# Functional Health Report

## Patient Copy

## JOHN DOE

Lab Test on Nov 04, 2024
Conventional US Units

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# Blood Test Results Report

The Blood Test Results Report lists the results of your Blood Chemistry Screen and CBC Test and shows you whether or not an individual element is outside of the optimal range and/or outside of the clinical lab range.

| | | | |
|---|---|---|---|
| Above Optimal Range<br>11 Current 0 Previous ↑ | Above Standard Range<br>4 Current 0 Previous ↑ | Alarm High<br>0 Current 0 Previous | |
| Below Optimal Range<br>7 Current 0 Previous ↓ | Below Standard Range<br>2 Current 0 Previous ↓ | Alarm Low<br>0 Current 0 Previous | |

| Element | Current<br>Nov 04 2023 | Previous<br>Not Available | Impr | Optimal Range | Standard Range | Units |
|---|---|---|---|---|---|---|
| Glucose | 95.00 ↑ | | | 72.00 - 90.00 | 65.00 - 99.00 | mg/dL |
| Hemoglobin A1C | 5.10 | | | 5.00 - 5.50 | 0.00 - 5.60 | % |
| Insulin - Fasting | 7.30 ↑ | | | 2.00 - 5.00 | 2.00 - 19.00 | µIU/ml |
| BUN | 18.00 ↑ | | | 10.00 - 16.00 | 7.00 - 25.00 | mg/dL |
| Creatinine | 0.98 | | | 0.80 - 1.10 | 0.40 - 1.35 | mg/dL |
| BUN/Creatinine Ratio | 18.36 ↑ | | | 10.00 - 16.00 | 6.00 - 22.00 | Ratio |
| eGFR | 106.00 | | | 90.00 - 120.00 | 60.00 - 90.00 | mL/min/1.73m2 |
| Sodium | 140.00 | | | 135.00 - 142.00 | 135.00 - 146.00 | mEq/L |
| Potassium | 3.90 ↓ | | | 4.00 - 4.50 | 3.50 - 5.30 | mEq/L |
| Sodium/Potassium Ratio | 35.89 ↑ | | | 30.00 - 35.00 | 30.00 - 35.00 | ratio |
| Chloride | 101.00 | | | 100.00 - 106.00 | 98.00 - 110.00 | mEq/L |
| CO2 | 27.00 | | | 25.00 - 30.00 | 19.00 - 30.00 | mEq/L |
| Anion gap | 15.90 ↑ | | | 7.00 - 12.00 | 6.00 - 16.00 | mEq/L |
| Uric Acid, male | 4.60 | | | 3.50 - 5.90 | 4.00 - 8.00 | mg/dL |
| Protein, total | 7.00 | | | 6.90 - 7.40 | 6.10 - 8.10 | g/dL |
| Albumin | 4.60 | | | 4.00 - 5.00 | 3.60 - 5.10 | g/dL |
| Globulin, total | 2.40 | | | 2.40 - 2.80 | 2.00 - 3.50 | g/dL |
| Albumin/Globulin Ratio | 1.91 | | | 1.40 - 2.10 | 1.00 - 2.50 | ratio |
| Calcium | 9.40 | | | 9.40 - 10.10 | 8.60 - 10.40 | mg/dL |
| Calcium/Albumin Ratio | 2.04 | | | 0.00 - 2.60 | 0.00 - 2.70 | ratio |
| Phosphorus | 3.60 | | | 3.50 - 4.00 | 2.50 - 4.50 | mg/dL |
| Calcium/Phosphorous Ratio | 2.61 | | | 2.30 - 2.80 | 1.90 - 4.20 | ratio |
| Magnesium | 2.10 ↓ | | | 2.20 - 2.50 | 1.50 - 2.50 | mg/dl |
| Alk Phos | 71.00 | | | 70.00 - 100.00 | 35.00 - 115.00 | IU/L |
| AST (SGOT) | 26.00 | | | 10.00 - 26.00 | 10.00 - 35.00 | IU/L |
| ALT (SGPT) | 17.00 | | | 10.00 - 26.00 | 6.00 - 29.00 | IU/L |
| LDH | 168.00 | | | 140.00 - 200.00 | 120.00 - 250.00 | IU/L |
| Bilirubin - Total | 0.60 | | | 0.10 - 0.90 | 0.20 - 1.20 | mg/dL |
| Bilirubin - Direct | 0.14 | | | 0.00 - 0.19 | 0.00 - 0.20 | mg/dL |

| | | | | | | |
|---|---|---|---|---|---|---|
| Bilirubin - Indirect | 0.46 | | | 0.10 - 0.70 | 0.20 - 1.20 | mg/dL |
| GGT | 9.00 ↓ | | | 10.00 - 30.00 | 3.00 - 70.00 | IU/L |
| Iron - Serum | 122.00 | | | 85.00 - 130.00 | 40.00 - 160.00 | µg/dL |
| Ferritin | 317.00 ↑ | | | 40.00 - 150.00 | 10.00 - 232.00 | ng/mL |
| TIBC | 288.00 | | | 250.00 - 350.00 | 250.00 - 425.00 | µg/dL |
| Cholesterol - Total | 156.00 | | | 155.00 - 190.00 | 125.00 - 200.00 | mg/dL |
| Triglycerides | 67.00 | | | 50.00 - 100.00 | 0.00 - 150.00 | mg/dL |
| LDL Cholesterol | 101.00 | | | 0.00 - 120.00 | 0.00 - 100.00 | mg/dL |
| HDL Cholesterol | 42.00 ↓ | | | 55.00 - 70.00 | 46.00 - 100.00 | mg/dL |
| Cholesterol/HDL Ratio | 3.70 ↑ | | | 0.00 - 3.00 | 0.00 - 5.00 | Ratio |
| Triglyceride/HDL Ratio | 1.59 | | | 0.00 - 2.00 | 0.00 - 3.30 | ratio |
| TSH | 1.56 | | | 1.00 - 3.00 | 0.40 - 4.50 | µU/mL |
| Total T3 | 108.00 | | | 90.00 - 168.00 | 76.00 - 181.00 | ng/dL |
| Total T4 | 8.10 | | | 6.00 - 11.90 | 4.50 - 12.00 | µg/dL |
| T3 Uptake | 27.00 | | | 27.00 - 35.00 | 22.00 - 35.00 | % |
| Free Thyroxine Index (T7) | 2.18 | | | 1.70 - 4.60 | 1.40 - 3.80 | Index |
| Hs CRP, Male | 0.80 | | | 0.00 - 0.99 | 0.00 - 2.90 | mg/L |
| Homocysteine | 7.30 ↑ | | | 0.00 - 6.00 | 0.00 - 10.30 | µmol/L |
| Fibrinogen | 240.00 ↓ | | | 295.00 - 369.00 | 175.00 - 425.00 | mg/dl |
| Vitamin D (25-OH) | 23.00 ↓ | | | 50.00 - 90.00 | 30.00 - 100.00 | ng/ml |
| Vitamin B12 | 455.00 | | | 400.00 - 1100.00 | 200.00 - 1100.00 | pg/ml |
| DHEA-S, Male | 252.00 ↓ | | | 350.00 - 490.00 | 65.00 - 510.00 | µg/dl |
| Testosterone, Total Male | 340.80 ↓ | | | 700.00 - 900.00 | 264.00 - 916.00 | ng/dl |
| Estradiol, Male | 11.70 | | | 10.00 - 30.00 | 0.00 - 39.00 | pg/ml |
| Total WBCs | 6.20 | | | 5.30 - 7.50 | 3.80 - 10.80 | k/cumm |
| RBC, Male | 4.92 ↑ | | | 4.20 - 4.90 | 4.20 - 5.80 | m/cumm |
| Hemoglobin, Male | 16.10 ↑ | | | 14.00 - 15.00 | 13.20 - 17.10 | g/dl |
| Hematocrit, Male | 47.00 | | | 40.00 - 48.00 | 38.50 - 50.00 | % |
| MCV | 96.00 ↑ | | | 85.00 - 92.00 | 80.00 - 100.00 | fL |
| MCH | 32.70 ↑ | | | 27.00 - 31.90 | 27.00 - 33.00 | pg |
| MCHC | 34.30 | | | 32.00 - 35.00 | 32.00 - 36.00 | g/dL |
| Platelets | 149.00 ↓ | | | 150.00 - 400.00 | 140.00 - 400.00 | k/cumm |
| RDW | 12.00 | | | 11.70 - 13.00 | 11.00 - 15.00 | % |
| Neutrophils | 55.00 | | | 40.00 - 60.00 | 38.00 - 74.00 | % |
| Lymphocytes | 30.00 | | | 25.00 - 40.00 | 14.00 - 46.00 | % |
| Monocytes | 10.00 ↑ | | | 0.00 - 7.00 | 0.00 - 7.00 | % |
| Eosinophils | 4.00 ↑ | | | 0.00 - 3.00 | 0.00 - 3.00 | % |
| Basophils | 1.00 | | | 0.00 - 1.00 | 0.00 - 1.00 | % |

# Out of Optimal Range Report

The following results show all of the elements that are out of the optimal reference range. The elements that appear closest to the top of each section are those elements that are farthest from optimal.

Above Optimal Range
15 Total ↑

Below Optimal Range
9 Total ↓

## Above Optimal

**Ferritin ↑ 317.00 ng/mL (+ 202 %)**

Ferritin is the main storage form of iron in the body. Decreased levels are strongly associated with iron deficiency where it is the most sensitive test to detect iron deficiency. Increased levels are associated with iron overload, an increasing risk of cardiovascular disease, inflammation and oxidative stress.

**Hemoglobin, Male ↑ 16.10 g/dl (+ 160 %)**

Hemoglobin is the oxygen carrying molecule in red blood cells. Measuring hemoglobin is useful to determine the cause and type of anemia and for evaluating the efficacy of anemia treatment. Hemoglobin levels may be increased in cases of dehydration.

**Anion gap ↑ 15.90 mEq/L (+ 128 %)**

The anion gap is the measurement of the difference between the sum of the sodium and potassium levels and the sum of the serum $CO_2$/bicarbonate and chloride levels. Increased levels are associated with thiamine deficiency and metabolic acidosis.

**Insulin - Fasting ↑ 7.30 µIU/ml (+ 127 %)**

insulin is the hormone released in response to rising blood glucose levels and decreases blood glucose by transporting glucose into the cells. Often people lose their ability to utilize insulin to effectively drive blood glucose into energy-producing cells. This is commonly known as “insulin resistance” and is associated with increasing levels of insulin in the blood. Excess insulin is associated with greater risks of heart attack, stroke, metabolic syndrome and diabetes.

**MCV ↑ 96.00 fL (+ 107 %)**

The MCV is a measurement of the volume in cubic microns of an average single red blood cell. MCV indicates whether the red blood cell size appears normal (normocytic), small (microcytic), or large (macrocytic). An increase or decrease in MCV can help determine the type of anemia present. An increased MCV is associated with B12, folate, or vitamin C deficiency. A decreased MCV is associated with iron and B6 deficiency.

**Monocytes ↑ 10.00 % (+ 93 %)**

Monocytes are white blood cells that are the body’s second line of defense against infection. They are phagocytic cells that are capable of movement and remove dead cells, microorganisms, and particulate matter from circulating blood. Levels tend to rise at the recovery phase of an infection or with chronic infection.

**BUN/Creatinine Ratio ↑ 18.36 Ratio (+ 89 %)**

The BUN/Creatinine is a ratio between the BUN and Creatinine levels. An increased level is associated with renal dysfunction. A decreased level is associated with a diet low in protein.

**BUN ↑ 18.00 mg/dL (+ 83 %)**

BUN or Blood Urea Nitrogen reflects the ratio between the production and clearance of urea in the body. Urea is formed almost entirely by the liver from both protein metabolism and protein digestion. The amount of urea excreted as BUN varies with the amount of dietary protein intake. Increased BUN may be due to an increased production of urea by the liver or decreased excretion by the kidney. BUN is a test used predominantly to measure kidney function, where it will be increased. An increased BUN is also associated with dehydration and hypochlorhydria. A low BUN is associated with malabsorption and a diet low in protein.

**Eosinophils ↑ 4.00 % (+ 83 %)**

Eosinophils are a type of White Blood Cell, which are often increased in patients that are suffering from intestinal parasites or food or environmental sensitivities/allergies.

**Glucose ↑ 95.00 mg/dL (+ 78 %)**

Blood glucose levels are regulated by several important hormones including insulin and glucagon. Glucose is also directly formed in the body from carbohydrate digestion and from the conversion in the liver of other sugars, such as fructose, into glucose. Increased blood glucose is associated with type 1 & 2 diabetes, metabolic syndrome, and insulin resistance. Decreased levels of blood glucose are associated with hypoglycemia.

**Cholesterol/HDL Ratio ↑ 3.70 Ratio (+ 73 %)**

The ratio of total cholesterol to HDL is a far better predictor of cardiovascular disease than cholesterol by itself. A lower ratio is ideal because you want to lower cholesterol (but not too low) and raise HDL. A level below 3.0 would be ideal. Every increase of 1.0, i.e. 3.0 to 4.0 increases the risk of heart attack by 60%.

**Homocysteine ↑ 7.30 µmol/L (+ 72 %)**

Homocysteine is a molecule formed from the incomplete metabolism of the amino acid methionine. Deficiencies in Vitamins B6, B12 and folate cause methionine to be converted into homocysteine. Homocysteine increases the risk of cardiovascular disease by causing damage to the endothelial lining of the arteries, especially in the heart. Increased levels of homocysteine are associated with an increased risk of cardiovascular disease and stroke, as well as cancer, depression and inflammatory bowel disease.

**Sodium/Potassium Ratio ↑ 35.89 ratio (+ 68 %)**

The Sodium:Potassium ratio is determined from the serum sodium and serum potassium levels. Both elements are under the influence of the adrenal glands. An increased Sodium:Potassium ratio is associated with acute stress and a decreased Sodium:Potassium ratio is associated with chronic stress and adrenal insufficiency.

**MCH ↑ 32.70 pg (+ 66 %)**

The Mean Corpuscular Hemoglobin (MCH) is a calculated value and is an expression of the average weight of hemoglobin per red blood cell. MCH, along with MCV can be helpful in determining the type of anemia present.

**RBC, Male ↑ 4.92 m/cumm (+ 53 %)**

The red blood cell functions to carry oxygen from the lungs to the body tissues and to transfer carbon dioxide from the tissues to the lungs where it is expelled. The RBC Count determines the total number of cells or erythrocytes found in a cubic millimeter of blood. Increased levels are associated with dehydration, stress, a need for vitamin C and respiratory distress such as asthma. Decreased levels are primarily associated with anemia.

## Below Optimal

**Testosterone, Total Male ↓ 340.80 ng/dl (- 230 %)**

Testosterone is the primary sex hormone for men. The total testosterone test measures both the testosterone that is bound to serum proteins and the unbound form (free testosterone). In men, total testosterone is useful for assessing gonadal, adrenal, and pituitary function.

**HDL Cholesterol ↓ 42.00 mg/dL (- 137 %)**

HDL functions to transport cholesterol from the peripheral tissues and vessel walls to the liver for processing and metabolism into bile salts. It is known as “good cholesterol” because it is thought that this process of bringing cholesterol from the peripheral tissue to the liver is protective against atherosclerosis. Decreased HDL is considered atherogenic, increased HDL is considered protective.

**Fibrinogen ↓ 240.00 mg/dl (- 124 %)**

Fibrinogen is one of the principle blood clotting proteins. It is produced in the liver and liver disease and dysfunction can cause a decrease in the level of circulating fibrinogen. Levels increase with tissue inflammation or tissue destruction. Elevated fibrinogen levels are associated with an increased risk of cardiovascular disease, heart attack, and stroke. Fibrinogen levels are often elevated in patients suffering from cancer, especially colon cancer.

**DHEA-S, Male ↓ 252.00 µg/dl (- 120 %)**

DHEA is produced primarily from the adrenals and is the most abundant circulating steroid in the human body and influences more than 150 known anabolic (repair) functions throughout the body and brain. It is the precursor for the sex hormones: testosterone, progesterone, and estrogen. Decreased levels are associated with many common age-related conditions, including diseases of the nervous, cardiovascular, and immune systems such as metabolic syndrome, coronary artery disease, osteoporosis, mood disorders and sexual dysfunction. Ideally DHEA levels should be maintained at the level of a healthy 30-year-old to maximize the anti-aging effects.

**Vitamin D (25-OH) ↓ 23.00 ng/ml (- 118 %)**

This vitamin D test measures for levels of 25-OH vitamin D and is a very good way to assess vitamin D status. Vitamin D deficiency has been associated with many disorders including many forms of cancer, hypertension, cardiovascular disease, chronic inflammation, chronic pain, mental illness including depression, diabetes, multiple sclerosis to name just a few.

**Magnesium ↓ 2.10 mg/dl (- 83 %)**

Magnesium is important for many different enzymatic reactions, including carbohydrate metabolism, protein synthesis, nucleic acid synthesis, and muscular contraction. Magnesium is also needed for energy production and is used by the body in the blood clotting mechanism. An increased serum magnesium is associated with kidney dysfunction and thyroid hypofunction. A decreased magnesium is a common finding with muscle cramps.

**Potassium ↓ 3.90 mEq/L (- 70 %)**

Potassium is one of the main electrolytes in the body. Due to the critical functions of potassium for human metabolism and physiology it is essential for the body to maintain optimum serum levels even though a small concentration is found outside of the cell. Potassium levels should always be viewed in relation to the other electrolytes. Potassium concentration is greatly influenced by adrenal hormones. As such, potassium levels can be a marker for adrenal dysfunction.

**GGT ↓ 9.00 IU/L (- 55 %)**

Gamma Glutamyl Transferase (GGTP) is an enzyme that is present in highest amounts in the liver cells and to a lesser extent the kidney, prostate, and pancreas. It is also found in the epithelial cells of the biliary tract. GGTP will be liberated into the bloodstream following cell damage or destruction and/or biliary obstruction. GGTP is induced by alcohol and can be elevated following chronic alcohol consumption and in alcoholism. Decreased levels are associated with vitamin B6 and magnesium deficiency.

**Platelets ↓ 149.00 k/cumm (- 50 %)**

Platelets or thrombocytes are the smallest of the formed elements in the blood. Platelets are necessary for blood clotting, vascular integrity, and vasoconstriction. They form a platelet plug, which plugs up breaks in small vessels. increased platelets may be seen with atherosclerosis. Decreased levels are associated with oxidative stress, heavy metal body burden and infections.

# Functional Index Report

The indices shown below represent an analysis of your blood test results. These results have been converted into your individual Functional Indices Report based on our latest research. This report gives me an indication of the level of dysfunction that exists in the various physiological systems in your body from the digestion of the food you eat to the health of your liver and the strength of your immune system – which are all key factors in maintaining optimal health. We can use this information to put together a unique treatment plan designed to bring your body back into a state of functional health, wellness and energy.

**Score Guide:** **90% - 100%** - Dysfunction Highly Likely, **70% - 90%** - Dysfunction Likely, **50% - 70%** - Dysfunction Possible, **< 50%** - Dysfunction Less Likely.

| Functional Index | 0% 100% |
|---|---|
| Blood Sugar Index | 75% |
| Sex Hormone Index - Male | 73% |
| Cardiovascular Risk Index | 69% |
| Adrenal Function Index | 68% |
| Allergy Index | 60% |
| Inflammation Index | 55% |
| Acid-Base Index | 50% |
| GI Function Index | 40% |
| Kidney Function Index | 36% |
| Prostate Function Index | 33% |
| Electrolyte Index | 33% |
| Heavy Metal Index | 31% |
| Oxidative Stress Index | 29% |
| Toxicity Index | 28% |
| Bone Health Index | 27% |
| Immune Function Index | 21% |
| Liver Function Index | 20% |
| Lipid Panel Index | 18% |
| Red Blood Cell Index | 18% |
| Gallbladder Function Index | 0% |
| Thyroid Function Index | 0% |

## Blood Sugar Index

The Blood Sugar index tells us how well your body is regulating blood glucose. Blood sugar dysregulation is very common. It doesn't suddenly emerge but rather develops slowly, so we can look for clues in your blood test that can help us determine if there's dysregulation and if so what it is. Some conditions associated with blood sugar dysregulation include hypoglycemia (periods of low blood sugar), metabolic syndrome, hyperinsulinemia and diabetes. For your blood test, your Blood Sugar Index is:

**[ 75% ] - Dysfunction Likely. Improvement required.**

**Rationale:**
Glucose ↑, Insulin - Fasting ↑, HDL Cholesterol ↓, DHEA-S, Male ↓

## Sex Hormone Index - Male

The Male Sex Hormone Index helps us assess for sex hormone regulation. Blood levels of these crucial hormones diminish with age, contributing to age-related dysfunctions such as low libido, blood sugar problems, excess weight, heart disease, etc. We can measure sex hormone levels in your blood and determine from the Sex Hormone Index whether the levels are optimal for your continued health and wellness. For your blood test, your Male Sex Hormone Index is:

**[ 73% ] - Dysfunction Likely. Improvement required.**

**Rationale:**
DHEA-S, Male ↓, Testosterone, Total Male ↓

## Cardiovascular Risk Index

The Cardiovascular Risk Index looks at 15 elements on a blood test to assess for your risk of cardiovascular dysfunction. A high Cardiovascular Risk Index indicates that you may be at an increased risk of developing cardiovascular disease. The Cardiovascular Risk index will be used along with information from an examination of your diet, lifestyle, exercise, body mass index and family history to give us a more complete picture of what is going on. For your blood test, your Cardiovascular Risk Index is:

**[ 69% ] - Dysfunction Possible. There may be improvement needed in certain areas.**

**Rationale:**
Glucose ↑, HDL Cholesterol ↓, Ferritin ↑, Homocysteine ↑, Testosterone, Total Male ↓, Insulin - Fasting ↑, Vitamin D (25-OH) ↓

## Adrenal Function Index

The Adrenal Function Index reflects the degree of function in your adrenal glands. The adrenal glands produce certain hormones in response to stress. They are responsible for what is commonly called "the fight or flight response". Unfortunately when your body is under constant stress, which is very common, your adrenal glands become less functional. Adrenal dysfunction can be caused by an increase output of stress hormones (adrenal stress) or more commonly a decrease output of adrenal hormones (adrenal insufficiency). We can look at elements in the blood to assess the functional state of your adrenals. For your blood test, your Adrenal Function Index is:

**[ 68% ] - Dysfunction Possible. There may be improvement needed in certain areas.**

**Rationale:**
Potassium ↓, Sodium/Potassium Ratio ↑, BUN ↑, DHEA-S, Male ↓

## Allergy Index

The Allergy Index reflects the degree of food or environmental sensitivities/allergies you may be dealing with. A number of elements on a blood test may increase in association with food allergies and/or sensitivities. A high Allergy Index may indicate the need for further assessment or evaluation of food or environmental sensitivities/allergies. For your blood test, your Allergy Index is:

**[ 60% ] - Dysfunction Possible. There may be improvement needed in certain areas.**

**Rationale:**
Eosinophils ↑

## Inflammation Index

The Inflammation Index can help us identify whether or not you are suffering from inflammation. This is important because inflammation can be silent, i.e. not have any symptoms. A number of elements on a blood test can indicate the presence of inflammation. These are markers for inflammation and are not specific to any particular inflammatory condition or disease but they can help us look at the underlying dysfunctions that are the true cause of inflammation in the body. For your blood test, your Inflammation Index is:

**[ 55% ] - Dysfunction Possible. There may be improvement needed in certain areas.**

**Rationale:**
Homocysteine ↑, Sodium/Potassium Ratio ↑, Ferritin ↑, Vitamin D (25-OH) ↓

## Acid-Base Index

The Acid-Base Index can help us pinpoint imbalances in the body's pH (acid-alkaline) regulation system. There are a number of elements in the blood that will go out of balance when the body gets too acidic (a condition called metabolic acidosis) or too alkaline (a condition called metabolic alkalosis). For your blood test, your Acid-Alkaline Index is:

**[ 50% ] - Dysfunction Possible. There may be improvement needed in certain areas.**

**Rationale:**
Anion gap ↑, Potassium ↓

# Nutrient Index Report

The indices shown below represent an analysis of your blood test results. These results have been converted into your individual Nutrient Assessment Report based on our latest research. This report gives me an indication of your nutritional status. Nutritional status is influenced by actual dietary intake, digestion, absorption, assimilation and cellular uptake of the nutrients themselves. We can use this information to put together a unique treatment plan designed to bring your body back into a state of functional health, wellness and energy.

**Score Guide:** **90% - 100%** - Nutrient Status is Poor, **75% - 90%** - Nutrient Status is Low, **50% - 75%** - Moderate Nutrient Status, **< 50%** - Optimum Nutrient Status

| Nutrient Index | 0% 100% |
|---|---|
| Vitamin Index | 100% |
| Hydration Index | 60% |
| Mineral Index | 33% |
| Carbohydrate Index | 25% |
| Fat Index | 0% |
| Protein Index | 0% |

## Vitamin Index

The Vitamin Index gives us a general indication of the balance of certain vitamins in your body. Vitamin levels are constantly fluctuating based on a number of factors, such as the amount in your diet, your ability to digest and breakdown individual vitamins from the food or supplements you consume, the ability of those vitamins to be absorbed, transported and ultimately taken up into the cells themselves. For your blood test, your Vitamin Index is:

**[ 100% ] - Nutrient Status is Poor. Much improvement required.**

**Rationale:**
Anion gap ↑, GGT ↓, Homocysteine ↑, Vitamin D (25-OH) ↓, MCV ↑

## Hydration Index

The Hydration index gives us a good indication of how well hydrated you were at the time your blood was drawn. Adequate hydration is necessary for many basic chemical reactions in your body, including digestion, electrolyte balance, hormone transport, and kidney and heart function. Dehydration is a very common problem and is most often due to insufficient water intake and/or excessive use of diuretics (substances that increase water loss from the body). These would include certain over the counter and prescription drugs, botanical medicines, caffeine, etc. These are some of the most common causes of dehydration and may be a cause of an increased Hydration Index. For your blood test, your Hydration Index is:

**[ 60% ] - Moderate Nutrient Status. There may be improvement needed in certain areas.**

**Rationale:**
BUN ↑, RBC, Male ↑, Hemoglobin, Male ↑

## Individual Nutrient Values

The values below represent the degree of deficiency for individual nutrients based on your blood results. The status of an individual nutrient is based on a number of factors such as actual dietary intake, digestion, absorption, assimilation and cellular uptake of the nutrients themselves. All of these factors must be taken into consideration before determining whether or not you actually need an individual nutrient. I will use the information in this section of your Nutrient Assessment Report to put together an individualized treatment plan to bring your body back into a state of optimal nutritional function.

**Score Guide:** **90% - 100%** - Deficiency Highly Likely, **70% - 90%** - Deficiency Likely, **50% - 70%** - Deficiency Possible, **< 50%** - Deficiency Less Likely.

| Individual Nutrients | 0% 100% |
|---|---|
| Magnesium Need | 100% |
| DHEA Need | 100% |
| Vitamin D Need | 100% |
| Vitamin B12/Folate Need | 61% |
| Thiamine Need | 60% |
| Vitamin B6 Need | 50% |
| Calcium Need | 43% |
| Vitamin C Need | 10% |
| Iron Deficiency | 0% |
| Iodine Need | 0% |
| Molybdenum Need | 0% |
| Selenium Need | 0% |
| Glutathione Need | 0% |

## Magnesium Need

The results of your blood test indicate that your magnesium levels might be lower than optimal.

**[ 100% ] - Dysfunction Highly Likely. Much improvement required.**

**Rationale:**
Magnesium ↓, GGT ↓, Potassium ↓

## DHEA Need

The results of your blood test indicate that your DHEA levels might be lower than optimal.

**[ 100% ] - Dysfunction Highly Likely. Much improvement required.**

**Rationale:**
DHEA-S, Male ↓

## Vitamin D Need

The results of your blood test indicate that your Vitamin D levels might be lower than optimal.

**[ 100% ] - Dysfunction Highly Likely. Much improvement required.**

**Rationale:**
Vitamin D (25-OH) ↓

## Vitamin B12/Folate Need

The results of your blood test indicate that your Vitamin B12 and Folate levels might be lower than optimal.

**[ 61% ] - Dysfunction Possible. There may be improvement needed in certain areas.**

**Rationale:**
MCV ↑, Homocysteine ↑, MCH ↑

## Thiamine Need

The results of your blood test indicate that your thiamine levels might be lower than optimal.

**[ 60% ] - Dysfunction Possible. There may be improvement needed in certain areas.**

**Rationale:**
Anion gap ↑, Glucose ↑

## Vitamin B6 Need

The results of your blood test indicate that your Vitamin B6 levels might be lower than optimal.

**[ 50% ] - Dysfunction Possible. There may be improvement needed in certain areas.**

**Rationale:**
GGT ↓, Ferritin ↑

# Blood Test History Report

The Blood Test History Report lists the results of your Blood Chemistry Screen and CBC tests side by side with the latest test listed on the right hand side. This report allows you to compare results over time and see where improvement has been made and allows you to track your progress.

| Element | Latest Test Result Nov 04 2023 |
|---|---|
| Glucose | 95.00 ↑ |
| Hemoglobin A1C | 5.10 |
| Insulin - Fasting | 7.30 ↑ |
| Fructosamine | |
| C-Peptide | |
| BUN | 18.00 ↑ |
| Creatinine | 0.98 |
| BUN/Creatinine Ratio | 18.36 ↑ |
| Creatinine, 24-hour urine | |
| Creatinine Clearance | |
| eGFR | 106.00 |
| Sodium | 140.00 |
| Potassium | 3.90 ↓ |
| Sodium/Potassium Ratio | 35.89 ↑ |
| Chloride | 101.00 |
| CO2 | 27.00 |
| Anion gap | 15.90 ↑ |
| Uric Acid, male | 4.60 |
| Protein, total | 7.00 |
| Albumin | 4.60 |
| Globulin, total | 2.40 |
| Albumin/Globulin Ratio | 1.91 |
| Calcium | 9.40 |
| Calcium/Albumin Ratio | 2.04 |
| Collagen Cross-Linked NTx | |
| Phosphorus | 3.60 |
| Calcium/Phosphorous Ratio | 2.61 |
| Magnesium | 2.10 ↓ |
| Alk Phos | 71.00 |

| Element | Latest Test Result Nov 04 2023 |
|---|---|
| LDH | 168.00 |
| AST (SGOT) | 26.00 |
| ALT (SGPT) | 17.00 |
| GGT | 9.00 ↓ |
| Bilirubin - Total | 0.60 |
| Bilirubin - Direct | 0.14 |
| Bilirubin - Indirect | 0.46 |
| Iron - Serum | 122.00 |
| Ferritin | 317.00 ↑ |
| TIBC | 288.00 |
| % Transferrin saturation | |
| Cholesterol - Total | 156.00 |
| Triglycerides | 67.00 |
| HDL Cholesterol | 42.00 ↓ |
| LDL Cholesterol | 101.00 |
| VLDL Cholesterol | |
| Cholesterol/HDL Ratio | 3.70 ↑ |
| Triglyceride/HDL Ratio | 1.59 |
| Leptin, Male | |
| TSH | 1.56 |
| Total T4 | 8.10 |
| Total T3 | 108.00 |
| Free T4 | |
| Free T3 | |
| T3 Uptake | 27.00 |
| Free Thyroxine Index (T7) | 2.18 |
| Thyroid Peroxidase (TPO) Abs | |
| Thyroglobulin Abs | |
| Reverse T3 | |
| Hs CRP, Male | 0.80 |
| C-Reactive Protein | |
| ESR, Male | |
| Homocysteine | 7.30 ↑ |
| Fibrinogen | 240.00 ↓ |
| Creatine Kinase | |

| Element | Latest Test Result Nov 04 2023 |
|---|---|
| Vitamin D (25-OH) | 23.00 ↓ |
| Vitamin B12 | 455.00 |
| Folate | |
| DHEA-S, Male | 252.00 ↓ |
| Cortisol - AM | |
| Cortisol - PM | |
| Testosterone, Free Male | |
| Testosterone, Total Male | 340.80 ↓ |
| Testosterone - Bioavailable Female | |
| Sex Hormone Binding Globulin, male | |
| Estradiol, Male | 11.70 |
| Progesterone, Male | |
| PSA | |
| Total WBCs | 6.20 |
| RBC, Male | 4.92 ↑ |
| Reticulocyte count | |
| Hemoglobin, Male | 16.10 ↑ |
| Hematocrit, Male | 47.00 |
| MCV | 96.00 ↑ |
| MCH | 32.70 ↑ |
| MCHC | 34.30 |
| Platelets | 149.00 ↓ |
| RDW | 12.00 |
| Neutrophils | 55.00 |
| Bands | |
| Lymphocytes | 30.00 |
| Monocytes | 10.00 ↑ |
| Basophils | 1.00 |
| Eosinophils | 4.00 ↑ |

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