



Melioidosis

What is melioidosis?

Melioidosis is a disease caused by bacteria known as *Burkholderia pseudomallei*. The bacteria live below the soil's surface during the dry season but after heavy rainfall are found in surface water and mud and may become airborne.

How is it spread?

The bacteria 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.

The disease has been found among some domestic and farm animals. Melioidosis does not usually spread from one person to another or from animals to humans.

Where does melioidosis usually occur?

Melioidosis is found in tropical areas throughout the world, particularly in South East Asia and northern Australia.

In Australia cases typically occur in the Top End of the Northern Territory (NT) and in far north Queensland and the Kimberley region of Western Australia. Cases have been found in the NT as far south as Tennant Creek.

What are the symptoms?

A productive cough and difficulty breathing is a common problem for those infected. Other possible presentations include fever with headache and confusion and pain and/or difficulty passing urine. People can become acutely ill anywhere from 1 to 21 days after being infected and onset of symptoms may

be sudden or gradual. In untreated cases the infection can be fatal and melioidosis requires urgent medical attention and treatment with the correct antibiotics.

In some cases the illness may come on much more slowly with weight loss, intermittent fever, chest pain and a cough. Some people may present with skin ulcers, boils or joint or bone infections.

There have also been cases where the disease has caused illness many years after the initial infection. These people have carried the bacteria which becomes active when risk factors (see below) make it easier for the bacteria to spread throughout the body.

The diagnosis of melioidosis is made by laboratory testing of blood, sputum, urine or pus drained from abscesses or from non-healing ulcers.

Who is at risk?

People most at risk are those with conditions such as diabetes, heavy alcohol consumption, kidney disease, lung disease, and cancer and those on **immunosuppressive** therapy.

Healthy people can also get the disease if they work in muddy soil without good hand and foot protection.

What is the treatment?

All patients should be admitted to hospital initially. They are treated with antibiotics, which usually have to be continued for at least 3 months after discharge from the hospital. If treatment is started early, recovery is usually complete. It is important to complete all antibiotics to prevent a relapse.

How can melioidosis be prevented?

There is currently no vaccine against melioidosis. Therefore preventive measures are the key to avoiding infection.

Waterproof shoes or boots will protect your feet when you walk in wet soil where there is pooled water or you work in muddy conditions, for example, when gardening or working in excavations. Open footwear such as sandals are not very good protection. Protective gloves should be worn when handling soil, particularly during the wet season.

If necessary, use pumping equipment to control water ingress when working in excavations.

Due to the potential for aerosolisation (airborne droplets) of *Burkholderia pseudomallei* people with risk factors such as diabetes,

heavy alcohol consumption, kidney disease, lung disease, and cancer and those on immunosuppressive therapy should stay indoors during periods of heavy wind and rain in the Top End.

These preventative measures are most important if you have any of the following conditions:

- diabetes
- heavy alcohol consumption (>20 standard drinks a week)
- kidney disease
- lung disease
- cancer
- receiving immunosuppressive therapy
- cuts or sores in your skin, particularly on the hands and feet

For more information contact your nearest Centre for Disease Control.

Darwin	89228044
Katherine	89739049
Nhulunbuy	89870359
Tennant Creek	89624259
Alice Springs	89516907

Further fact sheets and treatment protocols are available at:

<http://www.nt.gov.au/health/cdc/cdc.shtml>