

Melioidosis

Melioidosis is a disease caused by bacteria called *Burkholderia pseudomallei*. The disease occurs mostly in tropical areas of the world, primarily Southeast Asia and northern parts of Australia. In Queensland, infection occurs mainly in north Queensland but can occur in southern parts of the state.

Signs and Symptoms:

Melioidosis can present in several different ways including:

- infection of the lungs, which can range from mild bronchitis to severe pneumonia. As a result, patients may also experience fever, headache, loss of appetite (anorexia), cough, shortness of breath, chest pain, and general muscle soreness
- septicaemic pneumonia (infection throughout the bloodstream, as well as the lungs) can cause fever, headache, breathing difficulties, abdominal pain, joint pain, and disorientation
- melioidosis can spread from the skin through the blood to become a chronic form of melioidosis affecting the heart, brain, liver, kidneys, joints, and eyes (disseminated). Symptoms of disseminated melioidosis infection include fever, weight loss, stomach or chest pain, muscle or joint pain, headache, and seizures
- localised infections may present with pain, localised swelling, skin infection, ulceration, and abscess formation (with associated fever and muscle aches and pains).

Symptoms usually develop within three weeks of a person being exposed to the bacteria, but in some cases illness may not occur until several months or years after the initial infection. Melioidosis can be a severe and life-threatening disease, and it requires prompt medical diagnosis with appropriate antibiotic treatment.

The diagnosis of melioidosis is made by growing the bacteria with laboratory testing of blood, sputum, urine or a swab from an abscess or non-healing ulcer.

Treatment:

The treatment of melioidosis initially requires intensive antibiotic therapy as well as management of any lung or kidney failure, shock etc. In severe cases admission to an intensive care unit may be required. Antibiotic treatment usually is continued for at least 3 months to prevent a relapse. If treatment is started early, recovery is usually complete.

Transmission:

The bacterium that causes melioidosis usually enters the body via cuts and sores in the skin, or via inhalation of dust or droplets, and very rarely by ingestion of contaminated water. Melioidosis does not usually spread from one person to another or from animals to humans.

During the dry season the bacterium is found in deeper soil layers, but during the wet season it can be found in the surface layers and in muddy surface waters. This is why most cases of melioidosis occur during the wet season following heavy rains and flooding.

Although many people have contact with wet soil or muddy waters during the wet season, the disease is uncommon in Queensland. Despite frequent exposures not everyone is at risk of becoming ill with melioidosis. Adults with certain underlying diseases and conditions – notably diabetes, chronic lung or kidney diseases, excessive alcohol consumption, cancers and treatments (such as steroids) which lower immunity – are more likely to become ill with the disease. Melioidosis is uncommon in healthy adults.

Prevention:

There is no vaccine to prevent melioidosis. During the wet season adults, particularly anyone in north Queensland with an underlying medical condition (see above), should take the following precautions:

- Wear protective footwear when outdoors, these should be waterproof if walking in wet soil where there is pooled water or if you are working in muddy conditions
- Wear gloves while working in the garden, on the farm etc.
- Cover abrasions and sores with waterproof dressings
- Wash thoroughly (preferably shower) after exposure to soil or muddy water, and after working outdoors
- Wear a mask covering your nose and mouth if using a high pressure spray hose around soil
- Diabetics should maintain optimal foot care, with help from a podiatrist if necessary.

Help and assistance:

For further information, please contact your local doctor, health centre or nearest [Public Health Unit](http://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units/default.asp) (<http://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units/default.asp>); or call **13 HEALTH (13 43 25 84)** 24 hours a day 7 days a week for the cost of a local call.