## THE GROWING CONCERN OF HEAVY METAL TOXICITY:

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There has been growing concern over the discoveries of heavy metals found in our environment. This summer several stories were printed in the Seattle Times reporting higher than allowable levels of lead in drinking water found in some Seattle public schools. This startled and alarmed parents as they learned there has been an established connection between lead and attention deficit disorder and other central nervous system effects, yet public officials did nothing to correct the high level of lead. This is just one example of dozens of reports over twenty years that show increasing contamination of our environment. A Washington State study found high levels of mercury, a toxic metal in the Columbia River in 1991. A study from the Center for Disease Control (CDC) in 1999 found 10 percent of young children and women of childbearing age had levels of mercury where health officials expect symptoms of toxicity to occur. Heavy metals are now so prevalent in our environment that as Nancy Evans, a spokeswoman for the Breast Cancer Fund put it, "It's (pollution) not just out there, it's in you, it's in me, it's in all of us. We are walking, talking toxic waste sites." I concur with Ms. Evans, it is not any longer a question of who has heavy metal contamination, it is now a question of how much do we have.

Heavy metals include lead, mercury, cadmium, arsenic, antimony, nickel, platinum and many others. Heavy metals enter our air, food and water supply through dozens of ways: coal and gas refineries, smelting plants, electrodes, batteries, pressure treated lumber, solder, pigments, glazes, paper mills and many, many other sources. The 17 coal refineries in the United States emit over 30% of environmentally released mercury. This summer National Public Radio reported that these plants emit over FOUR MILLION POUNDS of mercury into our air each year. Although there is a new promising filtration device that may reduce these emissions up to 90% the Bush administration is failing to give this program the proper support.

These heavy metals can affect our bodies in a multitude of negative ways. Heavy metals can disrupt our energy producing pathways in the body, they have an affinity for the central nervous system and nerve cells, they bind to blood cells impairing them, they are deposited in bone, kidneys, liver and most organs of the body, they compete with nutritional metals for binding hormones that control our endocrine and reproductive functions. The results of these actions cause fatigue, memory loss, attention loss, hair loss, weight loss, irreversible neurologic damage, tremor, insomnia, depression, anemia, low blood pressure and a host of other symptoms.

It can be difficult to diagnose a person with heavy metal toxicity and the physician needs to be aware of how these metals are stored and processed in the body. When we are first exposed to these metals our body may be able to excrete a large percentage of them. But often the metals are stored away, or compartmentalized in our glands and organs and nervous system. A simple blood or urine test will only demonstrate high levels of these metals when we are first exposed to them. Over time as they are stored away we need to release them from the storage through the use of binding, or chelating agents. According to the "Textbook of Occupational and Environmental Medicine" the provocative urine test is the gold standard for testing levels of toxic metals. Chelators such as EDTA (yes the one in mayonnaise), DMPS and DMSA may be given to the patient orally or by intravenous administration, then the urine is collected for 24 hours and sent to laboratories that specialize in sensitive methods of detecting heavy metals. If elevated, the treatment of heavy metals include daily or weekly use of these chelating agents as well as other natural detoxification agents to protect the individual while the body is releasing the metals. A skilled physician in chelation will provide the patient with minerals and vitamins to strengthen the body during the chelation pathways of the body to optimize waste drainage.

If you suspect that you or someone you know may suffer from heavy metal poisoning it is important that you seek treatment from a health care provider skilled in diagnosing and treating heavy metal toxicity. Periodic "cleanses" or detoxification programs can always be helpful for most people as we make our way through life in an ever more polluted planet. Wise lifestyle choices are also recommended such as eating organic grains, fruit and vegetables; free range and hormone free meats and oils; drink filtered water; limit seafood consumption to twice per week; eat smaller fish; remove skin, fat and internal organs as toxins accumulate in fat; grill or broil fish so the fat drips off; refuse amalgam fillings - use composite or gold; have amalgam fillings removed when possible; take antioxidant supplements which aid detoxification pathways and avoid cigarette smoke. Let's for our children's sake also focus on prevention and on an individual and global basis begin cleaning up our world, protect Earth - "Gaya" whom we have inherited as caretakers.

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