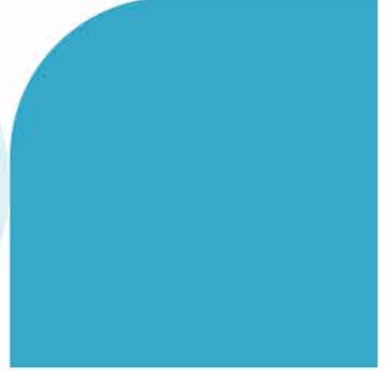
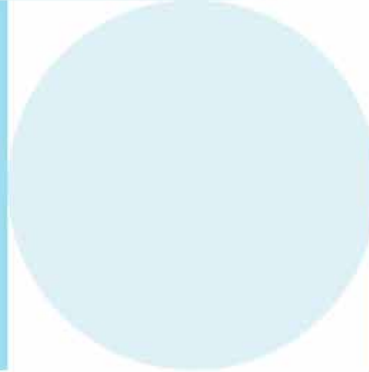
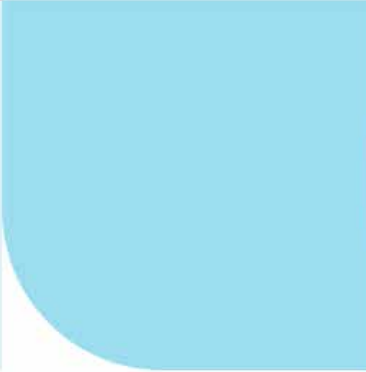
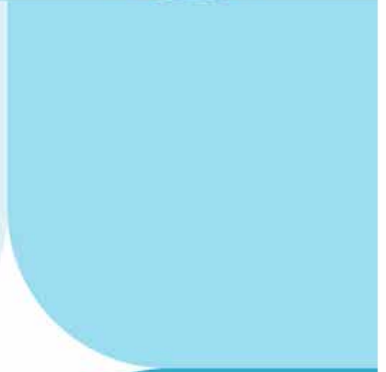
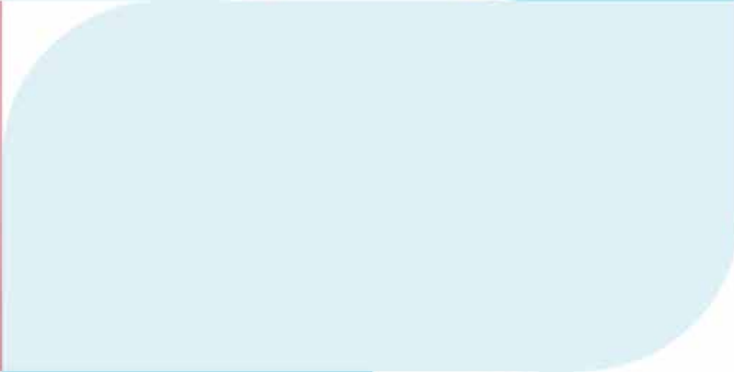




Test report



At-home test



Nutrition Test

Lab test

Blood

Name: **Sample Report** Date of test: **04/04/2022** Analysis-ID: **DUMMY-NARINGS**


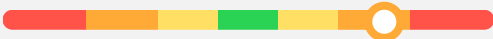














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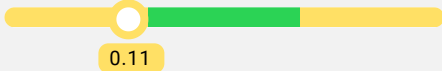






Your test results

Our lab has tested your blood sample for essential nutrients. You will find your results below.

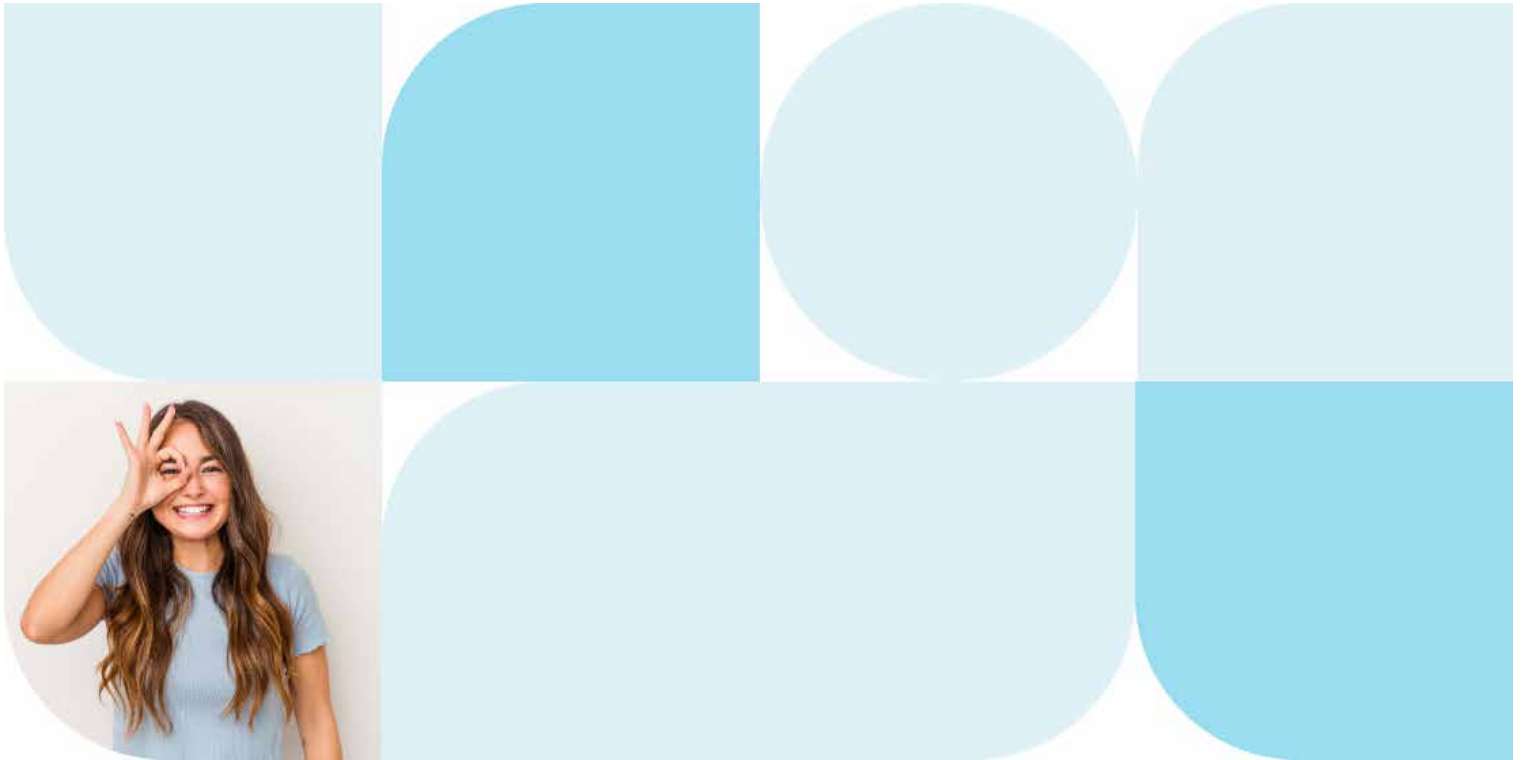
Nutrition Test

Name	Your value	Reference value	Scale
Calcium	 64.27	57,0 - 61,0 mg/l	
Copper	 0.80	0,85 - 1,05 mg/l	
Iron	 476.23	420 - 520 mg/l	
Potassium	 1833.87	1750 - 1900 mg/l	
Magnesium	 38.30	35,0 - 39,0 mg/l	
Sodium	 2038.99	1900 - 2050 mg/l	
Selenium	 328.15	100 - 140 mg/l	
Zinc	 7.26	7,0 - 7,6 mg/l	

Nutrition Test - Ratio



Name	Your value	Reference value	Scale
Copper/Zinc ratio	 0.110	0.125 - 0.155	 0.11
Potassium/Calcium ratio	 28.53	29.5 - 32.5	 28.53
Potassium/Sodium ratio	 0.90	0.87 - 0.97	 0.90
Magnesium/Calcium ratio	 0.60	0.58 - 0.66	 0.60

On the following pages, there is an explanation for the test parameters described above.



Nutrition Test - In-depth

Sodium

Name	Your value	Reference value	Scale
Sodium	 2038.99	1900 - 2050 mg/l	

Today, few people are deficient in sodium. Sodium is needed for acid-base balance, water and salt balance in the body, as well as the balance between sodium and potassium, which affects blood pressure. Although deficiency is less common, it can still occur with, for example, hard physical exercises, people who sweat a lot and drink a lot of water, or people with certain chronic diseases.

Symptoms of sodium deficiency:

- Confusion
- Cramps
- Burden eyes
- Nausea and vomiting

Low levels of sodium may occur in athletes and people who sweat a lot, as well as in people with diarrhea, chronic fatigue, chronic kidney problems, certain heart and circulatory diseases, lung infections, cirrhosis of the liver, prostatic adenoma, and heart failure edema or when taking other medications such as diuretics.

At low levels, intake should be increased via food. Some sources are table salt, soy sauce, brown, holy, green olives, smoked medicinal garnishes, sour fruit, cottage cheese, or mineral water and salty.



Symptoms of excessive sodium levels:

- Hypertension
- Swelling/water retention
- Excessive thirst
- Fatigue

Slightly elevated sodium levels are mostly not problematic, because the kidneys can regulate sodium well. However, people with high blood pressure should reduce their salt intake and review their intake of soft drinks and those high in sodium preservatives.

In addition to a lack of other minerals, other biological disturbances in the electrolyte balance can also occur - such as Cushing's disease or adrenal kidney function disorders - leading to an increased sodium value. (not but not least, one should also consider hypertonic dehydration (loss of water + loss of salt, i.e., in case of persistent nausea/vomiting) as a possible underlying cause of elevated sodium levels).

Potassium

Name	Your value	Reference value	Scale
Potassium	 1833.87	1750 - 1900 mg/l	

Potassium is the third most abundant mineral in the body. Just like sodium, potassium is needed for the body's fluid balance, to regulate blood pressure, and for the body's nerve and muscle functions. Low and high amounts of potassium can affect the heart. In cases of deficiency, insulin is not released, and sugar is not converted into energy but is stored in the liver, which can lead to hypoglycemia.

Symptoms of potassium deficiency:


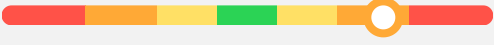
- Muscle cramps
- Muscle weakness
- Fatigue/weakness
- Heart rhythm disorders

You can easily increase your intake of potassium by increasing your intake of fruits and vegetables. Note how the value for potassium is in relation to sodium. Remember that in people who suffer from renal insufficiency, dietary potassium is poorly tolerated.

Symptoms of excessive potassium levels:

- Nausea
- Weakness
- Irregular heartbeat

Calcium

Name	Your value	Reference value	Scale
Calcium	 64.27	57,0 - 61,0 mg/l	

Calcium is needed for the skeleton, nerve signals, the muscles, the heart/vascular system, and various enzymatic processes, as well as protecting against allergies. Calcium deficiency can occur as a result of low or poor nutritional intake, impaired hydrochloric acid production, or too low levels of vitamin D. Calcium is also affected by being excessively inactive drugs, high alcohol intake, and a possible heavy metal load. Calcium absorption is supported by protein, vitamin D and sodium hydrochloric acid. Chronic calcium deficiency can lead to osteoporosis. Studies have shown that calcium, in combination with vitamin D and vitamin K2, improves bone density. At low levels, it can lead to low cholesterol in relation to magnesium and potassium.

Common symptoms of calcium deficiency are:

- Orange, muscle twitching
- Flutter pain
- Muscle or bone pain
- Difficulty falling asleep



High levels of calcium can occur as a result of excessive intake of calcium from rich food, or vitamin D. Excess calcium tends to accumulate in the body's soft tissues and leads to calcification.

Common symptoms of too much sodium are:

- Constipation
- Impaired appetite
- Fatigue
- Increased thirst
- Headache

A high intake of magnesium, zinc, iron, and potassium inhibits the absorption of sodium. Vitamin B and vitamin K are also needed to regulate the body's use of sodium.

Magnesium

Name	Your value	Reference value	Scale
Magnesium	 38.30	35,0 - 39,0 mg/l	

Just like sodium, magnesium ions are signaling substances in the body and is needed for several of our enzymes to function. Our skeleton acts as a depot for sodium but also for magnesium. Too much sodium blocks the uptake of magnesium. It is therefore important to be aware of your magnesium intake, especially when adding sodium. Lack of magnesium can lead to high blood pressure and impaired muscle sensitivity. Magnesium deficiency can also cause osteoporosis because the body is forced to break down the skeleton to release magnesium into the bloodstream.

Because the body contains a large amount of magnesium (about 20-25 grams), the daily requirement of this mineral is also greater compared to others. Risk groups for magnesium deficiency are mainly athletes and alcoholics. Acute deficiency symptoms are vomiting, loss of appetite, muscle weakness, fatigue, nerve problems and muscle cramps. The great deficiency for the mineral is uncommon because our intake of magnesium from the diet is generally low, this is because most of us eat a lot of processed foods that lack the magnesium content in the food. Magnesium deficiency can also manifest itself through high blood pressure, impaired muscle sensitivity, and osteoporosis.

One of the functions of magnesium is to produce adenosine triphosphate (ATP), which is the most important energy carrier for all metabolic processes in the body. Magnesium helps to build muscles in the body by the mineral stimulating protein biosynthesis which is responsible for muscle growth. Magnesium also promotes the fat-burning enzymes, which have a positive effect on fat burning in the body. Athletes are a high risk group for magnesium deficiency as the body gets rid of a lot of magnesium both through sweat and in the process when the muscles are to be repaired after training. It is therefore important to keep track of your levels and balance up with supplements after training.

Substances that can lower the absorption of magnesium are: high intake of sodium, phosphorus, vitamin B, protein, and fat.

Common symptoms of magnesium deficiency are:

- Cramps
- Muscle twitching
- Depression
- Numbness
- Anhydria

Magnesium in food is found, among other things, in almonds, walnuts, cashews, sesame seeds, buckwheat, hazelnuts, brown rice, and soybean. Magnesium deficiency can cause your cells to release more fatty acids, which can lead to more a large symptoms.



An elevated magnesium value is usually an indication of dysregulation. It can also be due to too high an intake of magnesium as a supplement or a functional disorder in the kidneys.

Too much magnesium can lead to the following symptoms:

- Weakness
- Numbly
- Depression

If magnesium levels are too high, you should supplement with calcium and reduce your intake of magnesium.

Iron

Name	Your value	Reference value	Scale
Iron	 476.23	420 - 520 mg/l	

Iron is an important component of hemoglobin and is known for its oxygen-binding ability. Iron is needed to transport oxygen from the lungs and to our cells and is also needed for the immune system.

Note that the iron level in the whole blood serum corresponds to 50% of the hemoglobin iron, therefore the whole blood iron value is not suitable for diagnosing possible disorders of iron storage. If you want to diagnose disorders of iron storage, you should measure the transferrin saturation.

Common symptoms of iron deficiency:

- Fatigue
- Pale skin, dry hair and skin
- Brittle nails
- Shortness of breath
- Wound healing disorders

Iron is very toxic and dangerous in excessive amounts. Some people (about 1 in 200) find it difficult to regulate iron and store it instead, often without knowing it. Therefore, you should never take extra iron without first having measured your values. If you use iron supplements for a long time, you should measure your values regularly.


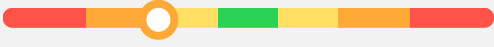
When taking extra iron, remember that ferrous sulfate can irritate the stomach and lead to constipation. Choose organic iron compounds instead that are more easily absorbed, such as iron ascorbate, iron succinate, iron gluconate, iron fumarate and iron lactate, and take them in combination with vitamin C, which increases the absorption of iron. Remember not to take higher doses than the daily recommended intake.

Symptoms of excessive iron levels:

- Nausea, stomach ache, vomiting
- Pain, low energy, cardiovascular problems, liver problems
- Increased risk of cancer and other degenerative diseases

In case of iron excess, vitamin E, copper and phosphorus can help. One way to get rid of excess iron is to donate blood.

Copper

Name	Your value	Reference value	Scale
Copper	 0.80	0,85 - 1,05 mg/l	

Copper is needed, among other things, for the body's production of superoxide dismutase (SOD) for the formation of elastin in the blood vessels, for the conversion of T4 to T3 in the thyroid gland, for enzymes that form structural components of bone, for collagen formation, and for the formation of connective tissue collagen formation.

Common symptoms of low copper levels:

- Anemia
- Impaired immune function
- Degeneration of the nervous system
- Impaired brain function

Low levels of copper often occur with low protein intake, kidney disease, prostatic disease, and chronic depression. Copper deficiency can lead to anemia, as copper deficiency inhibits iron absorption, leading to iron deficiency (iron and other body tissues) and is often common in hemodialysis patients.

Elevated levels of copper can occur with too high intake or with contamination from water (copper pipes), food, or the environment. Even too low zinc intake can affect copper levels. Furthermore, a well-functioning liver is needed to get rid of excess copper; various liver diseases or kidney diseases can lead to elevated levels of copper. In the case of elevated values that may be due to an external source, it is good to try to investigate what it could be.



Common symptoms of high copper levels:

- Low mood, depression, learning difficulties
- Fatigue, mood swings, depression
- Impaired immune function
- Joint pain

In case of extra intake of copper, one should also check the zinc intake and possibly supplement with zinc (if you are also low on zinc). Avoid ingesting copper if you have any heavy metal poisoning, heavy metals and infections can increase copper intake.

In inflammatory conditions, copper values can vary up and down independent of copper intake.

Zinc

Name	Your value	Reference value	Scale
Zinc	 7.26	7,0 - 7,6 mg/l	

Zinc is best known for its importance in the immune system, wound healing, and proper genetic function, but it works as a cofactor for more than 300 different enzymes, including:

- antioxidant enzymes such as superoxide dismutase
- alkaline phosphatase, or
- enzymes in protein or carbohydrate metabolism

From an immunological point of view, zinc is needed for the following:

- Promote the growth of lymphocytes
- inhibit the release of histamine
- block the replication of certain viruses, e.g., herpes simplex
- increase the phagocytosis activity of granulocytes and macrophages

The individual zinc salts (i.e., citrate, sulfate, gluconate, aspartate, etc.) are taken up individually and in different ways. If a zinc treatment is not successful, it is therefore reasonable to try to switch to another form of zinc.

Low levels of zinc can occur due to an insufficient intake of food. Besides that, it can also occur as due to malabsorption as a result of inflammatory gastrointestinal diseases or due to ingestion of medications or dietary supplements that affect zinc values (iron, copper, nitrogen, retinoids, carnitine, etc.). Zinc is found in, among other things, oysters, beef, hard cheese, almonds, and pumpkin seeds.


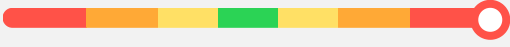
Common symptoms of zinc deficiency are:

- Increased susceptibility to infections
- A disturbed mucosa of the mouth
- Itching
- Impaired appetite
- Impaired sense of taste
- Depression, nervousness
- Poor wound healing

At low levels of zinc, the balance of copper and zinc should be restored. In case of long-term intake of zinc, one should supplement with copper. It is also suggested to avoid the absorption of zinc. Keep in mind that phytates in food inhibit the absorption of zinc, while coffee and alcohol increase the absorption of zinc.

Consistently high levels of zinc can lead to a depletion of the body's copper levels, weakening the immune system and leading to anemia. Successful not to overdose on zinc, and if you have been taking zinc for a long time you should test your levels regularly as elevated levels can increase the risk of Parkinson's and cancer. Even an acute dosage of zinc can irritate the stomach, disrupt muscle coordination, and lead to anemia, diarrhea, and more.

Selenium

Name	Your value	Reference value	Scale
Selenium	 328.15	100 - 140 mg/l	

The general recommendation for selenium is 100-140 µg/l. However, it should be noted that this value does not correspond to optimal values for good health. The maximum activity of the selenium-containing enzyme glutathione peroxidase is achieved at selenium concentrations in whole blood of 140 - 150 µg/l.

Selenium occurs physiologically in a number of enzymes such as glutathione peroxidase and is an important component of antioxidant therapy. Physiologically, selenium leads to an increased release of interferon gamma and therefore to a shift of the Th1 / Th2 balance in the direction of Th1. In addition, selenium activates natural killer cells and natural killer cells. Selenium is also necessary for the thyroid gland to function properly.

Selenium deficiency usually occurs due to a low intake of food. Foods that contain selenium include Brazil nuts, milk, brown rice, fish, eggs, sunflower, and buckwheat. Other causes of selenium deficiency can be:

- Excessive alcohol consumption
- Chronic inflammatory diseases
- Heavy metal poisoning
- Tumors

Selenium deficiency can lead to the following:

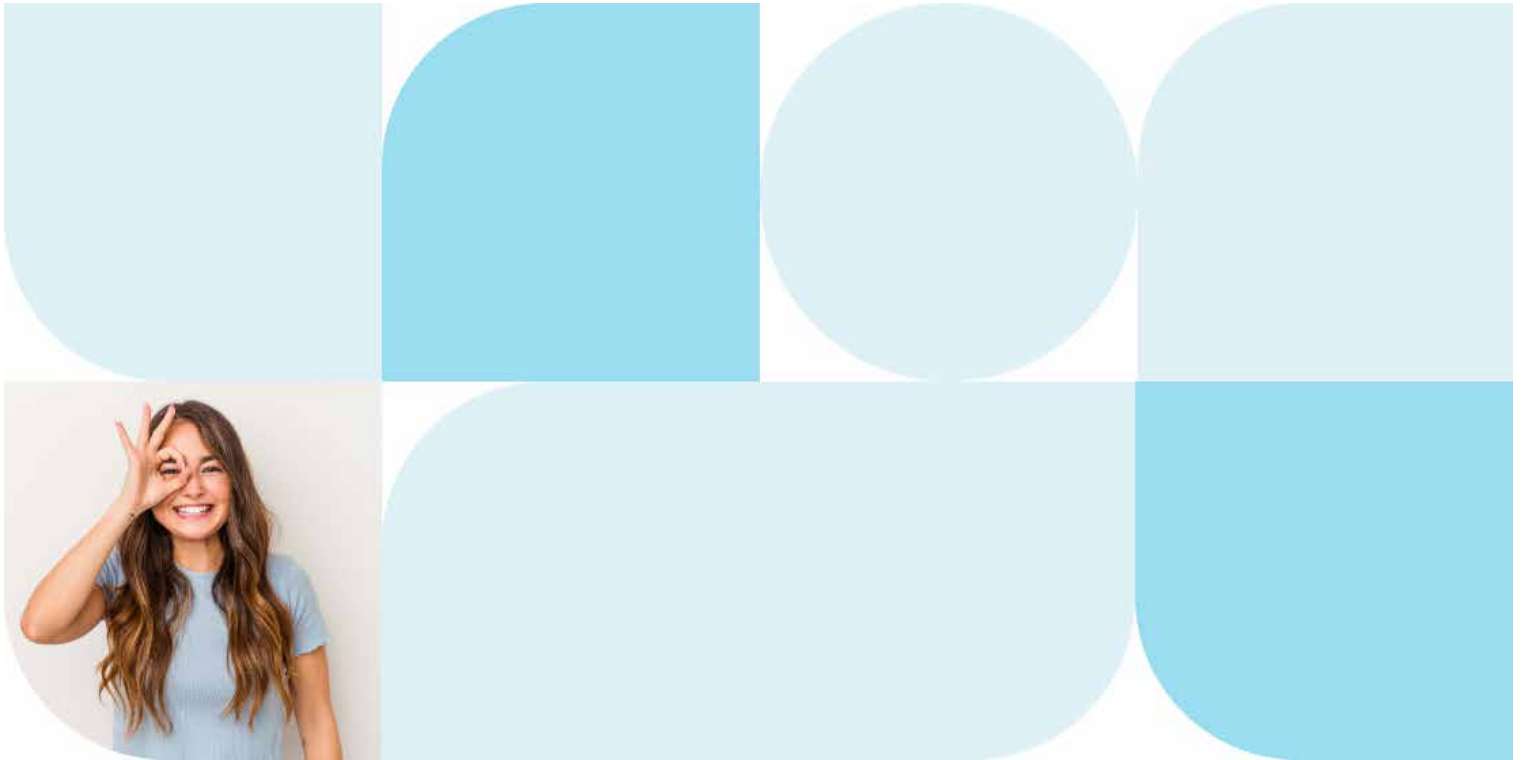
- Hypothyroidism
- Impaired immune function
- Allergies
- Increased oxidative stress
- Cardiovascular disease
- Increased tumor risk
- Methemoglobinemia

While selenium protects against heavy metal poisoning, too high levels are toxic. Elevated levels are almost always caused by excessive selenium intake but can also arise from industrial exposure. Too high selenium levels are considered to have toxic effects, but one can also experience a toxic reaction as a result of ingesting selenium, which leads to heavy metal detoxification.

For levels between 100 and 200 µg/l one must individually decide whether the dose should be maintained or whether selenium intake should be reduced or stopped. If there are signs of selenium deficiency, the selenium level should be checked regularly.

Other information


Always seek medical attention if you experience severe symptoms.



Nutrition test ratio - In-depth explanation

The ratio between different minerals

Copper/Zinc

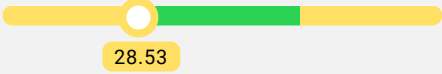
Name	Your value	Reference value	Scale
Copper/Zinc ratio	0.110	0.125 - 0.155	

The ratio between copper and zinc is important for a number of different enzymatic functions in the body to work as they should.

High levels of copper relative to zinc can contribute to PMS, fatigue, muscle and joint pain, headaches, hyperactivity among children, depression, insomnia, osteoporosis, high blood pressure, asthma, and arthritis.

A high level of zinc relative to copper indicates a tendency to high LDL cholesterol relative to HDL.

Potassium/Calcium

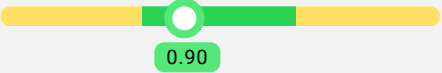
Name	Your value	Reference value	Scale
Potassium/Calcium ratio	28.53	29.5 - 32.5	

The level between potassium and calcium influences the function of the thyroid gland.

A high level of potassium in relation to calcium indicates a tendency to have higher thyroid function.

Low levels of potassium relative to calcium indicates a tendency to have lower thyroid function.

Potassium/Sodium

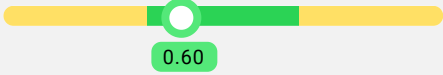
Name	Your value	Reference value	Scale
Potassium/Sodium ratio	0.90	0.87 - 0.97	

Studies show that the relationship between potassium and sodium is more strongly associated with hypertension, and stroke and coronary heart disease, than looking either at potassium or sodium as single parameters.

Low levels of potassium in relation to sodium increase stress, the body's secretion of adrenaline increases from the adrenal cortex, which causes the body to retain sodium, and the levels of potassium decrease in relation to sodium. Low levels of potassium in relation to sodium are thus associated with acute stress and increases in adrenaline, noradrenaline, and cortisol. Adrenaline is often regarded as a pro-inflammatory hormone and cortisol as an anti-inflammatory hormone, so this ratio is seen even in inflammatory diseases associated with inflammation and pain.

High levels of potassium in relation to sodium usually occur when the catecholamine activity increases in the hormonal system, which leads to increased secretion of glucocorticoids (e.g. cortisol). High levels of potassium in relation to sodium are thus an indication of chronic stress, chronic fatigue and chronic insomnia. It is also an indication of higher cortisol production in relation to adrenaline production. Cortisol is usually associated with a catecholamine stress that is the body breaks down tissue faster than it regenerates it.

Magnesium/Calcium

Name	Your value	Reference value	Scale
Magnesium/Calcium ratio	0.60	0.58 - 0.66	

Low levels of magnesium in relation to calcium indicate tendency towards an elevated parathyroid activity, hypercalcaemia and muscle tension. Studies also show that it means an increased risk of cardiovascular disease.

High levels of magnesium in relation to calcium indicate tendency towards decreased parathyroid function, hypocalcaemia, and lack of muscle tone.

Other

Always seek medical attention if you experience serious symptoms.

