

## 1. What is Legionnaire's disease?

Legionnaire's disease (LD) is caused by exposure to Legionella bacteria. This bacterium was responsible for a major outbreak of pneumonia at the 1976 American Legion convention at a hotel in Philadelphia. By 1977, the CDC had isolated and identified the responsible microbe. As of today, there have been approximately 50 species and 70 serogroups of Legionella which have been identified. This condition carries up to 40% mortality (death) rate.

## 2. What is Legionella and where is it found?

Legionella is a pathogenic group of gram negative bacteria. Legionella is ubiquitous in soil and both potable and non-potable aquatic systems such as cooling towers, building water systems, decorative water fountains, humidifiers, indoor pools and spas, steam tables, vegetable or other overhead misters and whirlpools/hot tubs. It is estimated that up to 70 percent of all potable water systems are contaminated by Legionella.

## 2. How can I be exposed to Legionella?

You can be exposed to Legionella by inhalation of aerosolized Legionella contaminated water droplets or by aspiration or choking on Legionella contaminated drinking water.

## 3. If I have been exposed to Legionella, what is my risk of contracting Legionnaire's disease?

Exposure to Legionella can cause Legionellosis, which includes Legionnaire's disease (LD) and the milder Pontiac Fever (PF), although not everyone who is exposed to Legionella will develop LD or PF.

Susceptible individuals have risk factors such as:

- Current or former smoker
- Age 50 or older
- Have a chronic disease such as COPD, emphysema, kidney disease, diabetes or cancer
- Have a weakened immune system due to disease or medications (i.e. immunosuppressants)

## 4. What are the signs and symptoms of Legionnaire's disease and Pontiac Fever?

Legionnaire's disease develops 2-14 days after exposure to Legionella. Symptoms include:

- Headache, muscle pain, chills
- Fever that may be 104 F (40 C) or higher



- Cough, which may bring up mucus and sometimes blood
- Shortness of breath, chest pain
- Gastrointestinal symptoms, such as nausea, vomiting and diarrhea
- Confusion or other mental changes

LD is diagnosed by a medical provider via physical exam, chest x-ray, blood test, urine antigen test and sputum culture. Antibiotics are required for treatment. Delays in treatment can cause permanent lung failure, organ failure, prolonged hospitalizations, complications and death.

Pontiac Fever is a milder form of LD that has “flu-like” symptoms, including fever, chills, headaches and muscle aches. PF does not infect the lungs and clears within 2-5 days without medical treatment.

Neither LD nor PF is contagious. The diseases are only transmitted via contaminated water, not by infected persons.

#### **5. How do I know if my building has water contaminated by Legionella?**

A building investigation and a risk assessment should be conducted to determine if your building has water systems contaminated with Legionella. The goal of a building investigation and risk assessment is identify areas susceptible to the growth of Legionella and to help create a plan in case Legionella growth is found.

#### **6. What should I do if there is an outbreak of Legionella at my facility?**

If a building related Legionella outbreak is confirmed, a full scale investigation should commence. This process includes a building investigation, risk assessment and causation analysis. A response team of medical and environmental specialists can manage the incident, evaluate those who are ill, create an early disease surveillance program and conduct town hall meetings to effectively communicate with residents/occupants, employees, families, media and others who are impacted by the potential outbreak.

For more information related to Legionella and Legionnaire’s disease, please contact us at [solutions@cogencyteam.com](mailto:solutions@cogencyteam.com).