

Home Facts

General

1. How long can I store drinking water?

Drinking water that is thoroughly disinfected can be stored indefinitely in capped plastic or glass containers that water will not rust, as metal containers may. Because the disinfectant that was in the water when you stored it will slowly go away, replacing the water every six months is recommended.

2. Is it okay to use hot water from the tap for cooking?

No. Use cold water. Hot water is more likely to contain rust, copper, and lead from your household plumbing and water heater because these contaminants generally dissolve into hot water from plumbing faster than into cold water.

3. Is it okay to use hot water from the tap to make baby formula?

No. Hot water may contain impurities that come from the hot water heater and plumbing in your house. To avoid this, use cold water and let the water run for a couple of minutes before you use it if that tap has not been used for a while, overnight, or all day.

4. Is it okay to heat water for coffee or tea in a microwave in a Styrofoam cup?

Yes. The chemicals in the Styrofoam are not affected by the microwaves and do not "melt" and get into the water.

5. Is it okay to drink water that comes from a dehumidifier?

No. Don't drink this water because it has not been disinfected.

Treatment

6. Should I install home water treatment equipment?

This is a personal decision. The equipment is not needed to make the water meet federal or state drinking water safety standards. In fact, if not properly maintained, the equipment may actually cause water quality problems. Home treatment units, called point-of-use (POU) systems, can be located in several places in the home: countertop, faucet-mounted, under-sink cold tap, under-sink line bypass, or at the point of entry (POE) into the house. All of these units require maintenance, should be bought from a reputable dealer, and should be tested and validated against accepted performance standards like those used by the NSF International and the Water Quality Association. Remember that if the treatment equipment removes the disinfectant present in your tap water, the treated water must be handled like any other food to prevent contamination. It should be refrigerated, kept in a closed container, and used as quickly as possible.

7. I heard about a water treatment device that uses an electromagnet to treat water. Does this work?

The Water Quality Association (WQA), the watchdog group for home treatment devices, has this to say: "WQA knows of no generally recognized scientific or technical evidence proving that

magnetic, electromagnetic, or catalytic devices sold to treat water have any measurable physical or chemical effect on water quality”.

Hard and Soft Water

8. Is distilled water the “perfect” drinking water?

Like most things, distilled water has advantages and disadvantages. Distilling removes many potentially harmful chemicals like lead, copper, nitrates, sodium, some organic contaminants, and chlorine. Boiling water to make distilled water will kill any harmful bacteria and viruses, as well as *Giardia* and *Cryptosporidium*. Distilling removes beneficial fluoride, and some organic contaminants like chloroform and cleaning fluid (solvents) may leave the water with the steam and end up in the final water when the steam is cooled.

9. What is “hard” water?

“Hardness” in drinking water is caused by two nontoxic chemicals (usually called **minerals**)- calcium and magnesium. If calcium and/or magnesium is present in your water in substantial amounts, the water is said to be *hard* because making a lather or suds for washing is *hard* (difficult) to do. Thus, cleaning with hard water is hard/difficult. Water containing little calcium or magnesium is called *soft* water.

10. Should I install a water softener in my home?

If you are bothered by a sticky, gummy soap curd deposit in your bathtub or by the buildup of white deposits (called *scale*) on your cooking pots and coffee maker, a water softener can help with these problems. The water softener replaces the nontoxic “hardness” minerals with sodium or potassium. The amounts of these elements are relatively insignificant in comparison to what you get in food and should not be a problem, unless your doctor has put you on a special restricted diet. Concern has been expressed by some whether the installation of a water softener may raise the lead and copper content of drinking water in homes that are experiencing problems. Probably not, but the US Environmental Protection Agency is conducting research to investigate these matters.

11. When I put ice cubes that I’ve made in my freezer into a glass of water, white stuff appears in the glass as the ice cubes melt. What is the white stuff and where does it come from?

Ice cubes freeze from the outside, so the center of the cube is the last to freeze. When ice freezes it is pure water. Only H₂O, freezes and all of the dissolved minerals, like the hardness minerals, are pushed to the center. Near the end of the freezing, there isn’t much water left in the center of the cube, so these minerals become very concentrated, and they form the “white stuff”- technical name is **precipitate** (pre*SIP*uh*tate). The hardness minerals that cause the “white stuff” are not toxic.

12. What is that white stuff in my coffee pot and on my showerhead and glass shower door? How can I get rid of it?

Minerals dissolved in water tend to settle out when water is heated or are left behind when it evaporates. These minerals are white and accumulate in coffee pots and on showerheads and

glass shower doors. To remove these minerals, fill the coffee pot with vinegar and let it sit overnight, or soak the showerhead overnight in a plastic bowl filled with vinegar. When you are done, carefully discard the contents of the plastic bowl down a drain, and flush the container and sink drain with plenty of water. White spots on glass shower doors are difficult to remove with vinegar because the spots dissolve very slowly. A better idea is to prevent the spots from forming by wiping the glass door with a damp sponge or towel after each shower.

13. Why does my dishwasher leave spots on my glasses?

The spots that may appear on glassware after it is washed and air-dried are caused by nontoxic minerals that remain on the glass when the water evaporates.

14. What causes the whitish layer on the soil of my potted plants?

Drinking water contains many nontoxic chemicals. When the water on your plants evaporates, these chemicals are left behind as a whitish layer.

Bottled Water

15. Should I buy bottled water?

Remember that US bottled water is less regulated than municipal drinking water. You don't need to buy bottled water for health reasons if your drinking water meets all of the federal, state, or provincial drinking water standards. The US Food and Drug Administration (FDA) now requires bottled water quality standards to be equal to those of the US Environmental Protection Agency for tap water, but the quality of finished product is not government-monitored. Bottlers must test their source water and finished products once a year. Certain bottlers simply fill their bottles with city drinking water, thus producing "bottled water" that is no different than municipal water, although many states require the source of the water to be on the label if the water is sold in the state where it is bottled. Remember, if you use bottled water, consider it a food and refrigerate it after opening.

16. I want to store some water for a possible emergency. Is bottled water okay to store?

No. Bottled water is a good source of drinking water during emergencies, but it does not store well. Because it generally doesn't contain a disinfectant. Tap water, which does contain a chemical disinfectant, should be stored in proper containers for an emergency, although even it will not last indefinitely. If your water stops during an emergency, remember the water in your hot water-tank, melted ice cubes, and the water in your toilet tank reservoir can be used. If you have the ability to do so, boiling these sources of water is always a good idea before drinking.

17. Should I buy drinking water from a vending machine?

Buying water from a vending machine is a matter of personal choice. Treatment such as reverse osmosis, activated carbon adsorption, and ultraviolet light disinfection are often used in vending machines. If you use a machine in which you have confidence, be sure to put the water in very clean bottles, refrigerate when you get it home, and treat it like food, using it as quickly as possible.

18. How much water does one person use each day?

Total water use varies depending on lawn watering, if any, and whether a home has a washing machine and dishwasher. The US average is nearly 100 gallons used each day by each person. Of this, the amount used for cooking and drinking varies among individuals, from 13 ounces to about 2 quarts. The average use is about 2.5 pints – about half for plain water consumed as a beverage and the rest consumed in other beverages (juice, coffee, and so forth) and used for cooking. A recent study of 1,100 water suppliers around the United States showed that to supply all the water needed for all uses, the average amount of water pumped was 180 gallons each day for each person.

19. Where does the water go when it goes down the drain?

If you are on a sewer system, all of the drains in your house are connected to a single pipe that leads to the street. The pipe in the street collects the wastewater from all the homes in your area and takes it to a larger pipe that collects water from other streets. The wastewater then flows into still bigger pipes that connect various neighborhoods. The pipes in the wastewater collection system are larger and contain more liquid as they near the wastewater treatment plant. Here, the wastewater is treated and cleaned so that it can be put back into the environment without harming anything.

20. What can I safely pour down the sink or into the toilet?

Before you think about what you can throw away, think about what you are buying. Start by buying environmentally friendly products whenever possible. Buy just what you'll need so you won't have any or very much left over. Finally, check with the City of Lawrence Household Hazardous Waste Facility can be reached at 832-3030 for local rules and find out if there are hazardous waste collection days. Of course, the safest course of action is not to put anything in your sink or toilet.

21. Why do hot water heaters fail?

Because of the natural corrosive properties of all waters, holes will eventually rust through a water heater wall. The time it takes for this to happen varies depending on how corrosive your water is. To avoid problems with lead and coppers, water suppliers are required by regulation to make water less corrosive.

22. What are the small white plastic pieces that clog my faucet aerators, shower nozzles and washing machine supply tube?

If the water heater in your home was built between 1993 and 1996 and you are beginning to find small pieces of plastic in your faucet aerators, shower nozzles and washing machine supply tube, or if your water temperature is suddenly not as warm as it used to be, the source of the problem may be your water heater's dip tube. Over 20 million gas and electric water heaters built between 1993 and 1996 – about 90 percent of all hot water heaters built during this period – contain a defective polypropylene "dip tube". The purpose of the dip tube is to carry cold water

to the bottom of the tank, where it is heated for use. Since cold water enters the tank at the top, the dip tube keeps this dense, cold water from mixing with the hottest water in the tank and cooling it as it heads to the rest of your house. If the dip tube breaks off, your hot water will be lukewarm at best. The defective dip tubes tend to crumble and disintegrate into the tank. Over time, the water's acidity levels and the temperature settings on the water heater can have an effect on the rate at which these particles fall apart, scattering white plastic particles into your water supply. If you think your water heater may be affected, start by checking out the serial number on the tank. The first 4 numbers in the serial number usually indicate the month and year of manufacture. An example of this being a water heater's serial number starts with 0802, which means that it was manufactured in August of 2002. Affected water heaters will have the numbers 93, 94, 95, 96 or 97 in the third and fourth digit. The plastic parts from the broken dip tube are not toxic. The plastic parts are light in color (egg shell), float on water, and will melt/burn if heated over a flame. There was a now expired nationwide dip tube class action settlement program that required that households affected properly file claims on or before December 31, 2000. Under the terms of the class action settlement, after that date, no more repairs were required to be made by the manufacturers. The only exception to this are the units that are still under their manufacturer warranties.

23. How should I fill my fish aquarium?

First, allow at least 1 gallon (4 liters) of water to run from the tap before using the water to fill the aquarium. With a plate in one hand, pour water over the plate into the aquarium, allowing the water to drop about 1 foot before hitting the plate. This will add air (oxygen) to the water. Let the water sit in the aquarium for an hour or two until it reaches room temperature. Consult your local pet store to learn how to test for and remove any disinfectant in the water. Remove the disinfectant from the water in the aquarium before adding the fish.

24. What is the cost of the water I use in my home?

Water delivered to a home is sold using three common units of measure in various parts of the United States: 1,000 gallons, 100 cubic feet, and 1 acre-foot. Prices vary greatly around the United States, but the average cost for water supplied to a home is about \$2.00 for 1,000 gallons, which equals about 5 gallons for a penny. You can figure the cost of water in your area by looking at your water bill and dividing the total cost for water by the total amount of water used (just use the water part of the bill if other costs are included).

25. How does the water company know how much water I use in my home?

Most households have a water meter that measures the amount of water used. For those communities with water meters, a person from the water utility reads the meter on a regular schedule. The previous reading is subtracted from the current reading to determine the amount of water actually used.

26. How does the water company know that my water meter is correct?

Most water companies have programs to routinely test water meters on a rotating basis to make sure the meters are accurate. Of course, if your recorded water use changes suddenly for no obvious reason (more people in the home, away for a long trip, or heavy lawn watering), report this to your water supplier so it can be investigated.