

Fact Sheet - Legionellosis

What is legionellosis?

Legionellosis is a respiratory infection caused by *Legionella* bacteria. Many such infections are without symptoms - up to 20% of healthy adults have antibodies showing previous exposure to the bacteria, but only a small number of these will have had an illness with symptoms of legionellosis.

How severe is the illness?

The severity of legionellosis can range from a mild respiratory illness (Pontiac fever) to pneumonia (Legionnaires' disease). Persons with Pontiac fever generally recover within 2-5 days without treatment. Legionnaires' disease can cause serious illness and requires treatment.

Where are *Legionella* bacteria found?

Legionella can be found in any type of water system, and in soil. They have been found in the environment in creeks, ponds and potting soil. The bacteria are prevalent in warm stagnant water such as can occur in plumbing systems, hot water tanks, water in cooling towers, evaporative condensers of large air conditioning systems and spa pools. Home and vehicle air conditioners are NOT a source of *Legionella* bacteria.

How is legionellosis spread?

People can get legionellosis after inhaling mists or spray (aerosols) from a water source that contains *Legionella* bacteria, or after inhaling dust from soil. Legionellosis cannot be contracted by drinking contaminated water, nor can it be passed from one person to another.

Is legionellosis common?

No. Only very rarely does contact with *Legionella* bacteria lead to infection. Most peoples' natural immunity is able to stop them from becoming ill. There are about 20 confirmed cases of legionellosis annually in the Auckland region.

Who gets legionellosis?

Legionellosis rates increase with age. The disease is very rare among children. The disease most often affects those who smoke heavily, have chronic lung disease or have underlying medical conditions that lower their immune resistance to disease, such as diabetes, cancer or kidney failure. Drugs that lower immune resistance, such as high doses of steroids, can also increase the risk of being affected by legionellosis.

What are the usual symptoms of legionellosis?

The early symptoms of legionellosis include muscle aches, headache, tiredness, loss of appetite and coughing followed by high fever, chills and occasionally diarrhoea. In Legionnaires' disease, people can be very sick, require hospital treatment, and chest X-rays show pneumonia.

How soon do symptoms occur?

The period between exposure and onset of illness for Legionnaires' disease is 2-14 days, commonly 5-6 days; for Pontiac fever it is 5-66 hours, commonly 24-48 hours.

What is the treatment for legionellosis?

Antibiotics such as erythromycin are effective for treating Legionnaire's disease. Pontiac fever does not usually require specific antibiotic treatment.

How safe is your work or home?

Generally homes and workplaces are quite safe. In workplaces, legislation covers the maintenance of buildings, especially those with cooling towers. In private residences, it is the responsibility of the home owner to undertake regular maintenance of water systems.

Should your water or soil be tested?

No, unless you actually get legionellosis. Testing for *Legionella* bacteria is a lengthy and expensive process as specialised tests are required. *Legionella* bacteria are so common in the environment that if you test for them in water or soil, you are often likely to find them. If a case of legionellosis is notified to the Medical Officer of Health by a doctor or a laboratory, the case is investigated and appropriate tests are carried out to identify likely sources of the infection.

What can you do to minimise the risk of getting legionellosis?

- *Legionella* bacteria cannot survive in water at 60°C or above. Therefore the temperature of your household hot water cylinder should be maintained at 60°C.
- However, to ensure that water is delivered from the tap at a safe temperature, mixing (tempering) valves are highly recommended, and are required in new buildings. Mixing valves are the best way to ensure a safe water temperature at the tap, and can be fitted to older houses.
- To avoid burns and scalds, a safe temperature at the tap is no more than 55°C, or for people such as children and older people who are more vulnerable because of thinner skin, no more than 45°C.
- If a mixing valve cannot be fitted, take great care that people (especially children and older people) don't scald themselves with water from the hot tap.
- If you have a non-reticulated water supply (such as a roof collected tank water supply), ensure that you maintain your water tank according to recommended guidelines.
- Take care when dealing with compost, potting mix and any form of soil or dirt. Read the warning labels on commercially available bags of compost and potting mix. To minimise risk you can: avoid stirring up dust, avoid inhaling dust, dampen the soil/compost before use, wear a dust mask that fits tightly over nose and mouth.

Auckland Regional Public Health Service (ARPHS) investigates cases of legionellosis notified to the Medical Officer of Health by a doctor or a laboratory, in order to identify possible sources of *Legionella* bacteria and to prevent others from becoming ill. This may involve providing public health advice to individuals, agencies and organisations as required. ARPHS does not provide direct clinical services or general water or soil testing other than in the context of investigating notified cases of disease.

If you have any concerns regarding legionellosis please contact Auckland Regional Public Health Service on (09) 623 4600 and ask for the duty officer for the Disease Investigation Team.