



## Legionellosis - Technical Information

### Legionnaire's Disease (LD) and Pontiac Fever

<b>Clinical Features</b>	Legionnaires' disease, (LD), is the more severe form of legionellosis and is characterized by pneumonia, commencing 2-10 days after exposure. Pontiac fever is an acute-onset, flu-like, non-pneumonic illness, occurring within a few hours to two days of exposure.
<b>Etiologic Agent</b>	<i>Legionella pneumophila</i> and other <i>Legionella</i> species. At least 46 species and 70 serogroups have been identified. <i>L.pneumophila</i> , an ubiquitous aquatic organism that thrives in warm environments (32°- 45°C) causes over 90% of LD in the United States.
<b>Incidence</b>	An estimated 8,000-18,000 cases occur each year in the United States, but only a fraction of these are reported. Most LD cases are sporadic; 23% are nosocomial and 10%-20% can be linked to outbreaks. Pontiac fever has been recognized only during outbreaks.
<b>Sequelae</b>	Death occurs in 10%-15% of LD cases: a substantially higher proportion of fatal cases occur during nosocomial outbreaks. Pontiac fever is a self-limited disease that requires no treatment.
<b>Transmission</b>	Inhalation of contaminated aerosols from devices such as cooling towers, showers, and faucets, and aspiration of contaminated water. Person-to-person transmission does not occur.
<b>Risk Groups</b>	The elderly, cigarette smokers, persons with chronic lung or immunocompromising disease, and persons receiving immunosuppressive drugs.
<b>Surveillance</b>	LD is a reportable condition in most states; because of under-diagnosis and underreporting, however, only 2%-10% of estimated cases are reported.
<b>Trends</b>	Increasing awareness among physicians and use of more sensitive, noninvasive tests such as urine antigen testing has led to improved recognition of sporadic cases and outbreaks caused by <i>L. pneumophila</i> , serogroup 1. Decreased use of culturing may be hampering recognition of infections caused by <i>Legionella</i> species and serogroups.

**Challenges** Diagnosis of legionellosis requires specialized testing. Optimal methods for prevention of legionellosis are not known, and source of most sporadic cases is unknown. Rapid detection of travel-related legionellosis is needed to identify potentially preventable disease transmission.

**Opportunities** Tests with improved sensitivity have been developed but more are needed. Improved understanding of ecology of *Legionella* can increase the effectiveness of prevention and control measures.

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