
Buruli ulcer

Summary

- Buruli ulcer is a skin disease caused by the bacterium *Mycobacterium ulcerans*.
 - The toxins made by the bacteria destroy skin cells, small blood vessels and the fat under the skin, which causes ulceration and skin loss.
 - Since the ulcer gets bigger with time, early diagnosis and prompt treatment can minimise skin loss.
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Buruli (also known as Bairnsdale) ulcer is a skin disease caused by the bacterium *Mycobacterium ulcerans*. The toxins made by the bacteria destroy skin cells, small blood vessels and the fat under the skin, which leads to ulceration and skin loss.

These bacteria are found naturally in the environment – for example, they have been detected in mosquitoes, vegetation and possum poo from some possum species in areas where there are cases of Buruli ulcer.

It is not known how humans become infected, although it is thought that mosquitoes may have a role in transmitting the infection. Buruli ulcer is not thought to be transmitted person-to-person.

The number of cases in Victoria varies widely from year to year, but numbers have been increasing each year from 2013.

Symptoms of Buruli ulcer

The progression of symptoms can include:

- A spot that looks like a mosquito or spider bite forms on the skin (most commonly on the limbs).
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- The spot grows bigger over days or weeks.
- The spot may form a crusty, non-healing scab.
- The scab then disintegrates into an ulcer.
- The ulcer continues to enlarge.
- Unlike other ulcers, this ulcer is usually painless and there is generally no fever or other signs of infection.
- The infection may sometimes present with no ulceration but with localised pain, swelling and fever, raised lumps, or thickened or raised flat areas of skin.

Locations of Buruli ulcer outbreaks

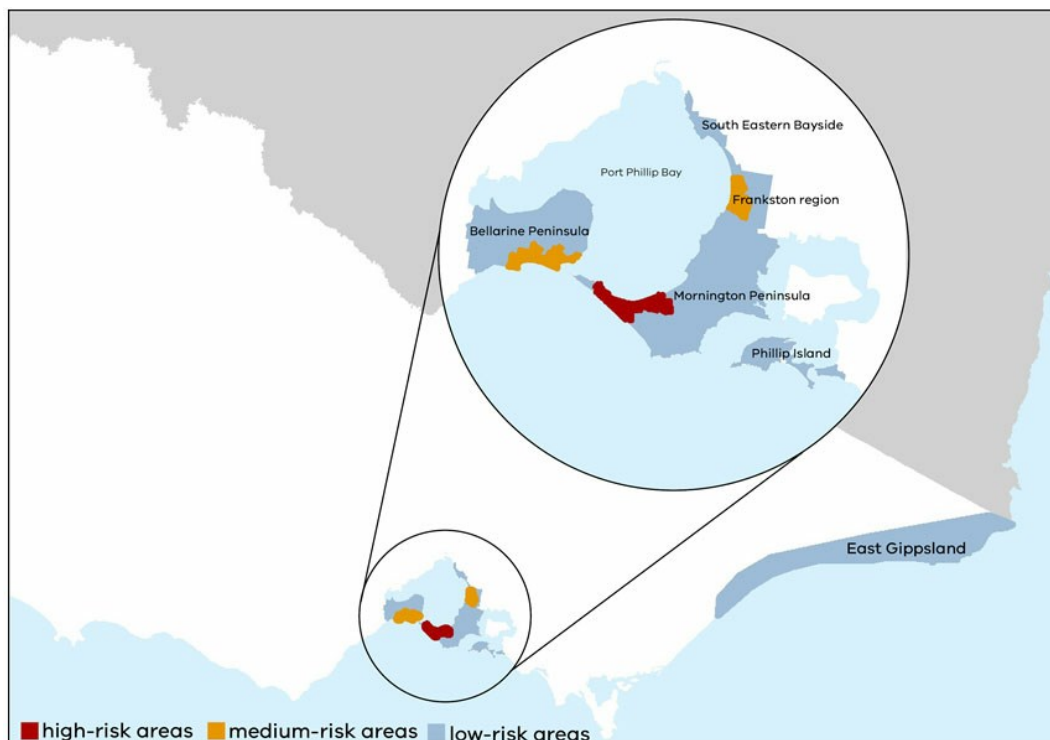
Buruli ulcer has been reported in 33 countries around the world. Affected areas include rural West Africa, Central Africa, New Guinea, Latin America and tropical regions of Asia.

In Australia, Buruli ulcer most commonly occurs in localised coastal areas of Victoria.

Buruli ulcer was first diagnosed in the Bairnsdale area in the 1930s. Since then a growing number of cases have been reported in the Bellarine Peninsula and, since 2012, the Mornington Peninsula.

There are three recognised levels of risk in the areas where Buruli ulcer is endemic (constantly present in the community) in Victoria:

- The highest risk is associated with the active transmission areas of Rye, Sorrento, Blairgowrie and Tootgarook on the Mornington Peninsula.
- There is a moderate risk associated with areas in the Bellarine Peninsula (Ocean Grove, Barwon Heads, Point Lonsdale, Queenscliff), and the Frankston and Seaford areas.
- There is a low but material risk associated with the rest of the Bellarine and Mornington Peninsula, the South Eastern Bayside suburbs and East Gippsland.



Diagnosis of Buruli ulcer

Buruli ulcer is usually diagnosed by a doctor, based on:

- medical history
- travel history – if you have travelled to an area associated with Buruli ulcer
- physical examination – to identify a slowly enlarging, painless ulcer

- swabs or biopsy taken from the ulcer, which are tested in a laboratory.

Treatment for Buruli ulcer

Most Buruli ulcers can be treated with a course of specific oral antibiotics. Surgery is sometimes used in combination with antibiotic therapy. If surgery is required, a small amount of surrounding healthy tissue is also cut out to make sure the infection is completely removed. Depending on the extent of surgery, skin grafts may be needed to close the wound.

Sometimes the ulcer can return after surgery, requiring another course of antibiotics or an operation (or both).

As the ulcer gets bigger with time, early diagnosis and prompt treatment can minimise skin loss.

Prevention of Buruli ulcer

Although the exact cause of infection in humans is not known, it makes sense to protect yourself from potential sources of infection such as soil and insect bites.

Suggestions to reduce the risk of infection include:

- Wear gardening gloves, long-sleeved shirts and trousers when working outdoors.
- Avoid insect bites by using suitable insect repellents.
- Protect cuts or abrasions with sticking plasters.
- Promptly wash and cover any scratches or cuts you receive while working outdoors.
- See your doctor if you have a slow-healing skin lesion.

It is important to remember that the risk of infection is low, even in those areas where the infection is endemic (constantly present in the community).

Where to get help

- Your **GP (doctor)**
- Infectious disease physician
- **Dermatologist**

This page has been produced in consultation with and approved by:

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