



Hawaii State Department of Health  
Disease Investigation Branch  
Oahu 586-8362, Maui 984-8213, Hilo 933-0912,  
Kona 322-4877, Kauai 241-3563

---

## Legionellosis

(Legionnaires' disease, Pontiac fever)

### What is legionellosis?

Legionellosis is an infection caused by bacteria called *Legionella*. There are two forms of the disease: Legionnaires' disease, which can be severe and include pneumonia, and Pontiac fever, a mild, flu-like illness.

Legionnaires' disease was named in 1976 when an outbreak of pneumonia occurred among persons attending a convention of the American Legion in Philadelphia.

### Who is at risk for the disease?

People of any age may get Legionnaire's disease, but it most often affects middle-aged and older persons, especially those who smoke cigarettes or have chronic lung problems. Persons with suppressed immune systems due to illnesses such as cancer, diabetes or AIDS, or drug therapy are also at increased risk for legionellosis.

### How is it spread?

You can get legionellosis through the air by breathing in mists from a water source containing the bacteria. The bacteria can be found in many places in the environment, such as plumbing systems and hot water tanks, air-conditioning cooling towers, whirlpool spas, and in contaminated soil at digging sites. Legionellosis is not associated with car or household window air conditioners.

Outbreaks occur following the exposure of many individuals to a common source of the bacteria in the environment.

In general, *Legionella* does not spread from one person to another. However, this may be possible in rare cases.

### What are the symptoms?

The first symptoms of Legionnaires' disease are muscle aches, headache, loss of appetite, tiredness, and cough. These symptoms are often followed by chills, diarrhea, and high fever. Chest x-rays may indicate progressive pneumonia. It is difficult to distinguish the disease from other types of pneumonia by symptoms alone. Other tests are needed to diagnose the disease.

The symptoms of Pontiac fever are fever and muscle aches, with no pneumonia.

### When do symptoms start?

Onset of symptoms of Legionnaires' disease typically occurs 5 or 6 days after exposure to *Legionella* bacteria, but the incubation period can range from 2 to almost 2 weeks. Persons with Pontiac fever start to develop symptoms from a few hours to 3 days after being exposed to *Legionella* bacteria.

### What is the treatment for legionellosis?

A doctor can prescribe antibiotics to treat Legionnaires' Disease.

People with Pontiac fever recover without specific treatment. Antibiotics provide no benefit for someone with Pontiac fever.

### How can you keep from getting it?

Because *Legionella* bacteria can be found in many places in the environment, there is very little an individual can do to prevent exposure. However, some preventive measures can be taken by industry to reduce the risks. These measures include improving the design and maintenance of plumbing systems and cooling towers, periodic draining and cleaning of cooling towers, and use of chemicals to prevent the growth and spread of *Legionella* bacteria in air conditioning cooling towers and evaporative condensers.

There are no vaccines that can prevent legionellosis.