



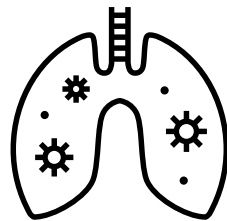
Legionellosis

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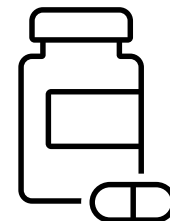
Causes



Symptoms



Treatment



Background

- Legionella are bacteria that are found in naturally freshwater environments, such as lakes and streams.
- The bacteria can become a health concern when they grow and spread in human-made building water systems.
 - Showerheads and sink faucets
 - Cooling towers (structures that contain water and a fan as part of centralized air-cooling systems for buildings or industrial processes)
 - Hot tubs
 - Decorative fountains and water features
 - Hot water tanks and heaters
 - Large, complex plumbing systems





Background

Home and car air conditioning units do not use water to cool the air, so they are not a risk for *Legionella* growth.

- However, it can grow in the windshield wiper fluid tank of a vehicle if the tank is filled with water and not a genuine windshield cleaner fluid

Transmission



- After Legionella grows and multiplies in a building water system, water containing Legionella can spread in droplets small enough for people to breathe in.
- Can also get sick by aspiration of drinking water containing Legionella.
 - Water accidentally goes into the lungs while drinking.
 - Swallowing difficulties increases risk.
- Generally, is not transmitted person to person, but may be possible under rare circumstances.

Risk Factors

While most healthy people to *Legionella* do not get sick, there are several factors that influence risk:

- People 50 years or older
- Current or former smokers
- People with a chronic lung disease (i.e., COPD, emphysema)
- Those immunocompromised or those who take drugs that weaken the immune system
- People with cancer
- People with underlying illnesses such as diabetes, kidney failure, or liver failure





Signs and Symptoms

- **Legionnaires' Disease**
 - Incubation Period: 2 to 14 days after exposure (could be longer).
 - Symptoms are similar to pneumonia
 - Cough
 - Shortness of breath
 - Fever
 - Muscle Aches
 - Headaches
- **Pontiac Fever**
 - Incubation Period: few hours to 3 days.
 - Fever
 - Muscle Aches

Diagnosis

Legionnaires' Disease

- Urine test
- Sputum Sample
- Washing from the lung
- Pneumonia can be confirmed by chest x-ray

Pontiac Fever

- Urine or blood test

Treatment

Legionnaires' Disease

- Antibiotics
- May require hospitalization, especially for those with risk factors.

Pontiac Fever

- Usually goes away without requiring treatment.

Complications

- **Legionnaires' Disease**
 - Lung failure
 - Death
 - About 1 of 10 people who falls ill with Legionnaires' disease will die due to complications from their illness
 - For those who acquire Legionnaires' disease during a stay in a healthcare facility, about 1 in 4 will die
- **Pontiac Fever**
 - None



Treatment/Prevention

- No vaccine available.
- Water management programs.
 - Utilize a water management program to reduce risk of Legionella growth.
 - [CDC Toolkit](#) includes:
 - A simple [yes/no worksheet](#) to determine if an entire building or parts of it are at increased risk for growing and spreading *Legionella*.
 - A basic review of the elements of a Legionella water management program.
 - Scenarios describing common water quality problems and examples of how to respond to them to reduce the risk for Legionella.
 - Special sections and considerations for those who work in healthcare facilities.

[Worksheet to Identify Buildings at Increased Risk for *Legionella* Growth and Spread](#)

Sources

[CDC | Legionella](#)

[CDC | Water Management Program](#)

Correia AM, GonCalves J, Gomes, JP, et al. [Probable Person-to-Person Transmission of Legionnaires' Disease](#). *N Engl J Med*. 2016;374:497–8.