



LEGIONNAIRES' DISEASE AND PONTIAC FEVER

The Issue

A bacterial infection called legionellosis is responsible for two distinct illnesses: Legionnaires' disease and Pontiac fever. Legionnaires' disease is a type of pneumonia, which can occur in outbreaks. It varies in severity, and is sometimes fatal. Pontiac fever is a milder flu-like illness without pneumonia.

Background

Legionnaires' disease first became known in 1976, when an outbreak of pneumonia killed 34 people at an American Legion Convention in Philadelphia. The bacterium that caused the outbreak was named Legionella pneumophila. Scientists later discovered that Legionella bacteria could also cause a milder type of infection, called Pontiac fever.

How Legionellosis Spreads

Legionella bacteria are found in water sources. People become infected by breathing in mist or steam containing the bacteria. Single cases of Legionnaires' disease are more common, but outbreaks do occur, and have been reported in hospitals, hotels, other large buildings, and on cruise ships. Outbreaks and individual cases have been traced to a number of specific sources, including:

- water distribution systems (showers)
- respiratory therapy devices (in hospitals)

- whirlpool spas and hot tubs
- humidifiers
- the cooling towers of large air-conditioning systems (e.g. in hotels, hospitals)

Legionellosis is not spread from one person to another. You cannot contract Pontiac fever or Legionnaires' disease from an infected person.

The Symptoms of Legionellosis

Pontiac fever causes a flu-like illness. The symptoms include fever, lack of appetite, headache, and aching muscles. Pontiac fever is not associated with pneumonia. In most cases no treatment is required, and people recover within two to five days.

Legionnaires' disease is a type of pneumonia that varies in severity from relatively mild to fatal. The symptoms can include high fever, chills and a cough, as well as fatigue, headache, aching muscles, chest pain, and loss of appetite. Sometimes there is also nausea, diarrhea, or a change in a person's mental condition, including confusion or memory loss. Special tests are usually required to confirm that the illness has been caused by Legionella bacteria.

Anyone with symptoms of Legionnaires' disease should seek immediate medical attention. Many cases are treated successfully with antibiotics, such as



erythromycin. Approximately 10 to 15 percent of people with Legionnaires' disease may die, but this varies with age and over-all health, and can also depend on how quickly the person receives the right medical treatment.

Risk Factors for Legionellosis

Anyone can get legionellosis, but the risk of developing disease is greater for people who are middle aged and older. It is uncommon for people less than 20 years old to get legionellosis. The following people are also at greater risk:

- smokers
- people with a chronic lung or kidney disease
- people with diabetes
- people with weakened immune systems due to conditions such as cancer or an organ transplant

People in certain occupations, such as those who do maintenance work on large air-conditioning systems, may be at increased risk for exposure to Legionella bacteria. However, if exposed, an individual's risk of developing a serious infection would depend on the factors listed above.

Minimizing Your Risk

Legionellosis is not a common disease, and the risk of getting it is generally quite low.

Minimizing your risk in large buildings, such as hotels and hospitals, is difficult because you cannot predict where or when the bacteria will be present. The key to controlling the risk of infection from these sources is a combination of good engineering practices and good infection control policies and guidelines.

In your home, you can minimize risks through the proper maintenance of all mist-producing devices, such as shower heads, hot tubs, whirlpools and humidifiers. Make sure you clean and disinfect these devices regularly according to the manufacturers' directions.

Health Canada's Role

Health Canada collects information about the number of cases of legionellosis in Canada as part of its work with provincial and territorial public health officials to monitor and analyze the incidence of infectious diseases. Health Canada also develops guidelines to prevent and control the spread of infections acquired in health care facilities, such as hospitals. When requested, Health Canada will help to investigate outbreaks of infectious diseases.

In addition, Health Canada participates in public information initiatives, and works globally with other countries to develop and implement strategies to reduce or eradicate infectious diseases.

Need More Info?

For more about Health Canada's Infection Control Guidelines, visit: http://www.hc-sc.gc.ca/pphb-dgspsp/dpg_e.html#infection

See also Health Canada's It's Your Health fact sheet on "Cool Mist Humidifiers" at: <http://www.hc-sc.gc.ca/english/iyh/products/humidifiers.htm>

For more about Legionnaires' disease and Occupational Health from the Canadian Centre for Occupational Health and Safety, visit: <http://www.ccohs.ca/oshanswers/diseases/legion.html>

Other Web sites of interest include:

U.S. Centers for Disease Control and Prevention Web site on legionellosis at: http://www.cdc.gov/ncidod/dbmd/diseaseinfo/legionellosis_g.htm

Additional It's Your Health articles can be found at: www.healthcanada.ca/iyh
You can also call (613) 957-2991