

Drinking Water

Should You Be Concerned?

Every day, Americans drink more than one billion glasses of water! We also depend on water in our homes to clean, cook, fix baby food and formula, and bathe. If you are like most people, you trust that your water is safe. This is mostly true. Public drinking water in the U.S. is safe for most healthy people. If you have a well or other private water supply, it's up to you to keep your drinking water safe. Whether your water comes from a public or private source, you can take steps to make sure it's safe for you and your children.

There are times when your home water supply may not be safe. Using unsafe water to drink or prepare food can make you sick. Children may have more problems than adults because:

- For their size, children drink more than adults.
- Their illnesses may be more serious because children's immune systems are still developing.
- Their bodies are still growing, so chemicals can harm them more.

What May be in Drinking Water that is Not Safe?

Bacteria and viruses can cause diseases. Drinking water with these germs may cause upset stomachs, diarrhea, or more serious illnesses. It can be worse for children, pregnant women, and sick or older people. Just one drink of water with these germs can make you sick.

Nitrate gets into water from animal and human waste and from fertilizer. Too much nitrate in your drinking water can cause **blue baby syndrome** in babies under six months old. Babies with this problem often have blue- or purple-colored faces because they do not get

enough oxygen in their blood. They need to see a doctor right away. Some experts believe nitrate may also result in birth defects and miscarriages. Baby food and formula made with your drinking water needs to be safe.

Lead and copper are metals that can get into water from your pipes. Too much lead can cause children to have learning and behavior problems and other illnesses (See pages 29-32 for more information on lead). Babies who get too much copper can have colic and spit up their formula more than normal. Older children and adults may get upset stomachs or diarrhea from copper.

Other harmful chemicals can get into drinking water. Pesticides may get into your water supply by washing off lawns and fields or leaking from storage contain-

ers. Gas or oil can seep into the ground and get into drinking water. Even very small amounts of some chemicals can cause problems, such as damage to kidneys, liver, and other organs. Some cause cancer and others can cause problems if you are pregnant.

Answer the questions on the next pages to find out if your water is safe and what you can do to cut down on risks to your family.

Questions to Ask

Where Does Your Water Come From?

Does your water come from a public water supply, such as the water utility in your city or town? Or do you have a private water supply, such as a well or spring? The questions to ask yourself depend on where your water comes from.

Public Water Supplies

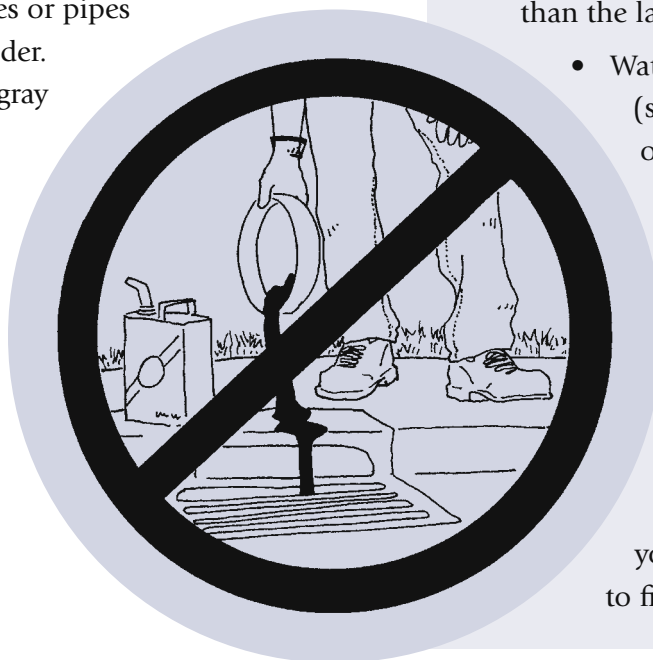
Before reaching your home, water from a public water supply is tested for over 80 different chemicals. If there are problems, the utility has to treat the water to make it safe or tell you that the water is unsafe to drink.

Every year, water utilities give the results of these water tests to customers. They mail reports or print them in a local newspaper. You can also call your water utility to ask what chemicals are found in the water and how they treat it to make it safe.

Public water can become unsafe after it gets to your home through lead or copper pipes. What kind of pipes do you have?

Lead Pipes: Your home, especially if it is older, may have lead water pipes or pipes joined with lead solder. Lead pipes are dull gray and scratch easily with a key.

Copper Pipes: You may have copper pipes. These are reddish-brown in color.



ACTION STEPS

Clear the Pipes—Follow this simple step if lead or copper are problems in your home.

When you haven't used your water for a while (like when you wake up in the morning or when you get home from work), you need to clear out the pipes. Let the cold water run for two or three minutes or until you feel the temperature change before you drink it or use it for cooking. This will flush out water that has sat in the pipes and picked up lead or copper. Never use hot water from the tap for cooking, drinking, or making formula because the heat helps dissolve the metals faster. Use cold water and heat it on the stove or in the microwave.

Help Protect Water Supplies

You may not know it, but the public water supply is local. Your water may come from the groundwater that is under your home. It may come from the river or lake nearby. What you do can help keep it clean or pollute it.

- If you use poisons to kill bugs or weeds, follow what the label says. Never use more than the label says.
- Watch where you store chemicals (such as bleach, paint, or pesticides) outside. Make sure that the bottles are closed tightly and have labels that say what they are.
- Do not throw chemicals in the garbage or down the drain. Read the label for disposal instructions.
- Give leftover chemicals to someone who will use them or call your local or state health department to find out how to get rid of them.

ACTION STEPS, continued

- Clean up after your dog. Don't leave pet waste on the ground where rain can wash the germs into rivers and lakes. It's best to flush it down the toilet.

Private Water Supplies

You may have a private water supply, such as a well, for your drinking water. Your well is your responsibility. You need to make sure it is clean and safe.

Test Your Well Water

Has it been more than two years since your water was tested? You cannot see, smell, or taste most problems so you need to have your water tested at a laboratory. Well water is usually tested for bacteria and nitrate. You may want to have your water tested more often or for other pollutants, like pesticides, if you have had problems in the past. Call your local or state health department to find out how to have your water tested.

Protect Your Water Supply

You also need to take care of your well, especially if it is old.

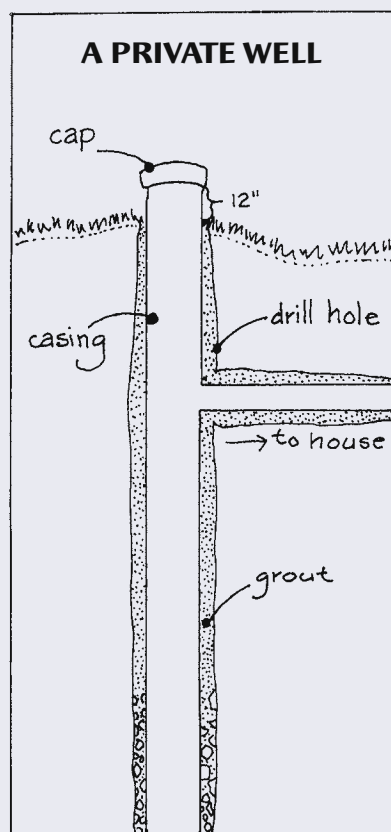
Do you know where your well is?

Find your well. Is it uphill from animal pens, manure, pet waste, septic systems, dumps, and places where chemicals are stored?

What kind of well do you have?

- A dug or bored well usually has a big hole, two feet across or more, and is less than 50 feet deep. These wells may be less safe because chemicals and bacteria can easily get into the water through the top and sides.

- A drilled well usually has a narrow hole (4-10 inches around) and is deeper, sometimes hundreds of feet.
- A driven point or sand-point well is 1-2 inches around and may not be deep.



If you do not know what kind of well you have, contact a local well driller. You can find one in the telephone book.

Do you know how old your well is?

If it is more than 20 years old, it may need a checkup. You may need to test your water more often.

Is your well in good shape? You want to keep things from above ground out of your water supply.

- The well casing needs to stick up above the ground, up to 12 inches, but local rules vary. Your local or state health department has the information.
- There should be no gaps or spaces between

ACTION STEPS, continued

the well casing and the material or soil around it.

- Make sure the casing does not have holes or cracks.
- Does the well cap fit tightly? Are any openings or vents covered by a screen?
- Be sure there is not a low area near the well where rainwater can collect. Rainwater carrying pollutants can get into well water.
- Don't keep gas, oil, weed killer, or other chemicals in your well house.

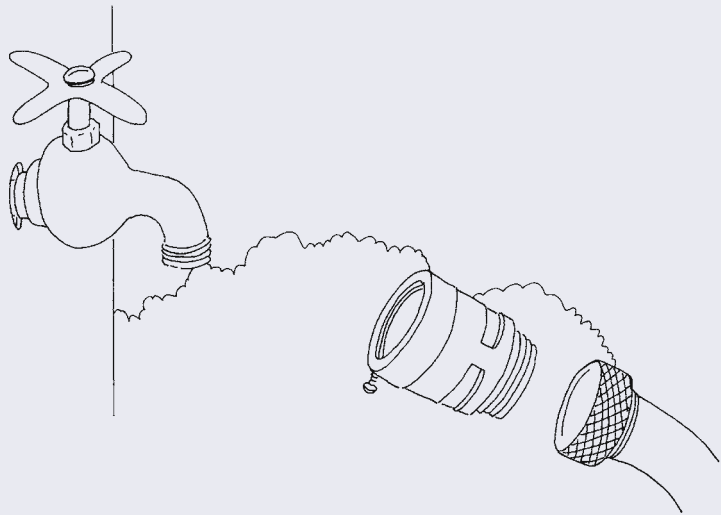
Do you have unused wells on your property?

Unused wells that have not been properly filled and capped can let pollution into groundwater and make your drinking water unsafe. If you have an unused well, ask your local or state health department how to seal it.

Use devices on the ends of faucets to keep water from flowing back into your water supply.

These are called *back flow prevention devices*.

They help keep pollutants from washing back into the hose and into your drinking water.



What kind of pipes do you have?

See the section on "Clear the Pipes" on page 34 to find out how to make sure harmful metals are not getting into your drinking water from your pipes.

FACT

95% of people living in rural areas drink water from private sources.

Drinking Water

When In Doubt, Check It Out!

- Call your local water company
- Call your local Cooperative Extension office
- Call your local or state health department
- Call EPA's Safe Drinking Water Hotline, (800) 426-4791
- The *Home*A*Syst* handbook, (608) 262-0024—www.uwex.edu/homeasyst

Notes



This chapter was adapted from "Drinking Water Well Management" by Bill McGowan, University of Delaware Cooperative Extension. In *Home*A*Syst*, An Environmental Risk-Assessment Guide for the Home, and "Your Guide to Public Water" by Alyson McCann, University of Rhode Island Cooperative Extension, February 2000, Rhode Island *Home*A*Syst* program.