Best Health

07 May 2018

Comprehensive Nutrition Test

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This test report will provide you with information on the state of balance of your body's nutrients and digestive enzymes. Before you continue reading through this report, we would like to share some important information with you regarding nutrients and digestive enzymes. This will help you to better understand your results and the explanations in the report that follows.

Nutrients are essential to one's health and well-being. Imbalances in certain nutrients may contribute to a range of illnesses. Nutritional imbalances may contribute to problems in the following areas: hormone function, neurotransmitter function, food digestion, skin health, bone formation and energy production. Many nutrients exhibit powerful antioxidant effects, protecting our cells and organs from free radical damage.

Most of the nutrients that our bodies require are essential. This means that we cannot manufacture them and need to obtain them from our diet. Living in a modern world has delivered the body an array of new challenges: increased stress, nutritionally-low convenience foods and a chemical-laden environment. All these factors impact negatively on our vitality and place additional strain on the body, increasing its nutritional requirements. Research has consistently shown that maintaining adequate levels of essential nutrients allows the body to function at an optimal level and aids good health, healthy aging and recovery from illness.

Digestive enzymes are essential to the way in which the food we eat is broken down into its simple forms. Carbohydrates are required to be broken down into simple sugars, proteins into amino acids and fats into fatty acids. This process of digestion is extremely important for the release of essential micronutrients found in the food we eat. Once released through the digestive processes, micronutrients such as vitamins, minerals, amino acids and fatty acids are absorbed into the body where they contribute to one's overall nutritional health.

Any problems with the digestive process may interfere with the way in which the body receives adequate nutrition. Besides nutritional deficiencies, deficiencies in digestive enzyme function may present with undesirable gastrointestinal symptoms. Therefore maintaining healthy digestive enzyme function is critical to both gastrointestinal and nutritional health.

The Allergenics testing method uses a unique energy measurement technology that can detect disruptions to normal energy patterns in the body. Each nutrient has a particular energy pattern that can be measured. When levels of a particular nutrient are unbalanced in the body i.e. there is too little (deficiency) or too much (excess) it may cause a change to the body's normal function, causing stress to the body. Using special energy measurement technology, these changes can be measured and the particular nutrient can be identified. This helps to provide information on nutritional health and how to balance deficiencies and excesses.

Please note: This test does not provide physiological levels of nutrients. It may only provide information on whether a nutrient or digestive enzyme is in a state of imbalance in the body, and whether or not this is causing a stress to the body.

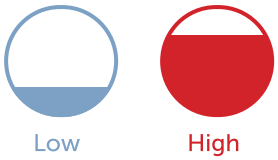
What we test for

Amino Acids	Arginine, Aspartic Acid, Cysteine, Glutamine, Histidine, Isoleucine, Leucine, Lysine, Methionine, Ornithine, Phenylalanine, Taurine, Threonine, Tryptophan, Tyrosine, Valine.
Digestive Enzymes	Amylase, Cellulase, Hydrochloric Acid, Lactase, Lipase, Maltase, Protease.
Essential Fatty Acids	Docosahexaenoic Acid (DHA), Eicosapentaenoic Acid (EPA), Gamma Linolenic Acid (GLA), Omega 3, Omega 6.
Minerals	Boron, Calcium, Chromium, Copper, Iodine, Iron, Magnesium, Manganese, Phosphorus, Potassium, Selenium, Sodium, Sulphur, Zinc.
Specialised Nutrients	Carnitine, Coenzyme Q10, Creatine, Glutathione, Ubiquinol.
Vitamins	Biotin, Folic Acid, P5P, Vitamin A, Vitamin B1, Vitamin B12 (Methylcobalamin), Vitamin B2, Vitamin B3, Vitamin B5, Vitamin B6, Vitamin C, Vitamin D, Vitamin E, Vitamin K2.

Your Test Results

This section provides you with the results of your test. It will tell you which nutrients and digestive enzymes are in a state of imbalance, thus causing a stress to your body.

Reactive scale



Amino Acids

Cysteine	Glutamine	Ornithine	Methionine	Threonine
Arginine				

Digestive Enzymes

Hydrochloric Acid	Maltase	Lipase

Essential Fatty Acids

Docosahexaenoic Acid (DHA)	Eicosapentaenoic Acid (EPA)

Minerals

Iron	Phosphorus	Calcium	Zinc	Magnesium
Chromium	Copper			

Specialised Nutrients

Coenzyme Q10

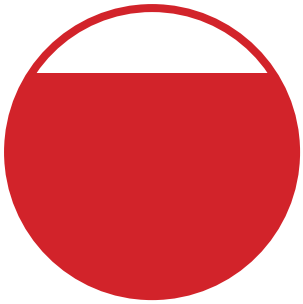
Vitamins

Vitamin B6 	P5P 	Vitamin B3 	Vitamin B12 (Methylcobalamin) 

Deep dive into your significant results

Iron

Your reactivity: Score 4: High



Iron is an essential mineral. It is involved in numerous processes in the body including red blood cell production, oxygenation of cells, energy and enzyme production, immunity and growth. Food sources include seaweed, seeds, wheatgerm, molasses, liver, chickpeas, pistachios, lentils, walnuts, mussels, oysters, red meat, cashews, figs, spinach, prunes, raisins, egg yolk and chicken.

Insufficient stomach acid, Vitamin C consumption, calcium or copper, excessive menstrual loss, drinking tea with meals, excessive exercise, zinc or phosphorus, pregnancy, antibiotics, antacids can adversely affect iron levels in the body.

What This Means

Low Iron: Low levels of iron my be due to insufficient intake from dietary sources or from blood loss. Signs of low iron levels include pale skin and nails, mental and physical fatigue, cracked lips and tongue, inflamed mouth, hair loss or brittle hair, difficulty swallowing and poor growth in children.

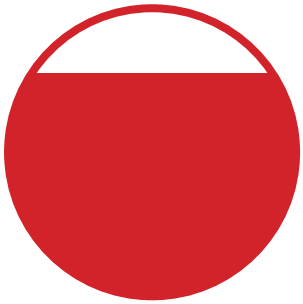
High Iron: High levels of iron may result from excessive iron supplementation (greater than 100mg/day) or haemochromatosis, an hereditary iron storage syndrome that leads to a build-up of iron in the body. Symptoms are usually absent until iron levels get too high. Males tend to experience iron excess syndromes more than females.

What To Do Next

Low score indicates the possible need for supplementation with this nutrient. A high score indicates the need to reduce exposure to oral and environmental forms of this nutrient.

Hydrochloric Acid

Your reactivity: Score 2.5: High



Hydrochloric acid (HCl) is the main component of stomach acid, a digestive secretion whose main role is to digest proteins. Stomach acid stimulates the secretion of digestive enzymes and prepares ingested proteins for digestion. Stomach acid is produced by the parietal cells of the stomach lining. HCl stimulates pepsin production in the stomach which initiates protein digestion. The highly acidic environment it creates it´s also a barrier to opportunistic microbial infection.

What This Means

Low Hydrochloric Acid: Low levels of hydrochloric acid leads to a condition know as achlorhydria or hypochlorhydria. Stomach acid production declines with age and certain illnesses and metabolic disorders can also contribute to the decline, for e.g. thyroid disorders, autoimmune conditions, the use of acid-blocking medications. Symptoms of low stomach acid include diarrhoea, constipation, anaemia, reflux, abdominal discomfort and food malabsorption.

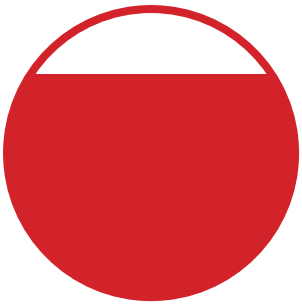
High Hydrochloric Acid: High levels of hydrochloric acid leads to a condition known as hyperchlorhydria. Poor dietary habits and stress can trigger a higher than normal production of stomach acid. Symptoms may or may not be present but are usually consistent with gastro-oesophageal reflux disease (GORD).

What To Do Next

A low score indicates the possible need for supplementation with this digestive enzyme. A high score indicates either over-production of this digestive enzyme or supplementation with this enzyme.

Phosphorus

Your reactivity: Score 2.5: High



Phosphorus is the second most abundant mineral in the body. It is found in every cell but the majority is found in bones and teeth. It is associated with a wide range of different important physiological processes. Main dietary sources include animal proteins, milk and dairy products, eggs, nuts, seeds, beans, wholegrains, garlic, dried fruit. Phosphorus is also found in abundance in carbonated soft drinks as phosphoric acid. Vegans or vegetarians may have a higher requirement for phosphorus. Certain medications may lower phosphorus levels in the body.

What This Means

Low Phosphorus: A low phosphorus reading is indicative of insufficient intake from the diet. Certain medications may also lower phosphorus levels such as insulin, ACE inhibitors, corticosteroids, antacids and anticonvulsants. Symptoms may include joint or bone pain, loss of appetite, irritability or anxiety, fatigue and poor bone development in children.

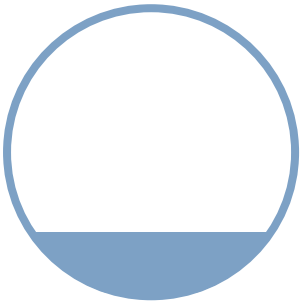
High Phosphorus: A high phosphorus reading is rare but if present, it is indicative of accumulation from non-foods sources such as phosphoric acid. In individuals with kidney diseases or those who cannot stabilise their calcium levels, elevated phosphorus may also be a feature.

What To Do Next

Low score indicates the possible need for supplementation with this nutrient. A high score indicates the need to reduce exposure to oral and environmental forms of this nutrient.

Docosahexaenoic Acid (DHA)

Your reactivity: Score -2.5: Low



Docosahexaenoic Acid (DHA) is an Omega 3 essential fatty acid that can be synthesised in the body from alpha linolenic acid. It is also obtained from the diet mainly from fish and seafood. DHA is the main structural component and the major fatty acid found in brain phospholipids and the retina. Vegans and vegetarians may have a higher requirement for this nutrient. Individuals with depression show lower than normal brain DHA levels.

What This Means

Low DHA: A low DHA reading is associated with low levels of the Omega 3 essential fatty acid alpha linolenic acid. Low DHA levels are associated with cognitive decline.

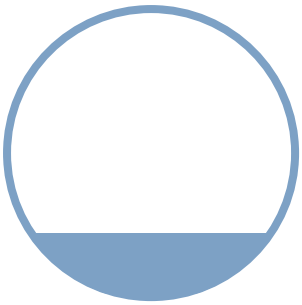
High DHA: A high DHA reading is indicative of supplementation with this nutrient.

What To Do Next

A low score indicates the possible need for supplementation with this nutrient. A high score indicates possible supplementation with this nutrient or its increased endogenous production. Supplement dosage may need to be reviewed.

Vitamin B6

Your reactivity: Score -2.5: Low



Vitamin B6 (pyridoxine) is an essential water-soluble vitamin that is involved in haemoglobin and amino acid biosynthesis, and fatty acid metabolism. It is important for nervous system function, hormone function and nucleic acid (DNA and RNA) synthesis. Main food sources include fish, poultry, nuts, legumes. potato and banana. Alcohol consumption, a deficiency of magnesium or Vitamin B2, excessive protein intake, excessive heating of food sources and pregnancy may all increase the requirement for this nutrient. Oral contraceptive, anti-Parkinsonian, non-steroidal anti-inflammatory, hormone replacement and antibiotic medications may interfere with Vitamin B6 metabolism.

What This Means

Low Vitamin B6: Low levels of Vitamin B6 may result from insufficient dietary intake of this nutrient. Mild deficiency may present with neurological symptoms including irritability, depression and confusion. Other symptoms include tongue inflammation, mouth ulcers and ulcer in the corners of the mouth. Heavy alcohol consumption may contribute to Vitamin B6 deficiency.

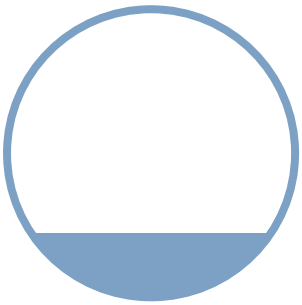
High Vitamin B6: High levels of Vitamin B6 may result from excessive supplementation. High doses (greater than 500mg per day long term) may cause a condition called sensory neuropathy. Symptoms include pain and numbness in the extremities, stiffness and difficulty in walking.

What To Do Next

Low score indicates the possible need for supplementation with this nutrient. A high score indicates the need to reduce exposure to oral and environmental forms of this nutrient.

Calcium

Your reactivity: Score -2.5: Low



Calcium is an essential component of bone and teeth, it plays a role in cell-signalling pathways and important for heart and skeletal muscle contraction. Calcium levels in the body are tightly controlled by parathyroid hormone and Vitamin D. Main food sources include milk and dairy products, kale, cabbage, broccoli, sardines with bones and tofu prepared with calcium sulphate. Non-food sources include antacids

Individuals with high sodium and phosphorus intakes from the diet (soft drinks, food additives) may have a higher requirement for calcium. Increased protein, caffeine and oxalic acid intake may increase calcium requirements. The use of certain medications such as corticosteroids may also lead to calcium depletion.

What This Means

Low Calcium: Low levels of calcium may be due to insufficient intake from the diet. It may lead to leaching of calcium from the bones causing soft brittle bones and osteoporosis. Other symptoms include sleep onset problems, depression, muscle cramps, tooth decay and brittle nails with white spots.

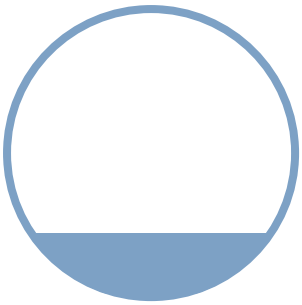
High Calcium: High levels of calcium may result from excessive supplementation, however toxicity is rarely observed unless severe. If present, symptoms may include loss of appetite, nausea, constipation, fatigue, frequent urination and hypertension.

What To Do Next

Low score indicates the possible need for supplementation with this nutrient. A high score indicates the need to reduce exposure to oral and environmental forms of this nutrient.

Eicosapentaenoic Acid (EPA)

Your reactivity: Score -2.5: Low



Eicosapentaenoic Acid (EPA) is an Omega 3 essential fatty acid that can be synthesised in the body from alpha linolenic acid. It is also obtained from the diet mainly from fish and seafood. EPA acts as a precursor for several inflammatory mediators such as prostaglandin-3, thromboxane-3 and leukotriene-5 eicosanoids. EPA is required for the production of DHA, so the body needs adequate levels of alpha linolenic acid both production of both EPA and DHA.

What This Means

Low EPA: A low EPA reading is associated with low levels of the Omega 3 essential fatty acid alpha linolenic acid or an Omega 3 deficiency in general.

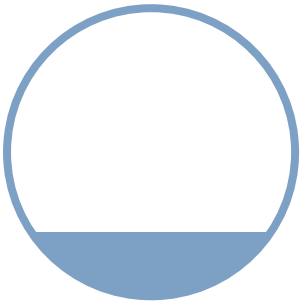
High EPA: A high EPA reading is indicative of supplementation with this nutrient.

What To Do Next

A low score indicates the possible need for supplementation with this nutrient. A high score indicates possible supplementation with this nutrient or its increased endogenous production. Supplement dosage may need to be reviewed.

Cysteine

Your reactivity: Score -2.5: Low



Cysteine is a sulphur-containing non-essential amino acid, but essential for infants. It is synthesised in the body from serine and methionine. It can also be obtained from the diet from animal proteins, eggs, dairy, red peppers, onions, garlic, cruciferous vegetables and legumes. It is involved in protein synthesis and the stability of different protein structures. It is an important source of sulphide in human metabolism and is a precursor in the synthesis of the antioxidant glutathione.

What This Means

Low Cysteine: A low cysteine reading is associated with low protein intakes. Low levels are also related to low serine and methionine levels. Low cysteine may also lead to low glutathione levels. Low levels are associated with slowed growth in children and lowered immunity. Other symptoms such as muscle loss, weakness, apathy and liver damage may also result in extreme cases.

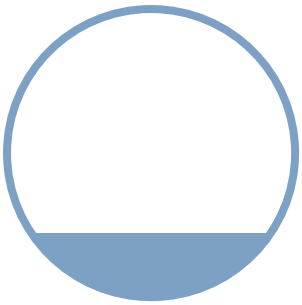
High Cysteine: A high cysteine reading is indicative of supplementation with this nutrient. Supplementation with serine, methionine and N-acetyl-L-cysteine (NAC) may also contribute to increases in cysteine.

What To Do Next

A low score indicates the possible need for supplementation with this nutrient. A high score indicates possible supplementation with this nutrient or its increased endogenous production. Supplement dosage may need to be reviewed.

Glutamine

Your reactivity: Score -2.5: Low



Glutamine is a non-essential amino acid that can be synthesised by the body. Dietary sources include animal proteins, fish and legumes. It is the most abundant free amino acid found in the bloodstream and muscles of the body. It is used by muscle cells to synthesise proteins and helps to maintain the acid/alkaline balance in the body. It is converted to glutamic acid in the brain and therefore is important for GABA production. Glutamine is used by the immune system and enterocytes. It also provides the building blocks for RNA and DNA.

What This Means

Low Glutamine: A low glutamine reading is associated with low protein intake from the diet.

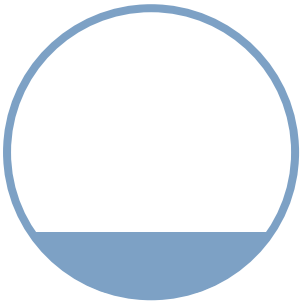
High Glutamine: A high glutamine reading is indicative of supplementation with this nutrient.

What To Do Next

A low score indicates the possible need for supplementation with this nutrient. A high score indicates possible supplementation with this nutrient or its increased endogenous production. Supplement dosage may need to be reviewed.

Ornithine

Your reactivity: Score -2.5: Low



Ornithine is a non-essential amino acid that is synthesised in the body from arginine. It is also found in the diet in animal proteins, dairy products and eggs. It is needed for the formation of citrulline, proline and glutamine, three amino acids that help supply energy to the body. It is found in high concentrations in the skin and connective tissue. Ornithine stimulates both growth hormone and insulin release in the body. Vegans, vegetarians and individuals on a low-protein diet may have a higher requirement for this nutrient.

What This Means

Low Ornithine: A low ornithine reading is associated with a low intake of protein from the diet.

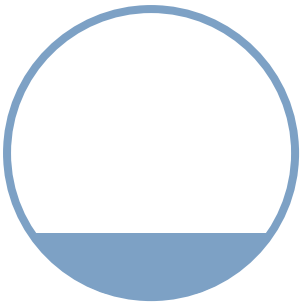
High Ornithine: A high ornithine reading is indicative of supplementation with this nutrient.

What To Do Next

A low score indicates the possible need for supplementation with this nutrient. A high score indicates possible supplementation with this nutrient or its increased endogenous production. Supplement dosage may need to be reviewed.

Methionine

Your reactivity: Score -2.5: Low



Methionine is a sulphur-containing essential amino acid which cannot be synthesised by the body. Main dietary sources include protein-rich foods such as eggs, dairy products, fish, poultry and red meat. It is present to a lesser extent in grains, seeds and nuts. It plays a role in the synthesis of cysteine, carnitine and melatonin. It helps to prevent again fatty liver disease, lipid peroxidation and is important in the manufacture of S-adenosyl-methionine (SAMe).

What This Means

Low Methionine: A low methionine reading is associated with low dietary intake of this nutrient. Low levels of methionine have been linked to fatty liver disease, increased lipid peroxidation in the cells and depression (through low SAMe levels).

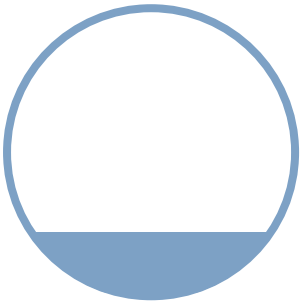
High Methionine: A high methionine reading is indicative of supplementation with this nutrient. Elevated levels of methionine have been linked to elevated homocysteine production.

What To Do Next

A low score indicates the possible need for supplementation with this nutrient. A high score indicates possible supplementation with this nutrient or its increased endogenous production. Supplement dosage may need to be reviewed.

Zinc

Your reactivity: Score -2.5: Low



Zinc is a mineral that is involved in numerous processes in the body. It is important in the synthesis of enzymes, insulin, DNA and RNA for cell growth and repair, activation of vitamin A in the eyes. It is an important antioxidant. Food sources include oysters, herrings, turkey, wheatgerm, pumpkin and sesame seeds, Brewer's/savoury yeast, molasses, liver, maple syrup, soybeans, sunflower seeds, lamb, bacon, chicken, coconut, pork, beef, beetroot and wholewheat.

Vegetarians are at risk of zinc depletion. Consumption of refined grains, excess calcium supplementation, oral contraceptives, pregnancy, diarrhoea, kidney disease, diabetes, and phytates found in wheatbran and oats may increase the requirement for zinc.

What This Means

Low Zinc: Low levels of zinc may result in poor sense of taste and smell, slow wound healing, poor night vision, changes to the nails (thin, peeling, white spots), acne, infertility, prostate and immunity problems, low birth weight and defects, slow growth.

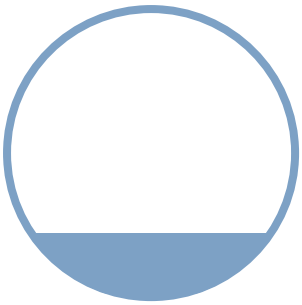
High Zinc: High zinc levels may result from excessive supplementation (greater than 200mg/day) or through exposure to environmental sources (paints, rubbers, dyes and certain pesticides). Chronic toxicity symptoms include low copper status, disturbed copper metabolism, impaired digestive enzyme function, reduced levels of good cholesterol and cardiac disturbances.

What To Do Next

A low score indicates the possible need for supplementation with this nutrient. A high score indicates the need to reduce exposure to oral and environmental forms of this nutrient.

Threonine

Your reactivity: Score -2.5: Low



Threonine is an essential amino acid that cannot be synthesised by the body. It is found in animal proteins, legumes, nuts, seeds and green leafy vegetables. It promotes normal growth and cardiovascular, liver, central nervous and immune system functions. It is important for the formation of elastin and collagen in the skin. Together with methionine and aspartic acid, it helps combat fatty liver disease. It is an important nutrient in infants and children, supporting thymus gland function and antibody production. It is required in the formation of glycine and serine.

What This Means

Low Threonine: A low threonine reading is associated with a low intake of protein from the diet.

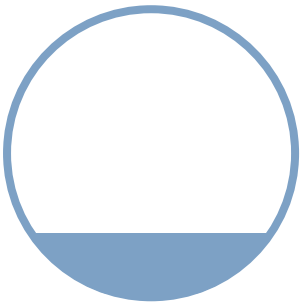
High Threonine: A high threonine reading is indicative of supplementation with this nutrient.

What To Do Next

A low score indicates the possible need for supplementation with this nutrient. A high score indicates possible supplementation with this nutrient or its increased endogenous production. Supplement dosage may need to be reviewed.

P5P

Your reactivity: Score -3: Low



Pyridoxal 5-Phosphate (P5P) is the metabolically active coenzyme form of Vitamin B6. Vitamin B6 is converted to P5P in the liver, after which it is ready to be used in a number of important enzyme reactions. P5P is the most important indicator of Vitamin B6 levels in the body. P5P is involved in hormone and neurotransmitter synthesis, haemoglobin and amino acid biosynthesis and fatty acid metabolism. It is also important for nervous system function, hormone function and nucleic acid (DNA and RNA) synthesis.

What This Means

Low P5P: A low reading is indicative of low Vitamin B6 levels. Symptoms may include irritability, depression and confusion. Other symptoms include tongue inflammation, mouth ulcers and ulcers in the corners of the mouth. Alcohol consumption, a deficiency of magnesium or Vitamin B2, excessive protein intake and pregnancy may all increase the requirement for this nutrient. Certain medications may also interfere with Vitamin B6 metabolism.

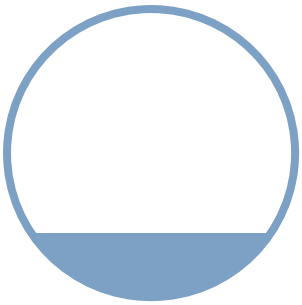
High P5P: A high P5P reading is usually indicative of supplementation with Vitamin B6 or P5P. High doses of Vitamin B6 (greater than 500mg per day long term) may cause a condition called sensory neuropathy. Symptoms include pain and numbness in the extremities, stiffness and difficulty in walking.

What To Do Next

Low score indicates the possible need for supplementation with this nutrient. A high score indicates the need to reduce exposure to oral and environmental forms of this nutrient.

Vitamin B3

Your reactivity: Score -3: Low



Vitamin B3 (niacin) is an essential water-soluble vitamin. It is involved in carbohydrate, protein and fat metabolism by cells and important in the energy production pathways. It is also involved in the production of fatty acids and cholesterol. Main food sources include yeast, meat, poultry, fish (salmon, tuna), grains, legumes and seeds. The body can produce niacin from the metabolism of the amino acid tryptophan. Smoking, alcohol consumption, individuals with poor dietary selections, defective tryptophan absorption and malabsorption disorders have a higher requirement for this nutrient. Long term antibiotic and chemotherapeutic agent use may lead to depletion.

What This Means

Low Vitamin B3: Low levels of Vitamin B3 may result from inadequate dietary intake, poor quality grain intake, defective tryptophan metabolism and malabsorption disorders. Severe deficiency may cause pellagra, a disease characterised by fatigue, mouth sores, cracked, flaky bleeding skin,red swollen tongue, headaches, nervousness, diarrhoea, depression and disorientation.

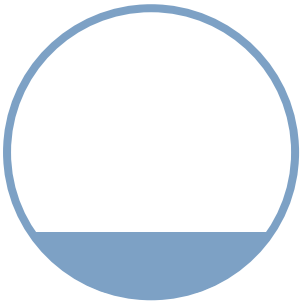
High Vitamin B3: High levels of Vitamin B3 may result from excessive supplementation. Niacin supplementation may trigger flushing, itching, tingling and nausea of the skin in sensitive individuals. Intakes greater than 1000mg per day long term may lead to liver toxicity.

What To Do Next

Low score indicates the possible need for supplementation with this nutrient. A high score indicates the need to reduce exposure to oral and environmental forms of this nutrient.

Arginine

Your reactivity: Score -3: Low



Arginine is a semi-essential amino acid that can be synthesised by the body from glutamine and citrulline. Under certain conditions, supplementation may be required. Newborns are required to obtain this amino acid from their diet. Dietary sources include animal proteins, seeds, nuts and legumes. Arginine functions as support for the immune system, regulates hormone and blood sugar levels, supports liver detoxification pathways, improves the strength of connective tissue and muscle. It also also helps the body process creatine and nitrogen in muscle growth and function.

What This Means

Low Score: A low arginine reading is associated with a deficiency of this amino acid. This may be due to insufficient intake from the diet, glutamine deficiency, excessive lysine supplementation or excess ammonia in the body. Symptoms of arginine deficiency include skin rashes, hair loss and poor wound healing.

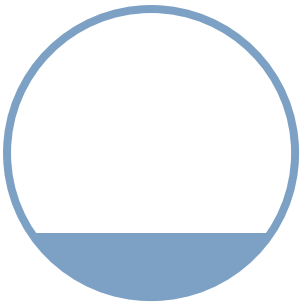
High Arginine: A high arginine reading is generally indicative of supplementation with this amino acid. Symptoms that may appear include increased gastric acid production and lowered blood pressure.

What To Do Next

A low score indicates the possible need for supplementation with this nutrient. A high score indicates possible supplementation with this nutrient or its increased endogenous production. Supplement dosage may need to be reviewed.

Magnesium

Your reactivity: Score -3: Low



Magnesium is an essential mineral. Is is required for the relaxation phase of muscles, nerve transmission, the conversion glycogen to glucose, bone formation, hard tooth enamel and assists calcium and potassium uptake. Main food sources include molasses, sunflower seeds, wheatgerm, almonds, most fish, seafood, soybeans, peanuts, pistachios, hazelnuts, oats, rice, dark leafy greens and most legumes.

Individuals with gastrointestinal disorders (chronic diarrhoea, Crohn's disease, malabsorption syndromes, coeliac disease, intestinal surgery), alcoholism, kidney disease (due to diabetes or hypertension) and the elderly, have a increased requirement for magnesium.

What This Means

Low Magnesium: Low magnesium levels may result in hyper-excitable nerves and muscles, sleep maintenance problems, muscle cramps, confusion, quivering tongue, abnormal heart rhythms and contribute to cardiovascular disease.

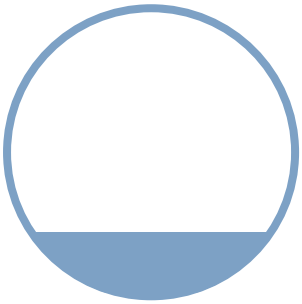
High Magnesium: High levels of magnesium excess may result from the excessive intake of supplemental magnesium. The most common sign of this is diarrhoea, especially with magnesium salts (levels exceeding 350mg/day). Continued high dosing of magnesium may lead to muscle weakness, lethargy, low blood pressure and breathing distress.

What To Do Next

Low score indicates the possible need for supplementation with this nutrient. A high score indicates the need to reduce exposure to oral and environmental forms of this nutrient.

Chromium

Your reactivity: Score -3: Low



Chromium is a mineral that is involved in several metabolic processes in the body. It increases cell sensitivity to insulin, helping to stabilise blood sugar levels, it raises HDL or 'good' cholesterol and assists heart, blood vessel and brain function. Main food sources include Brewer's/savoury yeast, yeast, oysters, broccoli, wholegrains, mushrooms, beer and wine. A balanced diet provides enough chromium for the body's needs.

Individuals with a high sugar and refined carbohydrate diet, and those with obesity and insulin resistance have a higher requirement for chromium. High intensity sports activities and the ageing process may also increase requirement for chromium.

What This Means

Low Chromium: Low levels of chromium may contribute to hypoglycaemia, diabetes, obesity, anxiety, fatigue and cardiovascular disease.

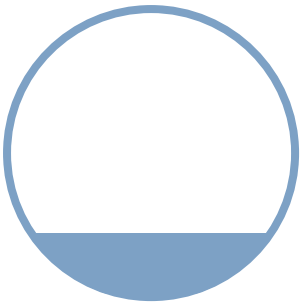
High Chromium: High levels of chromium may result from excess supplementation with this nutrient however, no adverse effects of elevated chromium are known.

What To Do Next

Low score indicates the possible need for supplementation with this nutrient. A high score indicates the need to reduce exposure to oral and environmental forms of this nutrient.

Maltase

Your reactivity: Score -3: Low



Maltase is an enzyme produced by the brush border enterocytes of the small intestine. Its main role is to break down the disaccharide sugar maltose into the simple sugar glucose. Maltose is commonly found in malted milkshakes and malted confectionary, but is also found in starchy foods that are fermented are fermented by yeasts or enzymes such as breads, brewed beverages and cooked sweet potatoes.

What This Means

Low Maltase: A low maltase reading may be associated with reduced endogenous production of this digestive enzyme. This may lead to a reduced capacity to break down maltose found in dietary starches. This may lead to symptoms of maltose intolerance which is characterised abdominal discomfort, nausea, bloating, flatulence and diarrhoea after consuming starches.

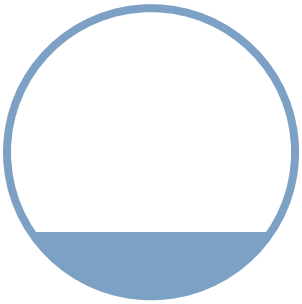
High Maltase: A high maltase reading may be indicative of supplementation with this enzyme or a digestive enzyme complex.

What To Do Next

A low score indicates the possible need for supplementation with this digestive enzyme. A high score indicates either over-production of this digestive enzyme or supplementation with this enzyme.

Vitamin B12 (Methylcobalamin)

Your reactivity: Score -3.5: Low



Methylcobalamin is a coenzyme form of Vitamin B12. This means that it functions in numerous enzyme pathways that require Vitamin B12. Methylcobalamin is efficiently taken up into most tissues of the body and stored more effectively than other forms of Vitamin B12. Besides providing a Vitamin B12, methylcobalamin acts as a cofactor in the transfer of methyl groups for the regeneration of methionine from homocysteine.

What This Means

Low Methylcobalamin: A low reading is indicative of low tissue stores of Vitamin B12. Causes include gastritis and malabsorption syndromes. Symptoms of deficiency include neurological symptoms (numbness and tingling in the extremities), mood changes, difficulty walking and dementia. Individuals with low stomach acid, bile and other digestive disorders, vegetarians - especially on a vegan diet, users of antacids, anti-gout and anticoagulant medications have an increased requirement for Vitamin B12.

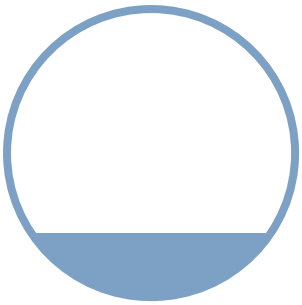
High Methylcobalamin: A high reading may be indicative of excessive supplementation with this nutrient. No adverse effects from high Vitamin B12 levels have been reported. It appears to be well-tolerated in high levels.

What To Do Next

Low score indicates the possible need for supplementation with this nutrient. A high score indicates the need to reduce exposure to oral and environmental forms of this nutrient.

Lipase

Your reactivity: Score -4: Low



Lipases are a group of enzymes produced by the pancreas and in various other body systems. In the gut (duodenum), lipase, together with colipase, are the main enzymes responsible for digesting dietary fats into smaller lipid molecules so that they can be more easily absorbed and distributed throughout the body. Bile, produced by the gallbladder, coats the lipid molecules making it easier for the lipases to break them down.

What This Means

Low Lipase: A low lipase reading is usually associated with a general decrease in pancreatic enzyme production. This may be due to hereditary factors and will impact on the way in which fats are digested. Symptoms include abdominal discomfort after consuming fats and fatty stools.

High Lipase: A high lipase reading is usually associated with pancreatic inflammation. However, genetic variations in lipase levels are known to exist and this needs to be ruled out before pancreatic dysfunction is considered as a cause.

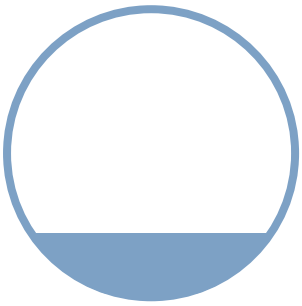
Please note that elevated lipase levels in this test may also be indicative of elevated blood lipase levels. This is associated with a number of systemic illnesses including pancreatitis. If symptoms are present then we recommend testing blood levels.

What To Do Next

A low score indicates the possible need for supplementation with this digestive enzyme. A high score indicates either over-production of this digestive enzyme or supplementation with this enzyme.

Copper

Your reactivity: Score -4: Low



Copper is important to the function of many enzymes in the body. It is important for the health of the brain and nervous system, heart and cardiovascular system, healthy bone formation, immune system, skin, blood formation and forms part of a cellular antioxidant called superoxide dismutase. Main plant sources include nuts, seeds, legumes, dried fruits, potatoes, wholegrains, cocoa, organ meats and shellfish. The copper content of these foods is reduced by processing. Environmental sources include copper water pipes (particularly in soft water areas, swimming pool water, some medications, pesticides, fungicides contraceptive pill and some contraceptive devices may raise copper levels.

Excess zinc intake may cause copper deficiency. Copper deficiency may lead to iron-deficiency anaemia due to the interaction in blood formation. Copper deficiency may reduce selenium-dependent antioxidant functions in the body.

What This Means

Low Copper: Low levels of copper may result from malnutrition, malabsorption, inherited factors and excessive zinc supplementation. Symptoms include blood cell abnormalities, anaemia (certain forms), bone and connective tissue abnormalities, immune dysfunction and neurological disorders.

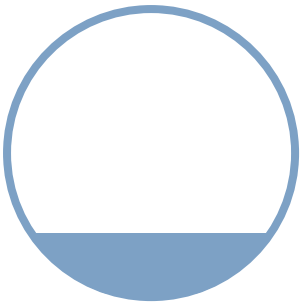
High Copper: High levels of copper may result from excessive supplementation, exposure to environmental sources or copper metabolism disorder (Wilson's disease). An excess of 10mg/day is the maximum upper limit. Symptoms of acute copper toxicity include abdominal pain, nausea, vomiting and diarrhoea. Chronic toxicity may result in kidney damage.

What To Do Next

Low score indicates the possible need for supplementation with this nutrient. A high score indicates the need to reduce exposure to oral and environmental forms of this nutrient.

Coenzyme Q10

Your reactivity: Score -4.5: Low



Coenzyme Q10 (CoQ10) is an antioxidant compound found naturally occurring in the cells of the body. It is the oxidised form of ubiquinol and functions as both antioxidant and a cofactor in cellular energy production (formation of ATP). The body is able to synthesise CoQ10 and therefore it is not considered to be an essential nutrient. Animal proteins are the main dietary source of CoQ10. Its role in the cell cycle of energy production is critical to the healthy function of cells, particularly metabolically active cells such as cells of the heart, liver and skeletal muscle.

What This Means

Low CoQ10: A low CoQ10 reading is indicative of insufficient cellular stores of this nutrient. Causes include the use of cholesterol-lowering medication or any other factors that impact on cellular energy production. Symptoms include physical and mental fatigue, an increase in pain-related disorders such as headaches, migraine, muscle and joint pain, neurological symptoms, weakened immunity and increased risk of heart disease and obesity.

High CoQ10: A high Co Q10 reading is indicative of supplementation with CoQ10 or ubiquinol.

What To Do Next

Low score indicates the possible need for supplementation with this nutrient. A high score indicates the need to reduce exposure to oral and environmental forms of this nutrient.