



## Tap Water, Bottled Water, Filtered Water: Which to Choose?

It's summertime and with the advent of warm weather Americans are more likely than ever to carry along a bottle of water to a sporting event or social function. But is that bottled water better than water from the tap? Just where does bottled water come from and who regulates it? And what about water filtration units? Let's look at the answer to these, and other, common questions about water. But first, ...

**Is it safe to drink tap water?** The safety and quality of the water that you drink is closely linked to the source of that water.

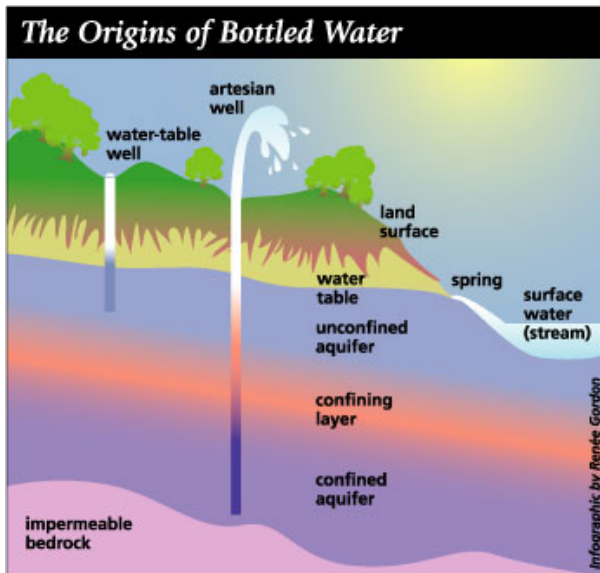
**Municipal water.** Municipal water systems are subject to the **Safe Drinking Water Act**, and city water is constantly and thoroughly tested for harmful substances. City water is filtered and treated with chlorine or other disinfectants to eliminate harmful microorganisms and aid in ensuring a safe water supply.

**Well water.** If your water is from a private well rather than a municipal water system, then a **few tests** are worth considering in order to ensure that safe, high quality water is coming into your home. Drinking water drawn from a private well should be tested for the **presence of bacteria** at least once a year, or any time there is a change in taste, odor, color or appearance. A **nitrate test** is also recommended for all wells, and is essential if you have an infant under six months of age in your home, and your water is from a private well. Although nitrate is found naturally in many foods, high levels of nitrate in drinking water can interfere with the ability of an infant's blood to carry oxygen and symptoms of suffocation or 'blue baby syndrome' can occur.

**Other tests to ensure water safety.** **Lead** is a toxic metal which was used in the construction of most household plumbing systems in Wisconsin before 1985. Excessive levels of lead can damage the brain, kidneys, nervous system, red blood cells and the reproductive system. It is a greater hazard to young children, infants and fetuses than to adults. If you live in a home constructed before 1985 or have very soft water, a test for lead is recommended. Other water tests are available for **radon gas** (a cancer-causing agent), and **atrazine** and other pesticides. A complete list of all water tests can be found on the Wisconsin DNR website: [www.dnr.state.wi.us/org/water/dwg/WELLTEST.HTM](http://www.dnr.state.wi.us/org/water/dwg/WELLTEST.HTM) Check with your local **health department** about these and other water quality tests.

**So, is bottled water better than tap water?** Probably not. Even though bottled water is very popular, in most instances it's no better than tap water, and tap water is certainly less expensive. Sometimes bottled water is preferred if tap water carries objectionable flavors or odors, but in terms of chemical or bacteriological safety, tap water that is properly tested is clearly a good choice. Tap water from a municipal source also contains fluoride, a mineral important in maintaining dental health, as an added health benefit.

**Where does bottled water come from?** The Food and Drug Administration (FDA) classifies bottled water according to its origin.



- **Artesian well water.** Water from a well that taps an aquifer-- layers of porous rock, sand and earth, usually deep under ground, that contain water. Water from artesian aquifers can be is very pure because the confining layers of rock and clay impede contaminants that might migrate into the water. However, despite the claims of some bottlers, there is no guarantee that artesian waters are any cleaner than ground water.

- **Mineral water.** Water from an underground source that

contains at least 250 parts per million total dissolved solids. Minerals and trace elements must come from the source of the underground water. They cannot be added later.

- **Spring water.** Derived from an underground formation from which water flows naturally to the earth's surface. Spring water must be collected only at the spring or through a borehole tapping the underground formation feeding the spring. If some external force is used to collect the water through a borehole, the water must have the same composition and quality as the water that naturally flows to the surface.
- **Well water.** Water from a hole bored or drilled into the ground, which taps into an aquifer.

**Who regulates bottled water?** Bottled water is considered a food, and the FDA is responsible for ensuring that bottled water is safe, wholesome and truthfully labeled.

**Is using a filter to treat tap water a good idea?** Foul taste, smell, or color of your household water may prompt you to investigate water treatment equipment. Or publicity about water pollution problems may make you question the safety of your water supply. But before you attempt a quick and possibly costly remedy, take a first important step. **Have your water analyzed**, especially if you are considering an entire home water treatment system. A water analysis will help identify bacteria, minerals, or other pollutants that are present. Interpretation of the test results will help you determine whether the water needs to be treated and, if so, the type of treatment needed. The intended use of the water (whether for drinking, laundry, or all household uses) will also help determine the extent of treatment required.

One popular type of kitchen filtration unit is an **activated carbon filter** that attaches to the kitchen sink. These filters treat general taste and odor problems, including chlorine residue. When water flows through carbon filters, contaminants adsorb or stick to the surfaces of the carbon particles. Activated carbon filters are reported to be the best method available for removing specific organic chemicals, including some pesticide residues. Activated carbon filters do not remove nitrate, bacteria, or metals, and are recommended for use only on microbiologically safe water. Proper maintenance of filtration units is very important.

For more information on the safety of water from various sources, consult these web sites:

- FDA: [http://www.fda.gov/fdac/features/2002/402\\_h2o.html](http://www.fda.gov/fdac/features/2002/402_h2o.html)
- National Ag Safety Database: <http://www.cdc.gov/nasd/docs/d000901-d001000/d000981/d000981.html>
- Environmental Protection Agency: <http://www.epa.gov/safewater/wot/ontap.html>

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