

Fact Sheet

Legionellosis and Pontiac Fever

Also Known As: “Legionnaires’ Disease”



Origin and Cause

In July of 1976 an outbreak of *pneumonia* occurred among people attending an American Legion Convention in Philadelphia. Of the 182 reported cases, 29 died. This became known as “Legionnaires Disease” caused by *Legionella pneumophila*. Later, it was determined that a 1968 outbreak in Pontiac, Michigan (*similar symptoms but without the pneumonia*) was also be liked to this newly identified species of bacteria. “Pontiac Fever” was named for Pontiac, Michigan where the first case of that type was recognized.



Spread of Disease

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 are not spread from one person to another person. An

estimated 8,000 to 18,000 people are hospitalized with Legionnaires' disease each year in the U.S.

Pontiac Fever:

A milder infection, also caused by *Legionella* bacteria is called Pontiac Fever. The symptoms of Pontiac Fever are similar to those of Legionnaires' disease and usually last for 2 to 5 days.

Pontiac fever is *different* from Legionnaires' disease because the patient does not have pneumonia.

Exposure

Legionella is a type of bacteria found naturally in the environment, usually in water. The bacteria grow best in warm water like the kind found in:

- § Hot tubs and spas
- § Large plumbing systems
- § Cooling towers
- § Decorative fountains
- § Hot water tanks
- § Vegetable misters

Legionella does not seem to grow in car or window air-conditioners.

You can get Legionnaire's disease at any time of the year, but more cases are *usually found in the summer and early fall*. 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 and 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.

Signs and Symptoms

Legionnaires' disease can have symptoms like many other forms of pneumonia, so it can be hard to diagnose at first. Signs of Legionnaires' disease can include:

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

Symptoms usually begin 2 to 14 days after being exposed to the bacteria.

Treatment and Complications

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. Possible complications include lung failure and death.

Pontiac Fever: Treatment

Pontiac Fever abates without specific treatment. Antibiotics provide no benefit for a patient with Pontiac Fever.

Diagnosis

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 on physical exam.

Several laboratory tests can be used to detect the *Legionella* bacteria within the body. Legionnaires' disease is being diagnosed more often now as doctors look for *Legionella* bacteria in people who have pneumonia.

Pontiac Fever: Testing

Pontiac fever can be confirmed by urine or blood test, but a negative test doesn't rule out the diagnosis. It is often diagnosed clinically in the setting of other laboratory-confirmed legionellosis cases.

Prevention

The key to preventing legionellosis is maintenance of the water systems in which *Legionella* grow, including drinking water systems, hot tubs, decorative fountains, vegetable misters, and cooling towers. There are no vaccines that can prevent legionellosis. Persons at increased risk of infection may choose to avoid high-risk exposures, such as being in or near a hot tub.

People at Risk

Most healthy individuals do not become infected with *Legionella* bacteria after exposure. People at higher risk of getting sick are:

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



For more sources of information on this topic and visit:

ST. CLAIR COUNTY HEALTH DEPARTMENT www.scchealth.co

CENTERS FOR DISEASE CONTROL AND PREVENTION www.cdc.gov

MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES www.michigan.gov/mdhhs