

# Melioidosis

## What is melioidosis?

Melioidosis is a serious disease caused by bacteria called *Burkholderia pseudomallei*, which live in tropical soils and water. Heavy rainfall brings them up into surface water and soil, where they can be picked up by the wind and spread in the air.

Melioidosis requires urgent medical attention as it can be fatal if not treated with the right antibiotics.

## How do I catch melioidosis?

Melioidosis bacteria can infect a person through penetrating injuries, skin cuts and sores exposed to soil and water, breathing in dust or droplets (especially during storms or spray from high-pressure hoses), and rarely by drinking unchlorinated water that contains the bacteria.

It can also infect some domestic and farm animals and animals in zoos.

Melioidosis does not usually spread from one person to another or from animals to humans.

## Where does melioidosis usually occur?

Melioidosis occurs in tropical areas worldwide, particularly in Southeast Asia and northern Australia. In the Northern Territory, it typically occurs in the tropical Top End but has occurred as far south as Tennant Creek.

Melioidosis mostly occurs in the wet season (October to April), but cases also occur in the dry season.

## What are the symptoms of melioidosis?

Most people have their first symptoms of melioidosis 1-21 days after being infected with the bacteria. Symptom onset can be sudden or gradual, but most cases present suddenly and may be very unwell. Melioidosis can affect almost any part of the body, and symptoms depend on the site of infection. Often it starts as a chest infection (pneumonia) with shortness of breath, productive cough, and fever.

Other people can present with fever, headache, confusion, difficulty passing urine, joint pain and swelling and/or bone pain, or needing Intensive Care due to severe, life-threatening infection.

In around 10% of melioidosis cases, the illness is chronic, with 2 or more months of symptoms. These cases may present as a chest infection with intermittent fever, cough, and weight loss or as a skin infection with a non-healing ulcer.

Rarely (under 5% of all cases) people can get sick with melioidosis many years after their initial infection. In these cases, the bacteria have been carried by the person in a hibernating state and then become active, usually due to a weakening of the person's immune system.

## Who is at risk?

People with the following conditions are most at risk of melioidosis:

- Diabetes mellitus
- Heavy alcohol consumption (more than 20 standard drinks a week, or binge drinking)
- Kidney disease
- Lung disease
- Cancer
- Transplant recipients
- Treatment with immunosuppressive therapy, including steroids

Up to 20% of cases occur in healthy people without any of the above risk factors, but who have been exposed to the bacteria in soil or water, usually through skin exposure.

Healthy children are much less likely to get melioidosis than adults. However, children with chronic diseases or a weakened immune system can become sick with melioidosis.

## What is the treatment for melioidosis?






All people with melioidosis should be admitted to hospital to start their treatment with the correct antibiotics and to be investigated for the extent of infection.

Treatment starts using antibiotics infused into the veins for at least 2 weeks (sometimes for more than 4 weeks), followed by tablet antibiotics for at least 3 months to ensure cure and prevent relapse.

## How can I prevent melioidosis?

There is no way to eradicate melioidosis from tropical soils and there is no vaccine against melioidosis. People who have previously had melioidosis can get infected again.

**Key ways that people can avoid catching melioidosis in tropical areas include:**

	<ul style="list-style-type: none"> <li>• Wear waterproof shoes or boots to protect your feet when you walk or work in wet soil, around pooled water, or muddy conditions – including for gardening or excavations</li> <li>• Open footwear, such as sandals, is NOT good protection</li> </ul>
	<ul style="list-style-type: none"> <li>• Wear rubber gloves when handling soil, particularly during the wet season, and wash hands straight after with disinfected water</li> <li>• Wash cuts and wounds on any skin area promptly and thoroughly, then keep them covered with clean dressings</li> </ul>
	<ul style="list-style-type: none"> <li>• Wear a mask that covers the mouth and nose to avoid breathing in the melioidosis bacteria when using high pressure hoses around soil</li> <li>• Use pumping equipment to control water when working in excavations</li> </ul>
	<ul style="list-style-type: none"> <li>• People with risk factors should stay indoors during storms with heavy wind and rain, because the germ gets blown into the air</li> <li>• Healthy children are at very low risk and can have the usual safe play activities outdoors as undertaken in non-melioidosis locations</li> </ul>
	<ul style="list-style-type: none"> <li>• People with risk factors for melioidosis should ensure bore water is disinfected before domestic use for drinking and showering: access to town water supply, disinfect water, or use a combination of rain water and bottled/boiled water</li> <li>• Cut back on alcohol – to improve your health all round!</li> </ul>

For more information call your nearest [Centre for Disease Control](#).

Location	Phone
Darwin (Top End Region)	(08) 8922 8044 1800 008 002
Katherine (Big Rivers Region)	(08) 8973 9049
Tennant Creek (Central Australia Region)	(08) 8962 4259
Alice Springs (Central Australia Region)	(08) 8951 7540
Nhulunbuy (East Arnhem Region)	(08) 8987 0357

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