

## Hansen's Disease

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Hansen's disease, caused by *Mycobacterium leprae*, is an infectious disease that primarily affects the skin and the peripheral nerves. This disease, also known as leprosy, has been known for thousands of years, with the earliest descriptions recorded in India and China around 600 BC. Historically, persons with Hansen's disease were considered to have a mysterious and incurable malady, and often were isolated and ostracized. However, since the 1940s, when the sulfones were first used, significant advances in treatment have made this disease treatable and even curable. An estimated 6,500 patients currently are being treated in the US. Approximately 200 to 250 new cases are reported annually and 80 to 90% of these are immigrants, mostly from Mexico. Untreated patients with *M. leprae* in the upper respiratory tract are thought to be the main source of infection. About 95% of the world's population has a natural immunity to the *M. leprae* bacillus. In the past it was believed that transmission required prolonged close contact with someone known to be infected. However, about 75% of patients in countries such as the United States have no known contact. Some studies now show that *M. leprae* can survive outside the human body, suggesting the possibility of indirect transmission.. Research also has shown that a zoonotic infection similar to Hansen's disease may cause human disease.

Hansen's disease cases are classified into 2 groups:) paucibacillary. (indeterminate, tuberculoid, and borderline tuberculoid) and multibacillary (midborderline, borderline lepromatous, and lepromatous). Tuberculoid disease is characterized by one or several skin lesions that have persisted for months or even years, producing little or no symptoms, and have not responded to usual treatment. Lepromatous and borderline lepromatous patients have more numerous skin lesions, which may be macular or nodular and may not be anesthetic. Since 1988 the World Health Organization (WHO) has recommended that any patient whose skin smear contains any acid-fast bacilli should be classified as multibacillary. Clinical examination should focus on a thorough and careful examination of the skin, neurological evaluation of the extremities, and the eyes. Hansen's disease has a wide spectrum of presentations and stages and can be confused with many other more common dermatologic, neurologic and ophthalmologic conditions with which it can be confused. Failure to respond or very slow response to standard treatment for the more common conditions with antibiotic, antifungal, or anti-inflammatory medication can be a sign that the condition might be Hansen's disease.

Hansen's disease has been reported in Florida since 1921. Up until 1975, an average of four cases were reported each year, with 80% of the 226 cases occurring in persons residing in Monroe, Dade and Hillsborough Counties at the time of onset. Another 82 cases have been reported during the next two decades (1976-95). A demographic analysis of 24 confirmed or probable cases reported between 1987 and 1995, found 71% white, 58% hispanic, and 54% male with ages ranging from 28 to 84 years (mean age 50). Over one-half (57%) of the cases resided in southeast Atlantic Coast counties, with others from counties along the south-central Gulf Coast or mainland.

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