

California cases show home-grown leprosy is still a threat

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Leprosy is an ancient infectious disease, but it has not been banished to

the past, or from the United States.

That's the key takeaway from a new report describing six cases of [leprosy](#) among California residents. All were diagnosed between 2017 and 2022, and all were U.S.-born—that is, not hailing from a country where leprosy remains relatively common.

It's not clear where or how the patients contracted leprosy—a disease that, without treatment, can cause complications like paralysis, blindness and disfigurement.

But the disease remains rare in the United States, and experts stressed that the [average person](#) should not add it to their list of things to worry about.

"There's no reason to be alarmed," said [Dr. Brandon Adler](#), a clinical assistant professor of dermatology at the University of Southern California in Los Angeles.

He and his colleagues describe the six cases in a letter published in the June 29 issue of the *New England Journal of Medicine*.

According to co-author [Dr. Maria Ochoa](#), the point is to get leprosy on doctors' radar, as few in the United States—and many other countries—would have ever seen a case.

"We just want to raise awareness," said Ochoa, a clinical professor of dermatology at USC.

That's critical, both doctors said, because the infection can be cured with antibiotics. But timely treatment is important, to prevent complications from nerve damage.

Leprosy, which is now called Hansen's disease, is one of the oldest known infectious diseases, caused by bacteria called *Mycobacterium leprae*. It mainly affects the skin and nerves, and common signs and symptoms include discolored patches of skin that may be numb or tingly; lumps on the skin; painless ulcers on the soles of the feet; and muscle weakness from [nerve damage](#), often in the hands and feet.

Without treatment, those symptoms can progress to irreversible complications: The hands and feet can become paralyzed, affected fingers and toes may be reabsorbed by the body, and damage to certain nerves can cause blindness.

Worldwide, more than 200,000 people are diagnosed with leprosy each year, largely in Southeast Asia, according to the World Health Organization. In the United States, about 150 cases are reported in any given year, according to the U.S. Centers for Disease Control and Prevention.

Leprosy was once widely feared, and people with it were stigmatized and isolated in "leper colonies."

But modern understanding of the disease is far different. It's not easily transmitted, Adler said. People do not get it from shaking hands or sharing an elevator.

In fact, Adler said, experts believe that the vast majority of people—around 95%—have immune system protection from falling ill.

That's true even of people who live with someone with leprosy, according to [Dr. Jessica Fairley](#), director of the Emory Hansen's Disease Program at Emory University in Atlanta.

"We really don't see household contacts get it," she said. "You can be

around someone for years and not get it."

Fairley agreed that the average person does not need to worry about leprosy.

"But is there a lack of awareness among doctors?" she said. "Yes, and that should change."

The six patients in the new report were treated at USC's leprosy clinic. All were men, U.S.-born and older—with five older than 65.

That makes them atypical, Adler said. Generally, leprosy affects [younger people](#), and in the United States, most reported cases are among people from areas of the world where the disease remains endemic, occurring regularly.

It's not clear how the men contracted leprosy. All reported a history of international travel, but it's not possible to draw a line between those excursions and any leprosy exposure.

The problem, the doctors said, is that the culprit bacterium grows so slowly that years, even decades, can pass between exposure and any symptoms.

Even though leprosy has been known since biblical times, Fairley said a lot remains unknown—including exactly how the infection is transmitted and why only certain people are susceptible to becoming ill.

Research has revealed one way that Americans could be exposed to the leprosy bacterium: armadillos. In the southern United States, certain armadillos are naturally infected with the bug, and contact with the animals has been implicated in some U.S. cases.

Interestingly, Adler said, one of his team's patients said he'd been exposed to armadillos—but 50 years prior.

Fairley's advice: "I wouldn't touch an armadillo."

All the patients were treated with antibiotics, but at that point five had developed some degree of disability in their hands and feet. Three patients had gone four to eight years before receiving the correct diagnosis for their symptoms.

Still, all three doctors stressed that the risk be kept in context. People need not worry about leprosy exposure through routine travel or contact with travelers, Adler said.

And, Fairley said, "if you know someone with leprosy, there's no reason to stigmatize them. It's a bacterial infection. We never should've isolated people over this."

More information: The U.S. Centers for Disease Control and Prevention has more on [leprosy](#).

Annika Belzer et al, Autochthonous Leprosy in the United States, *New England Journal of Medicine* (2023). [DOI: 10.1056/NEJMc2302317](https://doi.org/10.1056/NEJMc2302317)

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