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# Understanding Legionella

Legionella is a type of bacteria. It can live in fresh water. It can cause **legionnaires disease**. This is a severe type of lung infection (pneumonia). This illness needs to be treated right away with antibiotic medicine. Legionella can also cause a milder illness called **Pontiac fever**.

## How does illness from Legionella spread?

Legionella doesn't spread from person to person. Instead, it can cause outbreaks of illness in places that have large water systems. It can overgrow where fresh water is sent through pipes and devices. This can happen if the water is not managed well. If the infected water is sprayed and a person breathes in water droplets, it can make them sick.

Legionella can grow in central water systems in places like these:

- Hotels
- Cruise ships
- Hospitals
- Large apartment buildings
- Office buildings
- Schools
- Industrial facilities

It can spread through spray and tiny water droplets from:

- Showers
- Fountains
- Hot tubs
- Humidifiers
- Air conditioning cooling towers
- Ice machines

Most healthy people don't get sick after contact with Legionella. But some factors can increase your risk of getting sick. These include:

- Being age 50 or older
- Smoking
- Having a chronic obstructive pulmonary disease (COPD)
- Having a weakened immune system due to cancer, diabetes, or kidney failure
- Taking medicine that weakens your immune system

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# Symptoms of illness from Legionella

Symptoms can start 2 to 14 days after contact with the bacteria.

Symptoms of legionnaires disease can include:

- Fever
- Tiredness
- Cough
- Shortness of breath
- Headache
- Body aches
- Upset stomach
- Diarrhea

Pontiac fever doesn't cause a lung infection. The symptoms include:

- Fever
- Headache
- Body aches
- Upset stomach
- Diarrhea

## Diagnosing illness from Legionella

Your healthcare provider will give you a physical exam. They will ask about your symptoms. They may ask if you've recently been in a place where legionnaires disease is more of a risk, such as a hospital or hot tub.

You'll have an imaging test of your lungs. This may be a chest X-ray or CT scan. You may need to cough up a sample of mucus from your lungs (phlegm). The sample is tested in a lab for bacteria. Or your urine may be tested for bacteria.

If you have legionnaires disease, this is reported to the local health department. They will work to find the cause so that other people don't get sick.

## Treatment for illness from Legionella

Legionnaires disease is treated with antibiotic medicine. Most people who get sick need care in the hospital but make a full recovery. You may need to be treated in a hospital with IV medicine.

Pontiac fever most often goes away on its own.

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## Possible complications of legionnaires disease

Legionnaires disease can make you feel tired for months after you recover from it. Severe illness can cause breathing failure or organ failure. In some people, severe illness can lead to death.

## Preventing illness from Legionella

There is no vaccine to protect against Legionella bacteria. Legionella growth in buildings can be prevented by good management of the water systems and devices that use water.

## When to call your healthcare provider

If you've been exposed to Legionella, call your healthcare provider right away if you have any of these:

- Fever of 100.4°F (38°C) or higher, or as directed by your provider
- Chills
- Cough or shortness of breath
- Muscle aches
- Headache
- Confusion