

HEAVY METALS (BLOOD)

DEMO

FINAL REPORT

Accession ID: 2403056388

Name: HEAVY METALS (BLOOD)
DEMO
Date of Birth: 01-01-1111
Gender: Male
Age: 01
Height:
Weight:
Fasting: UNKNOWN

Telephone: 000-000-0000
Street Address:
Email:

Provider Information

Practice Name: DEMO CLIENT, MD
Provider Name: DEMO CLIENT, MD
Phlebotomist: 0

Telephone: 000-000-0000
Address: 3521 Leonard Ct, Santa Clara, CA 95054

Report Information

Current Result Previous Result In Control Moderate Risk

Specimen Information

Sample Type	Collection Time	Received Time	Report	Final Report Date
EDTA	2023-11-20 00:00 (PDT)	2023-11-21 12:57 (PDT)	Heavy Metals (Blood) - P2	2023-10-25 21:51 (PDT)

SAMPLE



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TNP Test not performed

R&L Refer to risks and limitations at the end of report

Notes Refer to Lab notes at the end of the table

INTRODUCTION

Vibrant Wellness is pleased to present to you, 'Blood Heavy Metals', to help you make healthy lifestyle, dietary and treatment choices in consultation with your healthcare provider. It is intended to be used as a tool to encourage a general state of health and well-being. The Blood Heavy Metals panel is a test to measure levels of Heavy Metals that someone might be exposed to. The panel is designed to give a complete picture of an individual's levels of these metals in whole blood. Reference ranges were determined based on NHANES data (cdc.gov/nhanes) if available and other reference ranges are established based on blood samples collected from 500 apparently healthy individuals.

Methodology:

The Vibrant Heavy metals uses Inductively coupled plasma mass spectrometry (ICP-MS) for quantitative detection of heavy metals in blood.

Interpretation of Report:

The report begins with the summary page which lists only the heavy metals whose levels are high or moderate based on the reference range. Additionally, the previous value is also indicated to help check for improvements every time the test is ordered. Following this section is the complete list of the heavy metals and their absolute levels in a histogram format to enable a full overview along with the reference ranges. The level of the heavy metals with reference range is shown with three shades of color – Green, Yellow and Red. The result in green corresponds to 0th to 75th percentile indicates mild exposure to the respective heavy metal. The result in yellow corresponds to 75th to 95th percentile indicates moderate exposure to the respective heavy metal whereas the result in red corresponding to greater than 95th percentile indicates high exposure to the heavy metal. All contents provided in the report are purely for informational purposes only and should not be considered medical advice. Any changes based on the information should be made in consultation with the clinical provider.

The Vibrant Wellness platform provides tools for you to track and analyze your general wellness profile. Testing for the Heavy Metals panel is performed by Vibrant America, a CLIA certified lab CLIA#:05D2078809. Vibrant Wellness provides and makes available this report and any related services pursuant to the Terms of Use Agreement (the "Terms") on its website at www.vibrant-wellness.com. By accessing, browsing, or otherwise using the report or website or any services, you acknowledge that you have read, understood, and agree to be bound by these terms. If you do not agree to accept these terms, you shall not access, browse, or use the report or website. The statements in this report have not been evaluated by the Food and Drug Administration and are only meant to be lifestyle choices for potential risk mitigation. Please consult your healthcare provider for medication, treatment, or lifestyle management. This product is not intended to diagnose, treat, or cure any disease.

Please note:

Pediatric ranges have not been established for this test. It is important that you discuss any modifications to your diet, exercise, and nutritional supplementation with your healthcare provider before making any changes.

Heavy Metals

Test Name	Current	Previous	Result		Reference
			75th	95th	
Aluminum (ng/ml)	>200		22.17	67.8	≤67.8

POSSIBLE SOURCES

Aluminium exposure occurs primarily through ingestion, inhalation, and dermal contact. Common sources include contaminated food and water, aluminium-containing medications, antiperspirants, and occupational settings such as aluminium smelting plants and construction sites where aluminium-containing materials are used.

ASSOCIATED RISK

Exposure to aluminium presents both acute and chronic health risks. Acute effects may include respiratory irritation, coughing, and headache. Prolonged exposure can lead to neurotoxicity, resulting in symptoms such as memory loss, confusion, and muscle weakness. Furthermore, aluminium exposure has been associated with various neurological disorders, including Alzheimer's disease. Chronic ingestion or inhalation of aluminium may contribute to bone diseases such as osteoporosis and has been implicated in renal dysfunction.

DETOX SUGGESTIONS

Chelation therapy utilizing agents such as deferoxamine and deferiprone can aid in removing aluminium from the body by binding to the metal ions and facilitating their excretion through urine. Additionally, dietary supplements rich in silicon, such as silica-rich mineral waters and horsetail extract, may assist in reducing aluminium absorption and promoting its elimination.

Antimony (ng/ml)	>200		4.88	7.69	≤7.69
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POSSIBLE SOURCES

Metal mining, smelting, and refining, coal-fired power plants, inhalation of aerosols, and contaminated food.

ASSOCIATED RISK

Antimony intoxication causes irritation of skin, eyes, and lungs, pneumoconiosis, antimony spots on the skin, and gastrointestinal conditions. Major clinical manifestations associated with antimony toxicity include eye and lung irritation, skin irritation, stomach pain, diarrhea, vomiting, and stomach ulcers.

DETOX SUGGESTIONS

Detoxification of antimony (Sb) in the human body involves cellular mechanisms such as limiting exposure, sequestering it in organelles, and potentially chelating it. Additionally, glutathione catalyzes the reduction of Sb(V) to less toxic Sb(III), facilitating its expulsion via renal filtration and urine excretion.

Arsenic (ng/ml)	>200		24.72	55.17	≤55.17
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POSSIBLE SOURCES

Ingestion, inhalation, contaminated drinking water, dermal exposure, industrial manufacturing, food preservative, smoking, food grown in arsenic-contaminated soils, and cosmetics.

ASSOCIATED RISK

Acute arsenic poisoning includes diarrhea, vomiting, abdominal pain, muscle cramping, and numbness and tingling of extremities. Conversely, chronic exposure to arsenic is associated with severe health implications including skin, bladder, and lung cancer, heart attack, pulmonary disease, cardiovascular diseases, kidney failure, and diabetes.

DETOX SUGGESTIONS

Chelation therapy is commonly used for arsenic detoxification. Dimercaptosuccinic acid (DMSA) and dimercaptopropanesulfonic acid (DMPS) are chelating agents that bind to arsenic, facilitating its excretion through urine. These agents are administered orally and are effective in removing arsenic from the body. [18] Additionally, antioxidants such as selenium may help mitigate arsenic toxicity by reducing oxidative stress and promoting detoxification processes.

Heavy Metals

Test Name	Current	Previous	75th	Result	95th	Reference
Barium (ng/ml)	>200		1.65		4.45	≤4.45

POSSIBLE SOURCES

Drinking groundwater, contaminated food, injections, and waste sites.

ASSOCIATED RISK

Barium dissolves in the stomach and can result in symptoms like hypokalemia, diarrhea, nausea, vomiting, heart rhythm abnormalities, muscle cramps, and kidney disorders. Other symptoms include increased/decreased blood pressure and numbness around the face.

DETOX SUGGESTIONS

Barium is primarily eliminated from the body through conversion into the nontoxic barium sulfate in the gastrointestinal tract. This process can be facilitated by oral sulfate salts, such as sodium or magnesium sulfate, which decrease absorption. In severe cases, hemodialysis may be necessary to rapidly increase barium clearance, especially when supportive measures like intravenous potassium supplementation are ineffective.

Beryllium (ng/ml)	>200		5.87		13	≤13
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POSSIBLE SOURCES

Contaminated food, water, and soil, airborne particles, and skin contact.

ASSOCIATED RISK

Acute effects of beryllium exposure include inflammation of the lungs, acute pneumonitis, cough, chest pain, dyspnea, and pneumonia, while chronic effects encompass sarcoid-like granulomata mainly in the lungs, berylliosis, chronic pneumonitis, and reproductive and developmental defects such as stillbirth, pre-term delivery, and small-for-gestational-age infants. Additionally, beryllium acts as a skin irritant and can cause conjunctivitis, rhinitis, and pharyngitis.

DETOX SUGGESTIONS

DMPS, known as dimercaptopropane-sulfonic acid, acts swiftly as a chelating agent for heavy metal detoxification. Within 24 hours, up to 80% of the compound can be excreted, primarily through the kidneys and partially through bile. [5] Glutathione, an antioxidant with a strong affinity for heavy metals, aids in neutralizing and eliminating these toxins from the body. Its supplementation is beneficial during detoxification processes, replenishing the antioxidant levels depleted during heavy metal detoxification.

Bismuth (ng/ml)	>200		0.05		0.17	≤0.17
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POSSIBLE SOURCES

Soldering fumes from lead-free pipes, contaminated drinking water, and medicines.

ASSOCIATED RISK

Absorbed bismuth accumulates in the kidney, liver, spleen, and muscles. Small doses of bismuth may cause mild gastrointestinal discomforts such as nausea or epigastric discomfort. On the other hand, chronic ingestion of bismuth may lead to symptoms of nausea, vomiting, encephalopathy, and acute neurological symptoms such as ataxia, confusion, short-term memory impairment, dysarthria, myoclonus, and paresthesias. Renal and hepatic failure may occur with high levels of toxicity. In chronic bismuth poisoning, individuals may also have a blue-black gum line and Lichen planus-like skin rashes.

DETOX SUGGESTIONS

To detoxify bismuth from the body, increase fluid intake to enhance urinary excretion and avoid further exposure to bismuth-containing products. No specific chelating agents are widely used for bismuth detoxification.

Heavy Metals

Test Name	Current	Previous	75th	Result	95th	Reference
Cadmium^ (ng/ml)	>200		0.41		1.22	≤1.22

POSSIBLE SOURCES

Ingestion of foods grown in ion-contaminated soil, inhalation of cigarette smoke, mining, plating, soldering, welding, and painting.

ASSOCIATED RISK

Symptoms of cadmium toxicity encompass a spectrum of health issues including anemia, liver disease, vomiting, diarrhea, kidney dysfunction, and impaired bone density. Prolonged exposure to cadmium through air, water, soil, and food poses significant risks, potentially culminating in cancer and systemic organ toxicity affecting skeletal, urinary, reproductive, cardiovascular, central, and peripheral nervous, as well as respiratory systems.

DETOX SUGGESTIONS

Zinc supplementation can compete with cadmium for binding sites on proteins, induce the synthesis of metallothionein (MT) which binds cadmium for detoxification, and protect zinc-dependent enzymes like δ -aminolevulinic acid dehydratase (ALAD) from cadmium inhibition. Additionally, selenium administration can alleviate cadmium toxicity by enhancing antioxidant defense mechanisms through its role as a cofactor for glutathione peroxidase (GPx), reducing cadmium-induced oxidative stress, and potentially forming inactive complexes with cadmium for enhanced detoxification.

Cesium (ng/ml)	>200		4.4		7.59	≤7.59
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POSSIBLE SOURCES

Sources of cesium exposure include ingestion of contaminated food or water and inhalation of cesium-containing particles or dust.

ASSOCIATED RISK

Cesium poisoning can result in nausea, vomiting, diarrhea, bleeding, fatigue, muscle weakness, and palpitations. In severe conditions, it can cause cardiac arrhythmia, coma, and even death. Cesium can cause DNA damage which can affect genomic stability. Altered in genomic stability is a hallmark of aging. Thus, cesium toxicity may accelerate aging owing to its contribution to genomic instability.

DETOX SUGGESTIONS

Detoxification of cesium involves oral administration of Prussian blue to enhance fecal excretion and consumption of potassium-rich foods to compete for absorption, aiding in its elimination.

Gadolinium (ng/ml)	>200		0.02		0.38	≤0.38
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POSSIBLE SOURCES

Injecting gadolinium into the bloodstream for MRI is the main source of exposure.

ASSOCIATED RISK

Gadolinium's toxicity exerts a depressant effect on various bodily systems, manifesting in symptoms such as hypertension, tachycardia, abdominal pain, throat irritation, facial edema, and dry mouth.

DETOX SUGGESTIONS

Gadolinium is typically detoxified or removed from the body through chelation therapy. Chelating agents, such as diethylenetriamine pentaacetic acid (DTPA) or ethylenediaminetetraacetic acid (EDTA), are administered either orally or intravenously. These agents bind tightly to the gadolinium molecules, forming a complex that can be excreted through urine.

Heavy Metals

Test Name	Current	Previous	75th	Result	95th	Reference
Lead^ (ng/ml)	>200		1.32		2.81	≤2.81

POSSIBLE SOURCES

Leaded gasoline, smelting of lead and its combustion, pottery, boat building, lead-based painting, lead-containing pipes, battery recycling, grids, pigments, and printing of books.

ASSOCIATED RISK

Lead, a highly toxic metal, affects nearly every organ, targeting the brain and central nervous system, leading to coma, convulsions, and death. Children are especially vulnerable, experiencing impaired brain development, reduced IQ, and behavioral issues. Lead exposure also causes anemia, hypertension, kidney problems, immunotoxicity, and reproductive issues, often attributed to alterations in brain proteins.

DETOX SUGGESTIONS

Once lead enters the body, it tends to accumulate in bones, posing a challenge for removal. Chelation therapy offers a solution by employing medications capable of binding to and extracting toxic metals from the body. These drugs function by chelating to metals present in the bloodstream and facilitating their elimination through urine or stool.

Mercury^ (ng/ml)	>200		1.29		4.36	≤4.36
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POSSIBLE SOURCES

Polluted air, amalgam fillings, mercury-containing vaccines, contaminated food, drugs, and supplements seafood like shellfish.

ASSOCIATED RISK

Acute exposure to high levels of metallic mercury can result in nausea, vomiting, lung damage, diarrhea, increased blood pressure, skin rash, and eye irritation. Long-term effects can give rise to brain and/or kidney damage, damage to a developing fetus, changes in vision, tremors, hearing, memory problems, and irritability. Neurological and behavioral disorders are observed after exposure to mercury.

DETOX SUGGESTIONS

Chelation therapy stands as the foremost medical intervention utilized to eliminate mercury (and other heavy metals) from the body, while fresh garlic aids in expediting the body's processing and excretion of mercury compared to its natural pace.

Nickel (ng/ml)	>200		3		7.19	≤7.19
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POSSIBLE SOURCES

Contaminated food, jewelry, cosmetics, keys, cell phones, paper clips, electrical equipment, alloy, orthodontic braces, eyeglass frames, and clothing fasteners.

ASSOCIATED RISK

Nickel toxicity poses a significant risk, leading to allergies, cardiovascular and kidney diseases, lung fibrosis, nasal and lung cancer, along with symptoms such as low blood pressure, muscle tremors, nausea, vomiting, haemorrhages, heart attacks, oral and/or intestinal cancer, and kidney dysfunction.

DETOX SUGGESTIONS

Chelation therapy utilizing agents such as EDTA (ethylenediaminetetraacetic acid) or DMSA (dimercaptosuccinic acid) facilitates the removal of nickel from the body by binding to the metal ions and aiding in their excretion via urine or feces. These chelating agents work by forming stable complexes with nickel, thereby reducing its toxicity. Additionally, antioxidants like vitamin C play a crucial role in mitigating oxidative stress induced by nickel exposure, supporting overall detoxification processes.

Heavy Metals

Test Name	Current	Previous	75th	Result	95th	Reference
Palladium (ng/ml)	>200		0.1		1.56	≤1.56
POSSIBLE SOURCES Ingestion, contaminated drinking water, dental appliances, jewelry, mining, processing, and recycling industries.						
ASSOCIATED RISK Exposure to palladium primarily induces skin and eye irritations, with individuals sensitive to nickel also exhibiting sensitivity to palladium and vice versa. Additionally, palladium exposure may lead to acute toxicity or hypersensitivity reactions characterized by respiratory symptoms, urticaria, and, less commonly, contact dermatitis.						
DETOX SUGGESTIONS Drinking plenty of water can help flush toxins, including palladium, out of the body through urine. However, this alone may not be sufficient for significant detoxification.						
Platinum (ng/ml)	>200		0.1		0.58	≤0.58
POSSIBLE SOURCES Contaminated air (exhaust from leaded gasoline), platinum-containing jewelry, platinum-containing medicines used for chemotherapy.						
ASSOCIATED RISK Platinum can cause several deleterious health effects, including hearing damage, allergic reactions to the skin and mucosa, damage to organs such as intestines, kidneys, and bone marrow, and even cancer. Additionally, platinum compounds are seen to cause DNA damage which can further affect genomic stability. Alterations in genomic stability have been implicated in aging. Thus, platinum toxicity may accelerate aging owing to its contribution to genomic instability which is a hallmark of aging.						
DETOX SUGGESTIONS Platinum compounds are detoxified in the body through several mechanisms, including the activity of glutathione S-transferases (GSTs), which help in the conjugation of platinum compounds with glutathione for elimination. Additionally, detoxification may involve the use of detoxicants such as sodium thiosulfate (STS) and amifostine, which bind to and inactivate platinum compounds, providing protection against peripheral neurotoxicity associated with platinum-based chemotherapy.						
Tellurium (ng/ml)	>200		0.02		0.09	≤0.09
POSSIBLE SOURCES Contaminated water, food, soil and occupational exposure.						
ASSOCIATED RISK Exposure to even trace amounts of tellurium can result in distinct symptoms, notably a pungent garlic odor of the breath, often referred to as 'tellurium breath.' Additional major manifestations include loss of appetite, dryness of the mouth, suppression of sweating, and a lingering metallic taste in the mouth, sweat and urine.						
DETOX SUGGESTIONS Chelation therapy involves the administration of chelating agents, such as dimercaprol (BAL) or dimercaptosuccinic acid (DMSA), which can bind to tellurium and facilitate its excretion through urine. Chelation therapy is typically used for heavy metal poisoning and may be effective for tellurium toxicity as well.						

Heavy Metals

Test Name	Current	Previous	75th	Result	95th	Reference
Thallium (ng/ml)	>200		0.03		0.07	≤0.07
POSSIBLE SOURCES Contaminated food, water, soil, and air, cigarette smoke, occupational exposure, hazardous wastes.						
ASSOCIATED RISK Thallium toxicity affects the liver, kidneys, heart, and nervous system, leading to a range of symptoms including fever, gastrointestinal issues, delirium, convulsions, and coma. Chronic exposure may result in gastrointestinal disturbances, skin and nail changes, nerve damage, heart, liver, and kidney damage, bone marrow depression, and neurological disorders such as hallucinations and dementia. Thallium can also disrupt protein bonds and cause DNA damage.						
DETOX SUGGESTIONS To detoxify thallium from the body, consumption of potassium every day and potassium-rich foods may be beneficial. Additionally, using Prussian Blue, which binds to thallium in the intestines, prevents absorption and promotes excretion of thallium via stool.						
Thorium (ng/ml)	>200		0.1		0.23	≤0.23
POSSIBLE SOURCES Contaminated air, water, and soil, radioactive waste disposal sites, and/or uranium, thorium, tin, phosphate mining, and gas mantle production industries.						
ASSOCIATED RISK Thorium toxicity primarily affects the hematological, hepatic, and respiratory systems, often leading to respiratory distress, pneumonia, pulmonary hypertension, and fibrosis. Inhalation of thorium dust can result in lung disease, while long-term exposure increases the risk of liver, lung, pancreatic, and thyroid tumors.						
DETOX SUGGESTIONS To detoxify thorium from the body, focus on avoiding further exposure and ensuring a balanced diet rich in antioxidants to support natural detoxification processes. Chelation therapy is not commonly used for thorium detoxification due to its low toxicity and limited accumulation in the body.						
Tin (ng/ml)	>200		0.71		2.63	≤2.63
POSSIBLE SOURCES Contaminated food, water, canned foods, dust, soil, pipes, and household products.						
ASSOCIATED RISK Tin salts, due to their poor absorption and rapid excretion in feces, generally exhibit low toxicity. Nonetheless, chronic consumption of large quantities of canned food over an extended period may yield adverse health effects. These include anemia, stomach aches, and potential kidney and liver issues. Moreover, skin and eye irritation, along with neurological problems, may arise, underlining the importance of moderation in canned food consumption to reduce health risks associated with tin exposure.						
DETOX SUGGESTIONS Chelation therapy employing agents such as dimercaptosuccinic acid (DMSA) or dimercaptopropane sulfonate (DMPS) may be utilized in cases of acute tin toxicity. These chelating agents bind to tin ions, facilitating their excretion from the body via urine. However, such therapy is rarely necessary due to the low toxicity of tin and the body's natural ability to eliminate it.						

Heavy Metals

Test Name	Current	Previous	75th	Result	95th	Reference
Tungsten (ng/ml)	>200		0.25		1.08	≤1.08

POSSIBLE SOURCES

Contaminated air, food, and water and skin contact.

ASSOCIATED RISK

The symptoms associated with tungsten toxicity may include breathing problems, nausea, seizures, and rapid onset of clouded consciousness which may lead to coma and encephalopathy, renal conditions, and hypocalcemia.

DETOX SUGGESTIONS

While there is no specific chelating agent for tungsten, some general chelators like EDTA (ethylenediaminetetraacetic acid) or DMSA (dimercaptosuccinic acid) may help promote the excretion of heavy metals from the body, including tungsten. However, their effectiveness for tungsten removal specifically may be limited.

Uranium (ng/ml)	>200		0.02		0.08	≤0.08
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POSSIBLE SOURCES

Contaminated food and water, dermal exposures, and inhalation.

ASSOCIATED RISK

Ingestion of uranium may lead to kidney problems. As a result, the kidneys are the most impacted organ system by uranium exposure, both chronic and acute. Uranium may also impact DNA and cause chromosomal abnormalities. The main manifestation of uranium exposure is the cellular depletion of antioxidants which increases oxidative stress. Altered genomic stability and increased oxidative stress are hallmarks of aging. As a result, uranium intoxication may disrupt many biological processes which could lead to the risk of accelerated aging and developing age-associated conditions.

DETOX SUGGESTIONS

To detoxify uranium from the body, maintain adequate hydration to facilitate urinary excretion and avoid exposure to uranium sources. Chelation therapy is not typically recommended for uranium detoxification due to limited effectiveness and potential risks.

Heavy Metals (Blood)

Heavy Metals						
Test Name	Current	Previous	Result		Reference	
			75th	95th		
Aluminum (ng/ml)	>200		22.17	67.8	≤67.8	
Antimony (ng/ml)	>200		4.88	7.69	≤7.69	
Arsenic (ng/ml)	>200		24.72	55.17	≤55.17	
Barium (ng/ml)	>200		1.65	4.45	≤4.45	
Beryllium (ng/ml)	>200		5.87	13	≤13	
Bismuth (ng/ml)	>200		0.05	0.17	≤0.17	
Cadmium^ (ng/ml)	>200		0.41	1.22	≤1.22	
Cesium (ng/ml)	>200		4.4	7.59	≤7.59	
Gadolinium (ng/ml)	>200		0.02	0.38	≤0.38	
Lead^ (ng/ml)	>200		1.32	2.81	≤2.81	
Mercury^ (ng/ml)	>200		1.29	4.36	≤4.36	
Nickel (ng/ml)	>200		3	7.19	≤7.19	
Palladium (ng/ml)	>200		0.1	1.56	≤1.56	
Platinum (ng/ml)	>200		0.1	0.58	≤0.58	
Tellurium (ng/ml)	>200		0.02	0.09	≤0.09	
Thallium (ng/ml)	>200		0.03	0.07	≤0.07	
Thorium (ng/ml)	>200		0.1	0.23	≤0.23	
Tin (ng/ml)	>200		0.71	2.63	≤2.63	
Tungsten (ng/ml)	>200		0.25	1.08	≤1.08	
Uranium (ng/ml)	>200		0.02	0.08	≤0.08	

Risk and Limitations

This test has been developed and its performance characteristics determined and validated by Vibrant America LLC., a CLIA and CAP certified lab. These assays have not been cleared or approved by the U.S. Food and Drug Administration. Vibrant Wellness provides additional contextual information on these tests and provides the report in more descriptive fashion.

Heavy Metals panel does not demonstrate absolute positive and negative predictive values for any condition. Its clinical utility has not been fully established. Clinical history and current symptoms of the individual must be considered by the healthcare provider prior to any interventions. Test results should be used as one component of a healthcare provider's clinical assessment.

Heavy Metals Panel testing is performed at Vibrant America, a CLIA and CAP certified laboratory. Vibrant America has effective procedures in place to protect against technical and operational problems. However, such problems may still occur. Examples include failure to obtain the result for a specific test due to circumstances beyond Vibrant's control. Vibrant may re-test a sample to obtain these results but upon re-testing the results may still not be obtained. As with all medical laboratory testing, there is a small chance that the laboratory could report incorrect results. A tested individual may wish to pursue further testing to verify any results.

The information in this report is intended for educational purposes only. While every attempt has been made to provide current and accurate information, neither the author nor the publisher can be held accountable for any errors or omissions. Tested individuals may find their experience is not consistent with Vibrant's selected peer reviewed scientific research findings of relative improvement for study groups. The science in this area is still developing and many personal health factors affect diet and health. Since subjects in the scientific studies referenced in this report may have had personal health and other factors different from those of tested individuals, results from these studies may not be representative of the results experienced by tested individuals. Further, some recommendations may or may not be attainable, depending on the tested individual's physical ability or other personal health factors. A limitation of this testing is that many of these scientific studies may have been performed in selected populations only. The interpretations and recommendations are done in the context of these studies, but the results may or may not be relevant to tested individuals of different or mixed ethnicities.

Vibrant Wellness makes no claims as to the diagnostic or therapeutic use of its tests or other informational materials. Vibrant Wellness reports and other information do not constitute medical advice and are not a substitute for professional medical advice. Please consult your healthcare practitioner for questions regarding test results, or before beginning any course of medication, supplementation, or dietary changes.

SAMPLE