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# Cadmium

The United States Environmental Protection Agency (EPA) regulates cadmium in drinking water to protect public health. Cadmium may cause health problems if present in public or private water supplies in amounts greater than the drinking water standard set by EPA. The drinking water Maximum Contaminant Level for cadmium is 0.005 mg/L.

#### What is cadmium?

Cadmium is a metal found in natural deposits such as ores containing other elements.

#### What are cadmium's health effects?

Some people who drink water containing cadmium well in excess of the maximum contaminant level (MCL) for many years could experience kidney damage.

This health effects language is not intended to catalog all possible health effects for cadmium. Rather, it is intended to inform consumers of some of the possible health effects associated with cadmium in drinking water when the rule was finalized.

## What are EPA's drinking water regulations for cadmium?

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine the level of contaminants in drinking water at which no adverse health effects are likely to occur. These non-enforceable health goals, based solely on possible health risks and exposure over a lifetime with an adequate margin of safety, are called maximum contaminant level goals (MCLG). Contaminants are any physical, chemical, biological or radiological substances or matter in water.

The MCLG for cadmium is 0.005 mg/L or 5 ppb. EPA has set this level of protection based on the best available science to prevent potential health problems. EPA has set an enforceable regulation for cadmium, called a maximum contaminant level (MCL), at 0.005 mg/L or 5 ppb. MCLs are set as close to the health goals as possible, considering cost, benefits and the ability of public water systems to detect and remove contaminants using suitable treatment technologies. In this case, the MCL equals the MCLG, because analytical methods or treatment technology do not pose any limitation.

### How does cadmium get into my drinking water?

The major sources of cadmium in drinking water are corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.

## How will cadmium be removed from my drinking water?

The following treatment method(s) have proven to be effective for removing cadmium to below 0.005 mg/L or 5 ppb: coagulation/filtration, ion exchange, lime softening, reverse osmosis.

Source: Abridged from http://water.epa.gov/drink/contaminants/basicinformation/cadmium.cfm

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