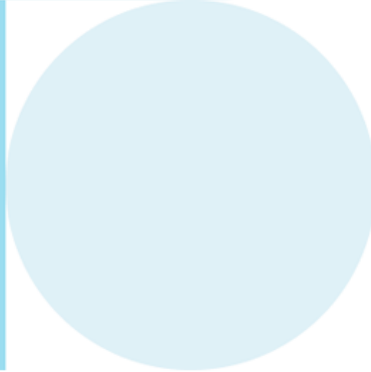
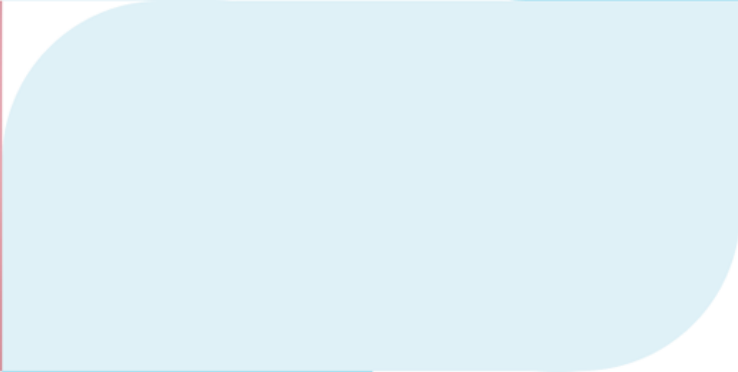





Test report



At-home test



# Hair Mineral Analysis

 Lab test

 Hair


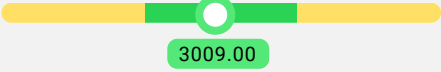





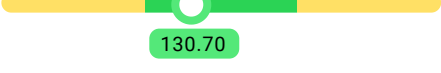

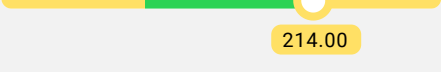



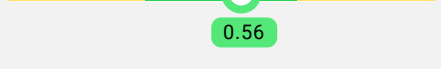

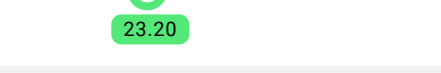

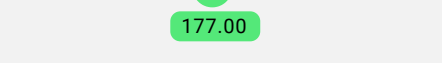
Name: **Sample Report**    Date of test: **04/05/2024**    Analysis-ID: **DUMMY-63**

## Table of contents

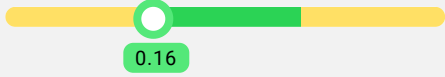
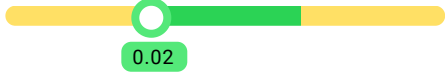
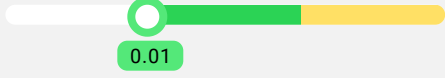

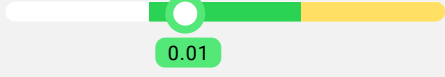


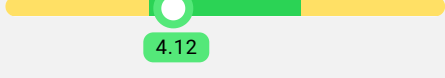
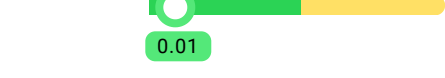
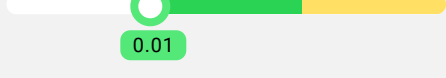
○ Results	page 2
○ Minerals - Extended information	page 7
○ Trace minerals - Extended information	page 13
○ Heavy metals - Extended information	page 20
○ Toxic substances - Extended information	page 25

## Hair mineral analysis - Your result


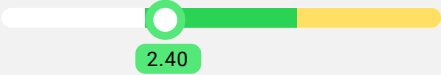



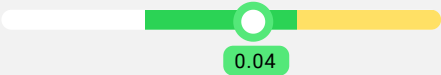



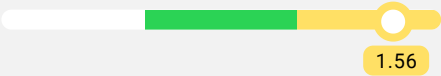



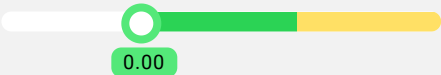
### Minerals

Name	Your value	Reference value	Scale
Calcium	 3009.00 ppm	140 - 6000 ppm	
Copper	 12.60 ppm	8,1 - 79,1 ppm	
Iodine	 0.05 ppm	0,03 - 0,827 ppm	
Magnesium	 130.70 ppm	10,2 - 378,5 ppm	
Phosphorus	 214.00 ppm	101 - 189 ppm	
Potassium	 6.60 ppm	1,4 - 253,3 ppm	
Selenium	 0.56 ppm	0,2 - 0,74 ppm	
Sodium	 23.20 ppm	3,9 - 479,6 ppm	
Zinc	 177.00 ppm	93 - 275 ppm	

## Trace minerals

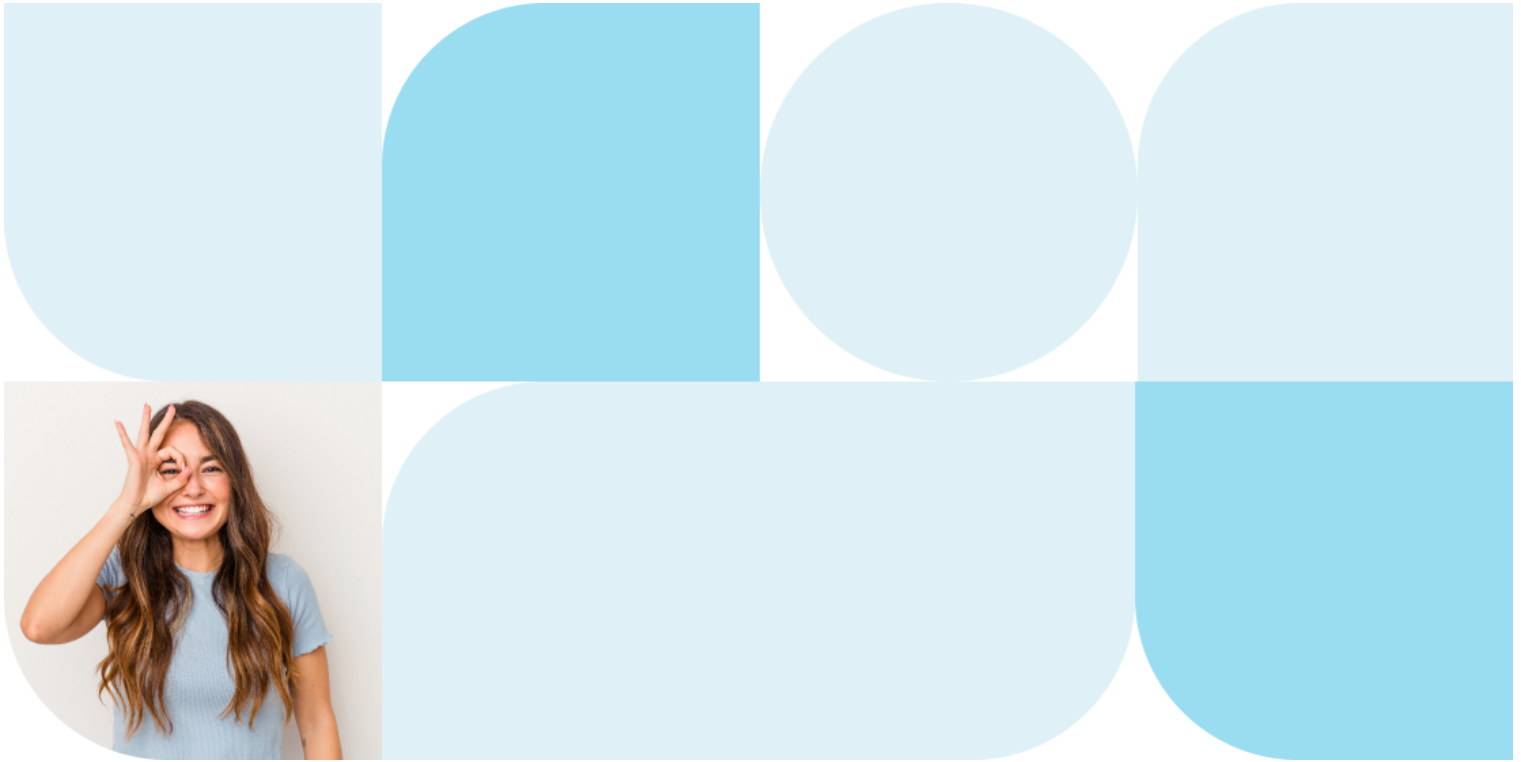
Name	Your value	Reference value	Scale
Boron	0.16 ppm	0,07 - 1,77 ppm	
Chromium	0.02 ppm	0,01 - 0,295 ppm	
Cobalt	0.01 ppm	< 0,55 ppm	
Iron	6.40 ppm	3,9 - 17,6 ppm	
Lithium	0.01 ppm	< 0,037 ppm	
Manganese	3.53 ppm	0,023 - 1,011 ppm	
Molybdenum	0.02 ppm	< 0,045 ppm	
Silicon	138.50 ppm	5,2 - 304,9 ppm	
Strontium	4.12 ppm	0,18 - 20,94 ppm	
Vanadium	0.01 ppm	< 0,05 ppm	
Zirconium	0.01 ppm	< 0,33 ppm	

## Heavy metals

Name	Your value	Reference value	Scale
Aluminium	 2.40 ppm	< 15,3 ppm	
Arsenic	 0.02 ppm	< 0,048 ppm	
Cadmium	 0.04 ppm	< 0,054 ppm	
Lead	 0.07 ppm	< 1,88 ppm	
Mercury	 1.56 ppm	< 0,95 ppm	
Nickel	 0.21 ppm	< 0,82 ppm	
Thallium	 0.00 ppm	< 0,0024 ppm	


## Toxic substances

Name	Your value	Reference value	Skala
Antimony	0.01 ppm	< 0,052 ppm	
Barium	1.38 ppm	0,09 - 6,54 ppm	
Beryllium	0.00 ppm	< 0,0014 ppm	
Bismuth	3.34 ppm	< 0,165 ppm	
Gadolinium	0.01 ppm	< 0,0064 ppm	
Gold	0.01 ppm	< 0,062 ppm	
Palladium	0.00 ppm	< 0,0151 ppm	
Platinum	0.00 ppm	< 0,0015 ppm	
Silver	0.01 ppm	< 1,03 ppm	
Tin	0.04 ppm	< 1,18 ppm	
Titanium	1.30 ppm	< 11,5 ppm	
Uranium	0.33 ppm	< 0,149 ppm	



# Minerals - Extended information

# Calcium

Name	Your value	Reference value	Scale
Calcium	3009.00 ppm	140 - 6000 ppm	

## What is Calcium?

Calcium is essential for maintaining strong bones and teeth, facilitating muscle contractions, and supporting nerve function. It also plays a role in blood clotting and heart rhythm regulation.

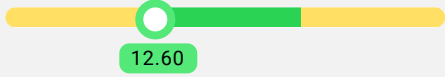
## How do you correct high Calcium levels?

To manage high calcium levels, avoid or limit intake of high-calcium foods such as dairy products, fortified cereals, and leafy green vegetables. Also, reduce or eliminate the use of calcium supplements and vitamin D, which can increase calcium absorption.

## How do you correct low Calcium levels?

Increase your intake of calcium by consuming more dairy products like milk, cheese, and yogurt, as well as leafy green vegetables, nuts, seeds, and fortified foods. If dietary adjustments are not enough, consider calcium supplements to boost your levels, along with ensuring adequate vitamin D intake for better absorption.

# Copper

Name	Your value	Reference value	Scale
Copper	12.60 ppm	8,1 -79,1 ppm	

## What is Copper?

Copper is a trace mineral necessary for the body's overall health. It plays a key role in iron metabolism, energy production, and the functioning of the nervous system. It is also involved in the formation of connective tissue and the melanin production in the skin.

## How do you correct high Copper levels?

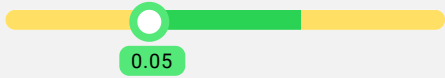
To reduce high copper levels, avoid foods that are particularly high in copper, such as shellfish, nuts, seeds, liver, and chocolate. Drinking more might also be a significant source of copper, especially in homes with copper pipes, so consider using a water filter that removes copper. Limiting the use of copper cookware can also help.

## How do you correct low Copper levels?

For low copper levels, increase your intake of copper-rich foods like shellfish, whole grains, nuts, seeds, and dark leafy greens. If dietary changes are not enough, copper supplements might be an option, but they should be taken under the guidance of a nutritional advisor to avoid exceeding the recommended daily intake.



## Iodine

Name	Your value	Reference value	Scale
Iodine	0.05 ppm	0,03 - 0,827 ppm	

### What is Iodine?

Iodine is an essential mineral crucial for thyroid function, which regulates metabolism, growth, and development. A deficiency can lead to thyroid gland issues, such as goitre and hypothyroidism, affecting overall health and cognitive function.


### How do you correct high Iodine levels?

To manage high iodine levels, reduce intake of iodine-rich foods like seaweed, fish, dairy products, and iodized salt. Be cautious with dietary supplements that contain iodine, especially if they are not prescribed by a healthcare professional.

### How do you correct low Iodine levels?

Increase dietary iodine by consuming iodine-rich foods such as seaweed, dairy products, fish, eggs, and using iodized salt in cooking. For those unable to meet their iodine needs through diet alone, iodine supplements might be considered, ensuring not to exceed the recommended daily intake to avoid iodine toxicity.

## Magnesium

Name	Your value	Reference value	Scale
Magnesium	130.70 ppm	10,2 - 378,5 ppm	

### What is Magnesium?

Magnesium is a crucial mineral that supports over 300 biochemical reactions in the body, including muscle and nerve function, blood glucose control, and blood pressure regulation. It is also essential for protein synthesis, energy production, and bone development.


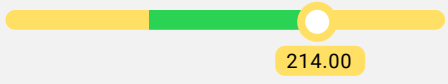
### How do you correct high Magnesium levels?

To manage high magnesium levels, avoid excessive intake of magnesium-rich foods such as nuts, seeds, whole grains, and leafy green vegetables, and be cautious with magnesium supplements, particularly in individuals with kidney dysfunction, as their ability to excrete magnesium is compromised.

### How do you correct low Magnesium levels?

For low magnesium levels, incorporate more magnesium-rich foods into your diet, such as spinach, almonds, cashews, peanuts, whole grains, and legumes. If dietary measures are not sufficient, consider magnesium supplements, but it is important to adhere to the recommended dosage to avoid adverse effects.

## Phosphorus

Name	Your value	Reference value	Scale
Phosphorus	 214.00 ppm	101 - 189 ppm	

### What is Phosphorus?

Phosphorus is a vital mineral that plays an essential role in the formation of bones and teeth, cellular repair, and the maintenance of energy levels. It's also important for the creation of DNA and RNA.


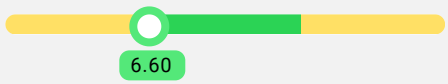
### How do you correct high Phosphorus levels?

To reduce high phosphorus levels, limit intake of phosphorus-rich foods like dairy products, red meat, fish, poultry, and processed foods that contain phosphate additives. Consider consuming more plant-based foods and checking with nutritional guidance to ensure balanced intake without compromising high levels.

### How do you correct low Phosphorus levels?

Increase dietary phosphorus by eating more phosphorus-rich foods such as dairy products, fish, lean meat, nuts, and whole grains. If dietary adjustments are not enough, phosphorus supplements may be an option, but they should be used under professional advice and supervision.

## Potassium

Name	Your value	Reference value	Scale
Potassium	 6.60 ppm	1,4 - 253,3 ppm	

### What is Potassium?

Potassium is an essential mineral and electrolyte that plays a critical role in maintaining cell balance, nerve signal transmission, and muscle contraction. It also helps heart function and can help regulate blood pressure.


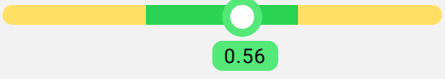
### How do you correct high Potassium levels?

To manage high potassium levels, it's important to limit the intake of potassium-rich foods such as bananas, oranges, potatoes, spinach, and tomatoes. Additionally, avoid salt substitutes that contain potassium chloride. In some cases, medication may be required to help lower potassium levels, especially in individuals with kidney issues.

### How do you correct low Potassium levels?

For low potassium levels, increase your consumption of potassium-rich foods such as bananas, oranges, potatoes, spinach, and tomatoes. If dietary changes are not enough, potassium supplements might be necessary, but they should be taken under supervision to avoid hyperkalemia.

## Selenium

Name	Your value	Reference value	Scale
Selenium	 0.56 ppm	0,2 - 0,74 ppm	

### What is Selenium?

Selenium is an essential mineral important for cognitive function, immune function, and fertility in both men and women. It acts as a powerful antioxidant, helping to combat oxidative stress and prevent cell damage.


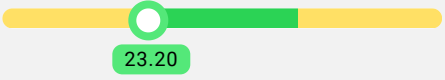
### How do you correct high Selenium levels?

To reduce high selenium levels, avoid or limit foods that are high in selenium, such as Brazil nuts, organ meats, seafood, and fish. Also, be cautious with dietary supplements containing selenium, as they can contribute to selenium toxicity.

### How do you correct low Selenium levels?

For low selenium levels, incorporate selenium-rich foods into your diet, including Brazil nuts (which are particularly high in selenium, so consume in moderation), fish, seafood, eggs, and sunflower seeds. If dietary sources are not sufficient, consult your doctor as selenium supplements might be considered under professional supervision.

## Sodium

Name	Your value	Reference value	Scale
Sodium	 23.20 ppm	3,9 - 479,6 ppm	

### What is Sodium?

Sodium is an essential electrolyte that helps maintain cell balance, supports nerve function, and aids in muscle contraction. It is vital for blood pressure regulation but must be consumed in moderation.



### How do you correct high Sodium levels?

To manage high sodium levels, reduce intake of salty foods, processed foods, and snacks that are high in sodium. Opt for fresh fruits, vegetables, and lean proteins, and consider using herbs and spices for flavoring instead of salt. Monitoring and reducing the use of table salt in cooking and at the table can also help.

### How do you correct low Sodium levels?

For low sodium levels, it might be necessary to slightly increase the intake of sodium through diet, especially if the deficiency is due to excessive sweating, prolonged illness, or use of certain medications. Incorporating foods with moderate sodium content or using a small amount of table salt can help balance levels. However, it is important to do this carefully to avoid elevating sodium levels too much.

# Zinc

Name	Your value	Reference value	Scale
Zinc	 177.00 ppm	93 - 275 ppm	

## What is Zinc?

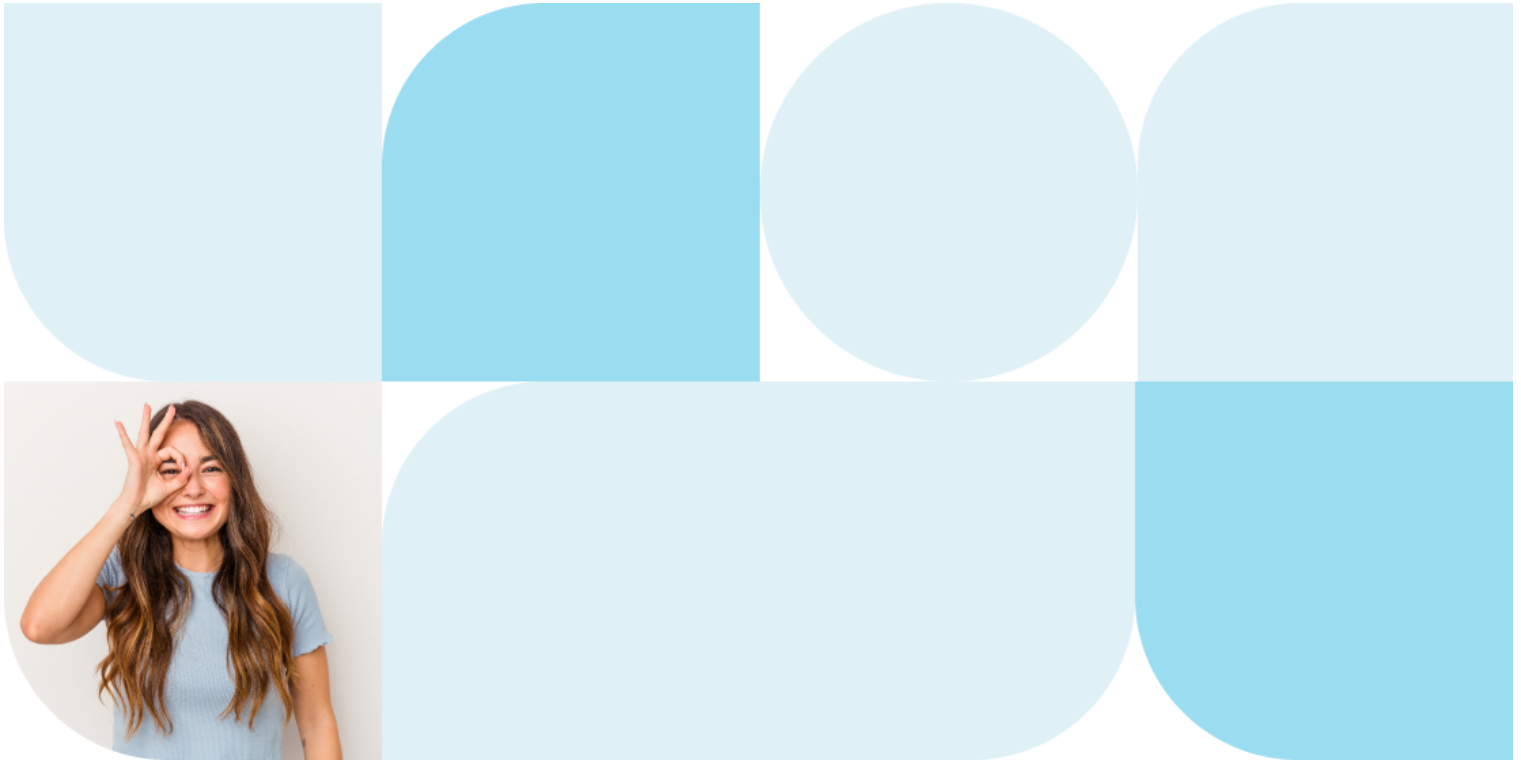
Zinc is a vital mineral crucial for immune function, DNA synthesis, wound healing, and cellular metabolism. It also supports normal growth and development during pregnancy, childhood, and adolescence.

## How do you correct high Zinc levels?

To manage high zinc levels, avoid overconsumption of zinc-rich foods such as shellfish, red meat, shellfish (especially oysters), seeds, and nuts. Be particularly cautious with zinc supplements, as excessive intake can lead to zinc toxicity, impairing immune function and altering the balance of other essential minerals.

## How do you correct low Zinc levels?


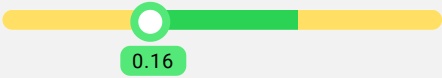
For low zinc levels, increase the intake of zinc through dietary sources like red meat, shellfish (especially oysters), seeds, and nuts. If dietary adjustments are not enough, consider using zinc supplements, but ensure to follow the recommended dosage to avoid adverse effects.



## Trace minerals - Extended information



## Boron

Name	Your value	Reference value	Scale
Boron	 0.16 ppm	0,07 - 1,77 ppm	

### What is Boron?

Boron is a trace mineral that increases the body's use of other minerals like calcium, magnesium, and phosphorus. It's important for bone health, brain function, and the regulation of hormone levels, including estrogen and testosterone.


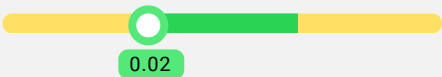
### How do you correct high Boron levels?

High boron levels are uncommon but reducing intake from dietary supplements is recommended if levels are excessively high. Limiting consumption of boron-rich foods such as fruits (especially avocados, peaches, and grapes/raisins), nuts, legumes, and vegetables can also help manage levels.

### How do you correct low Boron levels?

To address low boron levels, consider incorporating more boron-rich foods into your diet. These include fruits like apples, oranges, and pears; vegetables such as leafy greens and potatoes; nuts, and legumes. If dietary changes are insufficient, boron supplements could be an option, though they should be used with caution to avoid exceeding recommended amounts.

## Chromium

Name	Your value	Reference value	Scale
Chromium	 0.02 ppm	0,01 - 0,295 ppm	

### What is Chromium?

Chromium is a trace mineral important for metabolizing macronutrients and enhancing insulin action, thus playing a role in blood sugar regulation. It also aids in energy production and may also in some cholesterol levels.

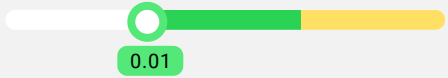
### How do you correct high Chromium levels?

High chromium levels are rare and typically associated with industrial exposure rather than dietary intake. To reduce chromium levels, minimize exposure to sources of industrial chromium and avoid excessive use of chromium supplements.

### How do you correct low Chromium levels?

For low chromium levels, increase the intake of chromium-rich foods such as whole grains, nuts, broccoli, green beans, and yeast. If dietary sources are inadequate, chromium supplements might be considered, but it's important to stick to the recommended doses to avoid disrupting insulin and glucose levels – especially for diabetes.

# Cobalt

Name	Your value	Reference value	Scale
Cobalt	0.01 ppm	< 0,55 ppm	

## What is Cobalt?

Cobalt is a trace element that is part of vitamin B12, essential for nerve function, the formation of red blood cells, and DNA synthesis. It plays a vital role in maintaining healthy nerve tissue and producing the myelin sheath that surrounds nerves.

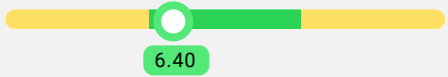
## How do you correct high Cobalt levels?

To reduce high cobalt levels, limit exposure to cobalt and cobalt-containing products. This includes avoiding or reducing consumption of foods high in cobalt, such as shellfish, fish, nuts, leafy green vegetables and cereals. Be cautious with dietary supplements that may contain cobalt or vitamin B12 in excessive amounts.

## How do you correct low Cobalt levels?

Addressing low cobalt levels usually involves ensuring adequate intake of vitamin B12, as cobalt is a component of this vitamin. Foods rich in vitamin B12 include meat, fish, dairy products, and fortified cereals. For vegetarians or those with absorption issues, vitamin B12 supplements may be necessary to correct the deficiency.

# Iron

Name	Your value	Reference value	Scale
Iron	6.40 ppm	3,9 - 17,6 ppm	

## What is Iron?

Iron is a crucial mineral necessary for the production of hemoglobin, a protein in red blood cells that carries oxygen from the lungs to the rest of the body. It also plays a vital role in energy metabolism, immune function, and cognitive development.

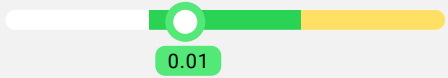
## How do you correct high Iron levels?

To manage high iron levels, reduce intake of high-iron foods such as red meat, liver, fortified cereals, and legumes. Additionally, avoid using cast iron cookware and taking iron supplements. In cases of significantly elevated iron levels, medical intervention may be necessary.

## How do you correct low Iron levels?

For low iron levels, increase consumption of iron-rich foods like lean meats, fish, poultry, lentils, beans, and spinach. Vitamin C can enhance iron absorption, so include citrus fruits, strawberries, tomatoes, and bell peppers in your meals. If dietary adjustments are not sufficient, consider iron supplements under the guidance of a professional.

# Lithium

Name	Your value	Reference value	Scale
Lithium	0.01 ppm	< 0,037 ppm	

## What is Lithium?

Lithium is a trace mineral known primarily for its role in psychiatric treatments. Although its precise biological functions are not fully understood, it is thought to play a role in nervous system health and has been suggested to have a mood stabilizing, generally in slowing brain processes related to mood and behavior.


## How do you correct high Lithium levels?

High lithium levels often a result of medication intake for bipolar disorder, require careful management under medical supervision. Adjustments in dosage or medication type may be necessary. Limiting intake from dietary sources is generally not a concern, as food and water contain lithium in very low amounts that are unlikely to significantly impact overall lithium levels.

## How do you correct low Lithium levels?

Low lithium levels are typically not a concern from a dietary standpoint, as the body requires very small amounts. For those taking lithium as a medication, adjustments in dosage should be made by a healthcare provider to ensure therapeutic levels are maintained. There is no established need to supplement lithium for general health outside of medical treatment.

# Manganese

Name	Your value	Reference value	Scale
Manganese	3.53 ppm	0,023 - 1,011 ppm	

## What is Manganese?

Manganese is an essential trace mineral that plays a key role in many physiological processes, including the metabolism of amino acids, carbohydrates, cholesterol, and glucose. It is crucial for bone formation, blood clotting, and reducing oxidative stress, a component of the antioxidant enzyme superoxide dismutase (SOD).

## How do you correct high Manganese levels?

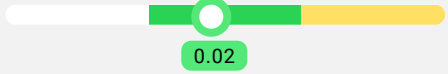
To manage high manganese levels, reduce exposure to manganese-rich foods like nuts, legumes, whole grains, tea, and leafy green vegetables. Additionally, avoid supplements containing manganese. Occupational exposure to manganese dust or fumes, common in mining or welding, should be minimized with appropriate safety measures.



## How do you correct low Manganese levels?

For low manganese levels, increase the intake of manganese through dietary sources such as whole grains, nuts (especially pine nuts and almonds), legumes (like beans and lentils), leafy green vegetables, and tea. If dietary adjustments are not sufficient, manganese supplements may be considered, but it's important to follow recommended guidelines and consult a doctor.

## Molybdenum

Name	Your value	Reference value	Scale
Molybdenum	0.02 ppm	< 0,045 ppm	

## What is Molybdenum?

Molybdenum is a trace mineral essential for human health, playing a pivotal role in various biochemical processes. It acts as a cofactor for enzymes that are important for metabolism of sulfur-containing amino acids and the detoxification of harmful substances and certain toxins within the body. It also supports the growth and health of the nervous system, kidneys, and muscles.


## How do you correct high Molybdenum levels?

High molybdenum levels are rare and usually linked to excessive intake from supplements rather than food. To reduce molybdenum levels, limit or avoid supplementation and reduce consumption of high-molybdenum foods like legumes, grains, and organ meats, especially in areas with high molybdenum soil content.

## How do you correct low Molybdenum levels?

For low molybdenum levels, incorporate more molybdenum-rich foods into your diet, such as legumes (peas and beans), grains (wheat and corn), leafy vegetables, and nuts. Molybdenum dietary deficiencies are uncommon, however, if needed, supplementation could be considered under the guidance of a qualified practitioner to ensure appropriate intake.

## Silicon

Name	Your value	Reference value	Scale
Silicon	138.50 ppm	5,2 - 304,9 ppm	

## What is Silicon?

Silicon is a trace mineral believed to play a role in the formation and maintenance of connective tissues, bone health, and possibly skin, hair, and nail strength. While not traditionally recognized as an essential nutrient, emerging research suggests silicon contributes to the optimal growth and development of skeletal and connective tissues.

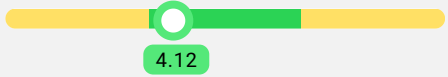
## How do you correct high Silicon levels?

High silicon levels in the body are uncommon and typically not associated with dietary intake, as excess silicon is usually excreted by the kidneys. However, if concerned about high silicon levels, it might be advisable to moderate consumption of dietary supplements and foods with added silicon or silica, such as certain processed foods, and to check drinking water sources for high silicon content.

## How do you correct low Silicon levels?

To address low silicon levels, focus on including natural food sources of silicon in your diet. Good sources include whole grains, cereals, fruits (especially bananas), vegetables (such as green beans), and beverages like mineral water that naturally contains silicon. Although silicon deficiency in humans is not well documented, ensuring a balanced diet rich in a variety of foods can help maintain adequate silicon intake.

## Strontium

Name	Your value	Reference value	Scale
Strontium	<span style="color: green;">●</span> 4.12 ppm	0,18 - 20,94 ppm	

## What is Strontium?

Strontium is a naturally occurring mineral similar to calcium in its behavior and effects in the body. It's found in small amounts in the human skeleton, where it can contribute to bone health. Strontium is not considered essential for human life, but it has been studied for its potential to support bone density and health.

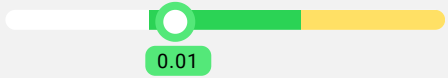
## How do you correct high Strontium levels?

High strontium levels are typically not a concern from dietary sources, as the body can handle natural strontium intake efficiently. When concerned about high strontium levels, it's important to consider environmental exposure, particularly to the radioactive form, which is not common. To avoid high strontium levels, it's generally advised to maintain a balanced diet and be cautious with strontium supplements, especially those not recommended by a healthcare provider.

## How do you correct low Strontium levels?

Even though strontium is not essential, there are no specific guidelines to correct low levels of strontium through diet or supplementation. However, for individuals interested in the potential bone health benefits of strontium, it can be found in foods like seafood, whole milk, wheat bran, meat, and root vegetables. Strontium supplements are available but should be used under medical supervision, especially considering the delicate balance between strontium and calcium absorption in the body.

## Vanadium

Name	Your value	Reference value	Scale
Vanadium	0.01 ppm	< 0,05 ppm	

### What is Vanadium?

Vanadium is a trace mineral found in very small amounts in the human body. It is thought to play a role in certain biological processes, including the regulation of glucose levels and lipid metabolism. Although the exact mechanisms and essentiality of vanadium for human health are not fully understood, it has been the subject of research for its potential role in improving insulin sensitivity and its contribution to cardiovascular health.

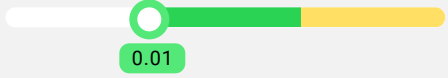
### How do you correct high Vanadium levels?

High vanadium levels are uncommon and primarily a concern for individuals exposed to industrial vanadium dust or those consuming supplements in excess. To reduce high vanadium levels, it is advisable to minimize exposure to industrial sources and to carefully regulate the intake of vanadium supplements, focusing instead on obtaining nutrients from a balanced diet.

### How do you correct low Vanadium levels?

Correcting low vanadium levels through diet involves including foods known to contain vanadium, such as black pepper, all whole grains, shallots, mushrooms, and garlic. Because vanadium is not established as an essential nutrient, there are no specific dietary recommendations for its intake, and vanadium supplements are rarely necessary.

## Zirconium

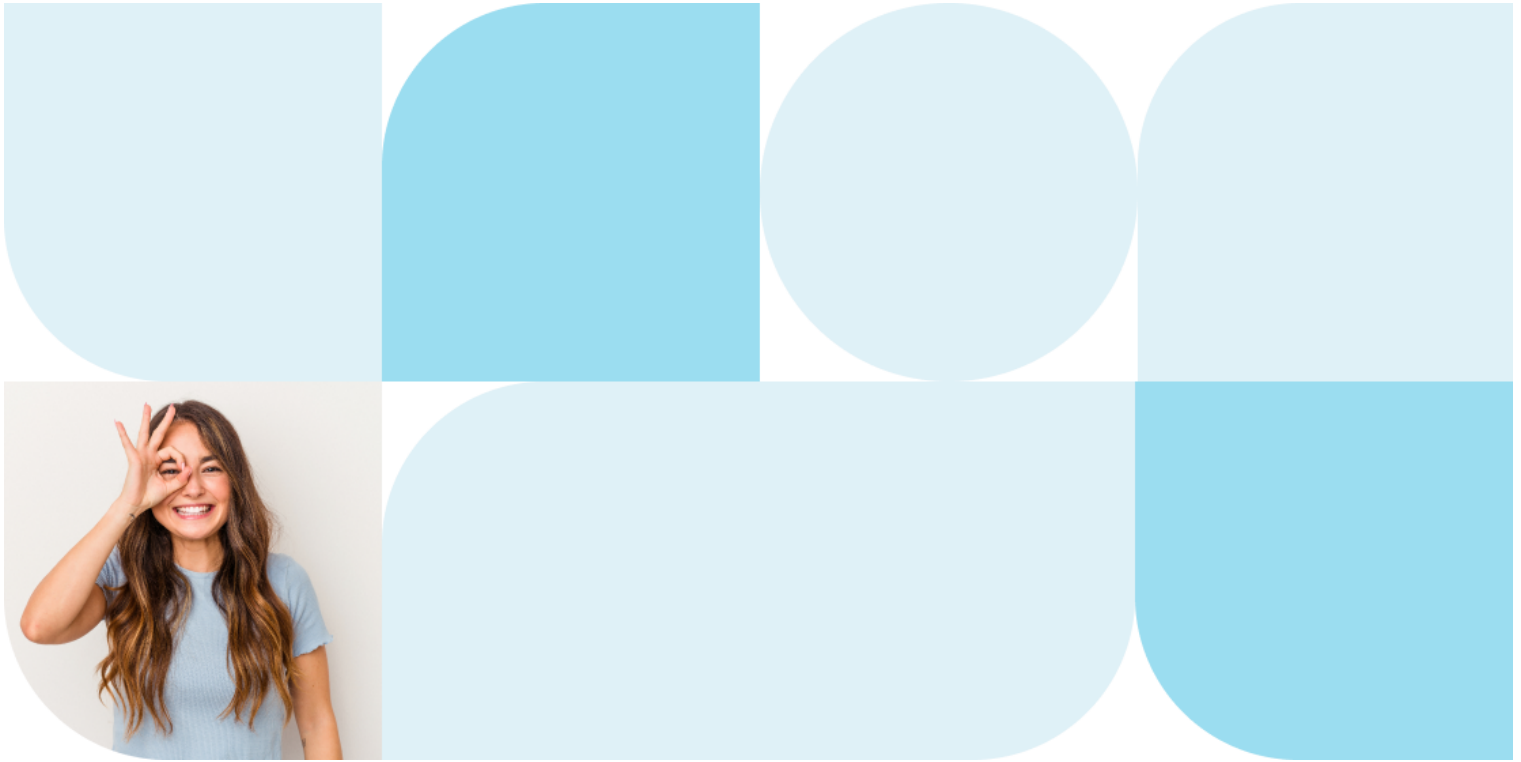
Name	Your value	Reference value	Scale
Zirconium	0.01 ppm	< 0,33 ppm	

### What is Zirconium?

Zirconium is a chemical element that is not considered essential for human health. It is used in various industrial applications, including ceramics, refractories, and as a welding agent. In the human body, zirconium is present only in trace amounts, and its biological role, if any, is not well understood. It is more commonly recognized for its presence in certain dental and medical implants due to its biocompatibility and resistance to corrosion.


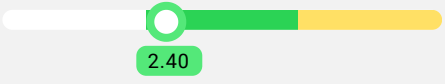
### How do you correct high Zirconium levels?

High levels of zirconium are not typically a concern from a health perspective, as exposure to zirconium through natural environmental and dietary sources is very low. The primary concerns for zirconium exposure are related to industrial contact. Therefore, unnecessary exposure, precautions should be taken in industrial settings to minimize inhalation or contact with zirconium compounds.



# Heavy metals - Extended information

## Aluminium

Name	Your value	Reference value	Scale
Aluminium	 2.40 ppm	< 15,3 ppm	


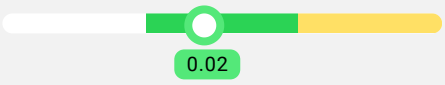
### What is Aluminium?

Aluminium is the most abundant metal in the Earth's crust and is widely used in various industries, including packaging, construction, and transportation. In the human body, aluminium is not considered essential and is found only in trace amounts. Exposure to aluminium occurs through food, water, and the use of aluminium-containing products, but it is generally excreted by healthy kidneys.

### How do you correct high Aluminium levels?

High aluminium levels in the body can occur due to excessive exposure to aluminium through occupational settings, certain medications (especially antacids and buffered aspirin), or the prolonged use of aluminium-containing products (like antiperspirants). To reduce aluminium exposure, limit the use of aluminium cookware, antiperspirants, and other personal care products containing aluminium. For individuals with kidney issues or those on dialysis, it is especially important to monitor and limit aluminium exposure to prevent accumulation.

## Arsenic

Name	Your value	Reference value	Scale
Arsenic	 0.02 ppm	< 0,048 ppm	

### What is Arsenic?

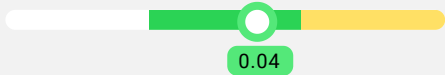
Arsenic is a naturally occurring element in the environment, known for its toxicity at high levels. It can be found in water, soil, food, and air. Arsenic exposure is primarily through contaminated groundwater, certain foods, and industrial processes. In small amounts, organic arsenic compounds are less harmful and can be found in foods like seafood, but inorganic arsenic compounds are highly toxic and linked to various health issues, including cancer.

### How do you correct high Arsenic levels?

To reduce high arsenic levels, ensure drinking water is tested and treated for arsenic if levels are above recommended safety standards. Avoid or limit consumption of foods known to accumulate higher levels of inorganic arsenic, such as rice and some seafood. Consider using water filters that are certified to remove arsenic and being mindful of occupational exposure if working in industries where arsenic is used.



## Cadmium

Name	Your value	Reference value	Scale
Cadmium	0.04 ppm	< 0,054 ppm	

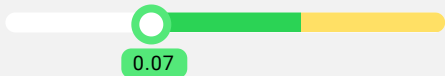
### What is Cadmium?

Cadmium is a toxic heavy metal found naturally in the environment and as a pollutant from industrial and agricultural sources. It is absorbed by plants and animals, making its way into the food chain. Exposure to cadmium can lead to kidney damage, bone demineralization, and an increased risk of cancer.

### How do you correct high Cadmium levels?

To reduce high cadmium levels, avoid smoking or exposure to cigarette smoke, as tobacco is a significant source of cadmium. Limiting intake of foods high in cadmium, such as shellfish, organ meats, and some leafy vegetables, can also help. Using appropriate safety equipment in industrial settings to minimize inhalation or ingestion of cadmium dust is crucial. In cases of high dietary intake, increasing iron and calcium intake may help reduce cadmium absorption.

## Lead

Name	Your value	Reference value	Scale
Lead	0.07 ppm	< 1,88 ppm	

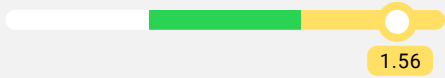
### What is Lead?

Lead is a toxic metal that was widely used in paint, gasoline, piping, and other products, leading to environmental contamination. Exposure to lead can harm brain development, leading to lower IQ, behavioral issues, and learning difficulties, especially in children. It also affects adults, causing cardiovascular, kidney, and reproductive issues.

### How do you correct high Lead levels?

Reducing high lead levels involves eliminating or minimizing exposure sources. For homes with lead-based paint, professional removal or stabilization of the paint is necessary. Use water filters that can remove lead for drinking and cooking to address environmental water supplies. Regularly washing hands and shoes can help reduce lead dust exposure. Nutritionally, ensuring adequate intake of calcium, iron, and vitamin C can help decrease lead absorption in the body.

## Mercury

Name	Your value	Reference value	Scale
Mercury	1.56 ppm	< 0,95 ppm	

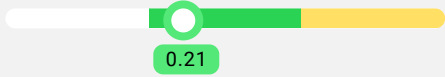
### What is Mercury?

Mercury is a heavy metal found naturally in the environment and released through industrial processes, such as coal burning and mining. It accumulates in water and soil, entering the food chain, notably in fish and shellfish. Mercury exposure, particularly in its organic form, methylmercury, can affect the nervous system and kidneys, and is especially harmful to developing fetuses, potentially leading to developmental delays and cognitive impairments.

### How do you correct high Mercury levels?

To reduce high mercury levels, limit consumption of large predatory fish known to contain high levels of mercury, such as shark, swordfish, king mackerel, and tilefish. Opt for smaller fish and seafood, which typically have lower mercury concentrations. Pregnant or breastfeeding women should follow specific dietary guidelines to minimize exposure. If exposure is occupational or from a specific incident, medical treatment for heavy metal detoxication may be necessary, such as chelation therapy, under the guidance of a healthcare professional.

## Nickel

Name	Your value	Reference value	Scale
Nickel	0.21 ppm	< 0,82 ppm	

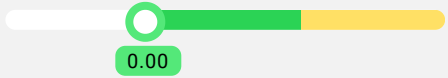
### What is Nickel?

Nickel is naturally found in the environment and various industrial products, including stainless steel, batteries, and jewelry. While small amounts of nickel are necessary for the body's enzymes to function properly, excessive exposure can lead to skin irritation, allergic reactions, and in severe cases, lung and nose damage.

### How do you correct high Nickel levels?

Reducing high nickel levels involves minimizing exposure to nickel-containing objects and industrial sources. For individuals with nickel allergies, wearing nickel-free jewelry and using stainless steel or coated cooking utensils can help. In the workplace, proper protective equipment and ventilation can reduce inhalation of nickel dust. Dietary adjustments may also be helpful, avoiding foods high in nickel, such as nuts, chocolate, and certain cereal and processed foods, especially if sensitivity is known.

# Thallium

Name	Your value	Reference value	Scale
Thallium	0.00 ppm	< 0,0024 ppm	

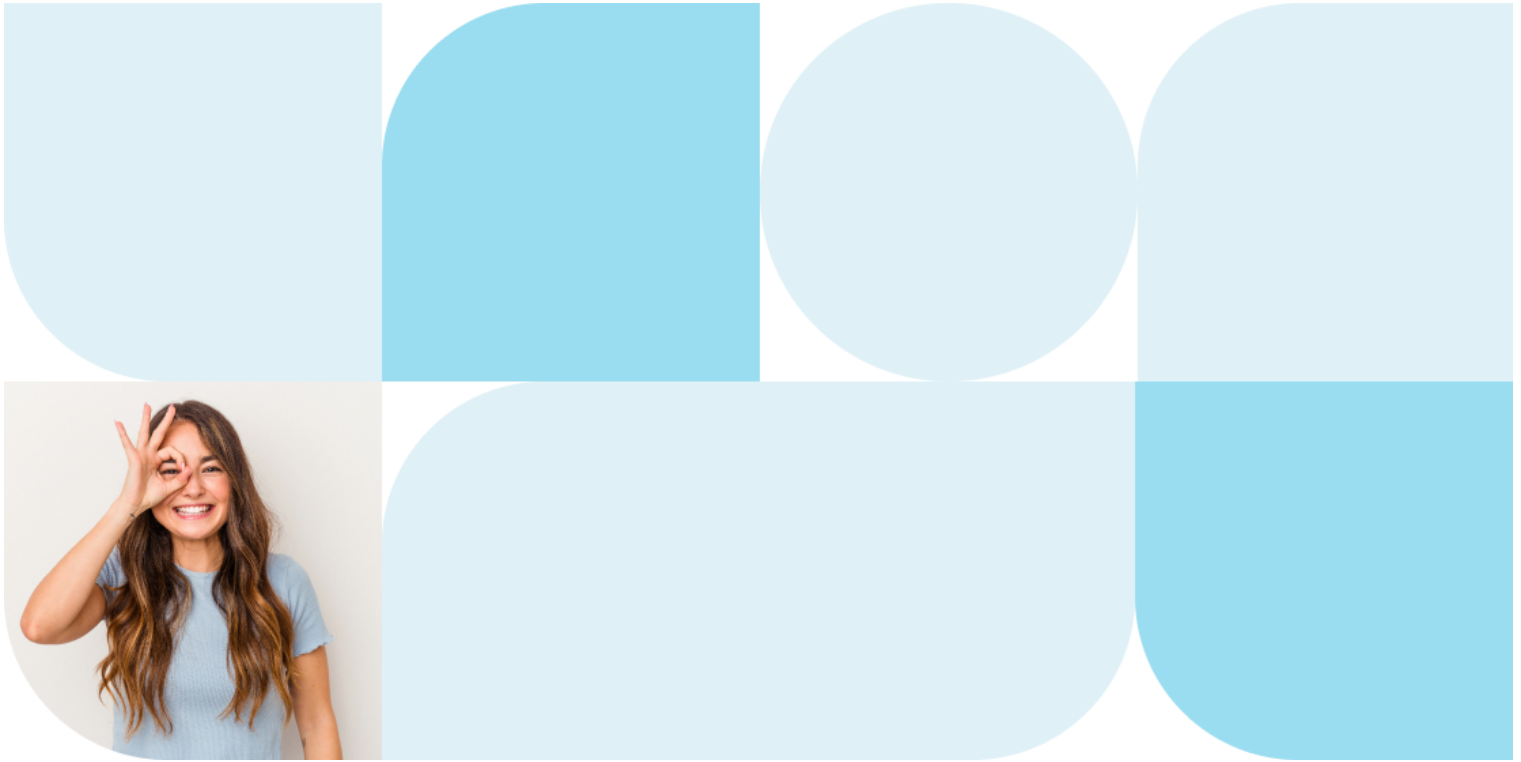
## What is Thallium?

Thallium is a toxic metal that was historically used in electronics and medicine but is now mostly found in electronic devices and some glass manufacturing processes. Exposure to thallium can lead to various health issues, including effects on the nervous system, hair loss, and, in severe cases, death. It enters the environment through industrial processes and can contaminate water and food sources.

## How do you correct high Thallium levels?

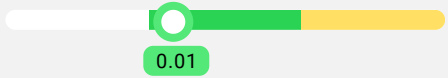
To reduce high thallium levels, it is crucial to identify and eliminate the source of exposure. This may involve using water filters that can remove thallium if water contamination is a concern or avoiding consumption of contaminated food sources. In cases of acute poisoning, medical intervention is necessary, which may include chelation therapy to bind the thallium and facilitate its excretion from the body. Preventive measures in industrial settings, such as using appropriate personal protective equipment and adhering to safety protocols, can also help prevent exposure.





# Toxic substances - Extended information

## Antimony

Name	Your value	Reference value	Scale
Antimony	0.01 ppm	< 0,052 ppm	

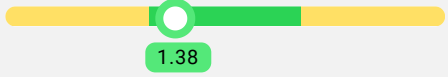
### What is Antimony?

Antimony is a metalloid used in various industrial and consumer products, including cosmetics, lead acid batteries, and alloys. While necessary in small amounts for certain enzymes, excessive exposure to antimony can lead to health problems such as skin irritation, respiratory issues, and, with long-term exposure, heart and lung damage.

### How do you correct high Antimony levels?

To mitigate high antimony levels, it's important to reduce exposure. This may involve improving workplace safety measures, such as using proper ventilation and personal protective equipment in industries where antimony is used. For environmental exposure, using air purifiers and ensuring clean water sources can help. If high levels are detected in the body, chelation therapy might be considered under medical supervision to facilitate the removal of antimony from the body.

## Barium

Name	Your value	Reference value	Scale
Barium	1.38 ppm	0,09 - 6,54 ppm	

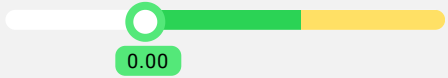
### What is Barium?

Barium is a soft, silvery-white earth metal found in various minerals and used in numerous industrial applications, including manufacturing of paints, ceramics, and as a contrast agent in medical radiography. While barium compounds can provide bone calcium, exposure to soluble forms of barium can lead to health issues, affecting the heart, blood pressure, and causing muscle weakness.

### How do you correct high Barium levels?

Reducing high barium levels typically involves avoiding or minimizing exposure to barium sources, especially drinking water, which is a common route of exposure. Water treatment systems that remove barium or sourcing water from uncontaminated supplies can be effective measures. In cases of acute barium exposure, medical treatment may include therapies to support the removal of barium from the body, such as administration of certain compounds that can help precipitate barium in the gastrointestinal tract and prevent its absorption.

## Beryllium

Name	Your value	Reference value	Scale
Beryllium	0.00 ppm	< 0,0014 ppm	

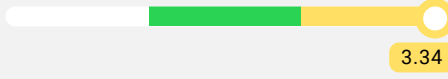
### What is Beryllium?

Beryllium is a lightweight, strong metal used in aerospace, telecommunications, and nuclear applications for its unique properties. However, beryllium is toxic when inhaled, and exposure to beryllium dust or fumes can cause serious lung conditions known as chronic beryllium disease (CBD) or berylliosis, as well as other diseases.

### How do you correct high Beryllium levels?

Correcting high beryllium levels primarily involves reducing exposure. In occupational settings, this means implementing strict air quality controls, using proper ventilation systems, and providing personal protective equipment to workers. For individuals diagnosed with CBD, medical treatments may include corticosteroids or other immunosuppressive drugs to manage inflammation. Avoidance of further exposure is crucial for preventing the progression of the disease.

## Bismuth

Name	Your value	Reference value	Scale
Bismuth	3.34 ppm	< 0,165 ppm	

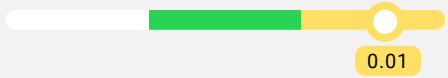
### What is Bismuth?

Bismuth is a heavy metal that is often used in cosmetics, pharmaceuticals, and some alloys. It has been known for its use in stomach remedies due to its antibacterial and astringent properties. Unlike many other metals, bismuth is relatively non-toxic and is used in some medical and cosmetic products, though it can still cause side effects if ingested in large amounts.

### How do you correct high Bismuth levels?

To correct high bismuth levels, primarily caused by excessive consumption of bismuth-containing medications, it is advised to reduce or discontinue the use of such products under medical supervision. In cases of accidental ingestion of large quantities, medical intervention may include chelation therapy or supportive treatments to enhance elimination and reduce toxicity. For occupational exposure, using protective equipment and ensuring good ventilation can help reduce inhalation risks.

## Gadolinium

Name	Your value	Reference value	Scale
Gadolinium	0.01 ppm	< 0,0064 ppm	

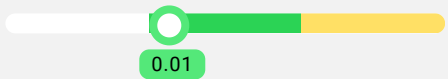
### What is Gadolinium?

Gadolinium is a rare earth metal used primarily as a contrast agent in magnetic resonance imaging (MRI) scans to improve the clarity of the images. It is also found in various industrial applications, including electronics and manufacturing. While gadolinium compounds used in medical imaging are designed to be safe for humans, there is concern about potential side effects, especially in individuals with kidney problems, where the metal could accumulate and lead to gadolinium deposition disease.

### How do you correct high Gadolinium levels?

Reducing high gadolinium levels typically involves avoiding further exposure, particularly from contrast agents in medical imaging. In patients who have accumulated gadolinium due to impaired kidney function, treatments may focus on supportive care to improve renal function and generally the use of chelating agents that can bind gadolinium and facilitate its excretion. It is important for healthcare providers to assess the necessity of gadolinium-based contrast agents on a case-by-case basis, considering the patient's renal health and potential risks.

## Gold

Name	Your value	Reference value	Scale
Gold	0.01 ppm	< 0,062 ppm	


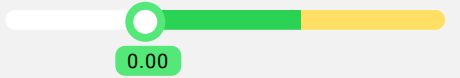
### What is Gold?

Gold has various uses in jewelry, electronics, and dental materials due to its resistance to corrosion and excellent conductivity. Medically, gold compounds have been used in the treatment of rheumatoid arthritis and other conditions, though their use is less common today due to the development of more effective and less toxic treatments. Exposure to gold, especially in occupational settings or from medical treatments, can occasionally lead to allergic reactions and dermatitis.

### How do you correct high Gold levels?

To correct high gold levels, primarily resulting from occupational exposure or medical treatments, it is important to minimize further exposure. For individuals experiencing allergic reactions or dermatitis from gold jewelry, avoiding gold contact is advised. In cases of medical exposure, discontinuing the use of gold-containing drugs, under a healthcare provider's guidance, is necessary. For occupational exposures, implementing protective measures, such as gloves and masks, and improving workplace ventilation can help reduce inhalation or skin contact with gold particles.

## Palladium

Name	Your value	Reference value	Scale
Palladium	 0.00 ppm	< 0,0151 ppm	


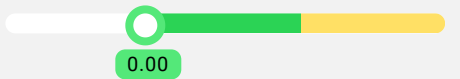
### What is Palladium?

Palladium is a precious metal used primarily in industrial applications, including as a catalyst in automotive exhaust systems to reduce emissions, in electronics, and in dentistry for various treatments and appliances. It is also used in jewelry making. While palladium is not widely recognized as having significant biological roles or toxicity, exposure to palladium can cause allergic reactions in some individuals, particularly those exposed to dental alloys or jewelry containing palladium.

### How do you correct high Palladium levels?

Correcting high palladium levels involves minimizing exposure to the metal. Individuals sensitive to palladium should avoid dental materials containing palladium. In industrial settings, using appropriate personal protective equipment, such as gloves and respiratory protection, can help reduce exposure to palladium dust or vapors. In cases of known allergy or sensitivity, alternatives to palladium-containing products should be considered, and medical advice may be sought to manage allergic reactions.

## Platinum

Name	Your value	Reference value	Scale
Platinum	 0.00 ppm	< 0,0015 ppm	

### What is Platinum?


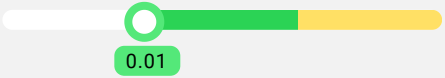
Platinum is a precious metal widely used in various industrial applications, including automotive catalytic converters, chemical production, and medical devices. It is also popular in jewelry due to its durability and resistance to tarnishing. In medicine, platinum compounds, such as cisplatin, are used as chemotherapy agents to treat various cancers. While platinum itself is relatively inert and non-toxic, platinum salts can cause large rashes and have toxic effects when used in chemotherapy, affecting the kidneys, nervous system, and hearing.

### How do you correct high Platinum levels?

To manage high platinum levels, particularly in occupational settings, it is vital to reduce exposure by using appropriate personal protective equipment and ensuring good ventilation to minimize inhalation of platinum salts or dust. For patients undergoing platinum-based chemotherapy, monitoring and supportive care are essential to manage side effects and toxicity, including hydration therapy and renal function monitoring. Alternatives to platinum-containing dental or dental materials can be considered for individuals with known sensitivities or allergies to platinum.



## Silver

Name	Your value	Reference value	Scale
Silver	 0.01 ppm	< 1,03 ppm	


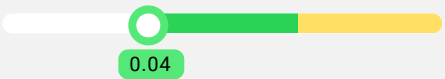
### What is Silver?

Silver has previously been used historically for its antimicrobial properties in medical equipment, water purification systems, and around dressings. It is also widely used in jewelry, electronics, and photographic materials. Colloidal silver and silver salts are sometimes marketed as health supplements or alternative remedies, although their effectiveness and safety are controversial. Excessive silver intake or exposure can lead to argyria, a condition where silver deposits in the skin and internal organs, causing a blue-grey discoloration of the skin.

### How do you correct high Silver levels?

To correct high silver levels, primarily resulting from excessive consumption of colloidal silver or occupational exposure, it is important to eliminate the source of exposure. There is no known treatment to reverse argyria, so prevention by avoiding unnecessary use of silver supplements and ensuring adequate protective measures in industrial environments is crucial. For occupational exposures, implementing proper ventilation and using personal protective equipment can help reduce inhalation or dermal contact with silver particles.

## Tin

Name	Your value	Reference value	Scale
Tin	 0.04 ppm	< 1,18 ppm	


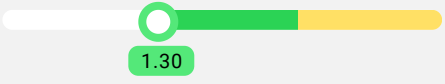
### What is Tin?

Tin is a metal used in various alloys and as a protective coating for other metals to prevent corrosion. It is found in food packaging, electronics, and numerous household items. Tin compounds, such as organotin, are used in industrial applications, including as stabilizers in plastics and as antifungal agents in agriculture. While elemental tin is considered low toxicity, certain organotin compounds can be harmful, affecting the nervous system, immune system, and skin.

### How do you correct high Tin levels?

To manage high tin levels, especially those due to exposure to organotin compounds, it is important to reduce or eliminate the source of exposure. This may involve using alternative materials in stabilized plastics, particularly in food containers and wine bottles, and avoiding foods or products known to contain high levels of tin or organotin. In occupational settings, improving ventilation and using appropriate personal protective equipment can help minimize exposure. For individuals with significant exposure, medical monitoring and supportive care for any symptoms of toxicity might be necessary.

## Titanium

Name	Your value	Reference value	Scale
Titanium	 1.30 ppm	< 11,5 ppm	


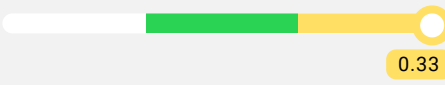
### What is Titanium?

Titanium is a lightweight, strong metal known for its corrosion resistance and biocompatibility, making it ideal for use in aerospace, medical implants (joint replacements and dental implants), and consumer products such as sports equipment and jewelry. Titanium dioxide is also widely used as a pigment in paints, sunscreens, and cosmetics due to its ability to reflect UV light.

### How do you correct high Titanium levels?

High titanium levels in the body are unusual due to its low toxicity and high biocompatibility. Most exposures do not lead to adverse health effects. However, if there is chronic or acute excessive exposure to titanium, particularly from occupational inhalation of titanium dioxide dust, measures should include improving workplace ventilation and using protective respiratory equipment. For individuals with sensitivities to titanium in implants or dental materials, consultation with a healthcare provider for potential alternatives may be necessary. Reducing the use of cosmetics and sunscreens containing titanium dioxide could be considered if skin irritation occurs.

## Uranium

Name	Your value	Reference value	Scale
Uranium	 0.33 ppm	< 0,149 ppm	

### What is Uranium?

Uranium is a naturally occurring radioactive element found in low levels within the Earth's crust. It is used as fuel in nuclear power plants and in the manufacturing of nuclear weapons. Exposure to uranium can occur through environmental contamination, occupational settings in mining and milling, and the use of depleted uranium in military applications. While chemical toxicity affects the kidneys, its radioactivity poses a risk to internal organs when ingested or inhaled.

### How do you correct high Uranium levels?

To reduce high uranium levels, it is crucial to minimize exposure. For individuals in contaminated areas, using water filtration systems that remove uranium and consuming foods grown in uncontaminated soil can help. In occupational settings, employing protective measures such as respirators and proper ventilation is essential. If exposed, chelation therapy might be considered to facilitate the excretion of uranium from the body. However, the effectiveness of chelation for uranium removal is limited and should be managed by health professionals. Reducing the use of uranium-contaminated products and advocating for clean-up of contaminated sites are also important measures.

