

Deaths Through Legionnaires' Disease - A Warning To All

The problems of Legionnaires' Disease were highlighted after three people died during an outbreak in April 1989. There was also a scare last year when two men died from the disease who were believed to have contracted a particular strain from potting mix. Now it has flared again with a major outbreak in New South Wales, and this time the number of deaths is much higher.

The legionella bacteria typically thrives in cooling towers, waterways, spas and large hotwater systems. It can spread in any area where tepid water, dust and soil are found. Following the latest outbreak, health officials had to check a number of public buildings in an effort to isolate the source of legionella pneumophila type 1, the bacteria which caused the recent deaths and which grows in air-conditioning systems.

Early symptoms of this particular type of the disease include a high temperature, coughing, muscle aches, chills, chest pains, abdominal pain and diarrhoea. Although most healthy people would survive legionnaires' disease, it can kill within 24 to 48 hours. The most vulnerable include people with chronic respiratory diseases or damaged immune systems including heavy drinkers and smokers.

Legionnaires' Disease, however, is not always a killer. There are more than 50 varieties of the legionella organism and it is not unusual for people to suffer from the disease in a milder form.

According to industry representatives and Health Department officials, more than half of Sydney's air-conditioned buildings have cooling units that are difficult to maintain - particularly older style units made and installed between 5 and 20 years ago. This, they say, leaves the city wide open to an outbreak of legionnaires' disease. If this is the case in Sydney there is no doubt that it would equally apply to other large cities.

Air conditioning systems have been blamed for most of the outbreaks of Legionnaires' Disease in the last few years. However, although the legionella bacteria would probably be in existence in most cooling towers, if the towers are chemically controlled and inspected, the bacteria would never reach a sufficient consistency to pass out into the atmosphere. If controls and maintenance programmes are neglected, the disease could spread rapidly.

Australian Standard 3666 "Air Handling and Water Systems of Buildings - Microbial Control", published in 1989, specifies that cooling towers must be inspected at least monthly as part of regular routine maintenance, and cleaned when necessary or within 6 months. The Standard provides specific guidance on the design, installation and maintenance of air handling systems, hot water services

and cooling towers.

Under the Standard, building owners are required to keep an operational and maintenance manual, and a log-book must be kept on site to record all servicing and maintenance. Health Departments and local councils have the power to inspect air-cooling systems at any time.

There has been considerable media coverage of the recent Legionnaires' Disease tragedies and anyone who owns a building must be aware of the problems which can arise if proper maintenance is not in place. □

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