QUEENSLAND MUSEUM

MELIOIDOSIS DISEASE

FACT SHEET



Q26-027

Queensland Government

WHAT IS MELIOIDOSIS DISEASE?

Melioidosis is a sapro-zoonotic disease (sapronosis) caused by the bacterium *Burkholderia pseudomallei*. Melioidosis occurs in tropical areas of Australia (Northern Territory, northern Queensland and northern Western Australia). The bacteria can infect a wide range of animals, including humans.

Melioidosis is an environmental disease found naturally in Australia.

Natural hosts

There is no natural reservoir host as *B. pseudomallei* lives in soil and water. It does not need an animal host to survive and is only rarely transmitted from animal to human.

How is it spread?

Infection occurs when the bacteria enter the body through:

- broken skin (cuts or wounds)
- inhalation of contaminated soil or water droplets
- ingestion of contaminated, unchlorinated water (rare).

The bacteria live naturally in soil and surface water. The risk of infection increases during the wet season and after heavy rainfall or flooding, as the bacteria rise to the surface of the soil as water levels rise.

High-pressure washing can create fine aerosolised particles or dust containing the pathogen that become suspended in the air. These small particles can travel long distances and remain airborne for long periods, allowing them to be inhaled by individuals who are not in immediate contact with the original source.

The bacteria can infect a wide range of animals, such as:

- terrestrial and aquatic mammals (e.g. wallabies, koalas, tree kangaroos, pinnipeds and giant white-tailed rats)
- birds (e.g. emus, galahs, sulphur-crested cockatoos and rainbow lorikeets)
- saltwater crocodiles and fish
- domestic animals and livestock (e.g. dogs, sheep, goats and pigs).

Exposure to contaminated soil or muddy water is the main source of infection.



Infected animals shed the bacteria in fluids (e.g. nasal secretions, milk, urine, faeces). Animal-to-animal transmission occurs and, though rare, animal-to-human transmission can happen in shared environments.

People become infected from the environment, not from each other.

Who is at risk?

People living in tropical Australian regions (areas with warm and humid climates).

- Construction workers, farmers, agricultural workers, landscapers, rangers, field scientists and other people who perform outdoor work.
- People with diabetes, kidney disease, lung disease or weakened immune systems.

Most Australian cases occur during the wet season.

What are the symptoms?

In animals

Infection with *B. pseudomallei* can have a wide range of clinical manifestations or can be latent (asymptomatic). Animals may show a range of signs depending on the species.

Symptoms may include:

- pneumonia
- abscesses or lesions
- septicaemia
- sudden death.

In humans

Some cases have no symptoms (are asymptomatic) while others cause an illness that starts like pneumonia or flu, appearing 1–21 days after infection. This may progress rapidly to severe illness that can be fatal.

Symptoms may include:

- fever
- cough
- shortness of breath
- confusion
- headache
- pneumonia
- skin sores or abscesses
- muscle and joint pain
- sepsis.

⚠ Melioidosis can be life-threatening if left untreated.

How can I prevent infection?

There is no vaccine available for melioidosis, and you can get it more than once. The best way to avoid infection is through protecting yourself when in known melioidosis areas (tropical Australian regions).

Prevention measures include:

- Wash cuts or wounds with soap and clean water.
- Cover cuts or sores when you are outside.
- Avoid contact with muddy water where possible.
- Wear protective footwear (waterproof shoes) and rubber gloves in wet and muddy conditions.
- Wear a mask when you use a high-pressure hose.

ⓘ Prevention focuses on reducing exposure to potentially contaminated soil and water.

What treatments are available?

Treatment requires long courses of antibiotics and often includes hospital care.

ⓘ Early diagnosis and treatment greatly improve outcomes.

If you think you may have been exposed to melioidosis, please contact your doctor or public health agency for further advice.

Cover: *Burkholderia pseudomallei* bacteria grown on sheep blood agar for 48 hours. Courtesy: Alamy/Gado Images
Page 2: A flooded creek caused by heavy tropical rainfall near Mackay, central Queensland. Courtesy: Alamy/Michele Jackson

Last updated: June 2026

Disclaimer

This fact sheet is managed by Queensland Museum for information purposes only. It includes information drawn from a variety of sources external to Queensland Museum. Although reasonable care has been taken in its preparation, Queensland Museum does not guarantee or warrant the accuracy, reliability, completeness or currency of the information. This fact sheet should not be relied on in place of professional veterinary or medical consultation. Queensland Museum is not liable for any loss, damage, cost or expense incurred by or arising from any person relying on information in this fact sheet. Individuals should accordingly make their own assessments and enquiries to verify the accuracy of the information provided.