

The logo features the text 'AFSCME' in large, bold, white letters on a blue background. Below it, 'Health & Safety Fact Sheet' is written in a white, sans-serif font. To the right, there is a stylized graphic of a star with three curved lines above it, all in shades of blue and white. The entire logo is set against a blue background with a green horizontal bar at the bottom.

# AFSCME

## Health & Safety Fact Sheet

### Legionella Fact Sheet: Impact and Response February 2025

Part 1: *Legionella* - What is it?

Part 2: My building has *Legionella*- Now what?

- How can general building workers protect themselves?
- How can maintenance, cleaning and decontamination workers protect themselves?

Part 3: Employer Responsibilities: Train, Protect, Decontaminate and Prevent Exposure.

---

#### **Part 1: *Legionella* - What is it?**

*Legionella* bacteria is naturally occurring, and sometimes found in freshwater springs, lakes and streams. Like all bacteria, it spreads by moving through the air or by contact. It can grow anywhere a watery ‘biofilm’ — a thin, slick layer of slime on the inside of pipes, tanks, drip trays, coils, etc. — develops.

*Legionella* bacteria grows in systems or equipment that use water. Wherever this water gets used (or wherever air might flow over liquids contaminated with *Legionella*), water aerosolizes, breaking up into fine droplets. People can breathe in the bacteria contained in aerosols created by water sprays, jets or mist.

**Because it can be difficult to avoid breathing in droplets or mist that contain *Legionella*, the key to preventing Legionnaires’ related illness is to reduce the growth and spread of *Legionella* in the first place.**

Sources of *Legionella* contamination may include:

- Aging building or water infrastructure with **chronic, poor system maintenance**.
- Plumbing systems, showerheads, sinks and faucets, icemakers, hot tubs, drinking fountains, irrigation systems, outside fountains and more.
- Humidifiers, condensers, holding tanks, hot-water heaters, hot and cold-water systems.
- Cooling towers where water is used as part of air conditioning.
- Heating/ventilation/air-conditioning (HVAC) components where water accumulates, such as refrigeration coils and drip pans under air conditioners. Even leaks or contaminated puddles near building fresh air intake sources can spread *Legionella* once it is present.

#### **What is legionellosis?**

**Legionellosis** is the name of infections caused by *Legionella* bacteria. Legionellosis is caused by breathing in mist or small droplets of water containing *Legionella* bacteria.

## Types of Legionellosis

There are two types of legionellosis, one mild and one potentially severe.\*

***\*In general, legionellosis is not contagious — it does not spread from person to person.***

## At-Risk Populations

People with preexisting health conditions, (cancer, diabetes, kidney or liver failure, chronic lung disease, COPD), smokers and former smokers, people over 50 or those taking immune-suppressing medication are most at risk of severe illness following *legionella* exposure.

## Legionnaires' Disease:

**Legionnaires' disease** can cause severe lung infection or pneumonia. For about 5% of people exposed to *Legionella* bacteria, symptoms appear within **2 to 10 days after exposure**. Legionnaires' disease usually requires a hospital stay. The fatality rate of *Legionella*-caused pneumonia can be as high as 15%.

Symptoms of Legionnaires' disease are similar to other types of pneumonia and include:

- Cough, shortness of breath.
- Fever (102-105°F) and chills.
- Headaches, muscle aches.
- Nausea, vomiting, diarrhea.
- Confusion, brain fog.
- *In extreme cases, infection causes multi-organ failure and death.*

## Pontiac Fever:

Symptoms of **Pontiac fever** are similar to flu. Pontiac fever is a relatively mild infection caused by inhaling *Legionella* bacteria. Illness comes on quickly, usually within a day or two after exposure. Pontiac fever generally gets better on its own after 2 -5 days. It does not cause severe lung infection.

Symptoms may include fever, muscle aches, headache, joint pain, fatigue, chills, nausea and a dry cough. Usually, Pontiac fever does not require medical care and resolves on its own.

## **Part 2: My building has *Legionella!* - Now what?**

### **How can workers in the building protect themselves?**

**The employer MUST let all employees know there is a safety issue in the building and how they can protect themselves.**

#### **1. DO NOT CONSUME WATER FROM BUILDING.**

- Use bottled water to drink, brush teeth, wash vegetables, cook food, etc.
- Close off showers, drinking fountains, faucets, slop sinks, kitchen sinks, etc.
  - Don't let water from these devices flow.

#### **1. What about handwashing and flushing toilets? *That's flowing water too!***

**We must always wash hands after using the toilet and before we eat.**

- During periods of *Legionella* contamination, your employer should provide alternative handwashing stations for building occupants and employees. Handwashing stations must supply ample soap and running water that is safe to use and free from bacterial contamination like *Legionella*.
  - **Effective hand hygiene requires vigorous handwashing with regular soap — including at least 20 seconds of rinsing under running water.**
  - If you have doubts about the cleanliness of your alternative handwashing water, consider using an alcohol-based hand sanitizer AFTER washing hands with soap and water. The Centers for Disease Control and Prevention (CDC) states that *Legionella* and most pathogens are neutralized by products containing at least 60% alcohol.
  - ***Note: After using the toilet, handwashing with soap and water best protects you from highly-contagious norovirus pathogens, the virus that causes diarrhea and vomiting. Norovirus germs are NOT KILLED BY ALCOHOL or waterless hand sanitizers.***
2. **But what about BREATHING IN the mist of *Legionella*-contaminated water after flushing the toilet or while washing my hands?**
- CDC’s website does not suggest using masks, respirators or taking precautions against breathing in aerosols when flushing toilets in bathrooms potentially contaminated with *Legionella*.
  - **AFSCME safety staff recommend that members wear a mask, N-95, KN-95 or KN-94 in bathroom facilities when water may be contaminated with *Legionella*.**
  - Respirators minimize chances of inhaling *Legionella*-contaminated aerosols generated by faucets or toilets.



**How can workers assigned to clean or decontaminate buildings protect themselves from *Legionella*?**

According to NYCOSH, the New York Committee for Occupational Safety and Health, there are no OSHA permissible exposure limits for exposure to biological agents such as Legionnaires’ disease. There are no specific, applicable respirator requirements to protect workers performing *Legionella* cleaning and decontamination activities.



Half-face elastomeric respirator with P-100 (HEPA) filters

- **However, OSHA requires its own inspectors to wear at least a half-face elastomeric respirator equipped with replaceable P-100 (HEPA) cartridges “during the examination of water systems if a significant potential exists for exposure to high concentrations of contaminated aerosols.”**
- *Note: Any time an employer requires that a respirator be used, the employer must implement an effective OSHA Respiratory Protection Program, including medical clearance, annual fit testing, annual training, free respirators and more. When workers use chemicals to clean or decontaminate equipment, the employer must provide chemical-specific safety training under the OSHA Hazard Communication (HAZCOM) Program.*

- NYCOSH recommends that during an outbreak, cleaning and decontamination workers also wear **at least a half-face elastomeric respirator equipped with replaceable HEPA cartridges**, especially if high-pressure steam, water or air is applied to remove deposits.
- During decontamination procedures, workers should also wear **rubber gloves, goggles and protective clothing** to shield against the chemicals used for decontamination.
- **Building air intake ducts should be closed** during cleaning if they are within 100 feet of a cooling tower that is being decontaminated.
- **If humidifiers, drain pans, cooling coils, duct work, nebulizers, showers or other indoor equipment are to be decontaminated**, measures should be implemented to minimize and contain aerosols generated by decontamination and cleaning activities.

#### **How can maintenance workers protect themselves when working in a building with *Legionella* in the water system?**

- If your building has water system components contaminated with *Legionella* and you have to clean or work around those components, your employer must train you about how to be protected from *Legionella* exposure and provide all the tools you need to stay safe.
  - If you are assigned to clean a bathroom, kitchen or service area where *Legionella* is suspected of being present, you cannot use water from that contaminated source for cleaning or for any other purpose.
  - **You may need personal protective equipment (PPE) to protect you from contacting surfaces or equipment contaminated with *Legionella* bacteria.**
  - **Depending upon your task, you may need respiratory protection to protect you from exposure to potential aerosols of *Legionella*.**

- **If you are performing routine maintenance on or in cooling towers, even after they have been decontaminated, you will most likely need **respiratory protection and other PPE** to protect you from exposure to chemicals used in recirculated cooling tower water.**
  - *Selection of respirators, filters and other PPE will depend on the chemicals used and the work tasks being performed, and the employer must provide you with chemical-specific safety training under their HAZCOM Program.*

### **Part 3: What must employers do?**

#### **Employer Responsibilities to Train, Protect, Decontaminate and Prevent *Legionella* Exposure**

- **REPORT** OUTBREAK to state Department of Health and federal CDC.
- **SHUT DOWN** SOURCES OF WATER EXPOSURE:
  - Turn off hot water tanks.
  - Turn off all sources of drinking water, fountains or food preparation water.
  - Turn off potentially impacted humidifying, heating, ventilation and air conditioning systems, cooling towers, etc., and provide temporary heating, fans, cooling, etc.
- **ALERT WORKERS TO HAZARD** and train all workers on *Legionella* Hazard Awareness and about the steps the employer is taking to protect workers (and building occupants) from exposure.
- **SHARE** *Legionella* test results with workers upon request.
- **REVIEW** worker medical leave and sick files to see which employees may have gotten sick from *Legionella* exposure, and report illness and exposure correlation to Workers Compensation, state and federal authorities.
- **RECORD** lost work time exposures on OSHA accident and illness logs.
- **PROVIDE** alternate, ample sources of clean drinking water for building occupants.
- **PROVIDE** non-contaminated handwashing stations and alcohol-based waterless hand sanitizers.
  - *AFSCME suggests that workers wear respirators or masks when using toilet facilities, especially if workers are in any way medically at risk, but the employer is not required to provide PPE for this purpose.*
- **PROVIDE** full PPE and safety training for workers tasked with clean up, decontamination or maintenance.
- **DECONTAMINATE AND TEST** WATER SYSTEMS TO ENSURE EFFECTIVENESS.
- **PREVENT REOCCURANCE** and continue to provide training to workforce.
  - **The CDC has found that 9 out of 10 *Legionella* outbreaks were completely preventable, occurring because of problems maintaining the water supply system. **Effective, regular monitoring and maintenance of water supply systems prevents *Legionella* exposure.****

*For more Legionella information, visit websites of your local and state health departments and the CDC. AFSCME's Health and Safety Department can provide additional information by request at [healthandsafetytraining@afscme.org](mailto:healthandsafetytraining@afscme.org)*

***Always Contact Union Representatives First!***