Copper in Drinking Water

Copper is a metal found naturally in the environment. It is found in ground and surface water that is used for drinking water. It also comes from human-made sources, such as farming, mining and wastewater release. Copper is needed for all living things to survive. A person's diet should include small amounts of copper. While copper is important to our health, high amounts can be harmful.

Tap into the facts about copper in drinking water to see if testing your water could help protect your health.

How copper gets into drinking water

While copper can be found naturally in drinking water, it often comes from a home's pipes or faucets. Sometimes pipes corrode and then copper comes off the pipes and gets into your drinking water.

Problems with copper in drinking water

Drinking water with high amounts of copper can cause:

- Upset stomach.
- Vomiting.
- Diarrhea.
- Stomach cramps.
- Severe illness, such as kidney and liver damage (when consumed over a period of time).

Infants may be more sensitive to elevated copper levels than people over 12 months old. Breastmilk and infant formula provide the amount of copper necessary for infants under 12 months old.

In addition, people with rare diseases, like Wilson Disease, can have problems getting rid of copper from their body. They should follow their doctor's recommendations, which may include avoiding extra sources of copper in certain foods, multivitamins and drinking water.

How to find out if copper is in your drinking water

Step 1: Know where your water comes from.

- Learn about the different water supply types to determine where your water comes from at Michigan.gov/CareforMiDrinkingWater.

Step 2: Contact your local health department or a certified drinking water lab to test your drinking water.

- If you are on a **public water supply**, the water coming into your home may already be regularly tested for certain contaminants. Those on public water supply should check for results with their local water supply.
- If you have a **private residential well**, water testing is your responsibility. Your local health department may offer drinking water testing, or you can contact a certified private drinking water analysis laboratory directly. The cost for a test may vary between labs and the contaminants you choose to test for. Visit Eh.Michigan.gov/DW5tips and click "Test your water" to learn more about your options.
- Your results may differ depending on how you test your drinking water. That is why it is important to follow testing instructions provided by a certified lab and collect the sample the right way so you can understand what the source of the copper is in your drinking water. If you have questions about how to test your drinking water for copper, call MDHHS at 800-648-6942.

Step 3: Understand a test result for copper in drinking water.

- To understand the quality of your water, compare your test results with an established drinking water value from the U.S. Environmental Protection Agency (EPA). **For copper, the EPA recommends no more than 1 milligram per liter (mg/L) to manage the taste, color and smell of the water**. A level above 1 mg/L of copper may change the color of the water, which may cause staining and it may effect the taste of the water.

How to find out if copper is in your drinking water, continued

Step 3: Understand a test result for copper in drinking water, continued.

- For those 12 months of age and older, drinking water with **greater than 1.3 mg/L of copper could increase your risk of health effects.**
- If you are mixing formula or infant food with your water and have questions about how your copper test results may impact your infant, please call us. Infants may be more sensitive to copper in drinking water than people over 12 months old.

Things you can do to reduce copper in drinking water

Consider a water filter. Make sure the filter is certified to **NSF/ANSI 53** with a claim to reduce copper.

Consider a reverse osmosis (RO) system. Make sure the RO system is certified to **NSF/ANSI 58** with a claim to reduce metals like copper.

Follow all manufacturing instructions to make sure copper is reduced as expected. Filters and treatment systems are made to reduce copper, but do not guarantee that all copper will be removed from drinking water.

How to maintain fresh drinking water

Keep your water moving. You can keep your water moving by doing everyday activities such as:

- Running a load of laundry.
- Washing dishes.
- Taking a shower.
- Flushing the toilet.

Before using the water from any faucet for drinking or cooking, run the cold water until it goes from room temperature to cold.

Clean your faucet aerators. Clean the mesh screen, or aerator, on the end of your faucet at least once every six months. If construction is being done to the water system or pipes near your home, clean your drinking water faucet aerator every month until the work is done. Go to bit.ly/Mi-CleaningYourAerators for more information.

Things you should not do to reduce copper in drinking water

Do not use hot water for drinking or cooking. Copper dissolves more easily into hot water.

Do not try to remove copper by boiling the water. Copper is not removed by boiling. Water evaporates during boiling, so the concentration of copper in the water may end up higher than before boiling.

Do not run hot water through your copper-reducing filter. Only use cold water with a copper-reducing filter.

For more information

Michigan Department of Health and Human Services
800-648-6942
Michigan.gov/CareforMiDrinkingWater

List of local health departments
bit.ly/MiHealthDepartment

Michigan Department of Environment, Great Lakes, and Energy
Michigan.gov/DrinkingWater
Michigan.gov/WaterWellConstruction

Laboratory Services
Michigan.gov/EGLElab and choose "Certifications"

MDHHS
Michigan Department of Health & Human Services

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