

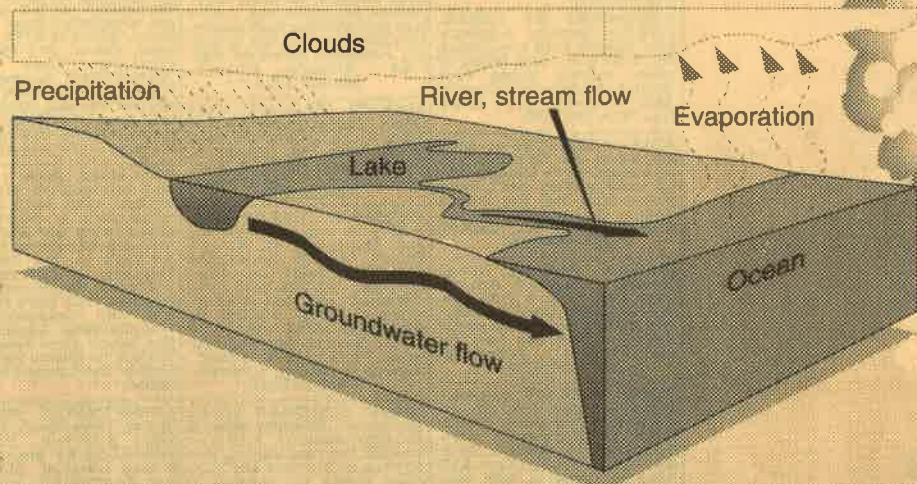
SURVIVAL GUIDE

Safe drinking water

Human beings can't survive without water: A woman's body is 55-65 percent water and a man's is 65-75 percent. However, the country's supply of safe drinking water is coming under pressure from a variety of natural and man-made contaminants that can pose significant health risks. There are things you can do to protect your water.

Where does it come from?

About 50 percent of drinking water in the U.S. comes from "surface water" sources open to the atmosphere, such as lakes and rivers. The other half is derived from "ground water" sources beneath the Earth's surface called aquifers.



Learn about your water

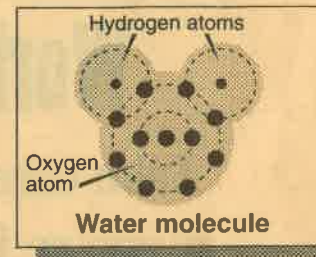
If you use a public water system, contact your supplier to discuss concerns about your water and request a copy of supplier's water analyses. Household well users should contact state EPA or local health officials for a list of contaminants regulated by public water supplies. Ask for state or local drilling and construction standards, and ask about land-use activities and contamination problems near your well. If you suspect contamination, have your water tested. Ask the state EPA office for a list of government-certified testing laboratories and federal and state contaminant standards. Go over results with an EPA or local health official.

Home treatments

There are many different kinds of home treatment devices, from carbon filters to "reverse osmosis" systems. Before you buy one, you should know what you want to remove from your water, because one unit can't take care of all contaminants. You can get reliable information on what's available from The Water Quality Association, a non-profit group that represents designers, manufacturers, producers, distributors and vendors of water-quality products and services (708-505-0160). The National Sanitation Foundation is a non-profit organization that offers objective evaluations of home water treatment units (313-769-8010).

Sources: Environmental Protection Agency, Region V, Drinking Water Program; National Lead Watch; Consumer Reports, January 1990; National Drinking Water Clearinghouse; Northeastern Illinois University, Department of Geography and Environmental Studies, Dr. Musa Cutuv.

Chicago Tribune/Rick Tuma; research by Gail Schmoller

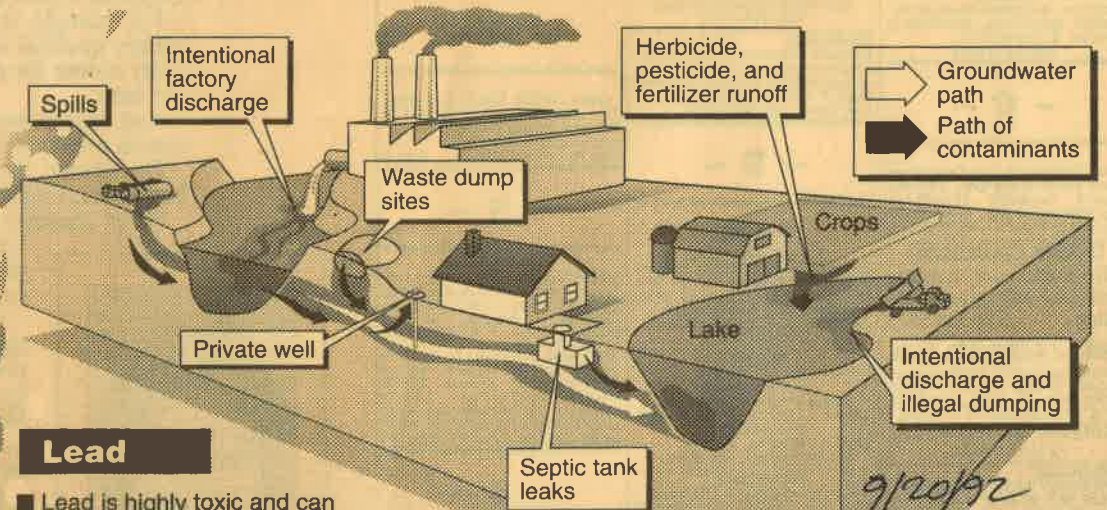


Simple H₂O

Water is simply two molecules of hydrogen and one molecule of oxygen, but you would be hard-pressed to find it anywhere on Earth. All drinking water sources contain minerals, which can be beneficial if they make the water taste good or have nutritional properties, as zinc does. High concentrations of some minerals, though, can become problems: Iron, manganese or sulphur, for instance, can cause bad taste and odor.

Contaminants

Drinking water can become contaminated at its source or anywhere along its route to your home. There are two basic kinds of contaminants: chemical and microbiological.



Lead

Lead is highly toxic and can cause brain, kidney or nerve damage and even death. Low exposure can damage developing nervous systems in fetuses, infants and children. Lead enters the water supply chiefly through corrosion of such items as lead pipes, lead-based solder and brass faucets, often found in homes built before a 1986 federal ban on lead-based plumbing materials.

What to do

Use only cold water for cooking and drinking and especially when preparing baby formula, because hot water causes more lead to leach from pipes. Before using water in the morning, let it run for a minute to flush out lead that may have accumulated overnight.

For more information

- EPA Safe Drinking Water Hotline 800-426-4791 (for Washington metro area and Alaska, 202-382-5533).
- National Lead Watch, a free information service offered by a commercial testing laboratory, Environmental Quality Institute: 800-531-6886.
- National Drinking Water Clearinghouse, a free information service operated with a grant from the federal government's Farmers' Home Administration: 800-624-8301.

Quick tip

Mail-order laboratories offer water analyses and return results in about two weeks. Cost varies. Examples range from \$25 for a lead test to \$135 to test for 39 contaminants. For information: National Testing Laboratories, 6555 Wilson Mills Rd., Cleveland, Ohio 44143; 800-458-3330; Suburban Water Testing Laboratories, 4600 Kutztown Rd., Temple, Pa. 19560; 800-433-6595.