

# Legionnaires' Disease

## What is Legionnaires' disease?

- Legionnaires' disease is a serious type of pneumonia (lung infection) caused by *Legionella* bacteria.
- The bacteria are found naturally at low levels in freshwater environments, but they present a risk to human health when they grow and spread from human-made water systems.
- Legionnaires' disease was named for the first recognized outbreak, at a 1976 convention of the American Legion in Philadelphia.

## How is it spread?

- Legionnaires' disease is spread by small water droplets in the air that contain *Legionella* bacteria.
- The bacteria can be spread by devices that create water mist such as hot tubs, showers, decorative fountains, and cooling towers.
- People can get sick if they breathe in small water droplets that contain the bacteria.
- Legionnaires' disease is not spread from person to person.

## Who is at highest risk?

- People at increased risk for infection include those age 50 years or older and current or former smokers.
- Other risk factors include chronic health conditions such as lung, kidney, or liver disease, diabetes, cancer, and conditions and medications that affect the immune system.

## What are the symptoms?

- Common symptoms include:
  - Fever
  - Chills
  - Cough
  - Shortness of breath
  - Headache
  - Muscle aches
  - Fatigue
- Other symptoms may include diarrhea, nausea, loss of appetite, weakness, and confusion.
- Symptoms usually begin 2 to 14 days after being exposed to the bacteria.

## How is it diagnosed?

- Legionnaires' disease symptoms are very similar to other types of pneumonia.
- A chest x-ray and a *Legionella* test, most commonly a urinary antigen test, are the most common way Legionnaires' disease is diagnosed.

## How is it treated?

- If you have symptoms of pneumonia, it is important to see a health care provider right away. Legionnaires' disease is treated with antibiotics.
- Most cases require a hospital stay and some require intensive care. About 1 out of every 10 people with Legionnaires' disease die due to the illness.

## How is it prevented?

- Depending on environmental conditions, *Legionella* organisms can multiply and spread from many types of human-made water systems such as hot tubs, showerheads, sink faucets, decorative fountains and water features, hot water tanks and heaters, large complex plumbing systems, and cooling towers (structures containing water and a fan as part of centralized cooling systems for buildings or industrial processes).
- Home and car air conditioning units do not use water to cool the air, so they are not a risk for *Legionella* growth.
- The key to preventing Legionnaires' disease is to reduce the risk of *Legionella* growth and spread in building water systems and devices through good maintenance strategies. These strategies include monitoring water temperatures and disinfectant levels and preventing stagnant water conditions.
- Building owners and managers should develop and implement a water management program using ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) standards.

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