What’s in Your Water?

Chemicals and Other Contaminants You Really Shouldn’t Be Drinking

If you’re like most people, you use tap water for cooking, cleaning, bathing, and drinking. Also like a lot of people, you may not have given a thought to what could be in that water—things like chemicals, microorganisms, and bacteria. If you’re concerned about your health, you should consider purchasing and installing a home water filtration system to ensure that the water you and your family members use is safe and clean.

Contaminants in Drinking Water

Recently, the Environmental Working Group analyzed almost 20 million drinking water tests that had been done by U.S. water suppliers between 2004 and 2009. The results showed that there were hundreds of different pollutants in American drinking water. Most of those contaminants have no safety levels set by the government; others exist at levels higher than recommended by health guidelines.

These contaminants may come from chemicals added by water utilities for treating the water, from industrial or agricultural contamination of water supplies, from chemicals leached from water pipes and tanks, or from wastewater treatment plants.

Chemicals Intentionally Added

Just a few of the chemicals intentionally added to drinking water include , supposedly for oral health, but the World Health Organization does not advocate the addition of this

toxic substance to water supplies where people have a good health structure. In fact, the World Health Organization recommends the removal of fluoride from drinking water in first-world countries. Fluoride consumption is linked to certain cancers, lowered IQ, and diminished thyroid levels.

Other chemicals that may be intentionally added to drinking water during the water treatment process are potassium permanganate, aluminum sulphate, hydrated lime, chlorine, and polyphosphate. Some of these chemicals are added to disinfect the water. Some are added for other purposes.

Unintentional Contaminants in Drinking Water

In addition to industrial pollution, common sources of unintentionally-added contaminants to drinking water are agriculture, factory farming, and the water treatment (disinfection) process itself.

Nitrates from fertilizer can infiltrate groundwater and run off into rivers and streams, contaminating water supplies. Nitrates are particularly dangerous to infants and children. Other agricultural contaminants include perchlorate, bromochloroacetic acid, MTBE, and Di-n-butylphthalate.

Trihalomethanes, bromate, haloacetic acides, and chlorite are among more than 600 by-products of the disinfection process. Most of these by-products are not restricted, nor do water treatment plants test for them.

Yet another group of contaminants in our drinking water are microorganisms. These may come from factory farm run-offs and sewage treatment plants. Some include Cryptosporidium, Giardi lamblia, Legionella, E. Coli, and a variety of viruses.

For every contaminant we test for, there are thousands we don’t. We don’t know the dangers of these chemicals in our

drinking water, and no attempts are made to remove or prevent the contamination.

Types of Home Water Filtration Systems

One of the best ways to protect yourself against these contaminants is to install a home water purification system. There are several different levels of filtration that you can use. It depends on how many of those contaminants you want to remove and how much money you want to spend.

If you have a limited budget, a carbon filter system (pitcher, faucet-mount, or large dispenser) will remove chlorine, mercury, lead, asbestos, and VOCs. It will not remove fluoride, nitrate, arsenic, hexavalent chromium, or perchlorate. Some carbon filters are better than others.

The very best (and most expensive) way to remove the most contaminants from your water supply is to install a reverse osmosis (RO) system combined with a top-level carbon filter. Reverse osmosis uses a semi-permeable membrane that holds all particles larger than water molecules. This type of system will filter out perchlorate, hexavalent chromium, fluoride, arsenic, and nitrates. These types of filters are used for drinking and cooking water only.

To kill off bacteria and microorganisms, an ultraviolet light system works the best. These filters do not remove chemicals, but you can install a UV system to your reverse osmosis and carbon filtration system.