With Buildings Preparing to Reopen, It’s Time to Think About Stagnant Water and Health Risks

Building closures during a pandemic reduce water use, leading to stagnant water inside plumbing. This water may be unsafe to drink or unsafe to use for other personal or commercial purposes. CDC and EPA recommend that building managers and owners become informed and take necessary steps to flush the building plumbing before reopening.

Why is stagnant water a health risk?

- Disinfectants (like chlorine) in treated water dissipate over time, leading to conditions that support bacterial growth, including *Legionella*.
- Disinfectant by-products, probable carcinogens, build up in plumbing.
- The longer the water is in contact with plumbing materials that contain lead and copper, the higher the levels of lead and copper are possible if the water is corrosive.

What do we do when reopening our building?

1. Flush plumbing with fresh water to remove stagnant water and associated contaminants.
2. Plan a systematic approach to ensure all contaminants are removed from the intricate piping infrastructure, and varied fixture types*.
3. Follow guidelines from CDC, EPA and your state and local health departments. This is essential!

*The degree to which flushing helps reduce contaminant levels can vary depending upon the age, condition and type of plumbing and the corrosiveness of the water.

Where do I get help?

- EPA - Restoring Water Quality in Buildings: [https://www.epa.gov/coronavirus/information-maintaining-or-restoring-water-quality-buildings-low-or-no-use](https://www.epa.gov/coronavirus/information-maintaining-or-restoring-water-quality-buildings-low-or-no-use)
- Flushing Plans: [https://engineering.purdue.edu/PlumbingSafety/resources/flushing-plans](https://engineering.purdue.edu/PlumbingSafety/resources/flushing-plans)
- MDE Water Supply Program: [https://mde.maryland.gov/programs/Water/water_supply/Pages/WhatsNew.aspx](https://mde.maryland.gov/programs/Water/water_supply/Pages/WhatsNew.aspx)

What should I do to protect my health and those flushing my water?

- Flushing water through fixtures can potentially release dangerous aerosols including *Legionella*. Using appropriate personal protective equipment (PPE) is essential—follow guidelines
- Test water quality after flushing to ensure adequate disinfectant levels are present using EPA approved sample collection and analysis methods

Adapted from Wheaton and Proctor 2020.