

West Virginia Department of Health and Human Resources Information for the Public - Legionnaires' Disease and Pontiac Fever

What is legionellosis?

Legionellosis refers to infection with *Legionella* bacteria which can cause two different diseases -- Legionnaires' disease and Pontiac Fever. Legionnaires' disease is a type of pneumonia and is more serious than Pontiac Fever. Each year 8,000 to 18,000 people in the US are hospitalized with Legionnaires' disease. In West Virginia, approximately 20-30 cases per year are typically reported. Although the disease can occur any time, more cases are seen in the summer and early fall.

What are the symptoms of legionellosis?

People with Legionnaires' disease often have high fever, chills, cough, muscle aches, headache, loss of appetite, diarrhea, abdominal pain, and pneumonia. Symptoms begin 2-14 days (usually 5-6 days) after an exposure. Legionnaire's disease can be very serious and must be treated with antibiotics.

People with Pontiac fever have a milder disease with symptoms that include fever, muscle aches, loss of appetite, and headache. This is a mild flu-like illness with symptoms that usually begin within 24-48 hours after exposure. Pontiac fever resolves without treatment in a few days.

Where do *Legionella* bacteria come from?

Legionella bacteria are very common in the environment and are usually found in association with water.

How do people get exposed to *Legionella*?

People can be exposed to *Legionella* through breathing in mist or water vapor that has been contaminated with the bacteria. Exposure is probably fairly common, but serious disease caused by exposure is rare.

Legionellosis (Legionnaire's Disease or Pontiac Fever) has been associated with breathing water vapor from cooling towers, humidifiers, whirlpool spas, respiratory therapy devices, decorative fountains, showers, and hot tubs.

Legionella is not spread from one person to another.

Who is most at risk for legionellosis?

Most people exposed to the bacteria do not become ill. When Legionnaire's disease does occur, it is more common in adults over the age of 50 and is extremely rare in those under age 20. It is more common in males than females. It is also seen more commonly in:

- people who smoke;
- people with diabetes, chronic lung disease, or kidney disease; and
- people with depressed immune systems.

Pontiac fever is usually recognized in healthy young adults.

Who should be tested for legionellosis?

People with pneumonia, particularly if they have a depressed immune system or other chronic medical conditions, should be considered for *Legionella* testing. A medical doctor can help decide if *Legionella* testing is needed. Public health officials are available to assist with these decisions. Testing is usually not recommended for people without symptoms of this disease.

How does the health department investigate legionellosis?

With individual cases, it is difficult to determine the source of infection because *Legionella* bacteria are so common in the environment and because people come in contact with water vapor in so many places. Investigations are usually done if a legionellosis outbreak is suspected. Interviews are done with the patient or family members to find out where the patient has been in the two weeks before getting sick. Emphasis is placed on areas where water vapor is commonly found. Patients in an outbreak are compared to one another to see if they have been in the same place during the same time period. Outbreaks have been linked to hospitals, hotels, and cruise ships with the most likely sources including cooling towers and whirlpool spas.

When should environmental testing be done?

When the investigation of an outbreak suggests a likely common source of exposure for the cases, environmental testing may be done. Environmental samples may be matched to patient samples to try and determine the source of exposure to the bacteria.