

Copper Facts



Information for Pierce County Residents

Environmental Health Division
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What is Copper?

Copper is a metallic mineral that occurs naturally in soil. It is an essential mineral nutrient for humans and plants.

Environmental Sources and Uses

Industrial pollution, domestic wastewater, mining wastewater, and weathering of copper bearing rocks are major sources of copper in surface and groundwater.

Copper and copper-containing metals are used in the plumbing, electrical and electronic industries. Copper compounds are used in many food supplements and in fertilizers. They are also used in pesticide formulations to control fungi and algae.

Copper and Health

Copper is essential for many enzymatic reactions within the human body. The National Academy of Science recommends two to three milligrams (mg) per day as “a safe and adequate intake” for proper body function.

Too much copper in your diet can cause health problems. Normal range is approximately 2-5 mg per day. Ingestion of a single dose of 15mg of copper has caused nausea, vomiting, diarrhea and intestinal cramps. Severe cases of copper poisoning have led to anemia and to the disruption of liver and kidney functions. Individuals with Wilson’s and Menke’s disease (genetic disorders that cause irregular copper absorption and metabolism) are at a higher risk than to neurological and other serious health problems when exposed to copper.

Major food sources of copper:

- Shellfish
- Leafy Vegetables
- Nuts
- Stone Fruits (peaches, nectarines, etc.)
- Grains

Reduce your Exposure to Copper in Drinking Water

In Washington State, most copper in drinking water comes from the corrosion of household plumbing or metallic plumbing fixtures. You may notice a metallic taste to the water and blue-green stains on sinks and bathtubs or showers.

Copper can dissolve into your water if the water coming into your house is naturally “soft” or acidic, and the water sits for a long period of time in your pipes. Flush the water from the tap for a minute to reduce the copper accumulating in household plumbing. Hot water may also pick up copper. Use cold tap water for cooking, drinking and making baby formula.

Get it tested!

The only way to know the amount of copper in your household water is to have your water tested by a certified laboratory. Get a list of certified laboratories at www.tpchd.org/certifiedlabs or look in the telephone directory under “Laboratories-Analytical.”

If you have additional questions or want more information about your responsibilities as a public water system manager, please contact Tacoma-Pierce County Health Department’s Drinking Water Program at (253) 798-6470, option 2, or email us at EHDrinkingWater@tpchd.org