

Leprosy is now considered to be a rare disease in Australia; however, eradication of the disease has not been achieved.

Leprosy

Last updated: 1 July 2012

What is Leprosy?

Leprosy is a chronic disease caused by a bacillus, *Mycobacterium leprae* (*M. leprae*).

The *M. leprae* organism multiplies very slowly and the incubation period of the disease varies from months to 30 years with an average of 4 years for tuberculoid leprosy and 10 years for lepromatous leprosy.

Leprosy mainly affects the skin and peripheral nerves. If left untreated, it can lead to progressive and permanent damage of nerves, leading to loss of sensation and sweating in the extremities and paralysis of muscles in the hands, feet and face.

The disease is classified according to the extent of disease.

What are the symptoms?

The usual clinical presentation varies between the two polar forms, lepromatous and tuberculoid leprosy. Host immune response determines the clinical features.

In lepromatous leprosy, there is a high bacillary load and more severe disseminated disease. Nodules, papules, macules and diffuse infiltrations are bilaterally symmetrical and usually numerous and extensive. The skin lesions may not be anaesthetic or hypopigmented. The nasal mucosa may be involved, and iritis and keratitis can occur.

In tuberculoid leprosy there is a lower bacillary load, skin lesions are single or few, sharply demarcated, anaesthetic or hyperaesthetic and bilaterally asymmetrical; peripheral nerve involvement tends to be severe.

How is it spread?

The exact mechanism of transmission is not well understood, although person to person spread via nasal droplets is believed to be the main route. Large amounts of *M leprae* organisms have been found in the nasal secretions of people with untreated lepromatous leprosy.

Leprosy is one of the least infectious diseases, because:

- Over 99% of the population has adequate natural immunity;
- Over 85% of the clinical cases are non-infectious, and
- An infectious case is rendered non-infectious within one week, most often after the very first dose of treatment.

Who is at risk?

The overwhelming majority of people who are exposed to leprosy do not develop the disease. Those at greatest risk are people who have lived in a household-like setting with a person with leprosy for more than a month. Extended close contact is required for people to be exposed to leprosy.

How is it prevented?

Minimising the potential for exposure to leprosy is an important prevention strategy. Prevention strategies for Leprosy include:

- identifying people with leprosy and providing the appropriate therapy to render them non infectious
- contact identification, examination and counselling, and
- health education to improve patient adherence to treatment and reduce stigma.

How is it diagnosed?

The diagnosis of leprosy is based primarily on demonstrated clinical features and can be confirmed by skin smears, skin biopsy or nerve biopsy. A complete history and physical examination including skin examination, nerve palpation and assessment, eye examination and an assessment for deformity, and disability in addition to laboratory tests are essential to diagnose leprosy.

How is it treated?

It is important to know that leprosy can be cured. Medication should be administered under the supervision of a specialist physician. Multi drug therapy is used to effectively treat leprosy.

Current treatment regimens consist of 6 months of daily dapsons and monthly rifampicin for paucibacillary leprosy, and daily dapsons and clofazimine and monthly rifampicin for multibacillary leprosy for a 24 month period to reduce the risk of relapse. Specialist advice should be sought for detailed treatment regimens.

What is the public health response?

Laboratories and doctors must notify cases of leprosy to their local Public Health Unit. Individual cases are managed by specialised physicians. Public health action focuses on effective treatment of individuals with multi drug therapy, follow up, counselling and education of contacts.

For further information please call your local Public Health Unit on 1300 066 055 or visit the New South Wales Health website www.health.nsw.gov.au