Cilantro and Chlorella for heavy metal removal

Studies have shown that levels of mercury, lead, and aluminum in the urine increase significantly after consuming large amounts of cilantro.\(^{(1)}\) It seems that cilantro changes the electric charge on intracellular deposits of heavy metals to a neutral state, which relaxes their tight bond to body tissue, freeing them up to be flushed from the body.\(^{(2)}\)

[1 – Omura Y, Beckman SL Role of mercury (Hg) in resistant infections & effective treatment of Chlamydia trachomatis and Herpes family viral infections (and potential treatment for cancer) by removing localized Hg deposits with Chinese parsley and delivering effective antibiotics using various drug uptake enhancement methods. Acupunct Electrother Res. 1995;20(3-4): 195-229.]

[2 – Omura Y, Shimotsuura Y, Fukuoka A, Fukuoka H, Nomoto T. Significant mercury deposits in internal organs following the removal of dental amalgam, & development of pre-cancer on the gingiva and the sides of the tongue and their represented organs as a result of inadvertent exposure to strong curing light (used to solidify synthetic dental filling material) & effective treatment: a clinical case report, along with organ representation areas for each tooth. Acupunct Electrother Res. 1996;21(2): 133-160.]

Once free, the next step is to actually facilitate the removal of the metals from the body. And here’s where chlorella comes in. Chlorella possesses the capacity to absorb heavy metals. This property has been exploited as a means for treating industrial effluent that contains heavy metals before it is discharged, and to recover the bio-available fraction of the metal in the process. In studies undertaken in Germany, high doses of chlorella have been found to be very effective in eliminating heavy metals from the body – from the brain, intestinal wall, muscles, ligaments, connective tissue, and bone.\(^{(3)}\)

[3 – Klinghardt, D: Amalgam/Mercury Detox as a Treatment for Chronic Viral, Bacterial, and Fungal Illnesses. Explore. Volume 1997;8, No 3]

Together, these herbs create a powerful oral chelation formula.

Heavy Metal Toxicity

Lead

With the elimination of lead-based house-paint, and the increased use of lead-free gasoline, lead poisoning is certainly less prevalent. However, low-level toxicity is still an issue. Coal burning power plants still spew lead into the atmosphere, and like mercury and aluminum, the problem with lead is that it accumulates, unless you take active steps to remove it. The EPA estimates that 10 to 20 percent of human exposure to lead may come from lead in drinking water. Infants who consume mostly mixed formula can receive 40 to 60 percent of their exposure to lead from drinking water. The EPA warns that if lead is not detected early, children with high levels of lead in their bodies can suffer from damage to the brain and nervous system, behavior and learning problems (such as hyperactivity), slowed growth, headaches, and more. However, adults are still at risk and can suffer from reproductive problems (in both men and women), high blood pressure, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain.

Aluminum

As for aluminum, it has been known for 20 years that once it enters your body, it accumulates in your brain, where it kills off neurons, leading to memory loss. And thanks to the significant amounts of
aluminum found in food emulsifiers, antiperspirant deodorants, hair sprays, baking powder, many types of toothpaste, much of our drinking water, and most of our cookware, you are exposed to a lot of aluminum over the course of your life. There has been much speculation, therefore, that aluminum may be one of the prime factors in the onset of Alzheimer's disease. The connection between aluminum and Alzheimer's disease became even stronger when in 1995, *Neurotoxicology* reported that the widespread use of aluminum salts to purify water could account for the large numbers of people suffering from Alzheimer's. And recently, the final piece of the puzzle may have fallen into place: the connection between aluminum and fluoride. New research has revealed that fluoride in drinking water makes the aluminum that we ingest more bio-available. As was reported in *Brain Research*, Vol. 784:98, the combination of aluminum and fluoride causes the same pathological changes in brain tissue found in Alzheimer's patients. Note: there is a significant difference between metallic aluminum and plant-derived aluminum, which is in the form of aluminum hydroxide. No studies have ever shown a connection between aluminum hydroxide and toxic levels of aluminum in the human body – which is a good thing, because there is a lot of it in our food supply. Like mercury, the danger from lead and aluminum is not the result of large doses, but the result of a steady accumulation over years – as they do not easily clear from the body unless you take conscious steps to remove them.

**Mercury, Deadly Beauty**

People have known about the dangers of mercury since the days of the Roman Empire, when slaves who worked in the quicksilver mines died horribly after 2-3 years exposure. And in the 19th century, the workers who used mercury to make hats went bald and suffered from severe muscular tremors, dementia, and fits of wild, uncontrollable laughter. Thus the phrase: Mad Hatter. It's no secret that mercury is one of the most toxic metals known. Numerous studies have shown its impact on health. There is strong evidence that mercury lowers T-Cell counts. This, alone, implicates it in cancer, autoimmune diseases, allergies, Candida overgrowth, and multiple sclerosis. In fact, due to other studies that showed mercuric chloride increased several types of tumors in rats and mice, and methyl mercury caused kidney tumors in male mice, the EPA has determined that mercuric chloride and methyl mercury are possible human carcinogens. It has also been shown that mercury cuts the oxygen carrying capacity of blood by half. This would account for many instances of chronic fatigue.\(^{(4)}\)

\[^{(4)}\text{Mattingly RR, Felczak A, Chen CC, McCabe MJ Jr, Rosenspire AJ. "Low concentrations of inorganic mercury inhibit Ras activation during T cell receptor-mediated signal transduction." Department of Pharmacology, Wayne State University, Detroit, Michigan 48201, USA. Toxicol Appl Pharmacol. 2001 Nov 1;176(3):162-8.}\]

Mercury also has an affinity for brain tissue and is implicated in brain tumors and dementia. And, finally, mercury has an affinity for fetal tissue, which accounts for its implication in birth defects. In 2002, the National Academy of Sciences found strong evidence for the toxicity of methyl mercury to children's developing brains, even at low levels of exposure. A recent study from the Centers for Disease Controls found that as many as 637,233 American children are born each year with mercury levels of more than 5.8 µg/L (58 micrograms per liter), the level associated with brain damage and loss of IQ. Today, we face two primary sources of exposure: our food supply and our dental fillings.

**48 Tons in Our Food and Water**

There is nothing complex about the process. Mercury is a naturally occurring toxin, which is found in soil, rocks, wood, and fuels like coal and oil. Simple soil erosion deposits mercury in rivers and lakes, but concentrations remain low, unless, as has been discovered in the recently deforested regions of
the Amazon, erosion reaches extraordinary levels. The burning of rain forests also releases mercury that has been taken up from the soil by the trees. But the major source of mercury in our food chain, responsible for about 1/3 of the levels found in our bodies, is our burning of coal to generate electric power. That is the single greatest contributor to the problem. Mercury that naturally occurs in the coal is released during burning and enters the air; it is then precipitated into the oceans, lakes, and rivers by rain. According to the EPA, coal-fired power plants in the United States emit about 48 tons of mercury into the air every year -- and more than half of this mercury falls within 5 miles of the plant itself. When it reaches the water, microorganisms consume it and convert it into a substance called methyl mercury.

Into the Food Chain

A study at the University of Tennessee recently rated methyl mercury among the most dangerous poisons on Earth (just behind plutonium). It has no known beneficial use in the body, and it accumulates in the muscle tissue of fish, animals, and humans. When minnows eat plankton or algae that is contaminated with methyl mercury, it is deposited in their flesh; larger fish prey upon the minnows, and the toxin travels straight up the food chain to the most prized game fish – the big predators like bass, pike, walleyes, brown trout; and to all the finest food and sport fish of the seas – tuna, swordfish, shark, roughey, marlin, and halibut. According to the EPA, fish at the top of the aquatic food chain bio-accumulate methyl mercury to a level approximately 1 million to 10 million times greater than dissolved concentrations found in surrounding waters. Of course, when you climb one more rung up that food chain, you find us, the people who eat fish. Just like the predatory fish that we catch and eat, we store mercury in our tissues. Just like the ancient Romans, we know that high exposure to mercury is fatal.

Mercury Rising

In 1997, the EPA under the Clinton administration presented a detailed study that revealed the hazards of mercury contamination, pinpointed coal-fired power plants as the leading source of emissions, and promised action. But nothing was done. The EPA had begun work on a plan to address mercury pollution in December 2000 and in a 2001 presentation, the agency said that 90 percent of mercury emissions from coal-fired power plants could be cut, using what is known as the Maximum Achievable Control Technology (MACT), by 2008. More recently, the Bush administration decided that the coal-fired power industry would be exempt. Therefore, levels will continue to climb – not fall.

Mercury Fillings

The American Dental Association has resolutely maintained for years "when mercury is combined with the metals used in dental amalgam, its toxic properties are made harmless." If this were true, it would be miraculously fortuitous. Dentists have used amalgam, which consists of mercury, silver, tin, copper, and zinc, for several hundred years. Here in the United States, it made its appearance in the early 1800s. From the beginning, there were a number of dentists who were concerned by the presence of mercury, since by that time it was fairly well known that mercury was poisonous. In fact, these concerns were so strong, that by the mid-1940s, several dental societies, including the American Society of Dental Surgeons, had joined together to stop the use of amalgam fillings. But the problem all along has been that amalgam is just too easy to work with, and whatever ill effects people experience are too far down the road to matter; so dentists, as a group, have fought for its continued use. And, in fact, the American Dental Association was founded in 1859 – primarily to promote the use of mercury amalgam as a safe and desirable tooth filling material. There were no
tests done. No studies. Nothing! Amalgam was promoted because it was easy to work with. The reason mercury was used in it was because mercury serves to "dissolve" the other metals and make a homogenous whole. The early position of the ADA was that mercury reacts with the other metals to form "a biologically inactive substance" so that none of it ever makes its way into your body.

Unfortunately, numerous studies conducted in the 1970s and 80s proved conclusively that the mercury from fillings (primarily from mercury vapor created when you chew) makes its way into your body, ending up in your lungs, heart, stomach, kidneys, endocrine glands, gastrointestinal tract, jaw tissue, and brain. **Once it became irrefutable that mercury from the fillings was ending up in your body, it then became mandatory that the ADA find a new defense.** Again, not based on study, it became the position of the ADA that: Well yes, maybe some mercury does make its way into your body, but at levels that are so low it has no effect on your health. Unfortunately, that’s just not true either. Like so many other toxic substances, the real problem with mercury is that it is a cumulative poison. The body holds onto a significant percentage of the mercury that enters it. Note: There is no safe way to remove amalgam fillings. Recent studies showed that even with strong air and water suctioning, water rinses, and a rubber dental dam, significant amounts of mercury were later found in the individuals lungs, kidneys, endocrine organs, liver and heart, whereas no mercury was detected in those tissues prior to removal of the fillings. Since the government is not going to help limit your exposure to mercury in your food supply, and since your dentist and the ADA are not going to limit your exposure in your amalgam fillings, there is only one place you can turn for help – yourself. You need to regularly cleanse accumulated mercury from your body.

**The Bottom Line**

When it comes to heavy metals, there are three clear steps available to you.

1. Avoid exposure. Say no to new amalgam fillings and, if possible, have a dentist who understands the process replace your existing fillings. (However, you will need to detox after removal.) Avoid aluminum cookware and aluminum based deodorants. Stop eating high-mercury fish such as swordfish, shark, roughy, and albacore tuna. And filter fluoride and lead out of your drinking water.

2. Regularly sweep heavy metals from your colon and draw them from the tissue lining the walls of your intestinal tract using a powerful herbal colon detoxifier. (Note: colonic irrigation will not remove heavy metals from your intestinal walls.) [Ed. Comment: Intestinal Formula #2 is the best product we have found to do this job.]

3. And regularly cleanse heavy metals from your body. [Ed. Comment: Heavy Metal Detox is an excellent product for removing a wide range of heavy metals from the body without causing strong detoxification reactions. It is also safe for children to use.]

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