

***Legionella* (Legionnaires' Disease and Pontiac Fever) Fact Sheet**

What is *Legionella*?

Legionella is a type of bacteria that can cause either a mild respiratory illness or a more severe pneumonia. The bacteria are found naturally in water. They can grow and multiply in warm water sources that are stagnant and have not been properly cleaned and maintained such as:

- Hot tubs and spas
- Air conditioning cooling towers
- Hot water tanks
- Large plumbing systems in hotels, hospitals, and nursing homes
- Decorative fountains

There are about 250 cases of legionellosis reported every year in California.

How do people get legionellosis?

People can get legionellosis by breathing in mist from a contaminated water source described above. Legionellosis is not spread person to person.

Most people exposed to the bacteria do not become ill. Some people are more likely to become very sick if they are infected with *Legionella*:

- People 50 years of age or older
- People who are or were smokers
- People with chronic lung disease
- People with weakened immune systems

What are the symptoms of legionellosis?

Legionella bacteria can cause two different types of illnesses: Legionnaires' disease and Pontiac Fever.

Legionnaires' disease is a severe type of pneumonia. Symptoms usually begin 2 to 10 days after being exposed to the bacteria. The symptoms are similar to those caused by other types of pneumonia and can make it difficult for a health care provider to diagnose Legionnaires' disease.

Symptoms include:

- Cough
- High fever
- Shortness of breath
- Chills
- Muscle aches
- Headaches
- Nausea
- Vomiting
- Diarrhea
- Fatigue

Pontiac Fever is a milder respiratory illness caused by *Legionella*. The symptoms of Pontiac Fever start 1 to 3 days after exposure. The flu-like symptoms usually last for 2 to 5 days. They may include fever, headaches, and muscle aches but no pneumonia.

How is *Legionella* infection diagnosed?

Your health care provider can use several different tests to diagnose *Legionella* infection. These tests include chest x-ray to diagnose pneumonia, along with urine, blood, and respiratory specimen tests to confirm the presence of *Legionella* bacteria.

How is legionellosis treated?

Most cases of Legionnaires' disease can be treated successfully with antibiotics, and healthy people usually recover from infection. However, Legionnaires' disease can be very serious, especially in people with the risk factors listed above. Legionnaires' disease can cause death in 5 to 30 percent of those ill.

For Pontiac Fever, symptoms go away on their own without treatment and without causing further problems.

What can be done to prevent *Legionella* infection?

Most people exposed to *Legionella* bacteria will not get sick. Individuals who are at increased risk of Legionnaires' disease may consider avoiding being in or around hot tubs and fountains. There is no vaccine to prevent legionellosis.

Large water systems in which *Legionella* can grow must be kept clean and maintained. These include drinking water systems, hot tubs, decorative fountains, and cooling towers. Managers of nonresidential facilities, like hospitals and hotels, can consult guidelines from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) for appropriate water temperatures and chemical treatment of water at: [ASHRAE Guideline 12-2000](#).

Hot tub operators and owners can find information on hot tub maintenance at: <http://www.cdc.gov/healthywater/pdf/swimming/resources/operating-public-hot-tubs-factsheet.pdf>

What is public health doing about *Legionella*?

Local environmental health staff inspect public spas and hot tubs to ensure that they are properly maintained to prevent the spread of germs including *Legionella*.

Local health departments (LHDs) report cases of legionellosis to the California Department of Public Health (CDPH). If outbreaks occur, LHD and CDPH staff will investigate to identify the source of the illness and intervene to prevent additional illnesses from occurring.

Since hotels with large water systems can be a source of *Legionella*, LHD staff interview people diagnosed with legionellosis to determine whether they traveled and stayed at a hotel in the 10 days before they became ill. This information is sent to CDPH and to the Centers for Disease Control and Prevention (CDC). CDC collects data on travel-

associated legionellosis cases from all states to identify possible outbreaks associated with particular hotels.

Where can I get more information about *Legionella*?

- Your health care provider
- Your local health department
- The U.S. Centers for Disease Control and Prevention website at <http://www.cdc.gov/legionella/about/index.html>.

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