
Leprosy (Hansen's disease)

Summary

- Leprosy is a chronic bacterial infection.
 - It affects the skin and various nervous systems of the body, particularly the peripheral nerves.
 - Leprosy is more common in tropical and subtropical areas.
 - The disease is curable through multi-drug therapy.
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Leprosy is a chronic bacterial infection of the skin and superficial nerves (in the skin) caused by *Mycobacterium leprae*. It may also involve the nose, eyes, throat and testicles. Leprosy is also known as Hansen's disease, Hanseniasis or HD. 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.

Symptoms of leprosy

The main symptom of leprosy is skin lesions. Other effects of leprosy are due to its impact on the body's nervous system.

Leprosy does not affect the central nervous system. However, it can affect the peripheral nervous system (PNS) (sensory, motor and autonomic nerves) by:

- **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** – the autonomic nerves regulate the PNS body functions, such as blood pressure, heart rate, sweating, bowel and bladder emptying, and digestion. Damage to the autonomic nerves can cause hair loss and can affect the ability to sweat, leaving the skin dry and cracked and exposed to secondary infection.

Leprosy – lost limbs are a myth

Leprosy does not cause flesh to rot or 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 not known how leprosy is transmitted. It is thought likely that leprosy is spread from person to person in respiratory droplets (droplets expelled from the nose and mouth, for example when an infected person coughs or sneezes). In cases of leprosy in children under one year of age, it is thought possible that the infection may have been transmitted from the mother 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 over 20 years.

Treatment for leprosy

Before the introduction of multi-drug therapy in the early 1980s, leprosy could only be slowed but not cured, as the bacteria could not be killed. Now, with the use of antibiotics and with other medicines, the disease is 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

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

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