



Mercury Fact Sheet

What is mercury? Mercury is a naturally occurring element that is found in air, water and soil. It exists in several forms: elemental or metallic mercury, inorganic mercury compounds, and organic mercury compounds.

Where does mercury come from? Mercury is an element in the earth's crust. Humans cannot create or destroy mercury. Pure mercury is a liquid metal, sometimes referred to as quicksilver that volatilizes readily. It has traditionally been used to make products like thermometers, switches, and some light bulbs.

What are the health effects of mercury? Mercury exposure at high levels can harm the brain, heart, kidneys, lungs, and immune system of people of all ages. Research shows that most people's fish consumption does not cause a health concern. However, it has been demonstrated that high levels of methylmercury in the bloodstream of unborn babies and young children may harm the developing nervous system, making the child less able to think and learn.

What are the defense systems of the body against mercury?

The skin is an effective barrier to most forms of mercury. Once in the body, enzymes work to convert the mercury to a form that is readily eliminated in the urine. Inorganic mercury binds to the protein metallothionein (MT). MT is found in all major organs affected by mercury, such as the brain and kidney. Most methylmercury is eliminated in a different manner. Methylmercury is excreted with the bile back into the intestine, from which much of it is eliminated in the feces. Regardless of the form of mercury, approximately one half of that absorbed from a single dose will be eliminated from the body every 2 months.

What are the minimal risk levels (MRL) for mercury exposure?

An MRL is an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse non-cancer health effects over a specified duration of exposure.

Agency for Toxic Substance and Disease Registry Minimal Risk Levels (MRLs), December 2005

Mercuric chloride (oral) Acute: 0.007 mg/kg/day

Intermediate: 0.002 mg/kg/day

Mercury (inhalation) Chronic: 0.0002 mg/m³ (milligrams per cubic meter of air)

mg/kg/day = milligrams per kilogram of body weight per day

How should I clean my apartment? Oregon Public Health Division recommends cleaning with plastic gloves and using soap and water.

What should I do with dry food in open areas? Food that has open packaging and seals that have broken should be discarded. Follow directions on label when preparing food items such as canned goods and other packaged items that are thoroughly sealed. "When in doubt, throw it out."

What should I do with clothing and bedding? Oregon Public Health Division recommends laundering clothing and bedding in a standard washer and dryer.

Please note: When entering and exiting the building, please use the front door and lobby area only. The first floor has been sealed to assure your health is protected until cleaning has been completed to safe public health standards.

Additional Resources:

Multnomah County Environmental Health Services: 503-988-3400

Multnomah County Health Department Hotline: 503-988-4454

Center for Disease Control Agency for Toxic Substances and Disease Registry:
Regional Office, Seattle: Karen Larson, 1-206-553-6978

<http://www.atsdr.cdc.gov/tfacts46.html>

Environmental Protection Agency: <http://www.epa.gov/mercury>