



ASHEVILLE INTEGRATIVE MEDICINE

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Toxic Metals — Pandora's Box

Toxic heavy metals, including lead, mercury, cadmium, aluminum, and arsenic, may be the biggest health threat of the new millennium.

Heavy metals originate within the Earth. However, we have opened Pandora's Box by spreading these toxic metals throughout our environment. As levels rise in our air, water, and topsoil, they also rise within our bodies, contributing to chronic diseases, cancer, dementia, and premature aging.

Heavy metals poison us by disrupting our cellular enzymes, which run on nutritional minerals such as magnesium, zinc, and selenium. Toxic metals kick out the nutrients and bind their receptor sites, causing diffuse symptoms by affecting nerves, hormones, digestion, and immune function.

One example might be our current epidemic of thyroid dysfunction. The enzyme that activates thyroid hormone is dependent upon selenium and is poisoned by mercury. In 1989, the Swedish Dental Journal reported that dental staff showed extremely high concentrations of mercury in their thyroid glands.

Shockingly, the World Health Organization reported in 1991 that our leading exposure to mercury is our dental fillings. Those silver fillings usually contain fifty percent mercury, and Americans average eight fillings per person. Although dentists have been taught that dental mercury is inert, 1998 U.S. Senate Hearings confirm that it does evaporate and get absorbed into our bodies. With multiple fillings, mercury vapors in the mouth will often violate OSHA standards. Not surprisingly, mercury amalgam fillings have been banned by several progressive European countries, including Switzerland and Sweden.

According to Physicians for Social Responsibility, our next largest source of mercury is our coal-burning power plants, which emit 40 tons of mercury into the air each year. The EPA reports that rainfall in New England now contains thirty times the "safe" level of mercury for surface water. The EPA also blames mercury for neurological damage to 60,000 American babies each year, which is more U.S. citizens than died in the entire Vietnam War.

The figures for lead toxicity are just as striking. An estimated three billion pounds of lead have been released into the environment worldwide since the Industrial Revolution. No amount of lead ingestion is safe, as even low levels can drop IQ scores by several points. In children, lead in the hair parallels classroom disruption. Meanwhile, twenty percent of American homes still have leaded water pipes, while even more still have leaded paint dust.

Aluminum toxicity raises fears of Alzheimer's dementia. In fact, an autopsy study in 1980 showed Alzheimer's brains had significantly more aluminum than controls. The CDC reports that one-third of U.S. cities still use aluminum to purify tap water, and those cities have more Alzheimer's disease.

Why have the dangers of heavy metals not attracted more attention? Perhaps industry doesn't want to clean up its act; perhaps consumers don't want to worry about it; perhaps physicians are not taught the topic.

Most physicians still rely upon blood tests to diagnose lead toxicity and rarely even look for other toxicities. Blood tests are good for finding recent exposures, such as when children are currently living in a home with leaded paint dust. However, chronic or old exposures will not show in the blood, and can only be diagnosed by looking at residues in the hair or nails, or by collecting a urine sample after giving an agent that binds the toxic metal and pulls it out the body.

Removing toxic metals with binding agents is a process called chelation, but there are still only 300 U.S. physicians who are Board Certified in Chelation Therapy. As awareness grows, perhaps we can lower our exposures and become better at diagnosing and treating heavy metal toxicities.