

# Legionellosis

## *Information Sheet*

### What is it?

Legionellosis is an infection caused by *Legionella* bacteria which affects the lungs. This bacteria lives in the environment in soil and water. Many infections with *Legionella* bacteria have no symptoms – up to 20% of healthy adults have evidence of previous exposure to the bacteria, but only a small number of these will have had an illness with symptoms of Legionellosis.

Persons who develop the illness are usually over 50 years of age, smoke, or have other risk factors. Other risk factors include people with a chronic illness (such as lung disease), people undergoing chemotherapy or people with weakened immune systems. Men are twice as likely as women to get the illness.

### How does a person become infected?

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.

Airborne droplets may come from a variety of sources including:

- Rivers, creeks and ponds
- Potting mix, compost or soil
- Spa pools and decorative fountains
- Water blasters
- Water in cooling towers. Cooling towers are heat removal devices that transfer excess heat to the atmosphere from circulating water used in air conditioning units and industrial cooling processes.
- Evaporative condensers of large commercial or industrial air conditioning systems
- Hot water systems (especially shower heads)

Only very rarely does contact with *Legionella* bacteria lead to infection because most people's natural immunity is able to stop them from becoming ill. A combination of three things normally needs to occur to cause Legionellosis:

1. Conditions are right for the *Legionella* bacteria to grow to higher levels than normally found in the environment
2. A person who is not immune is exposed to the concentrated *Legionella* bacteria
3. This person needs to be exposed in such a way that they breathe in the *Legionella* bacteria deep into their lungs where it stays and begins to grow.

### What are the signs and symptoms of the illness?

Legionellosis often begins with:

- Loss of appetite
- Influenza-like symptoms

- Fever
- Muscle aches
- Headache

Affected people can also develop:

- A dry cough
- Abdominal pain
- Diarrhoea

Symptoms begin 2-10 days (usually 5-6 days) after being infected with the bacteria. The effects of the illness may last for many weeks so it is important to seek medical attention as soon as possible for treatment. The diagnosis is usually confirmed by organising sputum sample or special blood tests.

## How bad is it?

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 with antibiotics. It is best to receive treatment early as a delay in treatment may result in a worse outcome.

## Will I need time off school, childcare or work?

Generally you can return to work, childcare or school when you are feeling well enough to attend as the disease does not pass from person-to-person.

## How do I avoid the illness?

- **In commercial buildings:**

Ventilation and water systems need to be maintained according to industry standards. The Building Act 2004 requires that all buildings that contain a mechanical ventilation system have a compliance schedule. A compliance schedule requires specific inspection, maintenance and reporting procedures for a variety of systems including mechanical ventilation systems, which can incorporate air-conditioning cooling towers. Building owners are responsible for ensuring their buildings are properly maintained, and comply with the compliance schedule.

- **At home:**

Hot water cylinders maintained above 60°C may reduce the risk as *Legionella* bacteria cannot survive in water at 60°C or above. 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.

- **When gardening:**

The following precautions are recommended:

- Water gardens gently using low pressure to avoid creating airborne droplets from the water hitting the ground
- 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, open the bags of composted products and potting mix slowly and away from the face, dampen the soil/compost before use, wear a dust mask that fits tightly over nose and mouth.
- Avoid working in unventilated spaces
- Wash hands thoroughly after gardening and handling potting mix or compost

**For further information please contact:**



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