

## Melioidosis (*Burkholderia pseudomallei*)

Melioidosis, also known as Whitmore's disease, is an infectious disease found in soil and water. Humans and animals can become infected through direct contact with a contaminated source. It is predominately found in Southeast Asia and northern Australia, but infections have occurred around the world. People who become ill in the United States usually become infected while traveling to a country where Melioidosis is endemic.

## Transmission

Melioidosis is transmitted to humans through:

- **Inhalation** of contaminated **dust or water droplets**
- **Ingesting** contaminated **water**
- **Ingesting** soil-contaminated **food**
- **Contaminated soil** getting into **skin abrasions**
- **Person-to-person** can occur, but is **rare**

## Symptoms

- Symptoms **can begin one to 21 days following exposure**, but incubation can last years.
- Melioidosis has a wide range of symptoms and can be mistaken for other diseases, such as tuberculosis.
- Infections of Melioidosis can manifest in **four ways**
  - **Localized**
    - **Localized pain or swelling**
    - **Fever**
    - **Ulceration**
    - **Abscess**
  - **Pulmonary**
    - **Cough**
    - **Chest pain**
    - **High fever**
    - **Headache**
    - **Anorexia**
  - **Bloodstream**
    - **Fever**
    - **Headache**
    - **Respiratory distress**
    - **Abdominal pain**
    - **Joint pain**
    - **Disorientation**
  - **Disseminated**
    - **Fever**
    - **Weight loss**
    - **Stomach or chest pain**
    - **Muscle or joint pain**
    - **Headache**
    - **Central nervous system/brain infection**
    - **Seizures**

## Diagnosis

Melioidosis is diagnosed by laboratory test of a blood, urine, sputum, skin lesion, or abscess sample from an infected individual or detecting antibodies to the bacteria.

## Treatment

- The type of infection can determine what medication is necessary and if a patient has any comorbidities.
- In general, treatment starts with intravenous (within a vein) antibiotics for two to 8 weeks, followed by oral antibiotics for several months.

## Prevention

- **To minimize risk in areas where the disease is widespread or endemic:**
  - **Those with comorbidities**, such as diabetes or chronic renal disease, should avoid contact with soil and standing water.
  - **Agricultural workers** should wear boots and gloves to prevent infection.
  - **Health care workers** can use [standard precautions](#) when treating patients with melioidosis

## Exclusion Guidance

**[General exclusions apply](#) for other workers and those in schools.**

For additional information about melioidosis, etc., contact the North Dakota Department of Health and Human Services', Division of Public 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 and Human Services.**

### Resources:

1. Kimberlin, D. W., Barnett, E. D., Lynfield, R., Sawyer, M. H. (2021) Red Book: 2021- Report of the Committee on Infectious Diseases. 31st ed. American Academy of Pediatrics. [Management and Prevention of Infectious Diseases] [240-243].
2. Centers for Disease Control and Prevention. (2023, August, 30). *CDC – Melioidosis*. Centers for Disease Control and Prevention. Retrieved September 14, 2023, from <https://www.cdc.gov/melioidosis/index.html>

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