# Copper Above the Action Level in Your Drinking Water

## What is copper?

Copper is found naturally in the environment in ground water and in 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.

## What health problems can copper cause?

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. Formula-fed children under 12 months already get their needed copper from infant formula.

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 does copper get into my drinking water?

While copper can be found naturally in drinking water, it often comes from a home's pipes or faucets. When copper pipes get older, they may start to break down, letting the metal get into the water.

**How much copper is permitted in my water?**

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) and the U.S. Environmental Protection Agency (EPA) limits how much copper and other chemicals can be in municipal drinking water. Currently, the action level is 1.3 parts per million (ppm) for copper in drinking water. When at least 10 percent of tested homes on the same public water supply have copper above 1.3 ppm, the water supplier takes action to lower the amount of copper.

## How do I know if copper is in my drinking water?

- Copper in water can cause blue-green stains on plumbing, such as sinks, faucets and pipes. It can cause a metallic or bitter taste in drinking water.
- Testing is the best way to know if copper is in your drinking water.
- Call your local health department or a certified laboratory to get a test kit. To learn more about test kit availability, fees and instructions, visit Michigan.gov/EGLElab and click on "Drinking Water Laboratory."

## How can I reduce copper in my drinking water?

**Keep your water moving.**

If you have not used your water for several hours, run your water by doing any of the following for several minutes:

- Turn water faucet on all the way and let it run.
- Take a shower.
- Run a load of laundry.
- Run your dishwasher.

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

**Using a filter can reduce copper in drinking water.**

Identifying the right filter for your household is important. If you have questions, call your local health department or the MDHHS Drinking Water Hotline. They can help you identify a filter that fits your household needs and budget.

- You can consider a filter that reduces copper at the point water is used, such as a faucet. This is called a **point-of-use** filter.
- A filter that removes copper at the point where the water enters your home may also be an option. This is called a **point-of-entry** filter.
- When buying a filter, look for the certification number **NSF/ANSI Standard 53** for copper reduction and **NSF/ANSI Standard 42** for particulate reduction (Class 1). Make sure the box says that it reduces copper. Follow the manufacturer's instructions for filter installation and maintenance.

**Do not use hot water for drinking or cooking.**

- Do not cook with or drink water from the hot water tap. Copper dissolves more easily into hot water.

**Clean your aerator.**

- Aerators (the mesh screens on your sink faucet) can trap pieces of copper.
- Clean your drinking water faucet aerator at least every six months.
    - If there is construction or repairs to the public water system or pipes near your home, clean your drinking water faucet aerator every month until the work is done.

## When can I use water from a faucet that has not been run for several minutes or is not filtered?

If you have copper in your drinking water, you can use water that is not cold or filtered for:

- Showering or bathing.
- Washing your hands, dishes and clothes.
- Cleaning.

## For More Information

**Michigan Department of Health and Human Services**
**MI-TOXIC Hotline** 800-648-6942
Michigan.gov/EnviroHealth,
click "Care for Mi Drinking Water."

**List of Michigan Local Health Departments**
Malph.org/Resources/Directory

**Michigan Department of Environment, Great Lakes, and Energy**
Michigan.gov/EGLE

**Laboratory Services**
Michigan.gov/EGLELab,
choose "Drinking Water Laboratory"

MDHHS
Michigan Department of Health & Human Services

# Cleaning Your Aerators

## What are aerators and when should they be cleaned?

There are screens on faucets called aerators. Aerators help keep pieces of lead and other particles from getting into your water. Clean your drinking water faucet aerator at least every six months. If there is construction or repairs to the public water system or pipes near your home, clean your drinking water faucet aerator every month until the work is done.

## Follow the steps below to clean your aerators:

**1**

- The small round piece on the bottom of your faucet is the aerator (pronounced: air-raytor).
- Unscrew the aerator from the bottom of the faucet.
- You should be able to unscrew it with your fingers, but you might need a wrench if it's stuck.

**2**

- Your aerator might not look the same as this, but it's okay.
- Now that the aerator is off, let's clean it.


**3**

- While you only need to use water to rinse off your aerator, these things might make it easier to clean it:
  - An old toothbrush
  - A glass of vinegar


**4**

- Soaking the aerator in vinegar will loosen some of the grime. You can soak it as long as you want, but even five minutes will help.
- The toothbrush makes it easy to scrub the inside. Don't use that toothbrush for brushing your teeth again.



- If your aerator looks like Photo A, it has a flow control piece. You'll have to take it apart:
  - Pull out the pieces carefully.
  - Note the order that the pieces come out. You'll have to put them back in the same way. It may help to take a picture or write down some notes.
- If your aerator looks like Photo B, go to Step 6.


- You might not have all of these pieces. They might not be this color. Every aerator is a little different.
- Scrub all of the pieces. Make sure you get down inside the metal piece, removing any bits of grime or metal flakes you see.


- Rinse everything very well.
- Run water through the aerator screen - holding it right side up and upside down.


- Once it's clean,
  - If your aerator looks like Photo A in step 5, put it back together.
  - If it looks like Photo B, you're all set.


- Put the aerator back on your faucet.
- Repeat these steps at least every six months. Cleaning removes pieces of lead or other particles from your aerator and stops them from getting into your water.

For more information call the Michigan Department of Health and Human Services (MDHHS) at 844-934-1315 or visit Michigan.gov/mileadsafe.

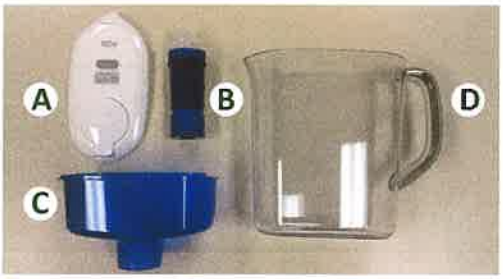


MDHHS
Michigan Department of Health & Human Services

# How to Use Your PUR® Water Pitcher Filter Certified to Reduce Copper in Drinking Water

A certified filter can be used as a way to reduce copper in drinking water. Filters are made to reduce copper, but do not guarantee that all copper will be removed from drinking water. It is important to follow the manufacturer's directions.

If you're buying a filter, read the packaging to be sure it says the filter is certified to NSF/ANSI Standard 53 for copper reduction and NSF/ANSI Standard 42 for particulate reduction (Class I).




## What's in the box

**A** - Lid with filter gauge (CleanSensor™ monitor)

**B** - Filter cartridge

**C** - Pour tray

**D** - Pitcher


## Getting your pitcher ready to use

### Step 1

Take the filter cartridge (**B**) out of the box and its wrapping. Soak it in cold water for 15 minutes. Only use cold water. Using warm or hot water may harm the filter cartridge.

### Step 2

While the filter cartridge is soaking, hand wash the lid (**A**), pour tray (**C**), and pitcher (**D**) with mild soap (such as dish soap) and water. Try not to submerge the lid. Rinse well. Some filter cartridge models may have a removable cover. Remove the cover and follow the same washing steps.


### Step 3

After 15 minutes, remove filter cartridge (**B**) from water and rinse under cold water for 10 seconds. Let any extra water drain out.

### Step 4

Place filter cartridge (**B**) into the pour tray (**C**), push down, and turn clockwise to lock it in place. Fill the pour tray (**C**) with cold water. Do not use warm or hot water. Allow the water to drain completely from the pour tray (**C**) into the pitcher (**D**).

**If you notice water draining down the insides of the pitcher, this means the water is not properly going through the filter cartridge. Dump the water in the pour tray and pitcher and repeat step 4.**


## Step 5

On the lid (**A**) of the pitcher, press and hold the reset button for 5 seconds to activate the filter gauge. As you hold the button, the red, yellow, and green lights will light up together.


## Step 6

Release the reset button while all three lights are still lit. After releasing the reset button, the green light will blink six times.

Now the filter gauge is activated. Your pitcher is now ready for use.

# Changing your filter cartridge

It is important to reset the filter gauge each time the filter cartridge is replaced. Filter cartridges need to be changed after about two months of use, or after filtering about 40 gallons of water. Each time you pour from your pitcher, a light will flash on the filter gauge six times to let you know:

- Your filter cartridge is working = **green light.**
- Your filter cartridge is working, but you will need to change it soon = **yellow light.**
- The filter cartridge needs to be changed now = **red light.**

When it's time to change the filter cartridge, follows steps 1 through 5 above. After step 5, release the reset button when the light blinks only green. This activates the filter gauge once again so you will receive the green light, yellow light, and red light notifications.

Contact the manufacturer if you have questions about your filter. For information about copper exposure and your health, call the Michigan Department of Health and Human Services MI-TOXIC Hotline 800-648-6942.



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