CONSUMER
Fact Sheet

Live safer.®

Did you know . . .

Heating or boiling water will not remove nitrate. In fact, boiling water that contains high nitrate levels can actually increase the nitrate concentration due to evaporation of the water.[4]

What You Should Know About Nitrate in Drinking Water

Nitrate is a chemical made up of nitrogen and oxygen that can enter groundwater as a result of fertilizer use, leaking septic tanks, sewage or from erosion of natural deposits.

Sources of Nitrate

Much of the nitrate in the environment comes from decomposition of plants and animal wastes as well as fertilizers used to treat home gardens and lawns. Nitrate can also be introduced into lakes, rivers and groundwater from agriculture runoff from fertilized crops, septic systems and livestock operations.[1]

Although nitrogen is essential for all living things, excessive levels of nitrate in drinking water can be dangerous to human health, especially for infants and pregnant women. As a result, the U.S. EPA has set the contamination level for nitrate in drinking water at 10 ppm (parts per million).[2]

Because nitrates do not cause a change in the taste or odor of drinking water[3], the only way to know if your drinking water supply is contaminated is to either check your water utility's Consumer Confidence Report. If nitrate levels suddenly spike above safe levels, the local water utility will also issue a water advisory warning consumers not to drink their tap water. If you have well water, you may want to have your water tested by a certified laboratory or your local health department.

Drinking Water Advisory for Nitrate

If your drinking water nitrate levels are above the EPA's established contamination level and you have a public water advisory, you should find a safe, alternative water supply such as bottled water until the advisory has been lifted. This is especially important for pregnant women and infants.[4] Do not boil the water as this will not remove the nitrates and can actually increase their concentration.[5]

Potential Treatment Options

For well water, try to identify and remove any sources of nitrate near the water source (such as agriculture runoff from fertilizers, animal waste and on-site septic systems) if at all possible.

For both city and well water, there are treatment options for nitrate including reverse osmosis filtration systems that have been tested and certified by NSF International to effectively reduce nitrate. A reverse osmosis filtration system can have one or more stages that address various contaminants in your drinking water including one stage for reducing nitrates.

To read more tips on drinking water during an emergency, visit NSF International's website or contact NSF Consumer Information at info@nsf.org or 734.418.6612.

[1] http://water.epa.gov/drink/contaminants/basicinformation/nitrate.cfm
[2] http://water.epa.gov/drink/contaminants/
[3] http://www.ext.colostate.edu/pubs/crops/00517.html
[4] http://water.epa.gov/drink/contaminants/basicinformation/nitrite.cfm
[5] http://www.ext.colostate.edu/pubs/crops/00517.html