

Heavy Metal Detection Analysis Crucial To Reclaiming Your Health

The biological terrain, which is the internal environment of the body, is all about the vital balance of biochemistry and biophysics that determines the ideal environment for cellular function and hence good health. One of the essential parameters for a healthy biological terrain is a well-balanced mineral count. To achieve this, diet, digestion, emotional & mechanical stressors, and last but not least environmental pollution (specifically heavy metal intoxication or burden) need to be addressed. In 1974, the World Health Organization suggested that at least 80% of all chronic diseases can be attributed to environmental pollution one way or another, and that of all pollutants heavy metals pose the biggest threat to our health. Heavy metals can either directly or indirectly cause, contribute, or worsen nearly every disease or illness we know. They have a devastating influence on our mental, emotional, and physical health and well-being. The major reason for all degenerative diseases is the overproduction of free radicals. Pollution elevates production of free radicals (oxidation), which increases the blood pH level (alkalizes), which sets the stage for bacteria, viruses, and degenerative diseases to develop. Of the many producers of oxidants, heavy metals are among the most dangerous because they are not metabolized or broken down, but instead are accumulated and stored in the body tissues and organs. It is very difficult to avoid them since they are present in our air, water, food, medical drugs, vaccines, cosmetics, paints, hobbies, and even in our mouth (silver-mercury amalgam fillings); they are found in virtually everyone to some degree. Heavy metals can enter the body through inhalation, intestinal absorption, as well as absorption through the skin. The answer to the question, “Which one comes first, heavy metal accumulation leading to metabolic disturbances or a disturbed metabolic pattern leading to the accumulation of heavy metals?” is that either one can happen first. In most cases of body burdens however, it is the metabolic disturbance that leads to the increased retention of the heavy metals. Disturbance in normal digestion and protein metabolism, as well as diet, nutritional status, stress and illness will allow heavy metal accumulation, which in turn will have adverse effects on the very same conditions that invited the heavy metals in at the first place. Elemental forms of heavy metals are not well absorbed, however, organo-metalic forms are lipophilic and can readily pass through membranes and even cross the blood-brain barrier. Once absorbed into the body, heavy metals have a wide distribution in various organs, glands, and the central nervous system. Some metals seek bones and those settle into the teeth and skeletal system. They can then effectively poison enzyme systems, increase free radical production, and displace or compete with essential elements that make up metallo-enzyme complexes and thus compete with the absorption of nutritional minerals. Heavy metals are a major source of free radicals that cause cell-damage by oxidation (loss of electrons) which leads to a blood that is more alkaline (loss of protons) and a urine that is more acidic (concentration of protons lost from the blood). The body’s elimination system is able to get rid of these excess protons, nonetheless a small accumulation of protons into the connective tissue occurs and an absorption into the cell (intra-cellular) follows. Once the proton is inside the cell, intra-cellular potassium and magnesium will be excreted and washed out with

the urine in order to maintain electrical balance. This leads to an overall body tissue acidification and hence slowing down of all metabolic and digestive processes, a diminished kidney function, and a decreased enzyme activity. Degenerative diseases are the consequence of this kind of situation. This results in chronic pain and inflammation, a major source of free radical production that causes further oxidation, and the vicious cycle is thus completed. Heavy metals like cadmium, lead, mercury and more are so pervasive in our society today that there is no longer a question of whether or not we are toxic, but rather what our level of toxicity is. French doctor, Claude Bernard, believed that pathogens and disease occurred only when the biological terrain was disturbed (destabilized), that is when an imbalance was present in the biological terrain. On his death bed, another famous French doctor, Louis Pasteur, admitted that Bernard was right in that the pathogen was nothing and that the terrain was everything. Every living thing needs a very specific terrain in order to be able to survive. Optimal health can only thrive in a specific terrain. A virus, bacteria, or fungus can only thrive in specific environmental conditions conducive to their development. Heavy metals will disturb the biological terrain of the human body, thereby creating an environment conducive to the development of pathogens.

The harmful effects of heavy metals have on the body result from the fact that they can tie up binding sites on cells so that essential minerals, especially those in the same column (group) of the periodic table of elements, that have similar binding characteristics, cannot get in. As an example, mercury and cadmium that are toxic metals, are in the same group as zinc which is a beneficial mineral; they can prevent zinc from being utilized, resulting in zinc deficiency. In the human system, bivalent metals are engaged in a continuous fight for the site against one another, which results in the replacement of the element of a lesser atomic mass by an element of a heavier atomic mass. These replacement reactions occur when heavy metals grab the biological spaces that should be filled by necessary minerals that are lighter in atomic mass. Thus zinc being lighter than cadmium and mercury, will be displaced from its biological site in the presence of either one of these heavy metals. In the case of silver-mercury amalgams, mercury leaches into the body and results in zinc replacement that will result in symptoms of zinc deficiency such as fatigue, PMS, thyroid issues, loss of smell and taste, macular degeneration, prostate enlargement, rheumatoid arthritis, low libido, sterility, immune suppression, etc., even when plenty of zinc is available. Zinc is necessary for the proper levels of progesterone and testosterone. A person can have a heavy metal burden (below a certain defined limit) while not quite a toxicity, but still manifest many signs and symptoms due to an allergic reaction to that metal. Heavy metals can exert adverse metabolic effects even when not found in cautionary range upon testing. If ratio of protective nutritional metal to toxic heavy metal falls below an ideal level, then the heavy metal could be interfering with the protective metal and its function, even if heavy metal is within a normal reference range. Heavy metal toxicity is directly related to both the cause and the treatment of type 2 diabetes; it sets the stage for the overgrowth of yeast and fungus within the human body, this is particularly true with mercury. Metabolic waste (mycotoxins) released from fungus, inhibits the absorption of insulin, thus creating type 2 diabetes, which is actually nothing more than a yeast disease. While yeast infections are thought to be root ailments, they are, in reality, merely a highly invasive

symptom of a lesser known problem. Presence of yeast is usually an indication of other parasites and of heavy metals. In short, type 2 diabetes is the result of metabolic byproducts from yeast, and the latter, in many cases is a consequence of heavy metals. If patients deal with the heavy metal issue which may have given rise to the yeast in the first place, they stand a chance to actually reverse the illness altogether. As long as a high amount of heavy metals is present in the body, there will be little success in treating candida (yeast overgrowth) and its resulting ailments, including diabetes, even when eating a well-balanced diet and avoiding sugar-rich foods. If merely flare-ups of yeast infection are treated and the underlying cause is not addressed, recurrent infections will not be eliminated. Heavy metals establish the perfect terrain for the development of fungus, parasites, bacteria, viruses, and mycoplasmas; they must be eliminated from the system to have an effective treatment of conditions. It has been observed that patients diagnosed with chronic viral and fungal illnesses, as well as recurrent episodes of bacterial infections, often experienced dramatic recoveries following treatment for heavy metal toxicity. The success of a medical treatment for a health condition related to chronic metal poisoning is dependent upon heavy metal elimination from the body in a safe manner. Heavy metal detoxification programs improve overall immune response and get rid of allergies, headaches, depression, fatigue, pain, digestive issues, weight problems, irritability, brain fog and many more conditions that may have resulted from those toxic loads. Lowering heavy metal load has turned around heart diseases and diabetes and has improved memory, mood, and IQ. The following are conditions and/or symptoms that could be related to heavy metal load in the body: Parkinson's, Alzheimer's, Autism, ALS, Lupus, Multiple Sclerosis, Asthma, Fibromyalgia, Hypoglycemia, Crohn's Disease, PMS, impotence, low libido, liver disorder, kidney diseases, skin issues, anger, irritability, mood swings, headaches, inability to concentrate, light sensitivity, loss of smell and taste, metallic taste, muscle twitches or tremors, ulcers, constipation, gas and bloating, frequent night urination, arthritis, rashes, poor lower body circulation, muscle cramps, cold or numb hands and feet, thyroid issues, fatigue, low body temperature, allergies and overburdened immune system. Heavy metals, particularly mercury, kill the friendly bacteria in the gut that are beneficial for the internal mucosa which protects the gut from toxins or allergens. A compromised gut opens the door to all kinds of toxins and allergens, overburdening the immune system and leading to allergies. Heavy metals bind to proteins in the body; the immune system recognizes these proteins as foreign and attacks them, leading to auto-immune disorders. A rise in cholesterol typically accompanies the inflammatory response to protect the nerves and brain against exposure to fat-soluble toxins and heavy metals; this can lead to cardiovascular disease. Heavy metals create an overpopulation of free radicals that lead to chronic pain and inflammation, which generates more free radicals. This constant inflammatory response depletes a cancer-killing immune system; coupled with an environment of acidified tissue in which cancer cells thrive, cancer cells proliferate. Additionally, heavy metals bind to oxygen in the blood, lowering blood and tissue oxygen, causing lack of energy and a low oxygen environment favorable to cancer cells. Heavy metals combine with bile, creating a favorable environment for parasites and bacteria to flourish in the presence of a suppressed immune system, plugging up hepatic or bile duct so that needed digestive enzymes are not released, hence causing digestive issues. Good oils are not processed with a blocked gallbladder; this in turn will result in low levels of good oils, which will

affect hormone production. When essential iodine and copper ions are replaced by heavy metals and not absorbed, thyroid function becomes compromised. In order to dilute toxins due to heavy metals, the body retains water and fats in the adipose tissue. All heavy metals are neuro-toxic, increasing the free radical production a million fold and destroying the nervous tissue. Adrenal glands can weaken and burn out as they try to self-regulate the compromising effects of heavy metals, leading to fatigue as the adrenal glands put out the energy hormone (Adrenaline). Heavy metals inhibit the effects of certain neuro-transmitters such as Dopamine, Serotonin, Melatonin, and Adrenaline, causing depression.

In light of the above, heavy metal testing and elimination appear to be crucial in paving the way to homeostasis. Recent research has shown that it is essentially electrically active heavy metal atoms, not bound with organic complexes that actively destroy molecular compounds and thereby cause the formation of free radicals. Traditional methods like hair or blood analyses in some instances cannot differentiate between organically bound metal atoms and unbound metal ions that are electro-magnetically active, because the organic sample is destroyed in the course of analysis; this difference is crucial in the assessment of the overall situation. Additionally, hair tissue mineral analysis measures metals incorporated into the hair shaft during its development; it takes time for the metal to be incorporated into the hair shaft and thus it is in a way limited. Also external contaminants of heavy metals on the hair samples could result in false positives. On the other hand, heavy metal ions are successfully detected, by means of a dithizone process in bodily liquids like urine and saliva. As a reagent, dithizone is able to indicate the presence of heavy metal ions, both in qualitative and quantitative terms. The more unbound metal ions are found in the urine, the more the body's detoxification capacities are exhausted. In a healthy body, with a functional detox system, or in the ideal case of heavy metal absence, there should be no free heavy metal ions found in the urine. By taking the biological spaces of the essential minerals, heavy metals block the absorption of essential minerals, and consequently a toxic accumulation of unbound zinc and copper ions occurs. As free electrically active metals, they can be made visible with the dithizone reagent, indicating the presence of hidden heavy metals in the body. The valuable essential metals, copper and zinc, have in effect become toxic metals only as a result of heavy metal existence in the body. Often the existence of copper is based solely on symptoms, but it's best to confirm by lab tests before treating for toxicity based solely on an assumption, because that might result in an induced nutritional mineral deficiency in the event of no hidden toxicity.

Since heavy metals contribute to up to 80% of the causes of all diseases, the assessment for heavy metal contamination must become an essential component of any initial diagnosis. The dithizone reagent offers a reliable, affordable, fast and non-invasive way to assess heavy metal toxicity when compared to other methods. It is actually the only test which allows the assessment on the intracellular level. Before recommending any detoxification programs to patients, it would be a wise idea to screen for heavy metals in the urine to have a precise evaluation and a targeted protocol.