Fact Sheet

Color, taste and odor problems in drinking water

331-286 Revised • February 2018

At times, water can have an unpleasant odor, taste, or appearance. These aesthetic characteristics usually don't pose a public health threat and, in most cases, they don't last long. However, a sudden change in the color, taste or odor of your tap water could indicate a public health concern. We don't recommend that anyone drink water that looks, smells or tastes objectionable.

State rules require public water systems to treat aesthetic water quality problems for new sources or if customers request treatment and are willing to pay for it. Most people want their water to look, taste, and smell good.

The first step in solving an aesthetic water quality problem is to identify whether it originates from your household plumbing or from the water your utility or well supplies. One way to tell is to ask others in your neighborhood if they have a similar problem. Another is to contact your water utility or local health agency.

Below are typical concerns and the most common causes. If you are on a public water supply and you have any of these problems, or you can't correct the problem yourself**,** contact your water utility. If you have a private well, your local health agency may be able to give you advice.

Colored water

If your water suddenly changes color—no matter what color it becomes—it could indicate a public health concern. Contact your water utility or, if you have your own well, your local health agency. It's likely that something disturbed the water flow in the water main, such as a line break or fire fighting, or a plumbing problem allowed unsafe water to enter the line.

- **Green or blue water:** Usually caused by corrosion of copper plumbing. If corrosion is occurring, dripping water will leave a bluish-green stain on porcelain fixtures. Certain metals that can get into drinking water from corrosion, such as copper or lead, may pose a health concern. Overly corrosive water may cause a problem with the home's piping. If you suspect corrosion, contact your water utility or a licensed plumber.
- **Black or dark brown water:** Often caused by manganese in the water or pipe sediment. If the water doesn't clear after a few minutes of flushing all your cold-water faucets and toilets, wait about an hour and try again. If it still isn't clear, contact your water utility. If you have your own well, you may need a licensed plumber to evaluate and correct the problem. Check with your local health agency for advice.
- **Brown, red, orange or yellow water:** Usually caused by iron rust. Galvanized iron, steel, or cast iron pipes in a home or business, or the water main can cause rusty water. While unpleasant and potentially damaging to clothes and fixtures, iron in drinking water is not a human health concern.
- **Milky white or cloudy water:** Usually caused by tiny air bubbles. If your water is white, fill a clear glass with water and set it on the counter. If the water starts to clear at the bottom of the glass first, the cloudy or white appearance is trapped air. It is not a health threat and should clear in a few minutes. If you have your own well, the pumping system may be causing this issue. You may need a qualified contractor to determine how it to correct it.

Taste and odor problems

If a taste or odor occurs at every water faucet on the property, the cause is probably the main water supply. If it occurs only in certain faucets, the problem is the fixtures or pipes supplying those specific faucets. If the problem goes away after running the water for a few minutes, the problem is somewhere in your household plumbing system. The best way to reduce taste and odor caused by your plumbing is to run the faucet for several minutes, put some water in a container, and then store it in the refrigerator. You may also consider installing a certified water filter.

Petroleum, gasoline, turpentine, fuel, or solvent odors: These odors are rare, but potentially serious. **Do not use the water.** A leaking underground storage tank may be contaminating your water supply. Immediately contact your water utility or local health agency.

Metallic taste: Iron or copper, may leach into the water from the pipes. Less common metals, such as zinc and manganese, could also be a problem. If you are concerned, have your water analyzed by a certified lab, or contact your water utility. Ask your local health agency for a list of qualified labs.

Chlorine, chemical, or medicinal taste or odors: Adding chlorine to the water or the interaction of chlorine with a build-up of organic matter in your plumbing system may cause the taste or odor to be strong. This is not usually an immediate health threat. If the taste or odor seems strong to you, contact your local health agency or water utility for advice.

Sulfur or rotten egg odor: Bacteria growing in your sink drain or hot water heater may cause odor. Naturally occurring hydrogen sulfide in your water supply may also cause this odor. To evaluate the cause, put a small amount of water in a narrow glass, step away from the sink, swirl the water around inside the glass, and smell it. If the water has no odor, the likely problem is bacteria in the sink drain. If the water does have an odor, it could be from your hot water heater. There is an element in your hot water heater designed to protect it from corrosion. Sometimes the element causes sulfide smell as it deteriorates over time. A licensed plumber may be able to evaluate this problem. If you rule out the drain and the water heater, and the odor is definitely coming from the tap water, do not use it. Contact your water utility or local health agency.

Moldy, musty, earthy, grassy, or fishy odor: Bacteria growing in a sink drain or from organic matter such as plants, animals, or bacteria that are naturally present in lakes and reservoirs during certain times of the year may cause odor. You can evaluate the source of this problem by putting a small amount of water in a narrow glass, stepping away from the sink, swirling the water around inside the glass, and smelling it. If the water has no odor, the likely source is the sink drain. If it does have an odor, the source could be organic matter in your drinking water. Although harmless, this material can affect the taste and smell of your drinking water even at very low concentrations.

Salty taste: High levels of naturally occurring sodium, magnesium, or potassium may cause a salty taste. If you live in a coastal area, seawater may be seeping into the fresh water supply. This could be a health threat. Contact your water system or local health agency.

Resources

If you decide to use a filtration or treatment device in your home, call (800) NSF-MARK or visit the National Sanitation Foundation website for a list of approved devices at http://www.nsf.org/

Our publications are online at https://fortress.wa.gov/doh/odwpubs/Publications/

Call the Office of Drinking Water's regional office nearest you:

Eastern Region, Spokane Valley 509-329-2100

Northwest Region, Kent 253-395-6750

Southwest Region, Tumwater 360-236-3030

Washington State Department of Health

If you need this publication in an alternative format, call 800.525.0127 (TDD/TTY call 711). This and other publications are available at www.doh.wa.gov/drinkingwater.