

Going for the Bottle

by Winston J. Craig

Because our rivers, lakes, and underground water are increasingly at risk of pollution, many are concerned about the quality and safety of their drinking water.

Unfortunately, most of the water contaminants are invisible. Contaminated water may not look bad, smell bad, or taste bad. It is the responsibility of the Environmental Protection Agency (EPA) to regulate the purity of community drinking water. The most widely-occurring contaminants in the water supply are chlorine disinfection byproducts. High exposure to these byproducts increases the risk of developing bladder cancer, and doubles the risk of miscarriage in pregnant women.

About three percent of the rural population has well water that exceeds the EPA standard for nitrates. High nitrate levels in groundwater usually result from agricultural run-off, chemical fertilizers, and feed-lot wastes. Nitrates can be converted in the body to nitrosamines, which may cause cancer.

Water that comes in contact with old pipes and lead solder joints can be contaminated with lead, especially if the water is warm, acidic, or softened. Children with elevated blood lead levels may experience growth retardation, learning disabilities, behavioral problems, and anemia.

Concerns regarding contaminated water have led many to turn to bottled water, believing it is cleaner and safer. Bottled water comes in at least three different formats. Spring water is water flowing from an underground spring. The springs are supposed to be protected from pollution. Drinking water, such as Aquafina and Dasani, is derived from city water supplies and is usually filtered or disinfected before being bottled. Purified water normally has been distilled or treated by reverse osmosis or some other purification process. Purified water may be collected in bulk from a dispensing machine in the supermarket.

Many Americans drink bottled water regularly. A major reason for the popularity of bottled water is the taste. Bottled water is disinfected with ozone, a gas that leaves no residual taste, so that it is more palatable than chlorinated water. But bottled water may not be any cleaner than tap water. About one-quarter of all bottled water being sold is actually treated tap water drawn from a public water supply.

Many people treat their tap water with a home filtering device. The filters used for these water purifiers need to be replaced periodically to function effectively. Since pure water is essential to good health, securing a clean water supply should be a high priority.

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Water pollution is a threat to our health.

Bottled water is not an absolute guarantee of purity.