

IDRS Infectious Disease Reporting System

Disease Reporting 24 Hours a Day

Columbus Public Health and Franklin County Public Health

LEGIONELLOSIS

Legionellosis is an infection caused by the bacterium *Legionella pneumophila*. Legionnaires' Disease acquired its name in 1976 when an outbreak of pneumonia occurred among persons attending a convention of the American Legion in Philadelphia. A milder form of the infection without pneumonia is called Pontiac Fever.

Symptoms

People usually develop symptoms within 2 to 10 days of exposure to the bacteria, including:

- Fever, chills
- Cough, which may be dry or may produce phlegm
- Muscle aches, headache
- Tiredness, loss of appetite
- Pontiac Fever is a milder form that includes fever and muscle aches, but without pneumonia.
- These symptoms usually begin 2 to 14 days after being exposed to the bacteria.

Transmission

- The *Legionella* bacteria are found naturally in the environment, usually in water. The bacteria grow best in warm water, like the kind found in hot tubs, cooling towers, hot water tanks, large plumbing systems, or air-conditioning systems of large buildings. They do not seem to grow in car or window air-conditioners.
- People get Legionnaires' disease when they breathe in a mist or vapor (small droplets of water in the air) that has been contaminated with the bacteria. One example might be from breathing in the steam from a whirlpool spa that has not been properly cleaned and disinfected.
- Persons may be exposed to these mists in homes, workplaces, hospitals, or public places. More illness is usually found in the summer and early fall, but it can happen any time of year.
- Legionellosis is not passed from person to person.
- Anyone can develop Legionnaires' disease, but the illness most often affects middle-aged and older persons, particularly people who smoke or have other lung problems. Also at increased risk are persons whose immune system is weakened by diseases such as cancer, organ transplants, diabetes, or AIDS. Pontiac fever most commonly occurs in persons who are otherwise healthy.

Treatment

- Symptoms of Legionnaires' disease are similar to other types of pneumonia, so other tests are needed for diagnosis. Chest X-rays can find the pneumonia caused by the bacteria, and other tests can be done on sputum (phlegm), as well as blood or urine (pee) to find evidence of the bacteria in the body.
- Legionnaires' disease can be very serious and can cause death in up to 5% to 30% of cases. Most cases can be treated successfully with antibiotics, and healthy people usually recover from infection.

Prevention

- Improvements in the design and maintenance of cooling towers and plumbing systems will help limit the growth of *Legionella* organisms and prevent them from being released into the air.
- During outbreaks, public health investigators try to identify the source of contaminated water vapor and recommend appropriate prevention and control measures, such as decontamination of the water source. Current research will likely identify additional prevention strategies.

All information is general in nature and is not intended to be used as a substitute for appropriate professional advice.



c/o Franklin County Public Health, 280 East Broad Street, Columbus, Ohio 43215-4562

Call: (614) 525-8888 • After Hours: (614) 525-3965 • Fax: (614) 525-8890

Email: idsr@franklincountyohio.gov • Web: www.idrsinfo.org

