

## Leprosy (*Mycobacterium leprae*)

Leprosy, also known as Hansen's disease, is a disease caused by *Mycobacterium leprae* bacteria. This chronic infectious disease usually affects the skin and peripheral nerves but has a wide range of possible clinical manifestations.

### Transmission

**It is not known exactly how leprosy spreads** between people. **It may spread** from

- **Person to person** when someone with the disease coughs or sneezes, which can release droplets into the air. It may also happen through exposure to other nasal fluids (also known as secretions). Droplets and other secretions can contain the bacteria that cause leprosy. If you breathe these in, you can become sick with the disease.

In the U.S., leprosy is rare. Around the world, as many as 2 million people are permanently disabled as a result of leprosy. Overall, the risk of getting leprosy for any adult around the world is very low. More than 95% of all people have natural immunity to the disease.

### Symptoms

Symptoms mainly affect the skin, nerves and mucous membranes (the soft, moist areas just inside the body's openings). The disease can cause:

- **Skin lesions that may be faded/discolored**
- **Growths on the skin**
- **Thick, stiff, or dry skin**
- **Severe pain**
- **Numbness in affected areas of the skin**
- **Muscle weakness or paralysis (especially in hands and feet)**
- **Enlarged nerves (especially those around elbows and knees)**
- **Stuffy nose**
- **Nosebleeds**
- **Ulcers on the soles of feet**

Since leprosy affects the nerves, loss of feeling or sensation can occur. When loss of sensation occurs, injuries (such as burns or fractures) may go unnoticed. You should always try to avoid injuries. But, if you experience loss of sensation due to leprosy (or another cause), you may not feel pain that can warn you of harm to your body. Take extra caution to ensure your body is not injured.

The bacteria that cause leprosy grow very slowly. It usually takes three to five years for symptoms to appear but ranges from one to 20 years.

Past infection does not make a person immune.

### Diagnosis

A skin biopsy is needed to diagnose leprosy.

## Treatment

**Leprosy is easily treatable with a combination of antibiotics over the course of six months to two years.**

Tell your health care provider if you experience numbness or a loss of feeling in certain parts of the body to prevent injuries that may occur.

## Prevention

**The best way to prevent the spread of leprosy is early diagnosis and treatment of people who are infected.** Household and other close contacts should be seen by a health care provider as soon as possible and then every year for five years after contact with a person who has the disease.

- **Armadillos and leprosy:** Some armadillos in the southern U.S. are naturally infected with leprosy. While you can get the disease from an armadillo, the risk is low. Most people who come into contact with armadillos are unlikely to get leprosy. If you decide to see a health care provider because of contact with an armadillo, make sure you provide a complete history of armadillo contact. Your health care provider can determine whether or not you have the disease.

For more information about the treatment of leprosy, visit [cdc.gov/leprosy](https://www.cdc.gov/leprosy). If you have further questions about the treatment of leprosy, contact your health care provider.

## Exclusion Guidance

**Individuals with leprosy should not be excluded from work, school, or child care** unless general exclusions apply.

For additional information about leprosy, contact North Dakota Health and Human Services' Public Health Division at 800.427.2180.

### Resources:

1. Centers for Disease Control and Prevention. (2022, March 31). *Leprosy*. Centers for Disease Control and Prevention. Retrieved June 26, 2023, from [www.cdc.gov/leprosy/](https://www.cdc.gov/leprosy/).
2. Kimberlin, D. W., Barnett, E. D., Lynfield, R., Sawyer, M. H. (2021) Red Book: 2021-2024 Report of the Committee on Infectious Diseases. 31<sup>st</sup> ed. American Academy of Pediatrics. [Leprosy][pages 472-475].