

Legionnaires' Disease

What is Legionnaires' disease?

Legionnaires' disease (LEE-juh-nares) is caused by bacteria called **Legionella**. The disease got its name in 1976, when many people who went to a Philadelphia convention of the American Legion suffered from an outbreak of pneumonia (lung infection) caused by Legionella bacteria. The bacteria were around before 1976, but are being reported more frequently in recent years as doctors may suspect Legionnaires' disease any time someone has pneumonia.

In Canada less than 100 cases are reported each year. This number may be higher because many infections are not diagnosed or reported. More illness is usually found in the summer and early fall, but it can happen any time of year.

What are the symptoms of Legionnaires' disease?

Legionnaires' disease can have symptoms like many other kinds of pneumonia, so it can be hard to diagnose at first. Signs of the disease can include a high fever, chills and a dry cough. Some people may also suffer from muscle aches and headaches. These symptoms usually begin two to ten days after coming in contact with the bacteria.

A milder infection caused by the same type of Legionella bacteria is called **Pontiac fever**. The symptoms of Pontiac fever can last for 2 to 5 days and may also include fever, headaches and muscle aches; however, there is no pneumonia. These symptoms usually begin five to 72 hours after coming in contact with the bacteria. Symptoms go away on their own without treatment and without causing further problems.

Pontiac fever and Legionnaires' disease may also be called "**Legionellosis**" (LEE-juh-nuh-low-sis) separately or together.

Where do Legionella bacteria come from?

The Legionella bacteria are found naturally in the environment, usually in water. The bacteria grows best in warm water, like the kind found in hot tubs, cooling towers, hot water tanks, large plumbing systems or parts of the air-conditioning systems of large buildings. They do not seem to grow in car or window air-conditioners.

How is Legionnaires' disease diagnosed?

Most people with Legionnaires' disease will have pneumonia since the Legionella bacteria grow really well in the lungs. Pneumonia is confirmed either by chest x-ray or clinical diagnosis.

Several laboratory tests can be used to detect the Legionella bacteria within the body. The most commonly used laboratory test looks for Legionella bacteria in a urine sample. If a person has pneumonia and the urine test is positive, then the person is considered to have Legionnaires' disease.

Additionally, finding Legionella bacteria from lung tissue, respiratory secretions or various other sites can confirm Legionnaires' disease. Two blood specimens that show a specific increase in antibody levels when drawn shortly after illness and several weeks following recovery can also be used to confirm the diagnosis.

Is Legionnaires' disease serious? Can it be treated?

Legionnaires' disease can be very serious and can cause death in 5% to 30% of cases. Most cases can be treated successfully with medications that can kill the bacteria in the body. Healthy people usually recover from infection.

Am I at risk for Legionnaires' disease?

Not everyone exposed to the Legionella bacteria will get sick. People most at risk of getting sick from the bacteria are the elderly (65 years of age or older), people who are smokers and individuals who have a chronic lung disease (like emphysema).

People who have weak immune systems from diseases like cancer, diabetes or kidney failure are also more likely to get sick from Legionella bacteria. People who take drugs to suppress (weaken) the immune system (like after a transplant operation or chemotherapy) are also at higher risk.

How do I get Legionnaires' disease?

Legionnaires' disease happens when someone at risk breathes in a mist or vapour (small droplets of water in the air) that has been contaminated with the bacteria, for example, the steam from a whirlpool spa that has not been properly cleaned and disinfected.

The bacteria are NOT spread person to person.

Outbreaks are when two or more people become ill in the same place at about the same time, such as patients in hospitals. Hospital buildings have complex water systems, and many people in hospitals already have illnesses that increase their risk for *Legionella* infection.

Other outbreaks have been linked to aerosol sources in the community, or with cruise ships and hotels. The most likely sources are whirlpool spas, cooling towers (air-conditioning units from large buildings) and water used for drinking and bathing.

What should I do if I think I have been exposed to Legionella bacteria?

Most people exposed to the bacteria do not get sick. If you think you were exposed to the bacteria, talk to your doctor or local health department. Be sure to mention any travel in the last two weeks.

A person diagnosed with Legionnaires' disease in the workplace is not a threat to others who share office space or other common areas. If you believe your workplace was the source of your or someone else's illness, call your local health department.

If you have any questions or concerns, please contact the Infectious Disease Control Team at 519-663-5317 ext. 2330 or go to www.healthunit.com

References:

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