

Legionnaires Disease

Description:

Legionnaires disease, also known as legionellosis, is a type of pneumonia (lung infection) caused by the Legionella bacteria which are common in the environment and can be found in creeks, ponds and soil. There are various types of Legionella bacteria, but the main ones that cause disease in people are Legionella pneumophila (often associated with water in cooling towers) and Legionella longbeachae (often associated with gardening or potting mix).

Legionnaires disease is rare in people under twenty years of age. It is NOT an important problem for healthy children or young adults. Usually only a small percentage of people exposed to the bacteria develop the infection. People at high risk of serious illness include those over 50 years of age who smoke cigarettes and people with a weak immune system eg. those with a medical condition such as chronic lung disease, kidney disease, diabetes or cancer.

Symptoms:

The first symptoms of Legionnaires disease are non-specific flu-like symptoms including fever, headache and muscle aches. There may also be a mild cough with or without phlegm. Some people may develop diarrhoea, vomiting and abdominal pain. Symptoms usually begin five to six days after breathing in the bacteria, but it can take slightly longer.

The illness usually progresses rapidly and the chest infection (pneumonia) symptoms become obvious, with high fever, shortness of breath and chest pain being typical symptoms.

Diagnosis of Legionnaires disease can be difficult. Tests using phlegm, lung fluid or urine can be used in the early stages of illness. A blood test is usually taken, but a second blood test several weeks later may be needed to confirm the diagnosis.

Transmission

Legionnaires disease is not spread from person to person. The disease is spread by breathing in tiny droplets of moisture that contain the bacteria. *Legionella* bacteria are common in the environment. They can be found in air-conditioning cooling towers, hot or warm water systems, showerheads, spa baths and even soil and potting mix.

Treatment:

A person with Legionnaires disease usually needs to be admitted to hospital for appropriate antibiotic treatment and care. Because the progress of the infection can be rapid, it is important that antibiotics be given promptly once the diagnosis is suspected. People who receive early effective treatment usually begin to improve within three to five days. Without early treatment, the illness can progress to severe illness, kidney failure and death.

Prevention:

Legionella bacteria are commonly found in the environment and are particularly associated with water. It is therefore important to ensure the regular cleaning/disinfecting of cooling towers, water in spas, decorative fountains and ponds etc.

Keeping domestic hot water systems at a temperature of at least 50°C may also reduce the risk of disease transmission.

Hands should be washed thoroughly after working with potting mix and inhaling dust from potting mix should be avoided.

Help and Assistance

For further information, please contact your local doctor, community health centre or nearest public health unit.

References

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Heymann, D. (Ed). 2008. *Control of Communicable Diseases Manual*, 19th edition. Washington, DC: American Public Health Association.