

Table 1: Common Drinking Water Contaminants

Health Based/Primary

Contaminant	Standard	Possible source of contaminant	Health Effects	Treatment
Arsenic	0.010 mg/L	Naturally occurring in some areas, runoff from orchards, industrial sources	Long term exposure to arsenic levels above the health based standard may cause skin problems, circulatory problems, and increase the risk of certain cancers	Reverse Osmosis Filter, Ion Exchange
Lead	0.015 mg/L (action level)	Naturally occurring in some areas; lead pipes in household plumbing, corrosive (high pH) water	Children may exhibit delays in physical and mental development. Adults who drink water with concentrations above the health based standard may develop kidney problems and high blood pressure.	Reverse Osmosis Filter; replace plumbing if lead pipes are the source of the lead.
MTBE	20 ug/L odor threshold; 40 ug/L taste threshold	Releases from gasoline storage tanks. MTBE was a gasoline additive that has been phased out of use.		Carbon Filter
Vinyl Chloride	0.002 mg/L	Breakdown product of PCE (dry cleaning solvent) and TCE (industrial solvent). Leaching from PVC pipes.	Drinking water with concentrations above the MCL for many years may increase the risk of getting certain cancer	Carbon Filter
VOC	0.005 mg/L	VOCs or volatile organic compounds is a large group of industrial chemicals including Trichloroethene (TCE) and tetrachloroethene also known as perchloroethene (PCE)	Drinking water with concentrations above the MCL for many years may increase the risk of getting certain cancer	Carbon Filter
Coliform Bacteria	5% total coliform positives in a month.	Naturally occurring	Elevated level is a warning of potential problems	Ultraviolet Disinfection Systems, chlorination, ozonation; remove source of contamination
E. Coli Bacteria		human and animal fecal matter	Can cause diarrhea, nausea, cramping. May pose health risk to very young children and people with compromised immune systems.	Ultraviolet Disinfection Systems, chlorination, ozonation; remove source of contamination
Nitrate	10 mg/L	Leaking septic tanks; runoff from fertilizer use; naturally occurring in some areas	Nitrate concentrations above the MCL can cause serious health problems in infants younger than 6 months including blue baby syndrome- inadequate oxygen carrying capacity the blood, methemoglobinemia	Reverse Osmosis Filter; anion exchange (water softener); remove source
Radon	300 pci/L (proposed)	Naturally occurring gas	Increase risk of lung cancer	aeration, activated carbon filter

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Iron	0.3 mg/L	Naturally occurring	Iron does not create a health risk, but may create a bitter taste in the water and stain plumbing fixtures and laundry.	No treatment required. Ion exchange water softener, continuous chlorination followed by sediment filter
Manganese	0.05 mg/L	Naturally occurring	manganese does not create a health risk, but may stain clothing, impact the taste of coffee and tea, and appear as black particles in the water	No treatment required
Sodium	20 mg/L for individuals on restricted sodium diet. 30 - 60 mg/L taste threshold	Naturally occurring, road salt, water softeners	Water with 20 mg/L or more of sodium should not be used by people on a severely sodium restricted diet. Water with 270 mg/L or more of sodium should not be used for drinking by people on a modified sodium restrictive diet.	No treatment required. Reverse osmosis
Chloride	250 mg/L	Naturally occurring, road salt.	Chloride does not create a health effect. The MCL is set at the concentration where the taste of the water becomes objectionable. Elevated levels of chloride can also contribute to the deterioration of plumbing and water heaters.	No treatment required
pH	6.5 - 8.5	Naturally occurring.	Low pH (acidic) can corrode plumbing fixtures and cause lead to leach into the water from lead soldered joints or other plumbing fixtures containing lead. High pH (basic) can give the water a slippery feel and leave soda deposits.	No treatment required. Reverse osmosis
Copper		Naturally occurring, copper plumbing fixtures, wood preservatives	nausea/vomiting	Activated carbon filter with special media. Reverse osmosis
Hardness	Mineral concentration: Soft water - 0-17 mg/L. Slightly hard water- 17-60 mg/L . Moderately hard water - 61-120 mg/L. Hard water - 120-180 mg/L. Very hard water - over 180 mg/L.	Naturally occurring minerals including calcium and magnesium	No known health risks	water softener