

Leprosy (Hansen's Disease)

What is leprosy?

Leprosy is an infection caused by the bacteria, *Mycobacterium leprae*.

Leprosy often affects the nerves of the hands, feet and face, skin and mucous membranes of the nose. There is often misunderstanding about leprosy because of fear of catching the disease and the disabilities it can cause.

It is not highly infectious and long periods of contact with an infectious person are usually needed for disease transmission. It is easily treatable with antibiotics.

Leprosy is curable and treatment provided in the early stages prevents or minimizes permanent damage to the skin, nerves, limbs and eyes.

Where does leprosy occur?

There were 202,256 new leprosy cases registered globally in 2019, according to official figures from 161 countries from the 6 WHO Regions.

Control of leprosy has improved significantly over the last 20 years due to national campaigns in many countries around the world.

In Australia leprosy is rare and found mainly in Northern Australian Aboriginal people and migrants from overseas countries in Asia, the Pacific and Africa where leprosy is more common.

How is it spread?

Leprosy is not a very contagious infection. It is transmitted by droplets from the nose and mouth when people are in close and frequent contact with an infectious person.

The great majority of people who come in contact with untreated leprosy are unlikely to become infected. In fact, it is close family contacts who are most at risk of catching the infection.

Infectious cases become non-infectious soon after starting regular treatment.

What are the symptoms?

A discoloured skin patch, often coppery in colour, a thick nerve and loss of sensation are the early signs of leprosy. Numbness in the hands or feet, swollen nerves, eye problems, wounds or deformities on the hands or feet or skin are changes that might indicate leprosy.

Types of leprosy

The way that leprosy presents is determined by a person's immune response to the disease. If the infected person has little resistance the bacteria multiply and this is called multibacillary leprosy (previously referred to as lepromatous leprosy).

If the infected person has a high level of resistance, most of the bacteria are destroyed and this end of the spectrum of disease is called paucibacillary leprosy (previously referred to as tuberculoid leprosy).

How is leprosy diagnosed?

The diagnosis of leprosy is often delayed because it is not considered, especially in countries like Australia where it is rare. Some people with leprosy may have a close family member with the disease, but often people do not know the source of their disease.

A doctor or nurse will ask about and look for numbness in the hands or feet, swollen nerves, eye problems, wounds or deformities on the hands or feet or skin changes that might indicate leprosy. A doctor or nurse may make a tiny cut in the skin to take a small sample of fluid under the skin to send to a laboratory for testing under the microscope and for DNA testing.

If the tests are positive under the microscope or *Mycobacterium leprae* DNA is detected in the sample or other biopsy specimens then leprosy is diagnosed.

If a person suspects he/she has leprosy, advice can be sought from the Centre for Disease Control (TB/Leprosy Unit), Building 4, Royal Darwin Hospital phone (08) 8922 8804 or from any Centre for Disease Control in Nhulunbuy, Katherine, Tennant Creek or Alice Springs.

People who live remotely may consult the Remote Medical Officers who regularly visit many of the rural community care centres in the Northern Territory. Discussion with General Practitioners (GPs) or Infectious Disease physicians may also be appropriate.

What is the treatment?

Leprosy can be completely cured with multidrug therapy (MDT). MDT means taking 3 special antibiotics (rifampicin, dapsone and clofazimine) for between 6 months and 2 years, depending on the type of leprosy. After only a few doses of MDT people with leprosy are no longer infectious to others, but to cure their disease they need to take all the antibiotics as prescribed by their doctor. People with leprosy usually do not need to stay in hospital for treatment. Treatment is free.

Care for deformities and disabilities

Leprosy can often damage nerves and cause deformities, especially if the diagnosis of the disease is delayed. Unfortunately the damage that results, often to the hands or feet cannot be cured with the antibiotics: these are the scars of leprosy.

Occupational therapists and physiotherapists can help people take special care of their hands and feet to avoid developing further problems.

Reconstructive surgery can be done for people with a range of deformities and disabilities from leprosy making it possible for them to live independent and productive lives.

How is leprosy controlled?

Leprosy is becoming less common around the world. Screening programs in the past have resulted in early detection of leprosy.

Effective treatment programs with MDT therapy have reduced transmission of the disease. People living in the same house as a person with leprosy should be examined and followed up by a doctor or nurse as recommended in the [Leprosy Guidelines](#).

Contact

For further information contact the [TB Clinic](#) in your region.

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

PGC ID: HEALTHINTRA-1880-15371		TRM ID: EDOC2022/382188	
Version: Version: 9.0 DO NOT EDIT THIS	Approved Date: 5/12/2023	Review Date: 5/12/2028	