



Online Resource: The Occupational Safety and Health Administration (OSHA) Web Site on Legionnaires' Disease Bacteria (LDB)

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Editor's Note

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OSHA recently updated the section on LDB in its *Technical Manual* and, following outside expert review, has made the information available on the Internet (www.osha.gov/dts/osta/otm/legionnaires/index.html). The review process included input from ABSA members at the 2003 annual meeting, as part of the OSHA-ABSA collaboration in their common mission to protect health and prevent workplace illness and injury from biological hazards. The Legionnaires' disease web page is part of OSHA's "e-Tools" series and provides occupational and environmental health and safety professionals with basic information on the causative agent and related diseases, as well as practical information on testing and treatment of water systems.

Legionnaires' disease continues to be a concern for public health officials, industrial hygienists, building managers, and biosafety professionals. Persons responsible for making potentially critical and costly decisions when a worker is diagnosed with legionellosis or when LDB are identified in a facility need accurate, accessible, and authoritative information, which the OSHA web site can provide. In addition, investigators often must explain the progress of a study to persons who lack a science or microbiology background, and the "Facts and Frequently

Asked Questions" section of the web site can be a useful tool.

The site consists of four main sections, the first of which (*What is Legionnaires' disease?*) provides fundamental information. This section briefly describes LDB, sources of exposure and modes of transmission, disease symptoms and risk factors, and diagnosis and treatment, with a link to the Centers for Disease Control and Prevention (CDC) web pages for further details. There also is a brief appendix describing the laboratory methods that environmental and clinical microbiologists use to detect LDB in water samples and patient specimens.

The second section (*What water systems in workplaces are potential sources of LDB?*) focuses on potential reservoirs of LDB, with individual modules on cooling towers and evaporative condensers; humidification systems; domestic water supplies; and heating, ventilating, and air conditioning (HVAC) systems. Each module describes how the water system works and gives design considerations as well as maintenance guidelines to limit LDB colonization and multiplication. Useful links move the viewer from section to section and to topics such as the types of environmental samples to take from each system and how to collect them, treatment of contaminated water systems, and biocide selection. Of note are links to the CDC "Procedure for Cleaning Cooling Towers and Related Equipment" and the recently released Association of Water Technologies (AWT) guidelines on Legionella.

Particularly useful to safety professionals is the third section (*How to determine if a workplace is experiencing an outbreak*). OSHA recommends a Level One investigation if there is only a single case of legionellosis and a Level Two investigation for two or more probable cases within the same facility. Viewers are instructed on inspecting water systems, interpreting results, and instituting corrective actions in a first level investigation; and readers are given guidance on reviewing employee attendance records, initiating an employee awareness program, and collecting environmental samples for second level investigations. Questionnaire forms are included to survey the general health of the building's occupants and to identify potential cases of Legionnaires' disease as well as more intensive interview tools for suspect cases and their physicians.

The final module covers large-scale investigations (*What actions are required when an outbreak of Legion-*

naires' disease is confirmed?). This section directs investigators to identify and isolate persons most at risk for acquiring Legionnaires' disease (e.g., immune suppressed individuals) and addresses the question of when to evacuate a facility.

Overall the web site is attractively illustrated and easy to navigate. In addition to the eTool on Legionnaires' disease, the other modules are good resources for safety professionals whose responsibilities include protecting the health of workers subject to OSHA regulations. For example, ABSA members may be interested in the eTools on anthrax; evacuation plans and procedures; eye, face, and respiratory protection; hospitals; and safety and health management. The modules are available at (www.osha.gov/dts/osta/oshasoft/index.html) for online use and are downloadable in PDF format for convenient offline use.