

Module 6: Remediation and Establishing Routine Practices

Establishing Routine Practices



Communication Plan: Your continual effort to improve water quality in your facility will be of interest to parents, staff, and the community. Consider sending updates in newsletters.

Establishing Routine Practices

Schools and child care facilities should establish routine practices to reduce exposure to elevated lead levels and other environmental hazards (e.g., bacteria). **These activities should not be conducted immediately prior to collecting a water sample but should be planned as part of the school's or child care facility's overall water management program to improve drinking water quality.** Below are examples of routine activities that should be conducted to prevent exposure to drinking water contaminants:

Cleaning

- Clean drinking water fountains regularly. Consider posting a cleaning time card by the water fountains to allow the cleaning times to be recorded.
- Create an aerator (faucet screen) and water fountain strainer cleaning maintenance schedule and clean debris from all accessible aerators and strainers frequently. Establish a recordkeeping procedure to record when the aerators and strainers are cleaned.
- Consider setting a reminder on the calendar to notify the maintenance staff when it is time to clean the aerators and water fountain strainers.



Temperature Control

- Use only cold water for food and beverage preparation. Hot water will dissolve lead more quickly than cold water and may contain increased lead levels.
- If hot water is needed, it should be taken from the cold water faucet and heated on a stove or in a microwave oven. Consider creating notices that can be posted in the food and beverage preparation areas to remind students and staff to use cold water.

Point-of-Use Filter Maintenance

- If POU devices have been installed, make sure they are maintained. An example of a POU device is a filter on a faucet or within a drinking water fountain or water bottle filler.
- Ensure that the selected POU device is certified to remove lead (or any other contaminants of concern). To select a lead-reducing POU filter, check with the manufacturer or a third-part website (such as nsf.org or wqa.org) to verify the product was tested and certified against NSF/ANSI Standard 53 (for lead removal). For additional protection for particulate lead, look for a POU filter that is also certified against NSF/ANSI Standard 42 (for class I particulate reduction, 0.5 µm to <1 µm).
- Consider setting a reminder on the calendar when it is time to change the filter.

Cross-Connections Control

- Evaluate the facility for the presence of cross-connections (e.g., connections of nonpotable water to potable sources) and address any issues.

Communication

- Create and post placards near bathroom sinks with notices that water should not be consumed. As an example, indicate that a sink is a hand-washing only sink to prevent students and staff from misunderstanding and utilizing sinks for brushing teeth, washing food, or other activities that ultimately result in water being consumed.
- Use pictures if there are small children using bathrooms.
- Consider organizing an event for the community to explain how everyone can help.

Routine Flushing Practices

- Regularly flush all water outlets used for drinking or food preparation, particularly after weekends and long vacations when water may have been stagnant for a long period of time.

See the [Flushing Best Practices Factsheet](#) for more information.

3Ts Flushing Best Practices

Flushing is a tool schools can use as a general best practice to improve overall water quality and during flush sampling (i.e., samples targeting the plumbing inside of the wall).

LEAD IN DRINKING WATER IN SCHOOLS
The potential for lead to leach into water can increase the longer the water remains in contact with lead in plumbing. As a result, facilities with intermittent water use patterns, such as schools, may have elevated lead concentrations. Testing helps evaluate plumbing systems and materials so that targeted remediation efforts can be taken. It is a key step in understanding the problem, if there is one, and designing an appropriate response. EPA developed the 3Ts for Reducing Lead in Drinking Water to assist schools and child care facilities with their drinking water testing program. The 3Ts applies a Training, Testing, and Taking Action approach.

WHAT IS FLUSHING?
"Flushing" involves opening taps and letting the water run to remove water that has been standing in the interior pipes and/or the outlets. The flushing time can vary by the type of outlet being cleaned.

The degree to which flushing helps reduce lead levels can also vary depending upon the age and condition of the plumbing and the corrosiveness of the water. Flushing is a tool, but only when used appropriately. This fact sheet helps you understand when flushing should be used, when it shouldn't, the pros and cons, and how to conduct flushing in your facility.

FLUSHING TO IMPROVE WATER QUALITY
In schools and child care facilities, establishing an ongoing flushing program is one of the quickest and easiest solutions to ensure the water quality is preserved by decreasing water age. In addition, flushing does not require installation or maintenance of water treatment equipment or complex instructions. Flushing can be used as a regular practice to ensure the water is regularly moving.

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- Flushing involves opening valves and faucets and letting the water run to remove water that has been standing in the interior pipes and/or the outlets. The flushing time varies by the type of outlet being cleared.
- Be careful not to flush too many outlets at once. This could dislodge sediments that might create further lead problems, or it could reduce pressure in the system below safe levels. If the flow from outlets is reduced noticeably during flushing, too many outlets have likely been turned on at once.

Flushing Directions by Outlet Type

Remember that each drinking water outlet should be flushed individually; flushing a toilet will not flush the water fountains. All flushing should be recorded in a log submitted to the individual in charge of this program.

Locate the faucet furthest away from the service line on each wing and floor of the building, open the faucets wide, and let the water run for 10 minutes. For best results, calculate the volume of the plumbing and the flow rate at the tap and adjust the flushing time accordingly. This 10-minute time-frame is considered adequate for most buildings.

Open valves at all drinking water fountains without refrigeration units and let the water run for roughly 30 seconds to one minute, or until cold.

Let the water run on all refrigerated water fountains for 15 minutes. Because of the long time period required, routinely flushing refrigerated fountains may not be feasible. It may therefore be necessary, and more economical, to replace these outlets with “lead-free” NSF-approved devices.

Open all kitchen faucets (and other faucets where water will be used for drinking and/or cooking) and let the water run for 30 seconds to one minute, or until cold.

Flushing is not recommended as a practical remedy for water coolers.