

EMERGENCY WATER: HOW MUCH TO STORE AND HOW TO TREAT IT

Store at least 1 gallon of water per person per day for at least 3 days, and a 2-week supply if you can. If you have to treat water, boiling is the most reliable method: a rolling boil for 1 minute, or 3 minutes at elevations above 6,500 feet.

Reviewed October 30, 2026

A long power outage can take your tap water with it. CDC notes that water purification systems may not work fully when the power is out, and a storm or flood can contaminate the supply. This page covers how much water to keep, how to store it, and how to treat water when stored water runs out. Follow any boil-water notice from your water utility or health department first: they know what is in your local water.

HOW MUCH EMERGENCY WATER TO STORE

CDC says to store at least 1 gallon of water per person, per day, for 3 days, for drinking, cooking, brushing teeth, and other uses. It adds: “Try to store a 2-week supply if possible.”

For a household of four, that is 12 gallons for 3 days and 56 gallons for 2 weeks.

Work out the baseline for your own household, and how much more you need to store:

Household water calculator

PEOPLE IN YOUR HOUSEHOLD

DAYS OF WATER

<u>3 DAYS</u>	7 DAYS	14 DAYS	OTHER
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NUMBER OF DAYS, IF OTHER

GALLONS ALREADY STORED

Baseline from CDC: "Store at least 1 gallon of water per person, per day for 3 days," and "Try to store a 2-week supply if possible." CDC also says to consider storing more for pregnant women, people who are sick, pets, or if you live in a hot climate. This total does not add anything for those needs, so plan for more if they apply to you.

Plan for more in some cases:

- CDC suggests storing more for pregnant women, people who are sick, pets, or if you live in a hot climate.
- Ready.gov says children, nursing mothers, and sick people may need more water, and that “in very hot temperatures, water needs can double.”

BOTTLED WATER IS THE SIMPLEST SUPPLY

CDC calls unopened, commercially bottled water “the safest and most reliable source of water in an emergency.” Ready.gov says to keep it in its sealed original container in a cool, dark place. Watch the expiration date on store-bought water, per CDC.

HOW TO STORE TAP WATER SAFELY

If you fill your own containers, CDC says food-grade water storage containers are best, because they will not transfer toxic substances into the water. If you cannot get one, CDC says the container should:

- Have a top that closes tightly.
- Be made of durable, unbreakable material (not glass).
- Have a narrow neck or opening, if possible, so you can pour from it.

Never reuse a container that held toxic chemicals such as bleach or pesticides.

Cleaning a container before you fill it

CDC's steps:

1. Wash the container with soap and rinse it completely.
2. Sanitize it with a solution of 1 teaspoon of unscented liquid household chlorine bleach (5% to 9% sodium hypochlorite) in 1 quart (4 cups) of water.
3. Cover the container tightly and shake so the solution touches every inside surface.
4. Wait at least 30 seconds, then pour the solution out.
5. Let the empty container air-dry, then fill it with clean water and cap it tightly.

Where and how long to keep it

CDC says to label each container “drinking water” with the date, replace the water every 6 months, and keep containers at 50°F to 70°F, out of direct sunlight, and away from gasoline, pesticides, and other toxic substances. Use a clean scoop each time, and do not touch the water or the inside of the container with your hands.

CDC also suggests keeping a bottle of unscented liquid household chlorine bleach (5% to 9% sodium hypochlorite on the label) with your supply, for disinfecting water and for cleaning.

OTHER WATER IN YOUR HOME

EPA says you may be able to find water by melting ice cubes or draining your hot water tank or pipes, and that you should treat it regardless of the source.

■ WARNING

Never use water from radiators or boilers that are part of your home heating system for drinking, cooking, or hygiene (CDC).

HOW TO PURIFY WATER: BOILING

CDC calls boiling “the best way to kill germs in water.”

1. If the water is cloudy, filter it through a clean cloth, paper towel, or coffee filter, or let it settle and draw off the clear water.
2. Bring the clear water to a rolling boil for 1 minute. At elevations above 6,500 feet, boil for 3 minutes.
3. Let it cool, then store it in clean, sanitized containers with tight covers.

EPA uses a lower altitude cutoff: boil for three minutes above 5,000 feet (1,000 meters).

To improve the flat taste, CDC suggests pouring the water from one container to another and letting it stand a few hours, or adding a pinch of salt per quart or liter.

HOW TO PURIFY WATER WITH BLEACH

If you cannot boil, unscented household chlorine bleach kills most germs (CDC). First follow any drinking water instructions on the bleach label. If there are none, check the active ingredient: CDC says US bleach is typically 5% to 9% sodium hypochlorite.

CDC’s amounts for **5% to 9% bleach**:

WATER	DROPPER	MILLILITERS	MEASURING SPOON
1 quart or liter	2 drops	0.1 mL	A tiny amount (too small to measure)
1 gallon	8 drops	½ mL	A little less than ⅛ teaspoon
5 gallons	40 drops	2½ mL	½ teaspoon

CDC’s amounts for **1% bleach**:

WATER	DROPPER	MILLILITERS	MEASURING SPOON
1 quart or liter	10 drops	½ mL	⅛ teaspoon
1 gallon	40 drops	2½ mL	½ teaspoon
5 gallons	200 drops	12½ mL	2½ teaspoons

Then:

- If the water is cloudy, murky, colored, or very cold, double the amount of bleach.

- Stir well and let the water stand for at least 30 minutes before you drink it.
- Store it in clean, sanitized containers with tight covers.

EPA adds a check: after 30 minutes the water should have a slight chlorine odor. If it does not, repeat the dose and let it stand another 15 minutes. EPA also says to use only regular, unscented bleach, not scented, color-safe, or bleach with added cleaners, and to use bleach stored at room temperature for less than a year.

■ SOURCE

Bleach amounts on this page are copied from CDC's How to Make Water Safe in an Emergency. EPA's own table gives 8 drops per gallon for 6% bleach, matching CDC, and 6 drops per gallon for 8.25% bleach. If you follow EPA's table, use the row for the concentration on your label.

TABLETS AND DROPS

For chlorine dioxide, chlorine, or iodine tablets or drops, follow the label: CDC notes each product is made to treat a specific amount of water. Per CDC:

- Chemical disinfectants kill viruses and bacteria but may not kill parasites, and they do not work as well as boiling against *Cryptosporidium* and *Giardia*.
- Iodine and chlorine tablets will not kill *Cryptosporidium*. Chlorine dioxide tablets will, if you follow the instructions correctly.
- If you are pregnant, have thyroid problems, or are hypersensitive to iodine, avoid water treated with iodine. No one should drink iodine-treated water for more than a few weeks at a time.

WHAT AN EMERGENCY WATER FILTER DOES AND DOES NOT REMOVE

CDC says portable water filters do not remove all types of germs. Portable filters:

- Will not remove viruses.
- Must have an absolute pore size of 0.3 micron or smaller to remove bacteria.
- Must have an absolute pore size of 1 micron or smaller to remove parasites such as *Giardia* or *Cryptosporidium*.

CDC's instruction is to follow the filter maker's directions, then add a chemical disinfectant (iodine, chlorine, or chlorine dioxide) to the filtered water to kill any remaining viruses and bacteria. When you compare filters, look for the absolute pore size in the product specifications.

CDC also describes portable ultraviolet (UV) units, which can kill germs in small amounts of clear water but do not work well in cloudy water, so filter or settle it first.

WATER THAT BOILING AND BLEACH CANNOT FIX

■ WARNING

“You cannot make water containing fuel, toxic chemicals, or radioactive materials safe by boiling or disinfecting it” (CDC). Use bottled water or another source, and call your health department. EPA adds that boiling or disinfection will not remove heavy metals, salts, and most other chemicals.

For water after a nuclear emergency, see shelter in place.

USING WATER WHEN SUPPLIES ARE SHORT

Ready.gov says never ration drinking water unless authorities tell you to. Drink what you need today and try to find more for tomorrow. Reduce how much your body needs by limiting activity and staying cool. Drink water you know is safe first, and do not substitute carbonated or caffeinated drinks or alcohol for water.

For the rest of an outage plan, see what to do when the power goes out, and for sanitation without running water, see emergency sanitation and hygiene. Containers and treatment supplies are listed in the emergency water kit.

EMERGENCY WATER CHECKLIST

STORE

- ☐ At least 1 gallon per person per day for 3 days
- ☐ A 2-week supply if possible
- ☐ Extra for pregnancy, illness, pets, and hot climates
- ☐ Unopened bottled water, or food-grade containers with tight lids
- ☐ Containers labeled "drinking water" with the date
- ☐ Replace self-filled water every 6 months
- ☐ Keep at 50°F to 70°F, out of sunlight, away from fuel and chemicals

TREAT

- ☐ Unscented household chlorine bleach (5% to 9% sodium hypochlorite)
- ☐ A clean medicine dropper
- ☐ Coffee filters or clean cloth for cloudy water
- ☐ A pot and a way to boil water
- ☐ Tablets or a filter used per the label, with disinfectant after filtering

REMEMBER

- ☐ Follow boil-water notices
- ☐ Boil 1 minute, or 3 minutes above 6,500 feet
- ☐ 8 drops of 5% to 9% bleach per gallon, double for cloudy or cold water, wait at least 30 minutes
- ☐ Fuel, chemicals, or radioactive material: do not drink, find another source

TRACK

Power outage

SHEET

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COMPILED FROM THESE SOURCES

- 1.** CDC, How to Create an Emergency Water Supply
- 2.** CDC, How to Make Water Safe in an Emergency
- 3.** EPA, Emergency Disinfection of Drinking Water
- 4.** Ready.gov, Water
- 5.** CDC, What to Do to Protect Yourself During a Power Outage

Every safety claim on this sheet links to its primary source.