greatest numbers of cases include Thailand, Malaysia, Singapore, and Northern Australia. However, many other countries report sporadic cases.

What are the symptoms of melioidosis?

The symptoms of melioidosis depends on the type of infection.

- Localized infections: Symptoms include localized pain or swelling, fever, ulceration or abscess.
- Pulmonary infections: In pulmonary lung infections, cough, chest pain, high fever, headache and anorexia can occur.
- Bloodstream infections: Melioidosis bloodstream infections can include fever, headache, respiratory distress, abdominal discomfort, joint pain, muscle tenderness and disorientation.
- Disseminated infections: Symptoms may include fever, weight loss, stomach or chest pain, muscle or joint pain, headache and seizures.

How soon do symptoms appear?

How soon symptoms appear is not clearly defined, but may range from one day to many years; generally symptoms appear two to four weeks after exposure.

How is melioidosis spread?

Melioidosis mainly is spread to humans by direct contact with contaminated water or soil. The bacteria enter the body through skin wounds, inhalation of soil dust and rarely through aspiration or ingestion of contaminated water. Person-to-person transmission is possible through sexual contact or through the use of injection needles. Additionally, infected pregnant women may pass the disease on to their child in the womb or new mothers to newborns through breast feeding.

When and for how long is a person able to spread the disease?

As long as bacteria is present, the risk of person to person transmission is possible.

How is a person diagnosed?

The disease can be diagnosed in the laboratory by testing blood, sputum, urine or skin sores.

What is the treatment?

Melioidosis can be treated with antibiotics. Make sure to follow all directions when taking antibiotics to reduce the chance of developing antibiotic-resistant strains.

Does past infection make a person immune?

The extent of immunity is unknown.

Should children or others be excluded from child care, school, work or other activities if they have melioidosis?

Unless a doctor determines the child is contagious, infants, toddlers and school-age children should not be excluded unless the staff determines the child is unwilling or unable to participate in activities. They also should be excluded if the staff determines that they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.

All others can attend work and other functions as long as they are well enough to do so. As always, good hand washing and respiratory etiquette is recommended.

What can be done to prevent the spread of melioidosis?

There is no vaccine available for melioidosis. In countries where melioidosis is common, prevention is difficult due to contact with contaminated water and soil. People with high risk conditions should try to avoid contact with standing water and soil in high risk areas. Within the health-care setting, transmission can be prevented by using standard blood and body fluid precautions. Wearing boots and gloves during agricultural work in endemic areas is recommended.

Additional Information

Additional information is available by calling the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resources:

1. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. [Children in Out-Of-Home Care]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics; 2015: 132-151.
2. Centers for Disease Control and Prevention. (2012). Melioidosis. www.cdc.gov/melioidosis/index.html.
3. Heymann, D. L. (2015). *Control of Communicable Diseases Manual, 20th Edition*. Melioidosis. American Public Health Association. 2015: 397-401.