

LEGIONELLOSIS

(LEGIONNAIRES' DISEASE, PONTIAC FEVER)

What is legionellosis?

Legionellosis is a respiratory disease that occurs in two forms: "Legionnaires' Disease," a more severe illness, and "Pontiac Fever," a milder illness.

Legionellosis occurs most often in people over 50 years of age, especially those who smoke heavily, have chronic lung disease or have underlying medical conditions (such as diabetes, cancer or kidney dysfunction) that lower their immune system resistance to diseases.

Legionellosis is caused by *legionella* bacteria, which thrive in warm stagnant water such as that found in most plumbing systems, hot water tanks, cooling towers (air-conditioning units from large buildings), fountains, sprinkler systems, evaporative condensers of large air conditioning systems, respiratory therapy devices and hot tubs. Home and automobile air conditioners are not a source of *legionella* bacteria. Outbreaks of legionellosis have been linked to aerosols from whirlpool spas, cooling towers in hospitals, and water used for drinking and bathing.

What are the symptoms of legionellosis?

The symptoms of legionellosis may appear flu-like and may include:

- Muscle aches
- Headache
- Tiredness
- Loss of appetite
- Coughing followed by high fever, chills and occasionally diarrhea

In Legionnaires' Disease, chest X-rays often show pneumonia. Legionnaires' Disease can be very serious and can cause death. The period between exposure and onset of illness for Legionnaires' Disease is two to 10 days, but is most often five to six days, and can be up to 19 days.

Pontiac Fever has the same initial symptoms as Legionnaires' Disease but is not associated with pneumonia or death. The period between exposure and onset of illness for Pontiac Fever is five to 72 hours, but most often between 24 and 48 hours.

How does legionellosis spread?

The disease cannot be spread from person to person. It is acquired after inhaling mists from a water source that contains *legionella* bacteria.

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How is legionellosis treated?

Legionnaire's Disease can be treated with antibiotics. Individuals with Pontiac Fever generally recover in two to five days without treatment. If you suspect you may have legionellosis, visit your health care provider for recommended treatment options.

How can legionellosis be prevented?

Minimize risks in your home through proper maintenance of all mist-producing devices such as shower heads, hot tubs, whirlpools and humidifiers. Ensure devices are cleaned and disinfected regularly according to the manufacturers' instructions.

In business and health care settings, the following precautions should be taken to prevent *legionella* bacteria from growing and becoming aerosolized:

- Cooling towers, humidifiers, air handling units, floor drains and other sources of stagnant water should be inspected, cleaned and disinfected. Appropriate chemical substances should be used to limit the growth of slime-forming organisms
- Cooling towers should be drained when not in use and should be mechanically cleaned periodically to remove scale and sediment
- Shower heads and all equipment that generates water droplets should be regularly removed, cleaned and disinfected
- Ventilation intakes should be checked to ensure proper sealing of filters
- Only distilled water should be used in respiratory devices; the devices should be cleaned on a regular basis
- Hot water systems should be maintained at a minimum temperature of 60 C or higher to help prevent the growth of *legionella*. To reduce the risk of burns, water temperature should not exceed 49 C at the tap