

Leprosy explained

Leprosy is a chronic bacterial infection of the skin and superficial nerves. It may also involve the nose, eyes, throat and testicles. Leprosy is also known as Hansen's disease, Hanseniasis or HD.

The organism that causes leprosy is called *Mycobacterium leprae*. Leprosy is common in parts of tropical and subtropical Asia, Africa, Central and South America, some Pacific countries, and in parts of the USA. In Australia, leprosy is now rare. With the introduction of multi-drug therapy in the early 1980s, the disease is now curable.

The main characteristics of leprosy

Leprosy is characterised by skin lesions. Other effects of leprosy are due to its impact on the nervous systems of the body.

Leprosy does not affect the central nervous system. However, it can affect the sensory, peripheral, motor and autonomic nerves in the following ways:

- **Sensory nerve damage** – when the sensory nerves are damaged, they cannot register pain. This leaves the extremities of hands and feet vulnerable to burns and injuries that can result in loss of fingers, toes, hands and feet.
- **Eye nerve damage** – when the eye is affected, it can lead to blindness, particularly if the person does not know how to prevent injury due to dust or other irritants.
- **Motor nerve damage** – when the motor nerves are involved, various forms of paralysis can occur such as 'dropped foot', 'dropped wrist', 'clawed hand', or Lagophthalmos (where the eye cannot close).
- **Autonomic nerve damage** – this can cause hair loss and can affect the ability to sweat, leaving the skin dry and cracked and exposed to secondary infection.

Lost limbs are a myth

Leprosy does not cause flesh to rot and fingers and toes to drop off. In the past, limbs that have been damaged because the person cannot feel pain have sometimes had to be amputated. Now that the disease can be detected early, the need to amputate is rare.

How leprosy is transmitted

It is considered likely that leprosy is spread from person to person in respiratory droplets or, in cases of children under one year of age, via the placenta.

Leprosy is not highly infectious. People at risk are generally in close and frequent contact with leprosy patients or living in countries where the disease is more common. The incubation period is thought to range from nine months to 20 years.

Treatment

Before the introduction of multi-drug therapy in the early 1980s, the disease could only be slowed but not cured, as the bacteria could not be killed.

New bactericidal drugs used in conjunction with other drugs mean the disease is now curable. Once a person with leprosy begins appropriate treatment, they quickly become non-infectious.

Vaccination against leprosy

There is no vaccine generally available to specifically prevent leprosy. However the vaccine against tuberculosis (TB), called the BCG vaccine, may provide some protection against leprosy. This is because the organism that causes leprosy is closely related to the one that causes TB.

Where to get help

- Your doctor

Things to remember

- Leprosy is a chronic bacterial infection.
- Leprosy affects the various nervous systems of the body, particularly the skin and peripheral nerves.
- The disease is more common in tropical and subtropical areas.
- The disease is curable through multi-drug therapy.

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

Department of Health - Communicable Disease Prevention and Control Unit

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