HEAVY METAL TOXICITY

The Effects of Mercury on Health

Mercury is the most common source of heavy metal toxicity, and dental amalgams are the primary source of mercury exposure.

What are Heavy Metals?

Heavy metals, including mercury, lead, bismuth, arsenic, aluminum, cadmium, chromium, copper, gold, iron, manganese, nickel, silver, tin, titanium, zinc, and antimony, are considered one of the worst environmental threats to health. The term heavy metal refers to high specific gravity, which is the metals’ weight compared to the weight of an equal volume of water. Lead used to account for most heavy metal poisoning. Today, mercury, which is also known as quicksilver, is the most common cause of heavy metal toxicity.

Mercury Toxicity

Mercury toxicity has been reported since the first century when Roman prisoners were sentenced to work in cinnabar mines. This was considered a death sentence because of the lethal levels of mercury found in cinnabar.

In the early 1800s hat makers exposed to mercury suffered from a mercury-induced psychosis, which led to the phrase, “mad as a hatter.” Insanity was also reported in patients with syphilis who were treated with mercury in the mid-19th century.

Effects of Mercury

Mercury affects health in many ways, including:

* Reduced effectiveness of antibiotics against bacteria
* Abnormally low-voltage electrocardiograms (depressed heart function)
* Contributes to the development of cancerous and pre-cancerous cells
* Decreases levels of brain neurotransmitters, including serotonin, contributing to depression, anger, anxiety and addictions
* Damages kidney cells (nephrotoxic)
* Acts as an endocrine disruptor, in particular depressing the pituitary gland
* Reduces blood supply to the developing fetus
* Causes learning disabilities
* Damages the immune system, resulting in allergies, asthma, and autoimmune diseases

Sources of Mercury

People today are exposed to tremendous amounts of mercury. According to the Environmental Protection Agency (EPA) dental amalgam is the primary source of
exposure. Studies show that the form of mercury released from dental fillings is far more prevalent than mercury compounds found in contaminated fish.

According to the World Health Organization and Health Canada, mercury levels in people with amalgam fillings cause a body burden of mercury much higher than that found in people who eat fish from Florida waters, known to have excess mercury. Dental amalgam is also responsible for 65 percent of the mercury contaminants found in San Francisco Bay (San Francisco Environmental Commission Report).

Contaminated fish rank second as sources of mercury, followed by drugs and vaccines. The influenza vaccine contains mercury, which is of special concern to pregnant women and people with autoimmune diseases. The fourth most common cause of mercury exposure is fertilizer produced by recycled toxic waste.

**Body Burden**

The body burden of mercury can be estimated by evaluating the number of silver amalgam fillings a person has, the presence of root canals, which contain up to 20 percent toxic metals, mainly mercury and lead, how often fish is consumed and what type.

**Symptoms** that suggest a body burden of mercury include:

* Fatigue
* Tingling or numbness around mouth, face, fingers or toes
* Joint problems
* Headaches
* Tremors
* Hearing Loss
* Gait and balance disturbances
* Mood swings
* Agitation
* Depression
* Gastroenteritis
* Elevated MCH and MCV on complete blood count (CBC) tests
* Elevated liver enzymes
* Low CD8 count or elevated CD4/CD8 ratio
* Changes in fractionated urine porphyrins
* High urinary mercapturic acid

**Diagnosing Mercury Toxicity**

Blood, urine and stool samples can be used to test for mercury. Ideally, a metal challenge is given in which a chelator is first ingested that releases stored mercury. Hair can also be tested for mercury, but results can be affected by hair dyes, bleaches, perms, and straighteners. Hair analysis of mercury reflects the person’s condition for the last three months. Muscle testing can also be used to assess heavy metal toxicity.
Resource: