

Important Information about Your Drinking Water

Carver Elementary School Water Contains High Levels of Copper

Our water system recently violated a drinking water requirement. While this is not an emergency, you, as consumers, have the right to know what happened, what actions you should take, and what measures are being implemented to correct the situation. Our water is treated with potassium hydroxide for pH adjustment as part of our corrosion control efforts. The effectiveness of our corrosion control is primarily assessed through the analysis of copper samples and their compliance with the copper Action Level. We also monitor our ability to maintain optimal pH levels in the finished water.

The Massachusetts Department of Environmental Protection (MassDEP) has established an Action Level for copper at 1.3 mg/L. The most recent round of sampling, conducted in June 2024, resulted in an exceedance of this Action Level at one sample site. Additionally, pH levels in the finished water consistently fall below the optimal range of 7 to 8.5, as designated by MassDEP. The failure to maintain corrosion control is classified as a Treatment Technique Violation.

What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours. Typically, copper enters water supplies by leaching from copper pipes and plumbing components.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

What should I do?

To reduce your exposure to copper, consider the following steps:

- Run the water for 15–30 seconds or until it becomes cold before using it for drinking or cooking to flush any standing copper from the pipes.
- Avoid cooking with or drinking water from the hot water tap, as copper dissolves more easily in hot water.
- **Do not boil your water to remove copper;** excessive boiling concentrates the copper, as it remains when the water evaporates.

What is being done?

To ensure that pH levels remain within the target range, we are enhancing our existing corrosion control treatment. This involves updating standard operating procedures for calibrating instruments and maintaining treatment system components, as well as implementing faster follow-up protocols when potential issues arise. We have also initiated a Flushing Program to prevent stagnation and improve overall water quality. We are committed to ensuring that our water quality consistently meets all regulatory standards.

Where can I get additional information?

If you have questions about your water system's operation, water quality monitoring, or response to this issue, please contact the system operator directly using the information provided below. If you have questions about the drinking water regulations or health risks posed by this contaminant you can contact the MassDEP Drinking Water Program at: program.director-dwp@mass.gov or (617) 292-5770. If you have questions about specific symptoms, you can contact your doctor or other health care provider. If you have general questions about public health, you can contact the Massachusetts Department of Public Health at 617-624-5757.

Please contact Kelly Boudreau with SWSS at 978-486-1008 or boudreau@swss.biz with any questions or concerns.

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Copper in Drinking Water FAQ

This fact sheet answers frequently asked questions about copper and health, how copper may get into your drinking water, and what you and your family can do to avoid exposure. Copper is a naturally occurring and essential nutrient for good health in low levels. Exposure to high levels of copper can harm health. Parents of infants and young children, pregnant women, and people with Wilson's disease or liver disease should be aware of the possible health effects following exposure to high levels of copper and should take precautions to minimize their exposure.

HOW DOES COPPER GET INTO MY DRINKING WATER?

In Massachusetts, most drinking water sources from reservoirs and groundwater do not contain elevated levels of copper. When copper is present in water, it is typically due to the water flowing through pipes or plumbing in homes with copper and brass parts. Service lines, which are the pipes that connect homes to the water main, could have copper in them. Inside your home, you may have copper pipes or brass fixtures. Copper levels are highest in water that has been sitting in pipes for several hours. The amount of copper in the water decreases after the water is run for 1 minute. Hot water causes copper to dissolve and enter water faster.

HOW DOES COPPER GET INTO MY BODY?

You may be exposed to small amounts of copper in the air you breathe, the water you drink, the foods you eat, or from touching copper, particles attached to copper, or copper compounds. Copper can get into the body from drinking water or preparing food with water containing copper. Copper is not easily absorbed through our skin. Because copper is essential to good health in small "trace" amounts, everyone absorbs small amounts of copper every day. Our bodies have a natural mechanism to maintain the proper level of copper.

HOW DOES COPPER MAKE YOU SICK?

Periodically drinking water that contains copper above the action level does not guarantee it will harm someone's health. Consuming high levels of copper may cause nausea, vomiting, diarrhea, and stomach cramps. Some infants and children, people with liver disease, and people with Wilson's disease have trouble eliminating copper from their bodies and are more likely to experience negative health effects, such as kidney and liver damage.

CAN MY CHILD HAVE A COPPER TEST DONE BY THEIR PEDIATRICIAN?

Copper is normally found in all tissues of the body. It can be measured in blood, urine, feces, hair, and nails. Testing blood, urine, hair, and nails can only show if a person has been exposed to higher than normal levels of copper. It cannot be used to predict the amount of the exposure, how long the exposure occurred, or potential health effects. Specific health questions about exposure to copper should be directed to your doctor or other health care provider.

WHAT CAN I DO RIGHT NOW TO PROTECT MY FAMILY?

- 1. Run your water before using and use COLD water**
Always use **cold** water for drinking and cooking. **Do not** use hot water for drinking or cooking. If you want hot water, run cold water from the faucet and warm it in the microwave or on the stove.

When mixing powdered baby formula with tap water, always use cold water and do not use hot water. Simply warm formula to serve. Bottled or filtered water should be used when mixing baby formula if copper levels are known to be elevated in tap water. Filters should be NSF-certified to remove copper.

Run the water for 1 minute before using it. This can reduce copper levels by flushing out the water that

has been sitting in copper pipes for several hours. Boiling water does not eliminate copper. If there is copper in your water, boiling may increase copper levels.

2. Test your drinking water

If you have copper in the pipes inside your home or if you aren't sure if you do, consider testing your water. This is the best way to find out if you have elevated levels of copper in your water. Testing typically costs between \$20 and \$40 and should be done by a certified laboratory. Water samples may be mailed or dropped off. Be sure to follow the lab's sample collection instructions exactly. The Massachusetts Department of Environmental Protection (MassDEP) provides a list of certified laboratories, which can be found here: <http://www.mass.gov/eea/agencies/massdep/water/drinking/certified-laboratories.html#1>. The US Environmental Protection Agency action level for copper in drinking water is 1,300 ppb (also reported as "1300 µg/L", "1.3 ppm", or "1.3 mg/L").

WHERE CAN I GET MORE INFORMATION?

For additional health information contact:

Massachusetts Department of Public Health
Bureau of Environmental Health
Phone: 617-624-5757 | Fax: 617-624-5777 |
TTY: 617-624-5286
www.mass.gov/dph/environmental_health

CDC Agency for Toxic Substances and Disease
Registry
Public Health Statement on Copper
<http://www.atsdr.cdc.gov/ToxProfiles/tp132-c1-b.pdf>

For additional drinking water information contact:

Massachusetts Department of Environmental
Protection
Drinking Water Program
617-292-5770
Program.Director-DWP@state.ma.us
<http://www.mass.gov/eea/agencies/massdep/water/drinking/lead-and-other-contaminants-in-drinking-water.html#19> (and see sections on "Copper" and "Lead and Copper")

For a list of state-certified laboratories for drinking water testing:

<http://www.mass.gov/eea/agencies/massdep/water/drinking/certified-laboratories.html#1> (click on Find MassDEP-Certified Laboratories)

For information on certified filters and bottled water:

NSF International
<http://www.nsf.org/>

NOTE FOR PUBLIC WATER SUPPLIERS:

This FAQ does not fulfill the notification requirements of the Lead and Copper Rule 310 CMR 22.06B. Public Water Systems should contact MassDEP for specific Lead and Copper Rule requirements.

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