

# Preventing Legionnaires' Disease: A Training on *Legionella* Water Management Programs (PreventLD Training)

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**Are you involved in water safety for buildings?** Take this training from CDC and partners on creating a water management program to reduce risk for Legionnaires' disease. PreventLD Training aligns with industry standards (ASHRAE 188) on managing risk for *Legionella* bacteria.

Get Started Today

1. **Visit the [Western Region Public Health Training Center at the University of Arizona](#)** Externalexternal icon and create an account (or log in if you already have one). You can also register through [TRAIN](#). Externalexternal icon
2. **Enroll in PreventLD Training.**

What Are the Benefits of This Training?

## PreventLD Training

- **Outlines how to reduce risk for *Legionella* in facilities** through water management programs.
- **Helps water management programs align with ASHRAE 188** on reducing risk for *Legionella* in building water systems (e.g., potable water, cooling towers, hot tubs, decorative water features).
- **Is free and available online**, and continuing education units are available from the National Environmental Health Association (NEHA).
- **Helps build common language** across the range of professionals involved in water management programs.
- **Includes case studies, templates, and other practical resources** to reduce the risk for *Legionella* and protect those at increased risk of Legionnaires' disease: adults aged 50 years or older, current or former smokers, and those with a weakened immune system or chronic disease.



## Attention Healthcare Facilities!

The Centers for Medicare & Medicaid Services (CMS) now requires healthcare facilities to have water management policies and procedures to reduce the risk of *Legionella* and other pathogens in building water systems.

Who Is This Training For?

CDC and partners designed this PreventLD Training for the range of professionals involved in water management programs. This typically includes

- Public health professionals, including infection preventionists.
- Building managers, maintenance/engineering staff, and safety officers.
- Equipment and water treatment suppliers as well as consultants.

This training addresses how to manage

- Building water systems in hospitals, retirement homes and long-term care facilities, hotels, high-rise apartment complexes, and other buildings.
- Other devices that may need a water management program even if the building does not, such as cooling towers, decorative fountains and water features, hot tubs, and misters.

What Topics Does the Training Address?

The training addresses the 7 steps of a *Legionella* water management program. These 7 steps, outlined in CDC's Water Management Program toolkit, operationalize the ASHRAE 188 standard for minimizing the risk of Legionnaires' disease.



The training includes templates and other resources.

### **Module A: Getting Started – Introduction to *Legionella***

Step 1: Create a Water Management Program Team

### **Module B: Hazard Analysis**

Step 2: Describe the Building Water Systems Using Text and Flow Diagrams

Step 3: Identify Areas Where *Legionella* Could Grow and Spread

### **Module C: Hazard Control**

Step 4: Decide Where Control Measures Should Be Applied and How To Monitor Them

Step 5: Establish Ways To Intervene When Control Limits Are Not Met

### **Module D: Confirmation**

Step 6: Make Sure the Program Is Running as Designed and Is Effective (Verification and Validation)

Step 7: Document and Communicate All the Activities of Your Water Management Program

The training also includes case studies in a healthcare facility and manufacturing facility as well as resources for creating water management program action plans.

What Are People Saying?

"...easy to follow for someone new to the field, and also provided enough detail for individuals already involved in *Legionella* prevention. The comprehensive training guided me from basic understanding of the disease, to development of a water management program. This training set the bar in educational material on the topic of Legionnaires' disease."

-Robert Cole, REHS, Southern Nevada Health District

"I think it's excellent. It does a great job of explaining the biology and epidemiology of *Legionella* and its relationship with the built environment. It's the most comprehensive approach to understanding, creating, and implementing a meaningful, personalized Water Management Program. In general, it takes the toolkit to a whole new level. We've had facilities ask how they can create a WMP, and this is the perfect resource. In Georgia, we've already shared PreventLD Training with our healthcare facility, tourist accommodation, and hot tub regulatory partners, and we're planning to share it with others.

THANK YOU for this resource!!!!"

-Liz Hannapel, MPH, Legionella Surveillance Coordinator, Georgia Department of Public Health

"This course is great for individuals who advise or oversee any environmental health programs that deal with a building or water system."

-TRAIN user

"I only had a cursory knowledge of *Legionella* before completing this course. This course has great information; I now feel like I have a better understanding of the disease and steps to reduce risk."

-TRAIN user

How Long Does It Take?

Pilot testers took an average of a half hour to complete each module and an average of 3 hours to complete the training as a whole.

Users do not have to complete the training all at once. They can save their progress and come back later to complete a module.

Who Developed It?

The following groups developed this training:

- CDC's National Center for Environmental Health.
- CDC's National Center for Immunization and Respiratory Diseases.
- The National Network of Public Health Institutes.
- The University of Arizona Mel and Enid Zuckerman College of Public Health.
- The Western Region Training Center at the University of Arizona.



Did You Know?

- The number of people with Legionnaires' disease grew 5.5 times from 2000–2017.<sup>1</sup>
- In general, Legionnaires' disease is deadly for about 10% of people who get it.<sup>2</sup> It is deadly for about 25% of people who get it from a healthcare facility.<sup>3</sup>
- CDC investigations show almost all (9 in 10) Legionnaires' disease outbreaks were caused by problems preventable with more effective water management.<sup>4</sup>
- An increasing number of people in the United States are getting this disease, which is caused by breathing in small water droplets containing *Legionella*.<sup>5</sup>

Want More?

[ASHRAE Standard 188, Legionellosis: Risk Management for Building Water Systems](#)external icon (ASHRAE)

[Legionella \(Legionnaires' Disease and Pontiac Fever\)](#) (CDC)

[Legionnaires' Disease Resources for Environmental Health Professionals](#) (CDC)

[Prevention with Water Management Programs](#) (CDC)

[Worksheet to Identify Buildings at Increased Risk for \*Legionella\* Growth and Spread](#) (CDC)

### Key Terms

**ASHRAE** – standard setting organization focusing on building systems, energy efficiency, indoor air quality, refrigeration and sustainability. Since 2012, the organization has done business as ASHRAE instead of its full legal name of the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

**Legionnaires' disease** – serious type of pneumonia (lung infection) caused by *Legionella* bacteria.

**Legionella** – bacteria that can cause Legionnaires' disease or Pontiac fever, collectively known as legionellosis. CDC scientists identified and named the bacterium after an outbreak in 1976 when many people who went to a Philadelphia convention of the American Legion got sick with pneumonia.

**Water management program** – program to reduce the risk of *Legionella* growth and spread.

### References

1. Centers for Disease Control and Prevention (CDC). National Notifiable Diseases Surveillance System.
2. Dooling KL, Toews KA, Hicks LA, et al. Active bacterial core surveillance for legionellosis—United States, 2011–2013. *MMWR Morb Mortal Wkly Rep* 2015;64:1190–3.
3. Soda EA, Barskey AE, Shah PP, et al. Vital Signs: Health care-associated Legionnaires' disease surveillance data from 20 states and a large metropolitan area—United States, 2015. *MMWR Morb Mortal Wkly Rep*. 2017;66(22):584–9.
4. Garrison LE, Kunz JM, Cooley LA, et al. Vital Signs: Deficiencies in environmental control identified in outbreaks of Legionnaires' disease—North America, 2000–2014. *MMWR Morb Mortal Wkly Rep*. 2016;65(22):576–84.
5. CDC. National Notifiable Diseases Surveillance System.

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