

Legionnaires' Disease

CDC DISCOVERIES



The Basics

- Identified in 1976
- Legionnaires' disease is contracted by breathing in a mist or vapor containing the bacteria.
- The bacteria are not spread from one person to another.
- Symptoms usually begin 2–14 days after exposure.
- There are no vaccines that can prevent Legionnaires' disease.

Symptoms

- Cough
- Shortness of breath
- High fever
- Muscle aches
- Headaches

In 1976, CDC (in cooperation with other federal, state, and local authorities) launched one of the largest disease investigations in U.S. history following an outbreak of severe pneumonia (lung infection) among the participants of the American Legion Convention in Philadelphia, Pennsylvania. As a result, CDC identified the new bacterium (*Legionella pneumophila*) that was spread through the hotel's air conditioning system. On July 27, three days after the convention ended, the first victim died. Within a week, more than 130 people, mostly men, had been hospitalized, and 25 had died. All had attended the convention and stayed at the same hotel.

Each year, between 8,000 and 18,000 people are hospitalized with Legionnaires' disease in the United States. People get Legionnaires' disease when they breathe in a mist or vapor (small droplets of water in the air) containing the bacteria. One example might be from breathing in droplets sprayed from a hot tub that has not been properly cleaned and disinfected. The bacteria grow best in warm water, like the kind found in hot tubs, cooling towers, hot water tanks, large plumbing systems, and decorative fountains. They do not seem to grow in car or window air-conditioners. Most healthy individuals do not become infected with *Legionella* bacteria after exposure.

The Legionella bacterium causes a type of pneumonia that got its name after the 1976 outbreak at an American Legion convention in Philadelphia.



CDC is the nation's health protection agency, working 24/7 to protect America from foreign and domestic public health threats. Since its inception, the CDC has been committed to identifying and investigating new pathogens or causes of illness.



Centers for Disease Control and Prevention
Office of the Associate Director for Communication

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Saving Money through Prevention.™

Who is at risk?

- Older people (usually 50 years of age or older)
- Current or former smokers
- Those with a chronic lung disease (like COPD or emphysema)
- Those with a weak immune system from diseases like cancer, diabetes, or kidney failure
- People who take drugs that suppress (weaken) the immune system (like after a transplant operation or chemotherapy)

Treatment

Legionnaires' disease requires treatment with antibiotics (drugs that kill bacteria in the body), and most cases of Legionnaires' disease can be treated successfully with antibiotics. Healthy people usually get better after being sick with Legionnaires' disease, but hospitalization is often required. About 15 out of 100 people who get Legionnaires' disease will die from the infection.

Protection

The key to preventing Legionnaires' disease is maintenance of the water systems in which *Legionella* grow, including drinking water systems, hot tubs, decorative fountains, and cooling towers. People at increased risk of infection may choose to avoid high-risk exposures, such as being in or near a hot tub.

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of note ...



More illness is usually found in the summer and early fall, but it can happen any time of year. Additionally, many infections are not diagnosed or reported, so the number affected may be higher.