

Name: Aiden

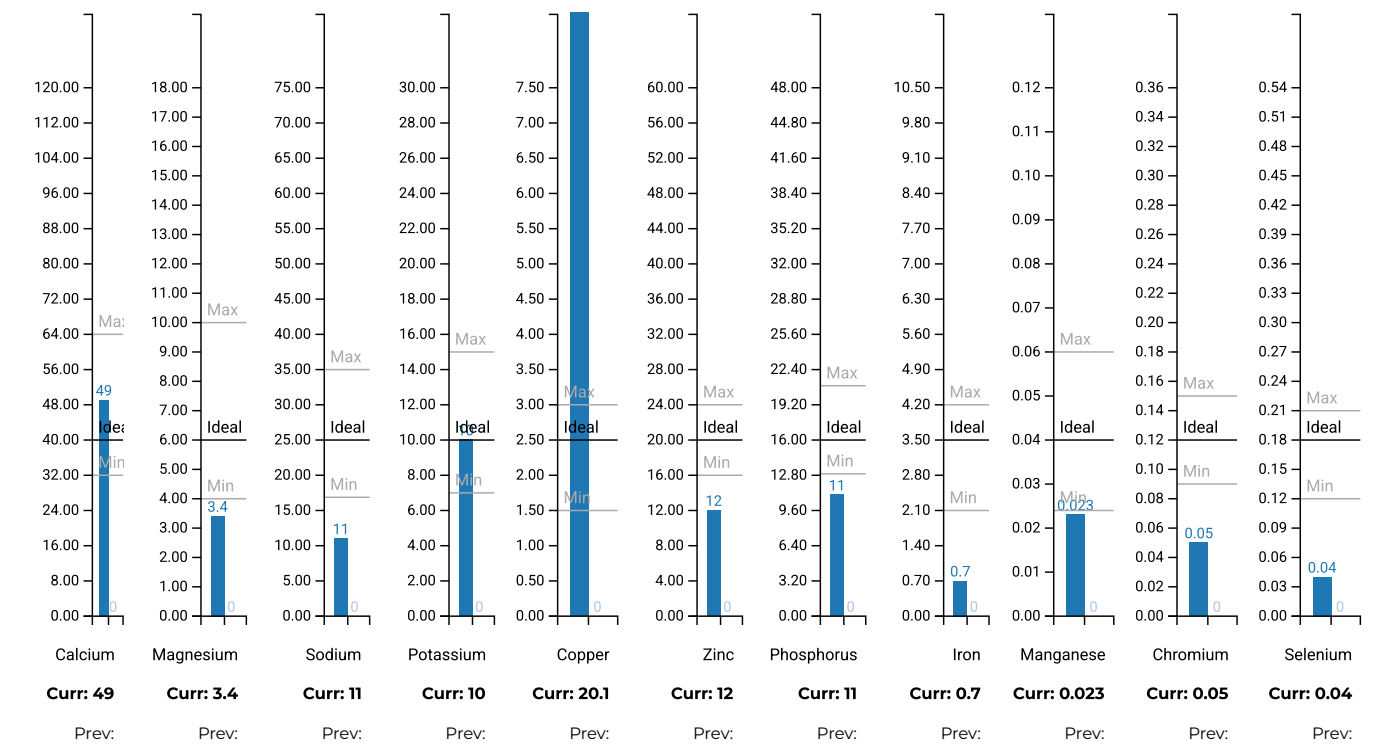
Sex: Male

Age: 8

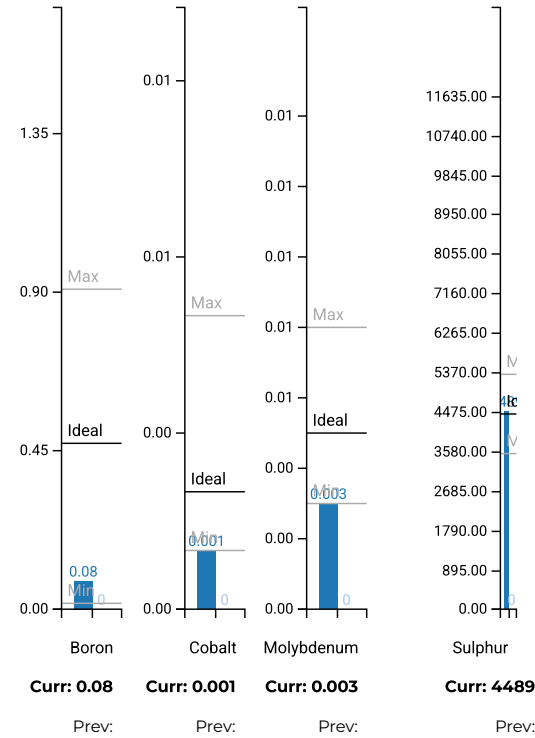
Date: April 9, 2024

Legend: Current test

Significant Minerals



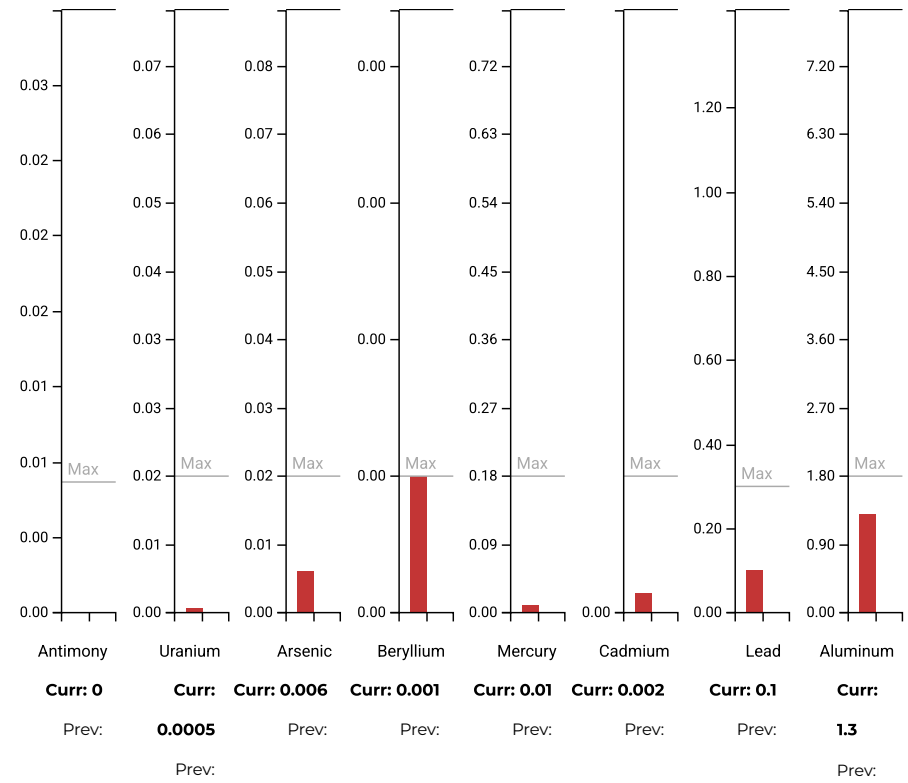
Significant ratios



	Ideal	Current	Previous	Current Results
Ca/P	2.5	4.45	N/A	HIGH
Na/K	2.5	1.10	N/A	LOW X2
Ca/K	4.00	4.90	N/A	SLIGHTLY HIGH
Zn/Cu	8.00	0.60	N/A	LOW
Na/Mg	4.17	3.24	N/A	HEALTHY RANGE
Ca/Mg	6.67	14.41	N/A	HIGH
Fe/Cu	0.90	0.03	N/A	LOW

Please note, if the mineral level shows 0 this means the mineral callibration limit was too low, the sample size was inadiquate or the mienral is not available to be read.

Legend: Current test



NUTRITIONAL ELEMENTS

Extensively studied, the nutrient elements have been well defined and are considered essential for many biological functions in the human body. They play key roles in such metabolic processes as muscular activity, endocrine function, reproduction, skeletal integrity and overall development.

TOXIC ELEMENTS

The toxic elements or "heavy metals" are well-known for their interference upon normal biochemical function. They are commonly found in the environment and therefore are present to some degree, in all biological systems. However, these metals clearly pose a concern for toxicity when accumulation occurs to excess.

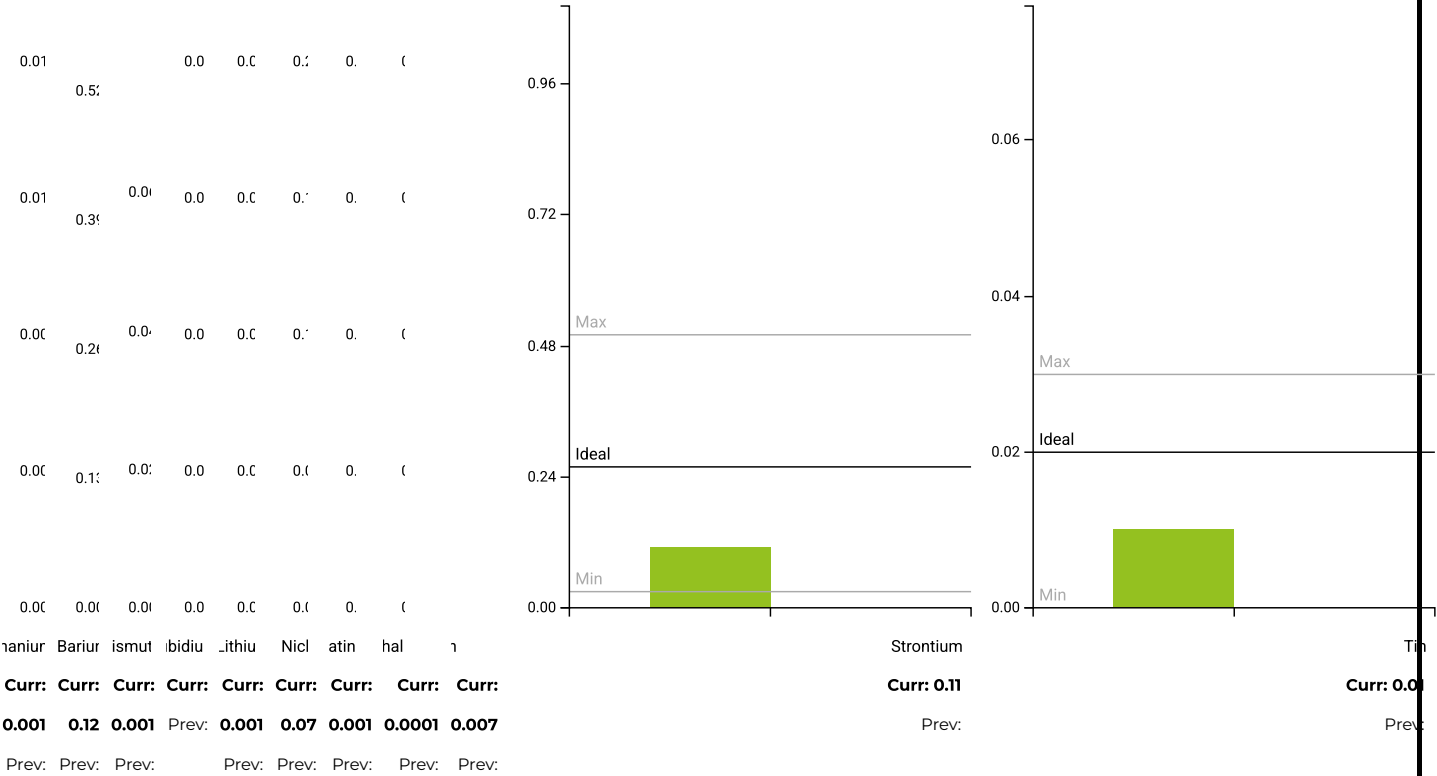
Toxic Metal Ratios

	Current	Previous	Current Results	ADDITIONAL ELEMENTS
Ca/Pb	490.00	N/A	ACCEPTABLE	These elements are considered as possibly essential by the human body. Additional studies are being conducted to better define their requirements and amounts needed.
Fe/Pb	7.00	N/A	ACCEPTABLE	
Fe/Hg	70.00	N/A	ACCEPTABLE	A calculated comparison of two elements to each other is called a ratio. To calculate a ratio value, the first mineral level is divided by the second mineral level.
Se/Hg	4.00	N/A	ACCEPTABLE	
Zn/Cd	6,000.00	N/A	ACCEPTABLE	EXAMPLE: A sodium (Na) test level of 24 mg% divided by a potassium (K) level of 10 mg% equals a Na/K ratio of 2.4 to 1
Zn/Hg	1,200.00	N/A	ACCEPTABLE	
S/Hg	448,900.00	N/A	ACCEPTABLE	
S/Cd	2,244,500.00	N/A	ACCEPTABLE	
S/Pb	44,890.00	N/A	ACCEPTABLE	

<p>SIGNIFICANT RATIOS- If the synergistic relationship (or ratio) between certain minerals in the body is disturbed, studies show that normal biological functions and metabolic activity can be adversely affected. Even at extremely low concentrations, the synergistic and/or antagonistic relationships between minerals still exist, which can indirectly affect metabolism.</p>	<p>TOXIC RATIOS- It is important to note that individuals with elevated toxic levels may not always exhibit clinical symptoms associated with those particular toxic minerals. However, research has shown that toxic minerals can also produce an antagonistic effect on various essential minerals eventually leading to disturbances in their metabolic utilization.</p>	<p>ADDITIONAL RATIOS- These ratios are being reported solely for the purpose of gathering research data. This information will then be used to help the attending health-care professional in evaluating their impact upon health.</p>	<p>REFERENCE RANGES- Generally, reference ranges should be considered as guidelines for comparison with the reported test values. These reference ranges have been statistically established from studying an international population of "healthy" individuals.</p> <p>Important Note: The reference ranges should not be considered as absolute limits for determining deficiency, toxicity or acceptance.</p>
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Legend: Current test

Additional Minerals





In this report, you will find a detailed review of the significant hair analysis patterns on your mineral analysis chart.

Hair Analysis is a powerful method of viewing your mineral makeup in the present. What many people are unaware of is that your cells are the powerhouses of the body. Blood, on the other hand, is a buffered system, meaning that the body has to keep it in balance as much as possible. Therefore, when toxins accumulate, the body tends to remove these quickly from the blood and shunt them into the cells. As a result, by analyzing the cells we are able to not only see the health of the cells, but we can get a good understanding of the toxic metal build up in the body that is often challenging to ascertain from other testing methods.

However, there's more. Not only can we view toxic metal accumulation, but we can also see a plethora of other very interesting and important patterns that can aid you in understanding the best course of action for your health

We can study things like the metabolic rate, blood sugar and carbohydrate imbalances, energy production, the health of the adrenal and thyroid glands, and many more. We can also see things like unhealthy personality tendencies, lifestyle imbalances, a tendency to overthink, whether someone is in a chronic fight or flight response, and more. In fact, the more we learn about the mineral makeup of the body, the more patterns we discover.

We have discovered 100's of Hair Analysis Patterns assessing the degree of health on the physical, mental, emotional, lifestyle and more.

Please read this report carefully, and we wish you well on your journey to health and happiness.

Positive Patterns

Any pattern that is in a **GREEN** color and has a tick icon (like above), we call **POSITIVE** patterns. If you have a positive pattern on an initial hair test, usually this is because one feels optimistic about starting a new healing program and/or something in their life is going in a positive direction for them.

However, positive patterns are the most important on **retests**. Please focus on these patterns as they are strong indicators of great positive changes in healing and development.

Because positive patterns can be HTMA patterns, single minerals, toxic metals dumps and others they are spread out within the report. Please look out for them.

Symptoms information

Any symptom information is in **red**. If a symptoms correlates with a pattern or mineral excess/deficiency it will show under the corresponding section in **red**

- **Crave Starches** is often related to dietary issues - Cravings for starches are often related to dietary issues, typically due to imbalances in the body caused by eating too much sugar or starch. This can cause problems with insulin production and hormone balance, leading to fatigue and nutrient deficiencies that create cravings for carbohydrates.

- **Sweet Cravings** is often related to dietary issues, usually overeating on sugars and starches - Sweet cravings may be related to dietary issues, such as overeating on sugars and starches. This can lead to a condition of low blood sugar, which the body tries to correct by triggering the release of insulin. Eating sweet foods can give people a temporary boost in energy but the effect is usually very short-lived. Additionally, nutrient deficiencies, such as zinc or chromium

deficiencies, can cause individuals to crave sweet foods due to their need for these nutrients in glucose metabolism. Low intake of proteins or fats may also contribute to carbohydrate cravings.

- **Other Food Cravings** is often related to dietary issues - Food cravings can be an indication of biochemical imbalances in the body. When a person's diet is not providing enough of certain nutrients, they may find themselves craving specific foods. This could be due to deficiencies in minerals such as sodium or potassium, or an imbalance between energy levels and adrenal function. It could also be due to hidden yeast infections, hypoglycemia, diabetes or emotional needs that food helps to satisfy.

- **A tendency to lose weight is related to dietary issues**

Some types of incorrect diets can lead to weight loss, but they are often unhealthy and unsustainable:

- Very low-calorie diets: Severely restricting calorie intake can cause rapid weight loss, but they lack essential nutrients and can be harmful.
- Fad diets: Extreme and unbalanced diets may result in weight loss, but they can lead to nutrient deficiencies and health risks.
- Crash diets: Drastically reducing calorie intake for a short period can lead to weight loss, but they are not sustainable and can harm overall health.
- Unbalanced diets: Diets lacking essential nutrients can cause weight loss, but they may negatively impact overall health.
- Eating disorders: Conditions like anorexia nervosa and bulimia nervosa involve severe food restrictions and can cause significant weight loss, but they are serious mental health disorders.

Prioritizing a balanced and sustainable approach to weight management is important.

Priorities and focus points

It can often be overwhelming to know what to focus on and what patterns take priority on tests. I like to call these patterns 'overriding themes', this means that these particular patterns often take precedence over others. It may be that a person is in four lows, or they are dumping copper for example.

When these patterns show they tend to be over-arching patterns or themes that a person is experiencing, going through or they need to focus on. Therefore it is these patterns that a person should focus on and prioritize to move through into deeper healing and health. They may be in a lifestyle stress pattern, for example, meaning that they really need to look into the lifestyle stress and focus on how to resolve it in order to move forwards. Or they may be dumping nickel, which generally means that they are probably feeling an overwhelming feeling of sadness or perhaps suicidal thoughts, this then, tends to be the overriding theme or phase of the current test/journey of the person.

By showing priorities and focus points our aim is to help people navigate and understand which patterns are currently taking precedence and/or need focusing on more than others. It doesn't mean other patterns are not relevant however, but it helps people to prioritize test result patterns a little easier.

Priority and focus point patterns will have a **blue** border around them just like this section. Look out for these sections and understand these patterns tend to be overriding themes of tests taking precedence usually over others.

THE OXIDATION RATE



The oxidation rate in simple terms means how quickly the body burns food, or how fast it converts food into energy. It is similar to metabolism. There are three types of oxidation rate. Slow, fast, and mixed. Extreme slow and extreme fast is not a healthy metabolism to be in. Most adults should be slow oxidizers, and most babies are fast. A healthy oxidation rate is mild slow, or mild fast, however most adults should ideally be mild slow. One of the biggest aims of healing using Hair Mineral Analysis is to balance out the oxidation rate. By doing so, energy is released consistently over a long period which means the person is much more stable, healthier and happier.

Brief oxidation rate summary

If an oxidation rate is slow, a person feels very fatigued, lethargic, depressed, and they often have malaise. They also often have sugar cravings, constipation, dry skin, and other problems. It is characterized by weak adrenal and thyroid glands which often causes many of their symptoms.

If a person's oxidation rate is too fast, often the opposite occurs but in a very unhealthy way. A person's body is running too fast or too rich. It is like driving down the highway in the fast lane. It causes anxiety, irritability, paranoia, inability to feel relaxed, and other problems. Fast oxidizers have a tendency towards inflammation, high blood pressure, oily skin, and frequent bowel movements. Fast oxidation is characterized by an overactivity of the adrenal and thyroid glands.

Mixed Oxidation means the body sometimes acts like a slow oxidizer and sometimes acts like a fast oxidizer. Often it is a transitory period and the individual will either fall into slow or move into fast.

- **Craving Starches** is related to slow oxidation - Craving starches is a sign of slow oxidation because when the body's oxidation rate is slow, it does not use food properly to generate energy. This can make one feel tired and often leads to overeating on starchy foods in an attempt to increase energy levels. To help correct this issue, it is important to ensure adequate intake of minerals such as zinc and chromium which are critical for proper sugar-handling in the body.

Your oxidation rate is MILD SLOW

Mild slow oxidation is a good oxidation rate. You may experience some mild symptoms of slow oxidation below.

Those with a slow oxidation rate tend to be tired, apathetic, depressed, and even despairing and suicidal if their oxidation rate is very slow. If the copper level is also high people can be quite emotional. Another symptom is anxiousness, although fatigue and depression are the most common. People in slow oxidation often use stimulant foods, drugs, or other methods to keep going.

Blood sugar and blood pressure tend to be low. Older people can often develop arteriosclerosis and diabetes. Slow oxidizers are often cold and do not sweat easily. Their brains often work slowly, and many have brain fog, spacey thinking, and slower thinking.

They usually have dry skin and dry hair, and many complain of constipation. They often gain weight on the hips and legs, while the upper body may be smaller. Most have underactive thyroid glands, especially women. They are prone to osteoporosis, cancer, infections, skin problems, and many other health conditions.

[READ MORE HERE](#)



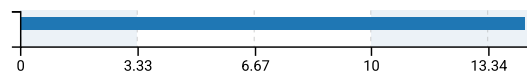
The Calcium/ Magnesium Ratio (Ca/Mg)

The Calcium/ Magnesium ratio on a hair mineral analysis can yield a lot of extremely valuable information. It is one of the most important ratios on a hair mineral chart.

There is a lot of information one can gather from the Calcium/Magnesium ratio such as cell solubility, bowel function, glandular interaction, and more. However, one of the most important points we can assess from the ratio is the current level of sugar and carbohydrate tolerance the individual can handle. This is accurate up to a ratio of about 13:5. Above a ratio of 13:5 we have found that this is more of an indicator of lifestyle stress.

[READ MORE HERE](#)

Mineral Ratio	Ideal Ratio	Current Ratio	% of ideal	Previous Ratio
Ca/Mg	6.67	14.41	216.04	0



PRIORITY & FOCUS POINT

You are in a Lifestyle Stress Pattern

A lifestyle stress pattern appears on a properly performed Hair Mineral Analysis test when the Calcium/Magnesium ratio is above 13.5

A lifestyle stress pattern means that there is something going on in a person's **external** life that is not working out well for them. Often this is a job that they are working at but in reality it is not good for them, it can also be a relationship or where you live.

It is an indicator that someone's inner space or soul is not happy with the current situation but the person is going along with it.

It can be difficult for a person to leave these situations. This is often the reason why people cannot leave in the first place. They are like boulders that hold people down. It may be hard to remove the boulder but when a person does it always improves their life for the better and frees them from whatever shackles they were in before, both physically and mentally.

[READ MORE HERE](#)

The Calcium/ Potassium Ratio (Ca/K)

The calcium/potassium ratio is one of the very important ratios on a hair mineral analysis. Hair must not be washed at the laboratory at all for accurate mineral readings.

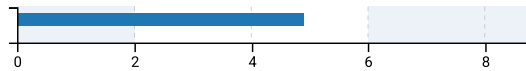
Dr. Paul Eck called this ratio the thyroid ratio. He used it to help determine the oxidation rate.

Thyroid glandular activity lowers calcium in the body. This is well known in medicine. Potassium sensitizes the tissues to thyroid hormone.

A Hair Mineral Analysis is not an indicator of a person's thyroid output. Rather it measures the thyroid hormone's effect on the cells. It can show how much thyroid hormone has managed to get into cells or how little.

This is quite powerful because many people for example may show low thyroid hormones in the blood. However their cell permeability may be high. Health practitioners often will give thyroid hormones to an individual if they are showing low thyroid hormones in the body, when in reality their cells may be very permeable if too much thyroid hormone is going into the cells. This can be a dangerous combination, that is one example of how Hair Mineral Analysis tests can be superior in areas to blood tests.

Mineral Ratio	Ideal Ratio	Current Ratio	% of ideal	Previous Ratio
Ca/K	4	4.9	122.50	0



You have a slightly elevated Calcium/ Potassium (Ca/K) ratio

An elevated Calcium/ Potassium ratio is an indicator of reduced thyroid effect.

The Sodium/ Potassium (Na/K) Ratio

The Sodium/ Potassium ratio is arguably the most important ratio on a hair mineral analysis chart. It is the vitality ratio. It could also be called the electrical ratio and internal ratio.

It can help measure many things including.

Adrenal strength- Low Na/K= Low Adrenal Strength. High Na/K= Showing Increased Adrenal Strength.

Electrical Potential of cells. Low Na/K= A discharging of electrical potential. A High Na/K= Higher electrical charging or potential of cells.

A movement indicator. Low Na/K= Slowing of movement forward, exhaustion, and reversal of movement. High Na/K= Forward momentum, forward-thinking, more future-oriented.

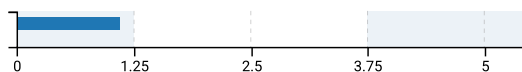
An emotional indicator. Low Na/K= Feeling stuck in the past, less optimistic, stuck in a hole. High Na/K= Future orientated, more optimistic, feeling more elated.

And many more!

A balanced Na/K in general means you are balanced in the indicators above.

[READ MORE HERE](#)

Mineral Ratio	Ideal Ratio	Current Ratio	% of ideal	Previous Ratio
Na/K	2.5	1.1	44.00	0



PRIORITY & FOCUS POINT

A low Sodium/ Potassium (Na/K) ratio X2 ⚠️

A low Na/K ratio. You may be experiencing symptoms of a low Na/K ratio like fatigue, blood sugar imbalance, kidney stress, liver stress, cardiovascular stress, and emotional symptoms like frustration, resentment and hostility

[READ MORE HERE](#)

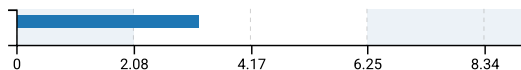
The Sodium/ Magnesium (Na/Mg) Ratio

The Sodium/Magnesium (Na/Mg) is said to be the adrenal ratio. This is because the sodium level is related to adrenal gland output.

As a result the higher the sodium level the higher the aldosterone level because aldosterone regulates retention of sodium in the body.

However it is important to assess the whole HTMA chart to ascertain energy and adrenal output, this is because the sodium level can be propped up by certain toxins, including but not limited to cadmium, mercury, copper, iron and nickel. As a result the adrenal ratio may appear as if the adrenal glands and energy is high, however underneath the adrenal output is low because the sodium mineral has been pushed up or is temporarily showing higher because of a toxin dump.

Mineral Ratio	Ideal Ratio	Current Ratio	% of ideal	Previous Ratio
Na/Mg	4.17	3.24	77.70	0



You have an mild low Sodium/Magnesium ratio

A low Sodium/Magnesium ratio is associated with sluggish adrenal gland out-put and energy. Your ratio is mildly low, as a result you may be experiencing symptoms of a mild low Na/Mg ratio such as; allergies, depression, fatigue, hypoglycemia, ineffective digestion (diminished ability to tolerate fats and meat protein), low blood pressure, low body temperature, salt cravings and weight fluctuations.

- **Sweet Cravings** is related to low adrenal activity - Sweet cravings can be related to low adrenal activity because the adrenals produce hormones that regulate blood sugar levels. If the adrenal glands are weak, there might not be enough sugar available in the body cells, and this can result in sugar cravings.

- **Irritability** is related to low adrenal activity

The adrenal glands produce hormones, including cortisol, which play a role in regulating stress responses and mood. In conditions of chronic stress or prolonged periods of high stress, the adrenal glands may become overworked, leading to a state of dysregulation or exhaustion commonly referred to as adrenal fatigue. In cases of adrenal fatigue, the production of cortisol may be reduced, which can affect the body's ability to manage stress effectively. This dysregulation in stress hormone levels can contribute to feelings of irritability, anxiety, and mood swings.

Stages of stress

Hans Selye, a MD, developed the stress theory of disease. He discovered that the body responds to all types of stressors in the same way, regardless of their cause. This means that a loud noise, extreme cold, bacterial infection, toxic metal, or worry can all trigger the same stress response in the body. This principle, called the general adaptation syndrome or GAS, outlines the stages of stress that the body goes through in response to stressors. These stages are alarm, resistance, and exhaustion, and are mediated by the adrenal and thyroid glands. Knowing the stage of stress can help one understand how the body is functioning and recommend appropriate diets, supplements, and other methods to move the body to a healthier stage of stress.

Paul Eck developed a way to identify these stages through accurate mineral analysis of hair samples, although blood tests are not effective. The stages of stress can also be correlated with different levels and ratios of minerals in the body and with the oxidation rates described by George Watson.

According to the theory the oxidation rate of the body can be correlated with the stages of stress. During the alarm stage, the body experiences fast oxidation usually with a high sodium/potassium ratio. The exhaustion stage is marked by a very slow oxidation rate or a four low pattern. The resistance stage is characterized by mixed oxidation or a fast oxidation rate with a low sodium to potassium ratio.

Mineral levels in the body also fluctuate according to the stage of stress. For example, sodium levels increase in the alarm stage and decrease as the body enters the resistance stage, continuing to decrease further in the exhaustion stage. Tissue mineral levels and ratios can be used to accurately determine the stage of stress.

Your current oxidation rate is mild slow and does not correlate to any stage of stress currently.

THE FIRST FOUR MINERALS

Calcium, Magnesium, Sodium, Potassium

The first four minerals on a Hair Mineral Analysis Test are Calcium, Magnesium, Sodium and Potassium. We can gather a lot of information about a person's health and key supplement recommendations are often created from the first four minerals. The first four minerals represent a lot of what is happening on the surface of a person, both physically and mentally.

Calcium Curr: 49 - Prev:

Calcium is a plentiful mineral in the body. It is the body's structural mineral, it allows us to stand upright in the world. Most of our calcium is in bones, teeth and nerves. When stressed calcium is one of the first minerals to leave the body. Most people need more bioavailable calcium to help them heal the body.

Your Calcium is within healthy range

Your calcium is within a healthy range, however, it is slightly elevated, you may experience some issues with elevated calcium.

Elevated calcium symptoms may include fatigue, depression, defensiveness, muscle weakness, pain, arteriosclerosis, arthritis, kidney stones and gallstones. Others are bone spurs, rigidity, slow metabolism, constipation, social withdrawal and spondylitis (rigidity and inflammation of the spine).

Magnesium Curr: 3.4 - Prev:

Magnesium is one of the most important, if not the most important mineral in a human body. The reason being is that it is used in so many areas of the body. From osmotic balancing to cell membrane potential, to nervous system functioning, to hormone production and much much more. Magnesium is often chronically low in many people. Magnesium is a high energy mineral, it often contributes to the chronic fatigue pandemic that is currently sweeping the globe.

Your Magnesium is low

Low Magnesium is a chronic problem in the 21st century. Magnesium is needed for many vital roles in the body, to cell membrane charge, to nervous system issues.

Magnesium is extremely important for good heart health, hormone secretion, protein synthesis and more.

Deficiency issues vary a lot. Some common deficiency symptoms are: Edema, swelling, dryness, diarrhea, EMF sensitivity, fatigue, malaise, depression, apathy, mental dullness, memory impairment, learning disorders, irritability, anxiety, heart attacks, seizures, schizophrenia, psychoses and more.

Sodium Curr: 11 - Prev:

Sodium is the solubility and volatility element. It is found mainly outside the cells or extracellularly. Although sodium does not participate in a single enzyme in the body, it is the body's great solvent, meaning it dissolves many chemicals. It is also a major regulator of the fluid balance, pH and other fluid-related aspects of the body.

Low Sodium

Low hair sodium. A low hair sodium level is associated with weak adrenal activity, slow oxidation and an exhaustion stage of stress. It indicates sodium loss through the kidneys and is usually affected little or not at all by eating salt

Potassium Curr: 10 - Prev:

Potassium is a major electrolyte in the body. This means it is present in large quantities, and is required in large quantities in the diet. Potassium has a single electrical charge, also called a monovalent element. This makes it a good electrical conductor, a solvent, and tends to make it very water-soluble.

Potassium performs many essential functions ranging from regulating the heart to balancing the electrical potential of the body by polarizing the cells. In fact, one could call potassium the polarizer mineral.

Your Potassium is within healthy range 

FIRST FOUR MINERAL PATTERNS

Below are the patterns on the first four minerals on a hair mineral analysis chart. Many of the patterns found on hair analysis tests are generated using the first four minerals, Calcium, Magnesium, Sodium + Potassium.

PRIORITY & FOCUS POINT

You are in a Bowl Pattern ⚠️

This pattern is associated with feeling stuck, mentally and emotionally, as though one has few options. One is “in the thick of it” right now.

To understand this pattern, consider the two ratios that it consists of. A low sodium/potassium ratio is associated with exhaustion, chronic stress, and often frustration, resentment and hostility.

This is combined with a high calcium/magnesium ratio. This is associated with defensiveness. One may be defending a lifestyle factor or an attitude that is not helpful for a person.

The combination of these two situations – fatigue, hostility, resentment, frustration – along with defensiveness, it is not surprising that one begins to feel stuck emotionally, mentally and perhaps physically as well. This is an example of how two interesting patterns on a hair mineral analysis can combine to form another interesting and more complex pattern.

You are in a Slow Oxidizer Bowl

This means you are in a bowl pattern and in slow oxidation.

[READ MORE HERE](#)

OTHER HAIR MINERAL ANALYSIS PATTERNS & MINERAL PATTERNS

There are many other hair analysis patterns not only concerning the first four mineral patterns. Extra patterns and other notable mineral patterns are shown below.

Copper

Copper is often a much talked about mineral in healing. The reason being is that it is often the cause of a plethora of symptoms.

People can be copper toxic, copper deficient or have biounavailable copper.

Having biounavailable copper is often the most common, usually what happens in this situation is that copper is in excess in the body, however the body doesn't produce copper binding proteins too well like ceruloplasmin and metallothionein. Without these proteins copper is not transported around the body easily and often gets accumulated in the body. This can give rise to both copper toxicity symptoms and copper deficiency. That's why it is super important to create a healing program for copper imbalances based upon a Hair Mineral Analysis as only then it is possible to see whether an individual is either copper toxic or deficient or both.

Copper imbalance symptoms include, racing mind, spaciness, detachment, anxiety, fear, depression, PMS, skin problems including rashes, acne, eczema, easy bruising, insomnia, bi-polar, schizophrenia, ovarian cysts, scoliosis, migraines, panic attacks and many more.

An ideal range of copper in the hair is about 1.5-2.5 mg% or about 15-25 ppm. Any number higher than this tends to indicate excessive copper in the hair tissue and, by extension, in other tissues of the body. A hair copper level of less than about 1.5 mg% usually indicates hidden copper toxicity.

Note that the hair must not be washed at the laboratory for accurate results. Only two labs in the United States, Analytical Research Labs and Trace elements, Inc, do not wash the hair at the lab, as far as I know. This means that if you have got a report from a different lab than these 2 then you may unfortunately have inaccurate results.

- **Anemia** is related to copper imbalance - Anemia is related to copper imbalance because when copper levels in the body are imbalanced, it can interfere with iron absorption and incorporation of iron into hemoglobin. It may also increase the fragility of red blood cells.

- **Anger** is related to copper imbalance - Anger is often related to a copper imbalance because copper can cause emotional disturbances like irritability, mood swings, and instability. High copper levels can also create feelings of fearfulness or hidden anger due to the detachment from reality that it creates. Copper imbalance may even lead to psychosis or violence in some cases.

- **Attention deficit disorder** is related to copper imbalance - Attention Deficit Disorder (ADD) is related to copper imbalance as an excess amount of copper in the body can cause symptoms such as spaciness, racing thoughts and difficulty focusing. Copper imbalances can also lead to a lack of appetite or anorexia which may further contribute to ADD-like behaviors.

Notes on copper supplementation

Assessing the need for copper supplementation. A need for copper supplementation does not mean the entire body is low in copper. It just means that some is needed to balance the chemistry at a particular time. This is confusing, but

it works well. Dr. Paul Eck researched this subject thoroughly. Following are hair tissue mineral analysis indicators for a need for copper supplementation:

- 1) A fast oxidation rate. **✗**
- 2) A hair sodium/potassium ratio less than about 2.5:1. **✓**
- 3) A hair calcium/magnesium that is less than about 3:1 is a secondary indicator and it only applies if the hair sodium/potassium ratio is less than 2.5:1. **✗**

These indicators apply no matter what the hair copper level may be.

If the copper level is in a good range between 1.5% and 2.5% there may still be some hidden copper indicators, this is indicative of excess stored copper hidden in various tissues such as the liver, kidneys, brain and others. However with people in fast oxidation a low copper level is usually more indicative of a need for extra copper supplementation. Your current copper level is

PRIORITY & FOCUS POINT

You have high hair tissue Copper

Copper toxicity is a major problem for most people today. Unfortunately, it is not too known or understood. Copper toxicity can cause a plethora of symptoms.

People with copper toxicity often experience many symptoms like fatigue, PMS, skin problems, insomnia, bi-polar, schizophrenia, memory loss, racing mind, fear, anger, fungal infections, osteoporosis and many many more

[READ MORE HERE](#)

Hidden biounavailable Copper (aka Copper Toxicity)

Often when people are sick. Their body adrenal glands are weak and their liver is congested. The adrenal glands send signals to the liver to create copper binding proteins such as ceruloplasmin.

The list of hidden copper indicators on your test is below.

[READ MORE HERE](#)

Copper on a hair analysis is often not an accurate measurement of copper load/copper biounavailability. However, we know over 30 indicators of hidden biounavailable copper that has accumulated in tissues. Below are all of the hidden copper indicators on your test. In general, the more indicators you have, the more copper toxic you are.

Hidden Copper Toxicity X1 - Zinc less than 13mg%

Hidden Copper Toxicity X1 - A Sodium/Potassium ratio less than about 2.5:1

Hidden Copper Toxicity X1 - A Phosphorus level less than about 13 mg%

Hidden Copper Toxicity X1 - Bowl Pattern

The number of copper toxicity indicators you have is 4 of 23

PRIORITY & FOCUS POINT

Adrenal Burnout

Adrenal burnout is a very common problem in the modern world. Unlike adrenal fatigue, burnout is a more long term derangement of the adrenal glands that may take longer than a couple of weeks of rest. When the adrenal glands are burned out most people feel chronically fatigued, sometimes in the extreme. This is often coupled with depression because you need energy to feel upbeat. When the adrenal glands are weak this in turn often puts other areas of the body under strain such as the liver, pancreas, and detoxification pathways indirectly causing other symptoms.

[READ MORE HERE](#)

There are quite a few indicators on a hair mineral analysis test that indicates a person is in adrenal burnout. Below are all of the indicators of adrenal burnout on your test. Every x1 means an increase in the severity of adrenal burnout.

Adrenal Burnout X1- Na/K less than 2.5- The lower the ratio the more severe

Adrenal Burnout X1- Phosphorus less than 12mg%

Adrenal Burnout X2- 6 or more poor eliminator patterns

The number of adrenal burnout indicators you have is 4 of 10

Iron

The roles of iron are crucial in the body. Iron is an essential mineral with key functions such as transporting oxygen, facilitating energy production in the electron transport system, and supporting enzyme systems like catalase.

Despite its importance, iron overload is common and can be found in various foods. Iron toxicity is a serious concern and can contribute to conditions such as diabetes, heart disease, arthritis, inflammatory conditions, oxidant damage, Alzheimer's disease, cancer, chronic infections, hair loss, hypothyroidism, hyperactive behavior, violence, attention deficit disorder, and other health issues.

Contrary to traditional beliefs, recent research suggests that iron overload may occur without a hereditary condition or obvious reasons like blood transfusions. In a study on heart disease, 13% of those screened showed indicators of iron overload, not solely explained by heredity.

Eliminating toxic iron from the body is challenging. Based on clinical practice, it's assumed that most adults have some level of toxic iron, which tends to worsen with age. The best way to reduce iron toxicity is through a mineral balancing program.

Biounavailability of Iron may lead to misleading results in iron testing, where levels appear low when they are actually normal or high. Iron accumulation is particularly seen in the liver, associated with anger and rage in Chinese medicine, and in the amygdala, a brain region linked to these emotions.

Eliminating iron is challenging due to its essential nature, and the body conserves iron carefully. While historically low-iron diets were essential for survival, the modern world faces an excess of iron from various sources, including diet and environmental exposure.

Biologically available copper is vital for iron conversion and incorporation into hemoglobin, one of the main reasons why many people have issues with Iron availability, the real issue is copper imbalances. Copper anemia, often misdiagnosed as iron deficiency anemia, is linked to copper imbalance. Despite similarities, iron supplementation does not completely correct this type of anemia.

However if a person has been diagnosed with anemia or have very low blood iron results it can be useful to supplement a chelated iron or liver because the symptoms of very low iron is very unpleasant.

Hair Mineral Analysis and Iron

Hair tissue mineral analysis is helpful to identify excess iron imbalances in most cases, but one must not just use the hair iron level. Here are the main indicators, positive indicators are shown with a blue tick:

1. A hair tissue iron greater than 2mg%: This indicator applies mainly to an initial hair mineral test, though not necessarily. On a retest, during a mineral balancing program, the hair iron often elevates as the body eliminates excess iron through the hair, so the indicator is less reliable on retests. **X**
2. Iron in the poor eliminator range: This is a hair tissue iron level of less than 1.2 mg%. A poor eliminator pattern indicates the body is having difficulty eliminating iron. **✓**
3. Other elevated "Amigos" such as manganese and aluminum, in most cases: When aluminum is elevated or manganese is elevated in the hair tissue, iron toxicity with biounavailable iron is almost always present.

Aluminum is greater than 0.4% **✓**

Manganese is greater than 0.04% **X**

This is why iron, manganese and aluminum are called the "amigos". They are found together, like friends because they have similar properties.

4. 'Amigos' in the poor eliminator range: This means that aluminum or manganese, usually, are very low in the hair.

The poor eliminator range for aluminum is when it is less than 0.8 mg% **X**

The poor eliminator range for manganese is when it is less than about 0.02 mg%. **X**

[READ MORE HERE](#)

Zinc

Zinc is an essential and intriguing mineral required for numerous bodily functions. It plays a crucial role in supporting diverse functions ranging from vision, hearing, and skin health to hair, nails, connective tissue, sexual function, digestion, and immune response.

In addition to these functions, zinc is integral to protein synthesis and is necessary for various critical enzymes involved in RNA and DNA synthesis, including RNA transferase.

A Worldwide Zinc Deficiency

The availability of bioavailable zinc is scarce today due to several significant reasons:

1. Most of the world's soils are deficient in zinc, posing a severe global issue. There is a lack of adequate zinc replenishment in today's agricultural practices.
2. Modern hybrid crops yield more food per acre but have significantly lower zinc content compared to non-hybrid varieties from the past.
3. Food refining and processing practices lead to the removal of zinc, especially in staple foods like wheat, rice, corn, sugar, and salt. This results in a diet based on refined and nutritionally depleted foods.

Natural sea salt provides a small amount of zinc, but this and other trace minerals are removed in refined table salt, making it a low-quality food option. Additionally, some frozen foods, particularly vegetables and meats, are treated with EDTA to preserve color, which further depletes zinc content, contributing to their negative impact on health.

Most newborns have low zinc levels because their mothers are deficient in zinc, leading to inadequate zinc transfer during pregnancy. Vegetarian and near-vegetarian diets also tend to be lower in zinc, as meats, especially red meats, are primary sources of this mineral. Stress can rapidly deplete zinc levels, and certain life stages and conditions, such as childhood, puberty, pregnancy, breastfeeding, old age, stress, infections, and chronic illnesses, increase the body's demand for zinc.

Specific conditions, such as diabetes, require higher zinc intake. A noticeable example is the slower growth in height of boys compared to girls during puberty, attributed to zinc being utilized for the development of the prostate gland and testicles. White spots on fingernails during stressful periods also indicate significant zinc deficiency.

Considering all these factors, zinc deficiency emerges as a prevalent and critical issue worldwide, necessitating attention and action.

Zinc in HTMA

The zinc content in human or animal hair samples is influenced by numerous factors, making it a crucial mineral to analyze in hair. However, it is important to note that the hair zinc level does not necessarily reflect the total zinc content in the body. Additionally, based on our experience, hair zinc levels are not a reliable indicator for determining the required amount of supplemental zinc for an individual. Therefore we can use other indicators on a HTMA test to understand the level of zinc load/deficiency within the body.

Dr. Paul Eck discovered that the sodium/potassium ratio obtained from a properly conducted hair mineral analysis is the most accurate method to evaluate zinc requirements. He also advocated for additional zinc supplementation in certain cases.

Regarding the ideal hair zinc level, an ideal Zinc level is 15ppm. However, it is crucial to understand that even if the hair zinc level appears normal, zinc supplementation is still necessary for everyone.

Occasionally, a low hair zinc level may be the body's response to a low sodium level or a low sodium/potassium ratio, as it attempts to defend itself or compensate for these imbalances.

Zinc deficiency markers

A more accurate way of assessing Zinc levels on a HTMA is to look for Zinc deficiency markers. Below are all of the zinc deficiency markers on this report. Positive markers for Zinc deficiency will show with a blue tick ✓

- 1. Zinc level less than 12mg%. ✗
- 2. A copper level greater than about 2.6 mg%. ✓

- 3. A cadmium level greater than about 0.01 mg%. X
 - 4. A mercury level greater than about 0.06 mg%. X
 - 5. A zinc/copper ratio greater than about 12:1. X
 - 6. A zinc/copper ratio less than 6:1. ✓
 - 7. A sodium/potassium ratio less than 2:1. ✓
 - 8. You have elevated toxic metal(s) ✓
 - 9. You are in a four low pattern X
 - 10. You are in a sympathetic dominant pattern X
 - 11. You are in a calcium shell X
-

PRIORITY & FOCUS POINT

Low Zinc

Low zinc is associated with emotional ups and downs, mood swings, cadmium toxicity, copper toxicity and excessive emotionalism. In babies and children, it is associated with delayed development syndromes, and delayed growth and possibly other developmental problems.

Zinc is also related to copper. In general a low zinc = high copper (if your copper level is low look at hidden copper indicators). Zinc is important to help balance out copper. Many people are malnourished in zinc today from busy lifestyles and poor nutrition with a lack of high quality zinc in the diet to name a couple.

Zinc is also a more male mineral. Increasing zinc levels helps with testosterone and libido. Also increasing zinc often increases more masculine traits in males such as groundedness, and being more linear in one's thinking and strength.

[READ MORE HERE](#)

Low Selenium

Selenium helps to detoxify metals, especially mercury.

[READ MORE HERE](#)

Chromium is low

Chromium is a fascinating and important trace mineral. The word chromium means colored in Latin, and it is associated with yellow pigments used in paints.

Relation to other elements: Chromium is an activator and is opposite to zinc, which is a stabilizer. Chromium plays a role in proper sugar handling, a major fuel for our bodies.

Severe chromium deficiency today: Chromium deficiency is almost universal and worsens with age. It is linked to various ailments, including atherosclerosis, elevated serum cholesterol, fatigue, hypoglycemia, depressed growth, dysinsulinism or pre-diabetes, and possibly food cravings or sweet cravings.

Causes for chromium deficiency:

1. Congenital: Most babies are born deficient in chromium due to their mothers' deficiency.
2. Depleted soils: Chromium is low in the soil, reducing its presence in food.
3. Hybridization and the Green Revolution: Hybrid crops produce more tonnage but are lower in trace minerals like chromium.
4. Food refining: Refining wheat flour and rice removes significant amounts of chromium.
5. Digestion and utilization of carbohydrates: Chromium is required for carbohydrate digestion. Excessive carbohydrate and sweet consumption depletes chromium.
6. Iron enrichment: Excessive iron intake interferes with chromium absorption.
7. Digestive disturbances: Factors impairing digestion hinder chromium absorption.
8. Stress: Stress can deplete chromium levels.

Roles of chromium:

1. Glucose tolerance factor: Chromium compound required for blood sugar and energy levels.
2. Cholesterol regulation.
3. Other potential roles, such as DNA synthesis.

Phosphorus is low - impaired protein synthesis

A low phosphorus level below 15mg% especially if it's below 11mg% indicates a significant degree of impaired protein synthesis. Your phosphorus level is 11

There can be many causes for this including:

- Not enough dietary protein
- Incorrect eating habits
- Eating a less utilized, incomplete, poorly absorbed, overcooked or spoiled protein food.

Another cause is problems with the digestive tract or elsewhere that interfere with the absorption of amino acids. A common one is candida albicans. Others may be leaky gut syndrome, an inflamed intestinal tract or an irritated bowel due to a parasitic infection.

Other causes may be deficiencies of many minerals required for DNA and RNA synthesis such as zinc, magnesium and others. Or the presence of toxic metals of high levels of bioavailable copper or other toxic metals that can inflict oxidant and other types of damage on proteins in the body.

Vanadium Is Elevated

Vanadium can enhance oxygenation of the tissues, and by so doing help to increase sugar-handling capability and disease-fighting ability. It can also help the liver and the arteries to function better.

Vanadium also has effects upon the lungs, hypothalamus, thymus, liver, spleen, and bone marrow, in particular. All of these have an effect upon oxygenation directly or indirectly.

Excessive exposure to vanadium can lead to various adverse health effects including conjunctivitis, pneumonia, anemia, and respiratory tract irritation. It may also result in symptoms such as dizziness, reduced energy levels, vertigo, anxiety, and feelings of sadness or melancholy. Furthermore, vanadium toxicity can cause blindness, tremors, a dry and persistent cough, as well as neurological disorders.

Zirconium Is Elevated

Zirconium (Zr) is a highly robust, malleable, ductile, lustrous, silver-grey metal. It shares similar chemical and physical properties with titanium, although zirconium is slightly more toxic.

Acute poisoning from zirconium can result in symptoms such as nausea, diarrhea, liver damage, jaundice, low blood pressure, and convulsions.

People with Zirconium toxicity may feel lonely and/or sad.

INFECTION MARKERS



The below indicators do not necessarily signify an infection; rather, they are indicators or patterns of persons who may be prone to them. If you have these indicators a blue tick will appear next to them.

- **A sodium/potassium ratio less than 2.5.** Dr. Paul Eck considered this an indicator for both a tendency for infections, and the presence of chronic infections. ✓
 - **A four lows pattern.** These are low energy indicators. They are often, but not always associated with a tendency for infections. X
 - **Iron greater than 3 mg%.** Iron toxicity is associated with some bacterial infections. X
 - **Phosphorus level less than about 11 mg%.** This is associated with impaired protein synthesis and, as a result, a general catabolic state of the body. It can also indicate a tendency for some infections. X
-

HORMONE MARKERS



The hormone system of the body is a very complex signaling and regulatory system that exists within all animal and human bodies. It regulates reproduction, most of all. However, it affects every area of life.

Names. The hormone system is also called the endocrine system or the glandular system.

Parts of the system. The hormonal system consists of seven glands, each of which makes one or more of the chemicals called hormones.

Women most affected. Hormone imbalances are especially common among women. One reason for this is that hormones are very important regulators of reproduction.

Most people out of balance. Today, the hormone system of most people does not work correctly. The main causes are nutritional deficiencies, and the presence in the body of too many toxic metals and toxic chemicals.

At times, emotional factors, psychological issues, traumas, other illnesses and genetic defects play a role in causing symptoms. However, the most common causes are nutritional problems and toxicity with metals and chemicals.

SYMPTOMS OF HORMONE IMBALANCES

Hormone imbalances can cause almost any symptom imaginable. The reason is that hormones affect every body system. However, certain symptoms are most associated with hormone imbalances.

In women, these include premenstrual tension, painful menstruation, cramps, heavy bleeding, no menstruation, mood swings, depression, anxiety and even violence.

Others are weight gain, weight loss, improper distribution of weight on the body, tendency for infections, infertility, problems with childbirth and breastfeeding, birth defects in children, cancers and more.

Symptoms in men include impotence or erectile dysfunction, fatigue, mood swings, premature ejaculation, low sperm count or poor quality sperm, cancers, and more.

CAUSES OF HORMONE IMBALANCES

NUTRIENT DEFICIENCIES - You can see various nutrient deficiencies on the HTMA graph and throughout this report.

TOXIC METALS

Toxic metals are the next most important cause of hormone imbalances. Everyone has a lot of them today, no matter what any blood, hair or urine test reveals. The reason tests may not show them is that toxic metals hide deep within the body tissues and are very difficult to detect with any type of test. However, as a person gets well with a nutritional balancing program, lots of toxic metals show up on repeat hair tests. This tells us that they were there all along, but were hidden.

The major toxic metals are cadmium, lead, mercury, arsenic, nickel and aluminum. Others are uranium, beryllium, antimony, strontium and others. Many people also have toxic forms of copper, iron, manganese, and occasionally other minerals, as well. All of these can contribute to hormonal imbalances.

[Please see the section entitled 'Toxic Metals' and 'Poor Eliminators' on this report to see your levels of heavy metal toxicity](#)

TOXIC CHEMICALS & ENDOCRINE DISRUPTORS can disrupt hormones, currently you cannot see these on a HTMA

HAIR TESTING AND HORMONES

Hair mineral analysis does not measure hormone levels. However, it can sometimes give an indication of the condition of the hormonal system. Let us examine these in more detail.

THE OXIDATION RATE AND HORMONAL IMBALANCES

Most women are slow oxidizers. Most who have endometriosis, cysts and fibroids are very slow oxidizers. Slow oxidation may contribute to these conditions for several reasons:

You are currently in SLOW Oxidation

1. Their adrenals and ovaries often produce less than optimum amounts of female hormones.
2. Many slow oxidizers are copper toxic (see copper toxicity section on this report for more information) and zinc deficient.
3. Many slow oxidizers have very underactive thyroid glands, indicated by a high ratio of calcium to potassium (see the calcium/potassium ratio on this report for more information). Hypothyroidism is a contributor to some uterine and ovarian symptoms. The thyroid and adrenal glands work together. Imbalances in one may cause a compensatory imbalance in the other.
4. Most have low energy, which impairs all healing.
5. Slow oxidizers usually have high levels of toxic metals which interfere with normal metabolism. Toxic metals may not be revealed on the first few hair analyses if one's energy level is so low that the body cannot excrete the toxic metals. (please see the toxic metals and poor eliminators section on this report for more info)

COPPER TOXICITY

A strong relationship exists between copper and estrogen in the body. Women with female organ complaints almost always have a copper imbalance, as revealed by a properly performed and correctly interpreted hair mineral analysis, using the method of interpretation proposed by Dr. Paul C. Eck.

The hair copper level, as well as serum copper and serum ceruloplasmin, are not reliable indicators. However, a hair mineral analysis in which the hair has not been washed at the laboratory provides, There are many indicators of copper toxicity you can see them all in the copper toxicity section on this report.

Correcting a copper imbalance can significantly improve many female organ symptoms. Correction may occur quickly. However, chronic conditions may take up to several years to correct.

One reason is that the problem is seldom just a copper imbalance. Often the adrenals and thyroid are weak, toxic metals are present, energy is low, and multiple nutrient deficiencies are present. So it is not just a question of "fixing" the copper. However, with patience, persistence and attention to all aspects of lifestyle as well as supplementation, much can be accomplished.

You currently have 4 hidden copper indicators.

LOW ENERGY

Low energy or "adrenal burnout" is another common finding on hair mineral analyses. Interestingly, the client may not even feel that her energy level is low. This is because in some cases, the presence of a toxic metal or a mental/emotional state may keep driving the person forward, masking a low energy condition. To see all of your adrenal burnout indicators please see the adrenal burnout section on this report.

Low energy is a common denominator of illness. Without sufficient energy, any organ or system can malfunction. Low energy permits toxic metals to accumulate. Digestion and absorption of nutrients suffer, often leading to even more serious conditions.

Scientific corrective healing programs based upon a tissue mineral analysis can help reverse the vicious cycle of low energy. Once again, several months to several years may be needed to replenish deficient nutrients, eliminate toxic metals and rebuild organs and glands.

You have 4 adrenal burnout indicators.

HORMONES AND THE ZINC/COPPER RATIO

Your Zinc/Copper ratio is 0.6

The Zinc/Copper ratio can be a useful ratio at times to examine. It can give us some indicators of hormone balance and Zinc/Copper excess, deficiency or bio-unavailability. However this ratio can be skewed by other factors so it is often best to look at other indicators, especially when trying to assess excess or deficiencies.

Zinc is roughly correlated with progesterone effect in women and testosterone effect in men.

Copper roughly correlates with estrogen effect in both sexes.

A higher Zn/Cu ratio therefore is correlated more with increased testosterone and progesterone and a lower ratio is more correlated with estrogen dominance.

- Below 6.5 is a sign of estrogen dominance in women and both female and male hormone imbalance. Between 3-6.5 is moderate and below 3 is extreme. Your Zinc/Copper ratio is 0.6.

Iodine, an often overlooked yet crucial mineral, plays a vital role in the production of thyroid hormones by the thyroid gland. However, its significance extends beyond the thyroid, as every tissue in the body requires iodine. Hence, it is referred to as the "endocrine mineral," as it supports not only the thyroid gland but also the adrenal glands, ovaries, breasts, prostate gland, and the entire hormone system of the body.

- **Low Recommended Daily Allowance (RDA):** The current RDA of 150 micrograms is inadequate for optimal health and only sufficient to prevent goiter. The ideal daily intake is believed to be between 5-15 mg. The same is true for other vital nutrients like vitamin D and B vitamins, where the recommended amounts only aim to prevent deficiency diseases.
- **Limited Sources:** Iodine is rare and is not found much in land-based foods like vegetables, fruits, meats, dairy, etc.
- **Exposure to Iodine Antagonists:** This is a major cause of iodine deficiency.
- **Stress-Induced Depletion:** Stress can reduce iodine levels.
- **Advice to Avoid Salt:** Doctors may advise people to limit or avoid salt, which is one of the few sources of iodine besides seafood for many individuals. Unrefined sea salt, however, is an excellent source of minerals including some iodine.
- **Removal of Iodine from Commercial Breads:** Until the 1980s, iodine was used as a dough conditioner in commercial bakeries, providing a significant source of extra iodine for people. The government banned the use of iodine over fears of excessive intake, and bromine, a poison, replaced it, worsening iodine deficiency.
- Below are all of the HTMA signs for Iodine deficiency, a blue tick indicates a potentiality for deficiency.

1) Calcium greater than 63.X

2) Potassium less than 4.X

3) Copper greater than 2.6.✓

4) Copper less than 1.5.X

5) Calcium/Potassium greater than 10.1.X

6) Lithium less than 0.005.✓

7) Selenium less than 0.08.✓

8) Mercury greater than 0.02.X

[READ MORE HERE](#)

DIGESTIVE MARKERS



Digestion is the process of breaking down food into its basic chemical components, and is essential for proper nourishment. Unfortunately, most people today suffer from poor digestion due to a number of factors including but not limited to: nutritional deficiencies, toxic metals and toxic chemicals in the body, irritating or even poisonous food, improper eating habits, fatigue, and autonomic nervous system imbalances. Additionally, there may be deficient production of digestive enzymes and an improper balance of flora in the small and large intestine.

It is thus of paramount importance to focus on improving digestion, which is often a crucial component of mineral balancing programs.

Below are some common poor digestion HTMA markers.

Low overall vitality

- Low phosphorus level. ✓
- Low sodium/potassium ratio. ✓
- Low aluminium level. X

Sympathetic dominance

The overuse of the sympathetic or fight-or-flight nervous system has become a prevalent issue today. When this system is triggered, it suppresses digestion and elimination processes. This leads to a reduction in the production of digestive enzymes and a decrease in nervous energy flowing to the digestive system, causing severe disruptions in digestion.

- You are not in a sympathetic dominance pattern. X

Elevated concentrations of harmful metals like cadmium, lead, mercury and others.

These toxic metals not only hinder the production of digestive enzymes, but also provide a conducive environment for harmful microorganisms like bacteria, viruses, and fungi to flourish in the gut.

It is often difficult on a HTMA to ascertain the total load of toxic metal accumulation within the body. However we can easily see excess if the metals are showing high on a test. However, if the toxic metal is very low we call this a 'poor eliminator' and this is a strong indicator of excessive levels deep inside the body that have not been released yet.

- Cadmium is not showing elevated on the HTMA. X
- Cadmium is showing as a poor eliminator on the HTMA. ✓
- Lead is showing elevated on the HTMA. ✓
- Lead is not showing as a poor eliminator on the HTMA. X
- Mercury is not showing elevated on the HTMA. X
- Mercury is showing as a poor eliminator on the HTMA. ✓

Zinc deficiency

Zinc deficiency is chronic and most people are zinc deficient. Assessing zinc deficiency from a HTMA is challenging because a low zinc and a high zinc can both be signs of zinc deficiency. However, in general, major zinc deficiency indicators are low HTMA zinc, a low zinc/copper ratio, hidden copper toxicity and an elevated calcium level. In general

the higher the copper toxicity indicators the more zinc deficient a person likely is. To view all of your zinc deficiency indicators please review the Zinc section on this report.

Low tissue phosphorus level (less than 12 mg%)

In some cases, this is linked to a decrease in energy, poor digestion, inadequate protein intake from vegetarian or other inadequate diets, intestinal infections, low zinc levels, and impaired protein production in the body.

- Phosphorus is less than 12. ✓

Low levels of sodium and potassium.

Dr. Eck discovered that this is correlated with decreased amounts of hydrochloric acid in the stomach and potentially reduced production of digestive enzymes. Additionally, it is connected to adrenal fatigue and overall exhaustion.

- Sodium is low. ✓
 - Potassium is currently not showing low, however especially on early hair tests this level could be being propped up by other factors. X
-

LIVER STRESS MARKERS



The liver is one of the major organs responsible for detoxification in the body. It filters all the substances entering the intestines, as well as the blood, which gives it a unique ability that cannot be replicated by any other organ.

Unfortunately, due to the poor quality of food and the toxins that we are exposed to, the liver can often become toxic and congested. Here are some Hair Tissue Mineral Analysis (HTMA) indicators of a poorly functioning liver.

- Sodium/Potassium level below 2. ✓
 - Low zinc. ✓
 - Sympathetic dominance. X
 - Slow oxidation. ✓
 - Copper toxicity often is a strong indicator of liver stress. You can see many copper toxicity indicators. In general the more indicators present the more stress is on the liver. Currently you are showing 4 of 27 copper toxicity indicators. X
-

TRAUMA MARKERS



Specific mineral configurations in hair mineral tests can indicate current or historical experiences of abuse or trauma. This abuse may manifest in various forms such as physical, psychological, or emotional. The observed patterns below may even provide insights into the type of abuse or trauma experienced.

Each pattern listed below can appear independently, with varying degrees of intensity. The level of severity can signal the extent of the traumatic impact. It's worth noting that the actual event may not necessarily be overly traumatic, but the impact could be heightened or reduced based on specific circumstances.

The presence of multiple trauma-related patterns on a single hair test increases the likelihood that trauma has a significant impact on an individual's health. These combinations can span across the first and second set of four minerals in the test.

A unique scenario called "doubling" occurs when a particular pattern is evident in both the initial four minerals and the second four minerals which include, iron, copper, zinc and manganese.

All trauma indicators are shown with a blue tick.

- A calcium shell pattern is observed when an adult male has a hair calcium level exceeding 165 mg%, or when a man has a level greater than approximately 155 mg%.

This pattern suggests that the individual may be psychologically "shielded" to some extent, as if behind a wall. Elevated calcium levels serve as a physiological buffer, which may have a numbing effect and partially decrease one's awareness. This could be a coping mechanism following a traumatic event, or a manifestation of past trauma.

Higher hair calcium levels increase the probability of underlying trauma. For instance, in women, a calcium level surpassing 210 mg% is referred to as a double calcium shell pattern, while a level above roughly 280 mg% is termed a triple shell pattern. X

- A spiritual defensiveness/lifestyle stress pattern is defined as having a calcium/magnesium ratio exceeding 13.5. This suggests an alignment issue in one's lifestyle, possibly manifesting as self-destructive behavior like substance abuse. Additionally, it could imply involvement in harmful or toxic relationships. ✓

- A 'Four Lows Pattern' represents a metabolic state of exhaustion, often linked to trauma and abuse. In this condition, the individual is essentially "stuck in a rut," unable to function optimally.

Another way to describe this state is likening it to a "boat in dry dock," unable to float, which could be a consequence of experiencing trauma or abuse. X

'Victim Patterns' refer to a psychological mindset that may emerge from experiences of abuse or trauma. Specific and reliable victim patterns can often be identified through hair mineral analysis.

- Sodium of 1 mg% and potassium of 1 mg%. X
- Sodium of 2 mg% and potassium of 1 mg%. X
- Sodium of 1 mg% and potassium of 2 mg%. X
- Possibly a sodium of 2 mg% and a potassium of 2 mg%. X
- A sodium-to-potassium ratio below 1 is termed a 'Trauma Na/K Ratio,' and it serves as a chronic stress indicator. It is often linked with intense emotional states such as extreme frustration, resentment, and hostility. These feelings may be the result of current or historical trauma or abuse.

We identify several 'Trauma Points' in relation to the sodium-to-potassium ratio. One is when the ratio approximates 1:1 or slightly less. Another point occurs when the ratio ranges from 0.4:1 to 0.5:1. Life is generally unsustainable when this ratio drops below 0.2:1, which can also be considered a trauma point.

Various forms of abuse or traumatic experiences, such as violent assaults, severe accidents, extreme stress, or significant nutritional deficits, can cause the sodium-to-potassium ratio to reach these low levels. This becomes evident when a person undergoing a Mineral Balancing Program manages to improve a very low sodium-to-potassium ratio. At these improved levels, individuals may become conscious of past traumas or abuses, which could potentially hinder progress in the Mineral Balancing Program if the emotional retracing becomes too distressing. X

NOTE: In certain instances, particularly in infants, the sodium-to-potassium ratio may drop below 0.2 or 0.3 while the individual still appears relatively healthy. This could be attributed to the discharge of toxic potassium via hair and skin.

This artificially inflates the hair potassium levels, leading to a skewed sodium-to-potassium ratio that appears lower than its actual metabolic state in the hair tissue. This phenomenon is termed an 'artifact,' as it results from the expulsion of toxic potassium through the hair and does not truly reflect the metabolic condition of the hair tissue.

- The 'Double Low Ratio Pattern' on the second set of four minerals involves iron, copper, manganese, and zinc. In this pattern, both the visual representation and the ratios of these minerals exhibit a double low ratio configuration. The criteria for this pattern require the iron/copper ratio to be below approximately 0.8 and the manganese/zinc ratio to be under around 0.002. Visually, iron levels should be noticeably lower than copper levels, and the graph should display a sawtooth pattern.

This pattern on the second set of four minerals seems to reflect deeper aspects of the mind or soul. It represents a more nuanced version of the 'double give-up' or 'slow death' pattern, frequently associated with past trauma and abuse. It can be seen as a deeper or more subtle iteration of the pattern described above. ✓

- A copper level exceeding 2.5 mg% is often correlated with feelings of fear, which may stem from trauma or abuse. High copper levels in the body can serve as a coping mechanism, enabling an individual to emotionally distance themselves from stress. This often results in the person feeling somewhat disoriented or detached, which could be a necessary response to trauma or a byproduct of it.

In certain instances, elevated copper levels may be attributed to other factors such as liver damage, weakened adrenal glands, or various other causes. ✓

HYPOGLYCEMIA MARKERS



Hypoglycemia is a widespread nutritional issue affecting millions of people. Despite its prevalence, it is frequently overlooked by medical professionals and is not universally recognized as a medical diagnosis.

This condition is also an early indicator of diabetes, which could be a more severe stage of the same issue.

A Better Definition of Hypoglycemia

There is often confusion about what hypoglycemia actually means. While the term technically refers to low levels of glucose in the blood, a more accurate definition would focus on low energy production and insufficient glucose in the cells. This broader definition is more useful because the symptoms can arise not only from low blood glucose levels but also from various imbalances affecting the body's ability to utilize glucose at the cellular level. More information on this is available in the section on the Glucose Tolerance Test (GTT).

Symptoms of Hypoglycemia

The majority of hypoglycemia symptoms are related to the central nervous system. The brain relies solely on circulating glucose for energy and cannot store it. Typical symptoms include:

- Extreme hunger or irritability, particularly before meals and often for sweets and carbohydrates.
- An inability to skip meals without experiencing symptoms.
- Becoming shaky, irritable, or even aggressive if a meal is missed or delayed.
- A "roller coaster" effect of blood sugar levels after consuming sugary foods.

Other symptoms due to cellular energy starvation can include fatigue, anxiety, confusion, tremors, irritability, fainting, headaches, and even severe conditions like psychosis.

The symptoms can vary widely and may mimic other diseases because hypoglycemia can affect all body systems to differing degrees. These can range from generalized fatigue to significant weight changes, including both loss and abdominal weight gain.

All hypoglycemia markers are indicated by a blue tick

- A calcium/magnesium ratio between 9.5:1 and 13.5:1. X
- A sodium/potassium ratio less than about 2:1.✓
- A potassium level of 4 mg% or less. X
- Low levels of chromium✓
- Low levels of manganese✓
- Low levels of zinc✓
- Elevated levels of copper✓
- Elevated levels of manganese X
- Elevated levels of iron X
- Elevated levels of mercury X
- Elevated levels of cadmium X
- Elevated levels of aluminum✓

Allergy Markers

Allergic reactions can involve any organ or system of the body. They can even affect the brain and behavior. These are called brain allergies, and can cause hyperactivity and other aberrant behavior.

Common allergic symptoms include a runny nose, itchy eyes, skin rashes such as hives and some eczema, asthma, stomach aches, general itching, fatigue, and many other possible symptoms. Mental symptoms are also possible such as depression, anxiety, panic attacks or mental confusion. Many of these symptoms are due to histamine release.

More serious symptoms include shock and severe asthma attacks. These can cause death.

At times, it is difficult to distinguish allergic reactions from other causes of symptoms. However, one way to tell is if the same reaction occurs every time one eats a certain food, breathes the air in a certain place, or touches a certain item or chemical.

Definitions

1. An inflammatory stress response. This is a very general definition.
2. An antigen-antibody reaction involving IgA, IgE or IgG. These are immune globulins, which are special proteins used to activate histamine and other chemicals that cause allergic responses.

This is a strict definition of an allergy that is also called a mediated allergic response.

3. Delayed hypersensitivity reaction. This is a variant on the above, but it always involves IgG, which must be prepared and so the process usually takes 10-20 hours until a full-blown allergic response can be mounted.
4. Non-mediated allergies. These are immune responses that are not mediated by IgA, IgE, and IgG. For example, a food allergy might be caused by some other chemical reaction besides a standard antigen-antibody response.

A chemical in the food such as MSG or monosodium glutamate could simply inflame the intestines and cause a headache or stomach ache. One might say "I am allergic to MSG". This is not strictly a medical allergy because it may not be mediated by an immune globulin, but it feels the same.

A proper inflammatory response

To help understand allergic reactions, it can be helpful to first describe a proper or correct immune inflammatory response. Then it will be easy to understand an aberrant response, which is called an allergic reaction.

Below are the basic steps in the allergy process. The process is best seen as a stress wave. The wave begins with an upswing, or acute phase. This is followed by a down phase, or recovery phase. Then the immune system goes back to an equilibrium or resting state. Here are the basic steps, divided into two parts: the upwave and the downwave:

The up-wave or acute part of the process

1. As soon as the body senses a foreign object, it secretes IgA, IgE and/or IgG. These are signaling proteins.
2. These signal cells called mast cells to release histamine, cytokines, granulocyte macrophage colony-stimulating factor (GM-CSF), leukotrienes, heparin, and many proteases into the area of the invasion by a foreign protein or body. These are other signaling proteins, but they are much more pro-inflammatory.
3. The adrenal glands also secrete adrenalin or noradrenalin. These are also pro-inflammatory signaling hormones that are, in fact, somewhat similar to histamine in some ways.
4. The combination of immunoglobins, histamine, other chemicals, and adrenalin attracts macrophages, neutrophils and other immune cells to the area in large numbers. This is like calling in the army to fight off an enemy.
5. The macrophages and friends begin a feeding frenzy, in which they scoop up, eat, absorb and mop up the invaders.

The down-wave or recovery phase

1. When the invaders have been destroyed, the body signals to the adrenal glands to secrete cortisol. This reduces the inflammation and poisons the histamine and other inflammatory chemicals, rendering the area less inflamed.
2. As a result, the macrophages slow down their feeding and begin to rest. They slowly drift away and return to their 'station', or resting location in the body.
3. In their station, they rest, and they take in nutrients and water to restore themselves. The mast cells also restore themselves and replenish their chemicals. This is why it is said that the second part of the wave, or down part of the wave, is parasympathetic or regenerative.
4. After a time, the macrophages, neutrophils, mast cells and other immune cells become rested and restored, and are ready for the next challenge or attack.

Causes for allergies

Weak adrenal glands. The adrenal glands produce cortisol and cortisone. These are powerful anti-inflammatory hormones that stop or reduce allergic reactions. They are widely sold in tablets and creams for this exact purpose.

Interestingly, the adrenal glands also produce pro-inflammatory hormones that also can slow or stop allergic reactions. These hormones are epinephrine and norepinephrine. These are also called adrenaline and noradrenaline.

The way these chemicals slow down allergies is to oppose histamine. This is discussed below under histamine reactions.

By the use of these two sets of chemicals, if one's adrenal glands work properly, they will limit most allergic responses. Unfortunately, most people have weak adrenal glands! The glands simply do not produce enough of these hormones to stop many allergic reactions.

[You are currently showing 4 or 8 adrenal burnout indicators.](#)

Autonomic nervous system imbalances. These can cause or aggravate allergies because the autonomic nervous system stimulates or moderates the activity of the adrenal glands. In fact, this is one of the main problems with some people's adrenal glands.

The adrenal glands may not be that depleted or toxic. However, they do not respond properly to allergic reactions. The reason is the autonomic regulation of the glands is in disarray.

This may be revealed on a hair mineral analysis as a pattern such as Sympathetic Dominance.

[You are currently not a sympathetic dominance pattern.](#)

Excessive cell permeability. This is a problem for many fast oxidizers, and some slow oxidizers, as well. Excessive cell permeability is associated with a low calcium level on a hair mineral analysis. However, this is just one cause of the problem. Cell membrane defects are also very common today due to deficiencies of the omega-3 fatty acids in most diets.

Cell membrane defects allow foreign proteins and other substances to pass into the cells too easily, and may make it too easy for histamine to pass out of the cells and into the general circulation, as well. Both conditions may contribute to some allergies.

[Your Calcium level is not currently below ideal.](#)

Elevated toxic metals. The most important of these are copper, mercury, and lead. These can:

1. Weaken the adrenal glands.
2. Push a person into fast oxidation, slow oxidation, or a four lows pattern.

3. Cause allergic reactions by themselves due to their poisonous effects on body tissues.
4. Replace vital minerals in enzyme binding sites, causing blueuced energy and many other types of damage.
5. Damage body structures such as cell membranes, mucus membranes, the skin, and many others.
6. They also damage and even kill immune cells such as the B-cells and T-killer cells. These are very important immune system cells that are quite delicate. If toxic metals get inside these cells, they can kill them. This causes a compromised immune response and more allergies.

In our experience, everyone has excessive amounts of toxic metals in the body, even if they are not revealed on any type of test such as hair, urine, blood, or feces tests.

Copper is showing elevated on the HTMA.

Mercury is not showing elevated on the HTMA.

Aluminum is showing elevated on the HTMA.

Arsenic is not showing elevated on the HTMA.

Cadmium is not showing elevated on the HTMA.

Lead is showing elevated on the HTMA.

Nickel is showing elevated on the HTMA.

Barium is showing elevated on the HTMA.

High Sodium/Potassium Ratio

This hair mineral pattern is closely associated with allergies. It indicates a type of adrenal imbalance with excessive adrenalin in comparison to cortisone and cortisol.

This is a powerful pro-inflammatory hair mineral pattern. Too much inflammation upsets the immune response badly. Allergies become almost guaranteed when this pattern is extreme. The ideal ratio is 2.5. If the ratio goes over about 10, allergic phenomena are common.

The Sodium/Potassium ratio is currently not greater than 10

Low sodium/potassium ratio.

This hair mineral pattern is associated with weak adrenal glands, fatigue, chronic stress, blood sugar imbalance, and often frustration, hostility, and resentment. All of these conditions can lead to allergies, as explained in other parts of this article.

These are usually different allergies in that they are more chronic. There is often low histamine in the body, but the allergic reactions take place anyway because of degeneration of the immune response.

The Sodium/Potassium ratio is currently low

Sympathetic dominance.

This rather common hair analysis pattern is associated with autonomic dysregulation of the adrenal and thyroid glands. It can contribute to allergic symptoms.

This test is not currently showing as being in sympathetic dominance.

Four highs pattern.

This is another type of inflammation pattern seen fairly commonly on a hair mineral analysis. It is a weaker inflammation pattern than fast oxidation.

[This test is not currently showing a four high pattern.](#)

High levels of the so-called amigos or irritants. These are oxide forms of iron, manganese, aluminum and sometimes other minerals including copper, boron, nickel, chromium, selenium, molybdenum, cobalt, lithium, and vanadium.

As with the toxic metals, the amigos are not always visible on an early hair mineral test. At times, there are telltale signs that they are present, but not always. Most people have a lot of them, however.

Four Lows Pattern

Allergies are one of the hallmarks or main symptoms of the metabolic type called four lows. This term refers to a pattern on a hair mineral test.

It is characterized by an autonomic nervous system imbalance, weak adrenal glands, abnormal stress response, copper toxicity and often toxicity with other heavy metals and chemicals.

[This test is currently not showing a Four Low pattern](#)

Slow oxidation and allergies

Those with a slow oxidation rate are prone to chronic, and often constant allergies. They tend to have weak adrenal glands, so they are not able to defend themselves well against allergic reactions.

They often need more vitamin C, and they often have copper toxicity that weakens their capillaries, making them more prone to some types of allergies.

[This test is currently showing slow oxidation](#)

Fast oxidation and allergies

Those with a fast oxidation rate are prone to severe and acute allergic reactions. These can sometimes be fatal. This is because fast oxidizers often have low adrenal reserves, and they often have excess cell permeability.

Also, fast oxidation is an inflammatory state, associated with high histamine levels. This is sometimes called a histadelic state of the body. Allergies are an inflammatory reaction of the body that are also associated with excessive histamine release.

Fast oxidizers all need more fat in the diet. They also need extra copper, zinc, and vitamin A to balance their oxidation rate and for other reasons: Copper and zinc are needed for connective tissue strength and integrity. Vitamin A is very important for the health of the mucus membranes of the body.

TOXIC METALS/MINERALS

Elevated = your metal reading is HIGH

Increased = your toxic metal readings have increased from previous levels and you may be experiencing healing reactions as a result.

- **Poor Memory** is related to toxic metal imbalances, especially aluminum - Poor memory is often related to a buildup of toxic metals, such as aluminum, which can impair cognitive functions. Aluminum accumulates in the body and brain over time from sources like drinking water and food products prepared with it, table salt containing anti-caking agents, anti-perspirants, vaccines and flu shots, baking powder products and other foods cooked in aluminum cookware.

Aluminum is elevated

Aluminum is called the soft in the head mineral because it is associated with memory loss and dementia. Aluminum is a soft metal and a dangerous one. It is very common in the environment, and almost everyone shows some aluminum toxicity on their hair tests.

Sources of aluminum

1. Drinking water.
2. Any food product prepared with "drinking water".
3. Table salt.
4. Anti-perspirants.
5. Vaccines and flu shots.
6. Hundreds of food products made with aluminum-containing baking powder.
7. Aluminum-containing antacids.
8. Clay-containing products sold mainly in health food stores. These include zeolite, bentonite, azomite, montmorillonite and kaolin.
9. Food cooked in aluminum cookware.
10. Beverages in aluminum cans or cardboard containers, unless the container is coated on the inside. These beverages include soda pop, beer, juices and others.
11. Other foods such as processed cheese and bleached flour.
12. Cooking with fluoridated water increases the leaching of aluminum from aluminum pots and pans.
13. Cosmetics. Some cosmetics such as rouge, foundations and others contain aluminum that can be absorbed through the skin.
14. Skin remedies. Burrow's Solution, which is aluminum acetate, is sold as an anti-fungal remedy.
15. All children today in the West are born with elevated aluminum. It is passed from mother to fetus during pregnancy through the placenta.
16. Natural sources of aluminum. These include some herbs, such as peppermint, spearmint and wintergreen. It also includes all salt, to some degree.
17. Aluminum that rubs off many common products. They include appliances, computers, pipes, tapes, insulation, and other items people touch that are made of aluminum.

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Lead is elevated

Lead is called the horror mineral because it is associated with violence, lowered IQ, attention deficit disorder, hyperactivity, and many other neurological problems. Lead is a widely distributed toxic metal due to its many uses in industry.

Sources of leads

1. Home products. These include 'Grecian Formula' and 'Youth Hair' hair dyes, Suavecito hair pomade, and some lipstick, especially the more costly ones. Other sources are exposure to older lead-containing paint, cigarette smoke, colored inks, older ceramic glazes, older solder, and food cans soldered with lead. Fortunately, most cans are crimped today, not soldered.
2. Industry. Other sources are the manufacture of lead-acid batteries, working in the smelting industry and exposure to leaded gasoline.
3. Food. Other sources are contaminated drinking water, pesticide residues (lead arsenate, for example, especially in wine, grapes and other fruit), food contaminated with lead from the soil or from pesticide use, and occasionally water that has passed through lead-soldered water pipes.
4. A source of lead among health-conscious people is bone broth because the bones of many animals today contain too much lead. Bone-broth therefore should only be taken a couple of times a week.
5. Food supplements. Fulvic acid, humic acid and some colloidal mineral products may contain too much lead.

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Nickel is elevated

This is called the depression and suicide mineral, as it is associated with these feelings and symptoms.

Nickel may also cause a person to be "attached" or abnormally dependent on others. It may have this effect by weakening the body or brain in a particular way.

Sources of nickel

- | | |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1. Rooibos tea or red teas | 9. Nickel-plated jewelry |
| 2. Metallic dental braces (very important) | 10. Kelp, if contaminated |
| 3. Possibly Breville and Sunbeam water boilers that use nickel-plated immersion heaters | 11. Possibly some unrefined grains and cereals |
| 4. Hydrogenated vegetable oils | 12. Oysters and possibly other shellfish from contaminated waters |
| 5. Contaminated alcoholic beverages | 13. Nickel plating on metallic objects |
| 6. Margarines and imitation whip cream | 14. Cigarette smoking |
| 7. Commercial peanut butter | 15. Manufacture of steel |
| 8. Vegetable shortening | 16. Some batteries, machine parts, wire, and electrical parts |

17. Lifting steel weights or handling anything made of steel

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Barium Is Elevated

Introduction

Barium is a very toxic metal that poses a serious problem on Earth today.

Sources of Barium

A major source of barium is contrast medium. The other significant source is x-ray studies of the digestive tract.

Effects on the Body

Absorption

Most barium is absorbed through the intestines from food and beverages. Once absorbed, barium has an affinity for the bones and the brain.

Chemical Properties

Barium is located underneath calcium on the periodic table of the elements. This means that the barium atom "looks" like a calcium atom, as they have the same number of electrons in the outer electron shell.

As a result, barium can replace calcium in certain enzyme binding sites and other places, including the bones, teeth, and blood. Blood contains a significant amount of calcium, which is used as a muscle relaxant and a regulator of metabolism.

Cardiovascular and Nervous System Effects

Barium has toxic effects on many body systems, with the cardiovascular system and the nervous system being among the most affected.

Central Nervous System Effects

Barium replaces some calcium in the brain, causing unsteadiness, weakening of the will, and general malaise.

Other Acute Toxicity

At low doses, barium acts as a muscle stimulant, while higher doses affect the nervous system, eventually leading to paralysis.

Other acute symptoms include cardiac irregularities, weakness, tremors, anxiety, difficulty breathing, slow pulse, high blood pressure, diarrhea, and vomiting.

Chronic Symptoms

Chronic symptoms of barium toxicity are similar to acute symptoms, mainly affecting the cardiovascular and nervous systems. Additionally, there is evidence that barium toxicity can result in reduced sperm motility, birth defects, and an increased risk of cancer.

These effects may be due to the antagonism between barium and zinc. Zinc is required for the health of sperm and is protective against birth defects.

Platinum Is Elevated

Excess platinum can lead to symptoms such as depression, anxiety, irritability, confusion and memory loss. It may also cause physical symptoms such as gastrointestinal issues and skin rashes. In some cases it can even affect the immune system leading to a greater susceptibility for infections.

Strontium Is Elevated

Introduction

Strontium (symbol Sr) is a soft, whitish toxic metal that is widely distributed in the environment. It is the sixteenth most common mineral on Earth. Currently, strontium is sold as a food supplement, which will be discussed below.

Sources and Distribution

The prevalence of strontium is primarily due to the use of nuclear power for electricity generation. Strontium-90, a highly toxic strontium isotope, is a waste product of all nuclear power plants.

Chemical Properties

Strontium is a mineral that can replace calcium when the body is calcium deficient. This is possible because strontium is located just below calcium on the Periodic Table of Elements. Strontium shares similarities with calcium at the atomic level, like a key that fits in a lock but cannot open it. It can "fit" in locations in the body that require calcium, such as the bones. However, strontium is considered a subtle poison.

Concerns

1. Most people are deficient in calcium, leading to a growing problem of strontium toxicity.
2. Some holistic doctors suggest supplementing strontium to strengthen the bones, but we believe this is a hazardous idea due to the toxicity of strontium.

Sources of Strontium

Strontium can be found in certain spices, seawater, seafood, and calcium-rich foods such as milk. It is also present in some vegetables, which contain protective nutrients that compete with strontium.

Congenital Strontium Toxicity

Many babies are born with excessive strontium levels, often due to toxicity in their mothers. This can be derived from their food, water, or other sources mentioned in this article.

Nuclear Power Plants

Strontium-90, a radioactive form of strontium, is a significant waste product of nuclear power plants. It is one of the more dangerous radioactive particles and reinforces the need to avoid nuclear power for the sake of a healthy population. Nuclear power is unnecessary, costly, and environmentally polluting.

Although some environmentalists support nuclear power as it doesn't emit carbon dioxide, it still pollutes in other ways, including increasing strontium-90 levels in the environment. For more information, read "Nuclear Power And Alternatives."

Strontium in Products

Strontium supplements, usually in the form of strontium ranelate, are sold as food supplements. We believe these should not be allowed.

The cancer drug Metastron contains strontium, and some toothpastes also include strontium.

Symptoms of Strontium Toxicity

The symptoms of strontium toxicity include weakness and pain, particularly deep pain in the bones. Strontium can also contribute to bone cancer, blood cancer (which is produced in the bones), and other related conditions such as Hodgkin's disease and lymphomas.

Titanium Is Elevated

Excess titanium can cause a range of symptoms, including headaches, fatigue, joint pain and stiffness, skin rashes or hives, digestive problems such as nausea and vomiting, difficulty concentrating or remembering things clearly. It may also lead to weakened immune system functioning due to its interference with the absorption of other minerals in the body. In more severe cases it can cause anemia due to impaired iron absorption or even heart palpitations or arrhythmia from imbalances in calcium and magnesium levels.

POOR ELIMINATORS



Definition. A poor eliminator pattern consists of an extremely low reading of either a toxic metal or one of the nutrient minerals. The criteria or cutoff point for a poor eliminator pattern is different for each mineral.

Definition of a very poor eliminator pattern. This occurs when the level of a mineral is even lower. It indicates even more hidden accumulation of the metal present.

Below is a list of your poor eliminators and very poor eliminators. When you have a poor eliminator it is actually a sign that you are toxic in that metal/mineral but your body at the moment is not removing it. This is often because of poor detox pathways. After a while on a healing program you will often see a very low metal/mineral reading rise on a hair test as the detox pathways improve and elimination in the hair begins to occur.

Selenium is a poor eliminator

Boron is a poor eliminator

Rubidium is a poor eliminator

Bismuth is a poor eliminator

Platinum is a poor eliminator

Thallium is a poor eliminator

Tin is a poor eliminator

Cadmium is a very poor eliminator

Mercury is a very poor eliminator

Iron is a very poor eliminator

Uranium is a very poor eliminator

The number of poor eliminators you have is 11

All information on this report is for educational purposes only. It is not for the diagnosis, treatment, prescription or cure of any disease or health condition.
