

Legionnaires' disease is an infection of the lungs (pneumonia) caused by Legionella bacteria found in the environment. It is difficult to distinguish Legionnaires' disease from other types of pneumonia by symptoms alone.

Legionnaires' disease

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What is Legionnaires' disease?

Legionnaires' disease is an infection of the lungs (pneumonia) caused by bacteria of the *Legionella* family. Infection occurs when a person breathes in bacteria that are commonly found in the environment.

What are the symptoms?

Legionnaires' disease usually causes fever, chills, a cough and shortness of breath. Some people also have muscle aches, headache, tiredness, loss of appetite and diarrhoea. People can become very sick with pneumonia; most people recover but the disease is occasionally fatal.

How is it spread?

Legionnaires' disease can occur after a person breathes in contaminated water vapour or dust. Although there are many different species of *Legionella* bacteria, the two that most commonly cause disease in NSW are:

- *Legionella pneumophila* - these bacteria can contaminate air conditioning cooling towers, whirlpool spas, shower heads and other bodies of water.
- *Legionella longbeachae* - these bacteria can contaminate soil or potting mix.

People may be exposed to *Legionella* bacteria at home, at work, or in public places. The time between the patient's exposure to the bacteria and becoming sick is between two to 10 days.

Legionnaires' disease is not spread from person to person.

Who is at risk?

Legionnaires' disease most often affects middle-aged and older people, particularly those who smoke or who have chronic lung disease. Also at increased risk are people whose immune systems are suppressed by medications or diseases such as cancer, kidney failure, diabetes or HIV.

How is it prevented?

Legionella pneumophophila bacteria can grow to high numbers in warm, stagnant water. Outbreaks are sometimes associated with contaminated cooling towers (that are part of air conditioning systems in large buildings). Regular inspections, disinfection and maintenance of cooling towers and plumbing systems limits the growth of the bacteria.

Legionella longbeachae is common in the soil and potting mix. Reduce exposure to potting mix dust by following the manufacturers' warnings present on potting mix labels, including:

- Wet down the potting mix to reduce the dust
- Wear gloves and a P2 mask when using potting mix
- Wash your hands after handling potting mix or soil, and before eating, drinking or smoking.

How is it diagnosed?

It is often difficult to distinguish Legionnaires' disease from other types of pneumonia by symptoms alone. Chest X-rays help diagnose pneumonia but the diagnosis of Legionnaires' disease requires special tests.

Tests of blood and urine samples can sometimes quickly confirm the diagnosis. However, sometimes two blood samples taken three to six weeks apart are required to serologically confirm the diagnosis.

How is it treated?

Legionnaires' disease can usually be cured by treatment with antibiotics. For serious infections, patients may need to be cared for in an intensive care unit and have their breathing assisted using a ventilator.

What is the public health response?

Laboratories and hospitals are required to confidentially notify cases of Legionnaires' disease to public health units in NSW. Public health unit staff interview patients and their relatives about their illness and possible exposures.

Where two cases are linked by time and place, then possible sources of infection (such as cooling towers) are assessed and if necessary remedial action is ordered under Public Health Regulations.

Further information

Follow the link for information on NSW Health [Legionnaires disease control regulations](#).

For further information please call your local Public Health Unit on **1300 066 055** or visit the New South Wales Health website www.health.nsw.gov.au