
Legionnaires' disease

Summary

- Legionnaires' disease is a rare form of pneumonia.
 - Not everyone who comes into contact with the bacteria is affected.
 - If you have the symptoms, contact your doctor immediately.
 - Early treatment can prevent the disease from becoming severe.
 - Always take care when using potting mix.
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Legionnaires' disease is caused by *Legionella* bacteria, which are widespread in our environment. They are found in natural water bodies such as rivers, lakes, creeks and hot springs. The bacteria are also found in spas, potting mix, warm water systems and artificial systems that use water for cooling, heating or industrial processes, such as cooling towers. A person may catch Legionnaires' disease by breathing in fine droplets of water that contain the bacteria. You cannot catch it from another person or by drinking contaminated water.

Risks of *Legionella* infection

Although this is a common kind of bacteria in the environment, only a few people who come in contact with the bacteria become infected. Some people are at greater risk, such as people who:

- are older (usually over 65)
- smoke
- drink heavily
- have chronic lung disease
- have underlying medical conditions such as diabetes, cancer or kidney failure.

Symptoms of Legionnaires' disease

The symptoms of Legionnaires' disease usually begin to appear within six days of being exposed to the bacteria. Early symptoms are like the flu and include:

- headache (often severe)
- fever
- chills
- muscle aches and pains
- a dry cough and shortness of breath.

Sometimes other systems in the body are affected. This can cause:

- diarrhoea
- mental confusion
- kidney failure.

If you have these symptoms, see your doctor.

Diagnosis and treatment for Legionnaires' disease

There are many other causes of Legionnaires' symptoms and *Legionella* is not very common. Special tests are needed to diagnose the disease. A urine or sputum (mucus that is coughed up) test or blood samples taken three to six weeks apart will usually diagnose Legionnaires' disease.

The infection can be treated with appropriate antibiotics. There is no vaccine to prevent the disease.

Prevention of Legionnaires' disease

The risk of Legionnaires' disease can be reduced by ensuring the growth of *Legionella* bacteria in systems such as spas, hot water systems and cooling towers is controlled.

People can also take care to avoid exposure to the bacteria from other sources, such as potting mix and water sources in the home.

Maintenance and treatment of artificial systems

A number of different regulations set out how to maintain and treat cooling towers, warm water systems and public spas to prevent the *Legionella* bacteria growing. For further information, visit ' [Legionella risk management page](#).

Hot water systems

Hot water systems have the potential to harbour *Legionella* in places where there may be stagnant or warm water (25–50 °C). Examples include shower nozzles, hot water taps, hot water storage vessels and hoses or filters attached to shower roses or tap outlets.

Domestic plumbing systems must be installed and maintained correctly to ensure the risk of *Legionella* growth is minimised and to reduce the risk of scalding. Consult a plumber if you have any concerns.

Spa pools

Spa pools require careful maintenance, disinfection and frequent cleaning because they provide ideal conditions for the growth of *Legionella*, which can be carried into the lungs by aerosols created by the spa pool jets.

The correct use of spa pool water chemicals, good management of the disinfection, filtration and recirculation systems and regular cleaning of spa pool surfaces can keep spa pool water in a clean, safe and healthy condition.

Fountains

Fountains can create aerosols by splashing water, and are a particular risk if the water is warm or heated intermittently by submerged lighting. Regular draining, cleaning and disinfection is recommended.

Nebulisers and humidifiers

Nebuliser bowls need to be rinsed after each use, and the entire chamber and mask washed daily in warm water and dishwashing liquid. All components then need to be rinsed and allowed to air dry.

Have nebuliser pumps serviced and filters changed regularly, in accordance with the manufacturer's instructions.

When using a humidification device, use only distilled water or water that has been boiled and allowed to cool. After using a humidifier, empty it and clean it in warm water and dishwashing liquid, then rinse and allow all components to air dry.

Spa baths

Drain spa baths after each use, and make sure they are inspected frequently, and cleaned and maintained regularly to ensure hygienic operation. Keep the entire system dry when not in use.

Domestic evaporative air conditioners

Although there have been no reported cases of Legionnaires' disease connected with the use of domestic evaporative cooling systems, correct maintenance is essential to control the accumulation of sediment, bacteria, mould and algal growth inside the unit.

Always use and maintain evaporative cooling systems in accordance with manufacturer's guidelines.

Portable evaporative cooling units

Portable evaporative cooling units need to be completely drained at least once a week during the summer season.

When units are not being used for an extended period they need to be completely drained, cleaned, and left to

dry.

Take care with potting mix

In recent years, some cases of Legionnaires' disease have been linked to the use of potting mix. To minimise the risk of contracting Legionnaires' disease from soil, compost or potting mix, take the following precautions:

- Always wear a mask and gloves when handling soil, compost or potting mix.
- Wash hands carefully with soap and water after handling soil and before eating, drinking, smoking or placing hands near the face or mouth.
- Store bags of potting mix in a cool dry place. When stored in the sunlight, the temperature inside the bag can increase, creating an ideal environment for *Legionella* bacteria to grow.
- Open bags in a well ventilated space.
- Open bags of composted potting mix slowly, directing the opening away from the face to avoid inhaling the mix. Wet the soil to reduce dust when potting plants.
- Water gardens and composts gently, using a low-pressure hose.
- Avoid breathing in droplets of water from dripping pot plants, including hanging baskets, and when watering plants.

Where to get help

- Your **GP (doctor)**
- Your local hospital
- Your local council
- **Communicable Disease Epidemiology and Surveillance Unit**, Department of Health and Human Services, Victorian Government Tel. **1300 651 160**

This page has been produced in consultation with and approved by:

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