

Lead Accumulation in Stagnant Water During COVID-19

Lead Risk Elevated During Prolonged Building Closures and Abrupt Re-occupancy

In response to the COVID-19 pandemic, many day cares, schools, and commercial facilities have closed their buildings to occupants or are experiencing an overall reduction in occupancy and business. As a result, building water systems may be left stagnant until re-occupied and business resumes. The abrupt startup of water systems without consideration of stagnation may expose building occupants to lead that has accumulated within the plumbing system due to long stagnation time periods. Flushing water



systems well before use is a low-cost preventative measure to reduce lead exposure from water by allowing fresh water to move through those faucets that have not been used over the duration of each building's shut down period due to COVID-19 related stay at home orders and school closures.

Lead is a naturally occurring element found in the earth's crust. While it has beneficial uses, it can be toxic to humans if ingested or inhaled. Lead is absorbed into drinking water from lead service lines, lead plumbing, and lead solder within building water supply systems. Water supply systems built prior to 1986 are more likely to contain lead components, but there is always some risk associated with lead in drinking water.¹

According to the Environmental Protection Agency (EPA), elevated levels of lead exposure can cause increased blood pressure and incidence of hypertension, decreased kidney function, and reproductive issues in both men and women. Pregnant women, young children, and infants are particularly vulnerable to lead exposure from drinking water. For children, low lead levels can result in behavior and learning problems, lower IQ and hyperactivity, slowed growth, hearing problems, and anemia.²

Testing your facility's water supply for lead at each fixture is a very useful tool in preventing lead exposure to building occupants once buildings are reopened.³ Testing provides valuable information in designing mitigation plans custom to each building. Additional measures for buildings to take prior to normal building occupancy include:

1 United States Environmental Protection Agency (EPA), Protect Your Family from Exposures to Lead: <https://www.epa.gov/lead/protect-your-family-exposures-lead#water>

2 United States Environmental Protection Agency (EPA), Health Effects of Exposures to Lead in Drinking Water: <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water#health>

3 United States Environmental Protection Agency (EPA), Learn If You Have Lead in Your Drinking Water: <https://www.epa.gov/lead/protect-your-family-exposures-lead#testdv>

- Thoroughly flushing the building water system periodically up to a week prior to reopening to ensure accumulated lead is flushed out of the system.
- Using only cold water for cooking and drinking.
- Regularly cleaning or replacing the aerator (faucet screen) the water flows through.
- Installing NSF-certified water filters designed to remove lead from water.

As we navigate through abnormal building occupancy/re-occupancy and business, school, and day care fluctuations caused by the COVID-19 pandemic, it is important to flush water systems in advance of reoccupation and continue to frequently flush systems following extended periods without usage.

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At RHP Risk Management, we help our clients navigate the uncertainties associated with environmental and occupational hazards and risks. Our staff of public health professionals are experienced and trained in recognizing, anticipating, and controlling hazards. There are experts in the development of water management programs and water testing to reduce the risks of lead exposure. RHP offers lead training for daycare directors, consulting, and lead testing. For more information on RHP's lead in water services and contact information, please visit https://rhprisk.com/lead_water/

For more resources concerning COVID-19, visit www.rhprisk.com/coronavirus/