

WHAT A WATER MANAGEMENT PROGRAM IS AND WHO NEEDS ONE



Objectives:

- Describe what a Water Management Program (WMP) is
- Explain the importance of a WMP in healthcare
- Discuss who needs to develop, implement and maintain a WMP



Self Assessment

How familiar are you with a Water Management Program (WMP)?

1. I'm not quite sure what a WMP is.
2. I'm familiar with what a WMP is, but I would like to know more.
3. I completely understand and can discuss my facilities WMP.

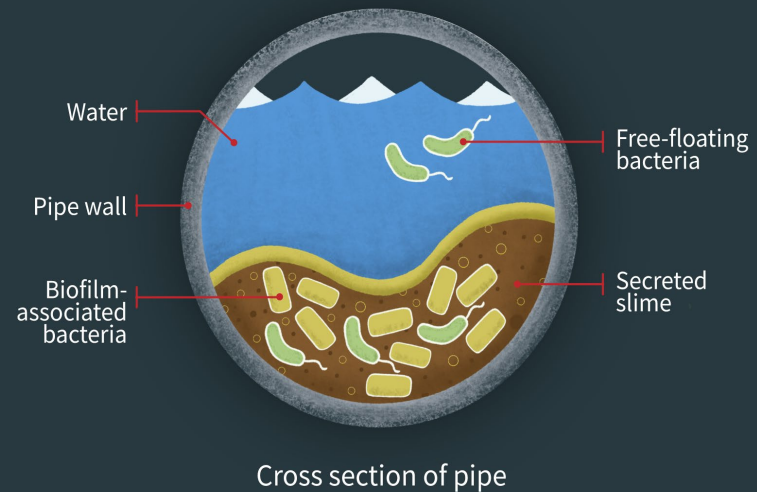


It's just water.....



Or is it?

Legionella can live and grow in biofilm



<https://www.nist.gov/image/legionella-biofilm-pipes>

<https://www.farmwater.co.uk/what-is-biofilm-and-how-can-it-effect-my-water-sanitation-system/>



Water can harbor germs that threaten the safety of patients and spread antibiotic resistant pathogens or healthcare-associated infections (HAIs).



DID YOU KNOW?

- The number of people with Legionnaires' disease grew 5.5 times from 2000–2017.
- CDC investigations show almost all (9 in 10) Legionnaires' disease outbreaks were caused by problems preventable with more effective water management.
- In general, Legionnaires' disease is deadly for about 10% of people who get it. It is deadly for about 25% of people who get it from a healthcare facility.



9 in 10

CDC investigations show almost all outbreaks were caused by problems preventable with more effective water management.

#VitalSigns

VitalSigns^{CDC}

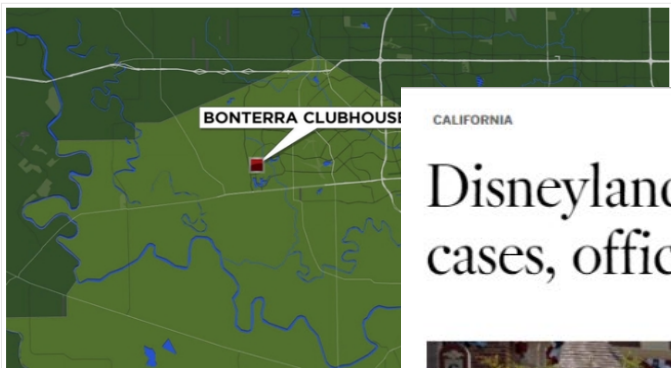
www.cdc.gov/vitalsigns/legionnaires



Source: Centers for Disease Control and Prevention



LEGIONNAIRES DISEASE



CALIFORNIA

Disneyland cooling tower was likely source of all 22 Legionnaires' cases, official testifies



Guests along Main Street in Disneyland in 2017. The theme park is appealing a Cal-OSHA citation and fine for failing to properly clean cooling equipment linked to last year's Legionnaires' disease outbreak. (Gary Coronado / Los Angeles Times)

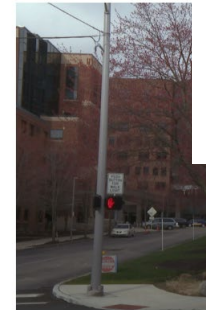
Officials monitoring Legionnaires' disease

The outbreak is localized in the Bonterra area, which is a 55 and up community, a County health and human services.

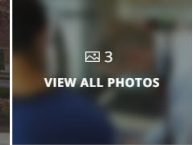


The Christ Hospital legionella outbreak

by WKRC | Mon, March 13th 2022



The Christ Hospital working to find source of legionella outbreak (WKRC)



Two Nursing Home Residents Die After a Legionnaires' Outbreak

The New York State Department of Health is investigating eight cases of infection related to a bacterium that can be fatal.



of the Amsterdam Nursing Home in Morningside York Times

Legionnaires' disease behind illness that sickened 11

The outbreak has been contained to a single health care facility.

By [Mary Kekatos](#)
September 5, 2022, 12:38 PM



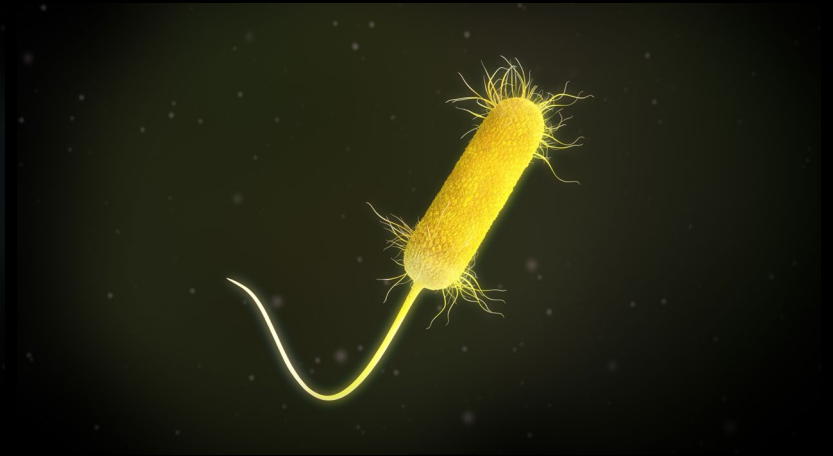
The background of the slide is a light blue gradient with various microscopic organisms scattered throughout. These include a grey worm-like parasite with cilia, a red rod-shaped bacterium with flagella, a yellow star-shaped microorganism, a red oval with a textured surface, a large purple oval with many fine radiating lines, a red spiky spherical virus-like particle, and several grey rod-shaped bacteria. At the bottom of the slide, there is a realistic illustration of a blue water splash with several bubbles of varying sizes.

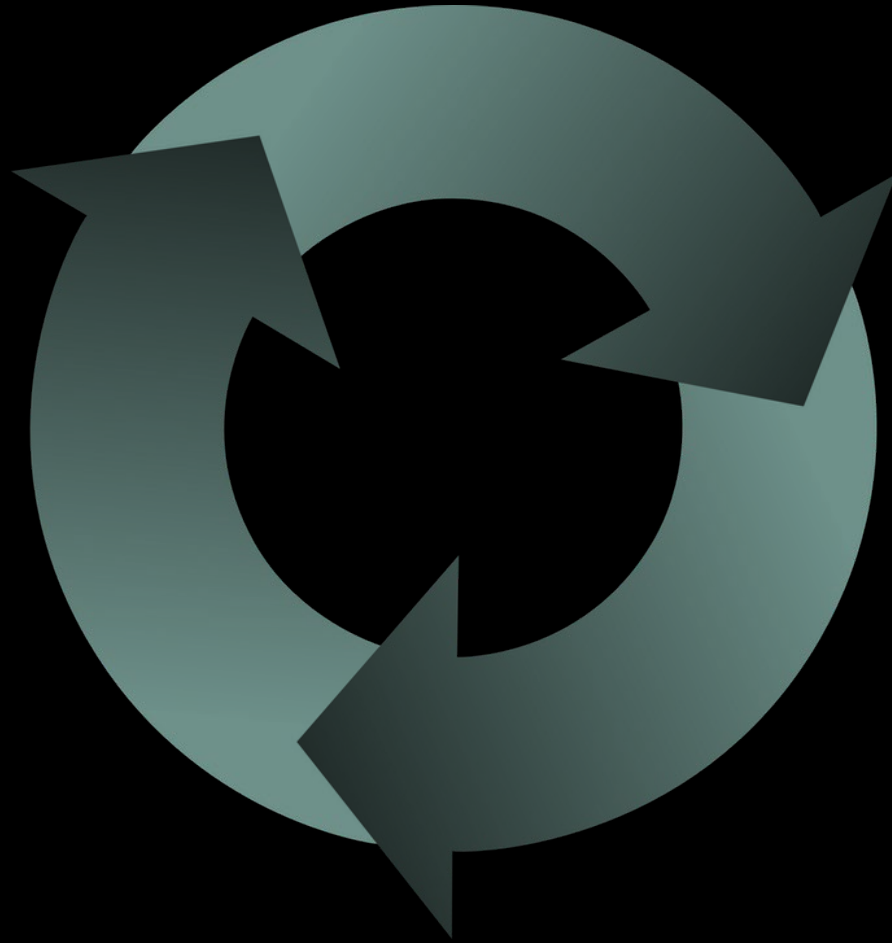
WHAT MAY BE LURKING IN YOUR WATER

Microscopic invaders such as bacteria and parasites may be hiding in your water supply.

A WATER MANAGEMENT PROGRAM

identifies hazardous conditions and takes steps to minimize the growth and transmission of *Legionella* and other waterborne pathogens in building water systems.





Developing and maintaining a water management program is a **multi-step** process that requires continuous review.



Identifying Buildings at Increased Risk

Survey your building (or property) to determine if you need a water management program to reduce the risk of *Legionella* growth and spread.

If you answer YES to any of questions 1 through 4, you should have a water management program for that building's hot and cold water distribution system.

Healthcare Facilities

Yes ___ No ___ 1. Is your building a healthcare facility where patients stay overnight or does your building house or treat people who have chronic and acute medical problems[†] or weakened immune systems?

Yes ___ No ___ 2. Does your building primarily house people older than 65 years (like a retirement home or assisted-living facility)?

Yes ___ No ___ 3. Does your building have multiple housing units and a centralized hot water system (like a hotel or high-rise apartment complex)?

Yes ___ No ___ 4. Does your building have more than 10 stories (including basement levels)?

Devices in buildings that can spread contaminated water droplets should have a water management program even if the building itself does not. If you answer NO to all of questions 1 through 4 but YES to any of questions 5 through 8, you should have a water management program for that device.

Yes ___ No ___ 5. Does your building have a cooling tower*?

Yes ___ No ___ 6. Does your building have a hot tub (also known as a spa) that is not drained between each use?

Yes ___ No ___ 7. Does your building have a decorative fountain?

Yes ___ No ___ 8. Does your building have a centrally-installed mister, atomizer, air washer, or humidifier?

If you answer NO to questions 1 through 8, you should still maintain water systems according to manufacturer recommendations.

On properties with multiple buildings, prioritize buildings that house or treat people who are at increased risk for Legionnaires' disease (see Appendix A to learn who is at increased risk).

The building standards discussed in this toolkit do not apply to single-family or small multiple-family residences (e.g., duplexes), even those with the devices in questions 6 through 8, but residents do need to take steps to protect themselves from waterborne diseases.

Homeowners should follow local and state guidelines for household water use, and owners of the devices in questions 6 through 8 should follow the manufacturer's instructions regarding cleaning, disinfecting, and maintenance.

Reference: ASHRAE 188: *Legionellosis: Risk Management for Building Water Systems* June 26, 2015. ASHRAE: Atlanta. www.ashrae.org

[†]Burns, cancer, solid organ or bone marrow transplant, kidney disease, diabetes, or chronic lung disease

*For a definition of a cooling tower, visit www.cti.org/whatis/coolingtower.shtml.

Is your building at an Increased risk?



What Healthcare Facilities Need to Know about Water Management Programs

- **Facility Requirements to Prevent Legionella Infections:** Facilities must develop and adhere to policies and procedures that inhibit microbial growth in building water systems that reduce the risk of growth and spread of *legionella* and other opportunistic pathogens in water.

DEPARTMENT OF HEALTH & HUMAN SERVICES
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Center for Clinical Standards and Quality/Survey & Certification Group

Ref: S&C 17-30-*Hospitals/CAHs/NHs*
REVISED 06.09.2017

DATE: June 02, 2017

TO: State Survey Agency Directors

FROM: Director
Survey and Certification Group

SUBJECT: Requirement to Reduce *Legionella* Risk in Healthcare Facility Water Systems to Prevent Cases and Outbreaks of Legionnaires' Disease (LD)
****Revised to Clarify Provider Types Affected****

Memorandum Summary

- **Legionella Infections:** The bacterium *Legionella* can cause a serious type of pneumonia called LD in persons at risk. Those at risk include persons who are at least 50 years old, smokers, or those with underlying medical conditions such as chronic lung disease or immunosuppression. Outbreaks have been linked to poorly maintained water systems in buildings with large or complex water systems including hospitals and long-term care facilities. Transmission can occur via aerosols from devices such as showerheads, cooling towers, hot tubs, and decorative fountains.
- **Facility Requirements to Prevent Legionella Infections:** Facilities must develop and adhere to policies and procedures that inhibit microbial growth in building water systems that reduce the risk of growth and spread of *legionella* and other opportunistic pathogens in water.
- *This policy memorandum applies to Hospitals, Critical Access Hospitals (CAHs) and Long-Term Care (LTC). However, this policy memorandum is also intended to provide general awareness for all healthcare organizations.*

Background

LD, a severe sometimes fatal pneumonia, can occur in persons who inhale aerosolized droplets of water contaminated with the bacterium *Legionella*. In a recent review of LD outbreaks in the United States occurring in 2000–2014, 19% of outbreaks were associated with long-term care facilities and 15% with hospitals. The rate of reported cases of legionellosis, which comprises both LD and Pontiac fever (a milder, self-limited, influenza-like illness) has increased 286% in the US during 2000–2014, with approximately 5,000 cases reported to the Centers for Disease Control and Prevention (CDC) in 2014. Approximately 9% of reported legionellosis cases are fatal.



CMS Regulatory Authorities

Pertinent regulations include, but are not limited to, the following:

42 CFR §482.42 for **hospitals**

“The hospital must provide a sanitary environment to avoid sources and transmission of infections and communicable diseases. There must be an active program for the prevention, control, and investigation of infections and communicable diseases.”

42 CFR §483.80 for **skilled nursing facilities and nursing facilities**

“The facility must establish and maintain an infection prevention and control program designed to provide a safe, sanitary, and comfortable environment and to help prevent the development and transmission of communicable diseases and infections.”

42 CFR §485.635(a)(3)(vi) for **critical access hospitals (CAHs)**:

CAH policies must include: “A system for identifying, reporting, investigating and controlling infections and communicable diseases of patients and personnel.”



For Questions or concerns regarding this policy memorandum, please contact the following for each facility type:

Hospitals : HospitalSCG@cms.hhs.gov

Critical Access Hospitals : CAHSCG@cms.hhs.gov

Long-Term Care Facilities :
NHSurveyDevelopment@cms.hhs.gov



Resources

Identifying buildings at risk worksheet:

<https://www.cdc.gov/control-legionella/php/toolkit/wmp-worksheet.html>

CMS Services released a survey and certification memo

<https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/Survey-and-Cert-Letter-17-30.pdf>



Questions?

Email : HAI@health.ok.gov

Phone: 405-426-8710



Thank You!

