

Legionellosis Fact Sheet

1. **What is Legionellosis?** - Legionellosis is a disease caused by Legionella bacteria. Fewer than 500 cases of Legionellosis are reported each year in Pennsylvania. Most cases occur as single isolated events, and outbreaks are relatively rare, but occur most often in the summer. The disease has two distinct forms:
 - a. Legionnaires' disease, the more severe form of infection which includes pneumonia, and
 - b. Pontiac fever, a milder and less common illness.
2. **Why is it called Legionellosis?** - A 1976 outbreak of this previously unrecognized disease in Philadelphia, largely among people attending an American Legion convention, led to the media label of Legionnaire's Disease. Subsequently, the bacterium causing the illness was laboratory identified and named *Legionella pneumophila*.
3. **How widespread is Legionellosis?** - It is estimated that about 25,000 people in the United States develop the disease each year. An additional unknown number are infected with Legionella bacteria and have either mild symptoms or no illness at all.
4. **How severe is the illness?** - Legionellosis can be a mild respiratory illness, or severe enough to cause death. Annually, around 8,000 to 18,000 people are hospitalized with Legionnaires disease in the United States. From 10% to 20% of healthy adults in the United States have circulating antibodies to Legionella bacteria, indicating previous exposure and infection, yet only a small percentage of those have any history of pneumonia.
5. **Where are Legionella bacteria found?** - Legionella bacteria are generally associated with water and are widely distributed in the environment. They have been found in creeks and ponds, hot and cold water taps, hot water tanks, water used in air conditioning cooling towers and evaporative condensers, hot tubs and ornamental fountains, and soil at excavation sites.
6. **How is Legionellosis spread?** - The disease appears to be spread through the air from a soil, or a water source. Most commonly the disease occurs when fine aerosols of water (a mist) contaminated with Legionella are generated. To date, all studies show that person-to-person contact does not spread Legionellosis.
7. **Who gets Legionellosis?** - Patients have ranged in age from 10 months to 84 years, however, the majority of the cases occurring after the age of 50. The disease most often affects middle-aged or older men, particularly those who smoke, have chronic lung disease, or drink heavily. Males contract the disease nearly two and a half times more often than females. People with underlying illnesses or those with lowered immune system resistance to disease are at higher risk. Because of these risk factors some outbreaks have occurred in health care settings.

8. **What are the usual symptoms of Legionellosis?** - The early symptoms of Legionellosis may be flu-like with muscle aches, headache, tiredness and dry cough followed by high fever, chills and occasionally diarrhea. Temperatures commonly reach 102 to 105°F, and subsequent chest radiographs often reveal pneumonia. The symptoms usually begin 2 to 14 days after being exposed to the bacteria. Pontiac fever, the milder infection caused by the same type of Legionella bacteria, has symptoms that are nonspecific but typically consist of fever, muscle aches, joint pains, and fatigue.
9. **Can Legionellosis be treated?** – Certain antibiotics are effective in treating the disease.
10. **Why is Legionellosis difficult to diagnose?** - Legionellosis often causes symptoms similar to those caused by influenza virus and other types of bacterial pneumonia. The diagnosis may not initially be suspected by the health care provider. And it may take some time to obtain positive test results. Since diagnosis depends upon either bacterial culture or the comparison of blood antibody levels during and several weeks after the suspect illness, a diagnosis may not be confirmed until after the person is well. Sporadic cases are common and presently not preventable. If an outbreak occurs, an investigation to look for a possible common environmental source is conducted.
11. **How is Legionellosis diagnosed?** – There are a number of ways to confirm the diagnosis. These include culturing the Legionella bacterium from respiratory secretions, special stains to look for the presence of Legionella in respiratory secretions, blood tests for the body's immune response to the infection, or collection of a urine specimen to look for proteins produced by the Legionella. Not all types of Legionella can be diagnosed with the urine test.
12. **How can Legionellosis be prevented?** - There is no vaccine for the disease. Preventive measures include proper maintenance and disinfection of water sources for the infections, such as cooling towers, hot tubs and spas, and hot water systems.
13. **For more information about Legionellosis:**
http://www.cdc.gov/legionella/patient_facts.htm

This fact sheet provides general information. Please contact your physician for specific clinical information.