

Maximum Contaminant Levels (MCLs) and Maximum Contaminant Level Goals (MCLGs)

What are they?

The EPA publishes maximum contaminant levels (MCLs) for different toxins in drinking water. MCLs are measured in milligram (mg) or microgram (µg) of contaminant per liter (L) of water.



How are they related to human health?

MCLs are a legal guideline, but they aren't a dividing line between 'safe' and 'unsafe'. The MCLGs offer the best protection of health. Some states, tribal groups, and European countries have

more protective standards.

How are they used?

MCLs have legal weight. Public water systems are required to keep contamination below MCLs. If a business has contaminated private drinking water wells above the MCLs, the company may be liable for damages, health care costs, and cleanup costs.

Remember that both MCLs and MCLGs are set assuming a lifetime of exposure. If contamination is only slightly over the MCLG, drinking one glass of it is unlikely to harm you. MCLs are most protective of human health in that they allow government agencies to take action to reduce contamination.

How are they determined?

MCL Goals (MCLGs) reflect 'safe' levels as closely as toxicologists can determine: if you drink this water every day for your entire life, you will not be any more likely to experience ill effects than if you didn't drink that water. See *Reference Dose* for more on the science of how MCLs are set. For carcinogenic (cancer-causing) contaminants, there is no safe level, and so the MCLG is zero.

Unfortunately, achieving a zero (or extremely low) level is not always physically or politically possible. So MCLGs are ideal, but not legally binding. Regulators then set the MCL, which *is* legally binding, "as close to the MCLG as feasible, using the best available treatment technology and taking cost into consideration."

Inorganic Chemicals			
Contaminant	MCLG ¹ (mg/L) ²	MCL or TT ¹ (mg/L)	Potential Health Effects from Long-Term Exposure Above the MCL (unless specified as short-term)
Antimony	0.006	0.006	Increase in blood cholesterol; decrease in blood sugar
Arsenic	0 ⁷	0.010 as of 01/23/06	Skin damage or problems with circulatory systems, and may have increased risk of getting cancer

For more

water.epa.gov/drink/contaminants or check your state's environmental agency website.