

North Carolina Division of Public Health
Legionellosis Fact Sheet – Legionnaires' disease and Pontiac fever

What is legionellosis?

- Legionellosis is a respiratory infection caused by Legionella bacteria.
- Disease severity can range from a mild respiratory illness known as Pontiac fever to pneumonia (lung infection) known as Legionnaires' disease. The term "legionellosis" refers to either illness.
- Legionnaires' disease is serious and can be life-threatening, but most people recover with antibiotic treatment.

How is legionellosis spread?

- Legionella bacteria are NOT transmitted from person to person, or by swallowing drinking water.
- People can get legionellosis after inhaling mists or spray (aerosols) from a water source that contains Legionella bacteria.

Where are Legionella bacteria found?

- Legionella bacteria are found naturally in the environment and may be in any type of water system or in soil.
- Legionella bacteria are most commonly found in warm water, especially in stagnant or standing water, and have been isolated from hot tubs, cooling towers, hot water tanks, large plumbing systems and decorative fountains. They do not seem to grow in car or window air-conditioners.

Who gets legionellosis?

- Most healthy people do not get legionellosis after exposure to Legionella bacteria.
- People at higher risk for getting sick include those over 50; those who have chronic lung disease; current or former smokers; those with a weakened immune system from diseases like cancer, diabetes or kidney failure; and those who take drugs that suppress (weaken) the immune system.

Prevention

- People who have hot tubs or whirlpools should check pH, disinfectant and other chemical levels regularly and clean them as recommended by the manufacturer.
- People who use respiratory equipment such as nebulizers or CPAP machines should follow manufacturer instructions for cleaning and maintenance. Only sterile or distilled water should be used with this equipment, even for cleaning and maintenance. The equipment should not be cleaned with tap water.
- For buildings with large, complex water systems the key to prevention is reducing the risk of Legionella growth and spread.

Trends in legionellosis

- More illness is usually found in the summer and early fall, but it can happen any time of year.
- The number of reported legionellosis cases can fluctuate widely from year to year on the state and local levels.
- The incidence of Legionnaires' disease in the United States increased more than fourfold between 2000 and 2016 with about 6,100 cases reported to CDC in 2016.
- From 2013 – 2017, an average of 181 Legionnaires' disease cases were reported annually in North Carolina.
- Increases in legionellosis cases may be due to increased awareness and testing by providers, an increased number of susceptible people due to aging of the population, increased Legionella in the environment or a combination of these factors.

Public health response to legionellosis

- Legionellosis is one of over 70 diseases routinely monitored by public health officials.
- Every case of legionellosis is thoroughly investigated by the local health department to identify risk factors and potential sources of exposure that may put others at risk.
- The vast majority of cases are considered sporadic, meaning that they are not linked to a known outbreak or to other reported cases.
- Legionella infections that are acquired in healthcare facilities require special investigation measures, since patients in these facilities are likely to have illnesses that increase their risk for legionellosis.

Sources and for more information:

1. CDC General Information: <http://www.cdc.gov/legionella/index.html>
2. CDC factsheet: <https://www.cdc.gov/legionella/downloads/fs-legionnaires.pdf>
3. NC DPH: <http://epi.publichealth.nc.gov/cd/diseases/legionellosis.html>