Legionnaires’ Disease

What is Legionnaires' disease?

Legionnaires' disease (LEE-juh-NAH-ruhs) is caused by a type of bacteria called Legionella. The bacteria got its name in 1976, when many people who went to a Philadelphia convention of the American Legion suffered from an outbreak of this disease, a type of pneumonia (lung infection).

Each year, between 8,000 and 18,000 people are hospitalized with Legionnaires' disease in the U.S. However, many infections are not diagnosed or reported, so this number may be higher. More illness is usually found in the summer and early fall, but it can happen any time of year.

How do people get Legionnaires' disease and where do Legionella bacteria come from?

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. The bacteria are NOT spread from one person to another person.

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 parts of the air-conditioning systems of large buildings. They do not seem to grow in car or window air-conditioners.

Who gets this disease?

People most at risk of getting sick from the bacteria are older people (usually 50 years of age or older), as well as people who are current or former smokers, or those who have a chronic lung disease (like emphysema).

People who have weak immune systems from diseases like cancer, diabetes, or kidney failure are also more likely to get sick from Legionella bacteria. People who take drugs to suppress (weaken) the immune system (like after a transplant operation or chemotherapy) are also at higher risk.
What are the symptoms of Legionnaires' disease?

Legionnaires' disease can have symptoms like many other forms of pneumonia, so it can be hard to diagnose at first. Signs of the disease can include a high fever, chills, and a cough. Some people may also suffer from muscle aches and headaches. Chest X-rays are needed to find the pneumonia caused by the bacteria, and other tests can be done on sputum (phlegm), as well as blood or urine to find evidence of the bacteria in the body. These symptoms usually begin 2 to 14 days after being exposed to the bacteria.

Pontiac Fever is a milder infection caused by the same type of Legionella bacteria. The symptoms of Pontiac Fever usually last for 2 to 5 days and may also include fever, headaches, and muscle aches; however, there is no pneumonia. Symptoms go away on their own without treatment and without causing further problems. Pontiac Fever and Legionnaires' disease may also be called "Legionellosis" (LEE-juh-nuh-low-sis) separately or together.

How serious is it? What is the treatment?

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 [drugs that kill bacteria in the body], and healthy people usually recover from infection.

What should I do if I think I was exposed to Legionella bacteria?

Most people exposed to the bacteria do not become ill. If you have reason to believe you were exposed to the bacteria, talk to your doctor. Be sure to mention if you have traveled in the last two weeks. A person diagnosed with Legionnaires' disease in the workplace is not a threat to others who share office space or other areas with him or her.

How is Legionnaires’ disease diagnosed?

Most people with Legionnaires’ disease will have pneumonia (lung infection) since the Legionella bacteria grow and thrive in the lungs. Pneumonia is confirmed either by chest x-ray or clinical diagnosis. Several laboratory tests can be used to detect the Legionella bacteria within the body. The most commonly used laboratory test for diagnosis is the urinary antigen test, which detects Legionella bacteria from a urine specimen, or sample. If the patient has pneumonia and the test is positive, then the patient is considered to have Legionnaires’ disease.

Adapted from the U.S. Centers for Disease Control and Prevention. For more information visit www.healthvi.org and click on the CDC (www.cdc.gov) link.