



Functional Health Report

Patient Copy

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Lab Test on Jan 18, 2020
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 9 Current 0 Previous ↑	Above Standard Range 12 Current 0 Previous ↑	Alarm High 3 Current 0 Previous
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Below Optimal Range 6 Current 0 Previous ↓	Below Standard Range 0 Current 0 Previous ↓	Alarm Low 0 Current 0 Previous
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Element	Current	Previous	Impr	Optimal Range	Standard Range	Units
	Jan 18 2020	Not Available				
Glucose	83.00			72.00 - 90.00	65.00 - 99.00	mg/dL
Hemoglobin A1C	5.40			5.00 - 5.50	0.00 - 5.60	%
Insulin - Fasting	13.60 ↑			2.00 - 5.00	2.00 - 19.00	µIU/ml
BUN	14.00			10.00 - 16.00	7.00 - 25.00	mg/dL
Creatinine	0.75 ↓			0.80 - 1.10	0.40 - 1.35	mg/dL
BUN/Creatinine Ratio	18.66 ↑			10.00 - 16.00	6.00 - 22.00	Ratio
eGFR Non-Afr. American	88.00 ↓			90.00 - 120.00	60.00 - 90.00	mL/min/1.73m2
eGFR African American	101.00			90.00 - 120.00	60.00 - 90.00	mL/min/1.73m2
Sodium	142.00			135.00 - 142.00	135.00 - 146.00	mEq/L
Potassium	4.40			4.00 - 4.50	3.50 - 5.30	mEq/L
Sodium/Potassium Ratio	32.27			30.00 - 35.00	30.00 - 35.00	ratio
Chloride	105.00			100.00 - 106.00	98.00 - 110.00	mEq/L
CO2	23.00 ↓			25.00 - 30.00	19.00 - 30.00	mEq/L
Anion gap	18.40 ↑			7.00 - 12.00	6.00 - 16.00	mEq/L
Uric Acid, female	4.70			3.00 - 5.50	2.50 - 7.00	mg/dL
Protein, total	7.20			6.90 - 7.40	6.10 - 8.10	g/dL
Albumin	4.50			4.00 - 5.00	3.60 - 5.10	g/dL
Globulin, total	2.70			2.40 - 2.80	2.00 - 3.50	g/dL
Albumin/Globulin Ratio	1.66			1.40 - 2.10	1.00 - 2.50	ratio
Calcium	9.30 ↓			9.40 - 10.10	8.60 - 10.40	mg/dL
Calcium/Albumin Ratio	2.06			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	2.58			2.30 - 2.80	1.90 - 4.20	ratio
Magnesium	2.30			2.20 - 2.50	1.50 - 2.50	mg/dl
Alk Phos	90.00			70.00 - 100.00	35.00 - 115.00	IU/L
AST (SGOT)	36.00 ↑			10.00 - 26.00	10.00 - 35.00	IU/L
ALT (SGPT)	40.00 ↑			10.00 - 26.00	6.00 - 29.00	IU/L
LDH	165.00			140.00 - 200.00	120.00 - 250.00	IU/L
Bilirubin - Total	1.40 ↑			0.10 - 0.90	0.20 - 1.20	mg/dL

Bilirubin - Direct	0.31	↑		0.00 - 0.19	0.00 - 0.20	mg/dL
Bilirubin - Indirect	1.09	↑		0.10 - 0.70	0.20 - 1.20	mg/dL
GGT	107.00	⚠		10.00 - 30.00	3.00 - 70.00	IU/L
Iron - Serum	242.00	↑		85.00 - 130.00	40.00 - 160.00	µg/dL
Ferritin	661.00	⚠		40.00 - 150.00	10.00 - 232.00	ng/mL
TIBC	260.00			250.00 - 350.00	250.00 - 425.00	µg/dL
% Transferrin saturation	93.00	⚠		24.00 - 50.00	20.00 - 48.00	%
Cholesterol - Total	216.00	↑		155.00 - 190.00	125.00 - 200.00	mg/dL
Triglycerides	114.00	↑		50.00 - 100.00	0.00 - 150.00	mg/dL
LDL Cholesterol	130.00	↑		0.00 - 120.00	0.00 - 100.00	mg/dL
HDL Cholesterol	63.00			55.00 - 70.00	46.00 - 100.00	mg/dL
Cholesterol/HDL Ratio	3.40	↑		0.00 - 3.00	0.00 - 5.00	Ratio
Triglyceride/HDL Ratio	1.80			0.00 - 2.00	0.00 - 3.30	ratio
TSH	2.71			1.00 - 3.00	0.40 - 4.50	µU/mL
Free T3	3.40			2.80 - 3.50	2.30 - 4.20	pg/ml
Total T3	133.00			90.00 - 168.00	76.00 - 181.00	ng/dL
Free T4	1.16			1.00 - 1.50	0.80 - 1.80	ng/dL
Total T4	8.40			6.00 - 11.90	4.50 - 12.00	µg/dL
T3 Uptake	23.00	↓		27.00 - 35.00	22.00 - 35.00	%
Free Thyroxine Index (T7)	1.93			1.70 - 4.60	1.40 - 3.80	Index
Reverse T3	24.50			10.00 - 25.00	8.00 - 25.00	ng/dl
Thyroid Peroxidase (TPO) Abs	12.00			0.00 - 34.00	0.00 - 34.00	IU/ml
Hs CRP, Female	4.38	↑		0.00 - 0.99	0.00 - 2.90	mg/L
Homocysteine	8.50	↑		0.00 - 6.00	0.00 - 10.30	µmol/L
Vitamin D (25-OH)	31.50	↓		50.00 - 90.00	30.00 - 100.00	ng/ml
Total WBCs	6.00			5.30 - 7.50	3.80 - 10.80	k/cumm
RBC, Female	5.10	↑		3.90 - 4.50	3.80 - 5.10	m/cumm
Hemoglobin, Female	16.20	↑		13.50 - 14.50	11.70 - 15.50	g/dl
Hematocrit, Female	47.40	↑		37.00 - 44.00	35.00 - 45.00	%
MCV	93.00	↑		85.00 - 92.00	80.00 - 100.00	fL
MCH	31.80			27.00 - 31.90	27.00 - 33.00	pg
MCHC	34.20			32.00 - 35.00	32.00 - 36.00	g/dL
Platelets	292.00			150.00 - 400.00	140.00 - 400.00	k/cumm
RDW	13.10	↑		11.70 - 13.00	11.00 - 15.00	%
Neutrophils	58.00			40.00 - 60.00	38.00 - 74.00	%
Lymphocytes	31.00			25.00 - 40.00	14.00 - 46.00	%
Monocytes	8.00	↑		0.00 - 7.00	0.00 - 7.00	%
Eosinophils	3.00			0.00 - 3.00	0.00 - 3.00	%
Basophils	0.00			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

24 Total



Below Optimal Range

6 Total



Above Optimal

Ferritin ↑ 661.00 ng/mL (+ 515 %)

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.

GGT ↑ 107.00 IU/L (+ 435 %)

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.

Hs CRP, Female ↑ 4.38 mg/L (+ 392 %)

High Sensitivity C-Reactive Protein (Hs-CRP) is a blood marker that can help indicate the level of chronic inflammation in the body. Increased levels are associated with in increased risk of inflammation, cardiovascular disease, stroke, and diabetes.

Insulin - Fasting ↑ 13.60 µIU/ml (+ 337 %)

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.

Iron - Serum ↑ 242.00 µg/dL (+ 299 %)

Serum iron reflects iron that is bound to serum proteins such as transferrin. Serum iron levels will begin to fall somewhere between the depletion of the iron stores and the development of anemia. Increased iron levels are associated with liver dysfunction, conditions of iron overload (hemosiderosis and hemochromatosis) and infections. Decreased iron levels are associated with iron deficiency anemia, hypochlorhydria and internal bleeding. The degree of iron deficiency is best appreciated with ferritin, TIBC and % transferrin saturation levels.

Hemoglobin, Female ↑ 16.20 g/dl (+ 220 %)

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.

% Transferrin saturation ↑ 93.00 % (+ 215 %)

The % transferrin saturation index is a calculated value that tells how much serum iron is bound to the iron-carrying protein transferrin. A % transferrin saturation value of 15% means that 15% of iron-binding sites of transferrin is being occupied by iron. It is a sign of iron overload or too much iron in the blood if it is above the optimal range.

Anion gap ↑ 18.40 mEq/L (+ 178 %)

The anion gap is the measurement of the difference between the sum of the sodium and potassium levels and the sum of the serum CO₂/bicarbonate and chloride levels. Increased levels are associated with thiamine deficiency and metabolic acidosis.

RBC, Female ↑ 5.10 m/cumm (+ 150 %)

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.

ALT (SGPT) ↑ 40.00 IU/L (+ 138 %)

SGPT/ALT is an enzyme present in high concentrations in the liver and to lesser extent skeletal muscle, the heart, and kidney. SGPT/ALT will be liberated into the bloodstream following cell damage or destruction. Any condition or situation that causes damage to the hepatocytes will cause a leakage of SGPT/ALT into the bloodstream. These include exposure to chemicals, viruses (viral hepatitis, mononucleosis, cytomegalovirus, Epstein Barr, etc.), alcoholic hepatitis. The most common non-infectious cause of an increased ALT is a condition called steatosis (fatty liver).

Cholesterol - Total ↑ 216.00 mg/dL (+ 124 %)

Cholesterol is a steroid found in every cell of the body and in the plasma. It is an essential component in the structure of the cell membrane where it controls membrane fluidity. It provides the structural backbone for every steroid hormone in the body, which includes adrenal and sex hormones and vitamin D. The myelin sheaths of nerve fibers are derived from cholesterol and the bile salts that emulsify fats are composed of cholesterol. Cholesterol is made in the body by the liver and other organs, and from dietary sources. The liver, the intestines, and the skin produce between 60-80% of the body's cholesterol. The remainder comes from the diet. An increased cholesterol is just one of many independent risk factors for cardiovascular disease. It is also associated with metabolic syndrome, hypothyroidism, biliary stasis, and fatty liver. Decreased cholesterol levels are a strong indicator of gallbladder dysfunction, oxidative stress, inflammatory process, low fat diets and an increased heavy metal burden.

Bilirubin - Indirect ↑ 1.09 mg/dL (+ 115 %)

Bilirubin is formed from the breakdown of red blood cells. Indirect or unconjugated bilirubin is the protein (albumin) bound form of bilirubin that circulates in the blood on its way to the liver prior to being eliminated from the body in the bile. Elevated levels of indirect or unconjugated bilirubin are usually associated with increased red blood cell destruction.

Bilirubin - Direct ↑ 0.31 mg/dL (+ 113 %)

Direct or conjugated bilirubin is the form of bilirubin that has been made water soluble in the liver so it can be excreted in the bile. An increase in direct or conjugated bilirubin may be associated with a dysfunction or blockage in the liver, gallbladder, or biliary tree.

Bilirubin - Total ↑ 1.40 mg/dL (+ 112 %)

The total bilirubin is composed of two forms of bilirubin: Indirect or unconjugated bilirubin, which circulates in the blood on its way to the liver and direct or conjugated bilirubin, which is the form of bilirubin made water soluble before it is excreted in the bile. An increase in total bilirubin is associated with a dysfunction or blockage in the liver, gallbladder, or biliary tree, oxidative stress or red blood cell hemolysis.

AST (SGOT) ↑ 36.00 IU/L (+ 112 %)

SGOT/AST is an enzyme present in highly metabolic tissues such as skeletal muscle, the liver, the heart, kidney, and lungs. This enzyme is at times released into the bloodstream following cell damage or destruction. AST levels will be increased when liver cells and/or heart muscle cells and/or skeletal muscle cells are damaged. The cause of the damage must be investigated. Low levels are associated with a B6 deficiency.

Hematocrit, Female ↑ 47.40 % (+ 99 %)

The hematocrit (HCT) measures the percentage of the volume of red blood cells in a known volume of centrifuged blood. It is an integral part of the Complete Blood Count (CBC) or Hematology panel. Low levels of hematocrit are associated with an anemia. The hematocrit should be evaluated with the other elements on a CBC/Hematology panel to determine the cause and type of anemia.

BUN/Creatinine Ratio ↑ 18.66 Ratio (+ 94 %)

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.

Homocysteine ↑ 8.50 μmol/L (+ 92 %)

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.

Triglycerides ↑ 114.00 mg/dL (+ 78 %)

Serum triglycerides are composed of fatty acid molecules that enter the blood stream either from the liver or from the diet. Patients that are optimally metabolizing their fats and carbohydrates tend to have a triglyceride level about one-half of the total cholesterol level. Levels will be elevated in metabolic syndrome, fatty liver, in patients with an increased risk of cardiovascular disease, hypothyroidism and adrenal dysfunction. Levels will be decreased in liver dysfunction, a diet deficient in fat, and inflammatory processes.

MCV ↑ 93.00 fL (+ 64 %)

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 ↑ 8.00 % (+ 64 %)

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.

Cholesterol/HDL Ratio ↑ 3.40 Ratio (+ 63 %)

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%.

LDL Cholesterol ↑ 130.00 mg/dL (+ 58 %)

LDL functions to transport cholesterol and other fatty acids from the liver to the peripheral tissues for uptake and metabolism by the cells. It is known as "bad cholesterol" because it is thought that this process of bringing cholesterol from the liver to the peripheral tissue increases the risk for atherosclerosis. An increased LDL cholesterol is just one of many independent risk factors for cardiovascular disease. It is also associated with metabolic syndrome, oxidative stress and fatty liver.

RDW ↑ 13.10 % (+ 58 %)

The Red Cell Distribution Width (RDW) is essentially an indication of the degree of abnormal variation in the size of red blood cells (called anisocytosis). Although the RDW will increase with vitamin B12 deficiency, folic acid, and iron anemia, it is increased most frequently with vitamin B12 deficiency anemia.

Below Optimal

T3 Uptake ↓ 23.00 % (- 100 %)

The T-3 uptake test has nothing to do with actual T-3 levels, as the name might suggest. Increased levels are associated with hyperthyroidism and people on thyroid hormone. Decreased levels are associated with hypothyroidism and deficiencies of iodine and selenium.

Vitamin D (25-OH) ↓ 31.50 ng/ml (- 96 %)

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.

CO2 ↓ 23.00 mEq/L (- 90 %)

Carbon Dioxide is a measure of bicarbonate in the blood. CO₂, as bicarbonate, is available for acid-base balancing. Bicarbonate neutralizes metabolic acids in the body. Elevated levels of CO₂ are associated with metabolic alkalosis and hypochlorhydria. Decreased levels are associated with metabolic acidosis.

Creatinine ↓ 0.75 mg/dL (- 67 %)

Creatinine is produced primarily from the contraction of muscle and is removed by the kidneys. A disorder of the kidney and/or urinary tract will reduce the excretion of creatinine and thus raise blood serum levels. Creatinine is traditionally used with BUN to assess for impaired kidney function. Elevated levels can also indicate dysfunction in the prostate.

Calcium ↓ 9.30 mg/dL (- 64 %)

Serum calcium levels, which are tightly regulated within a narrow range, are principally regulated by parathyroid hormone (PTH) and vitamin D. A low calcium level indicates that calcium regulation is out of balance and not necessarily that the body is deficient of calcium and needs supplementation. Check vitamin D levels, rule out hypochlorhydria, the need for magnesium, phosphorous, vitamin A, B and C, unsaturated fatty acids, and iodine as some of the reasons for a calcium "need" before supplementing with calcium. An elevated calcium is associated with parathyroid hyperfunction. If significantly elevated (>10.6 mg/dl or 2.65 mmol/L) check serum PTH levels and refer to an endocrinologist.

eGFR Non-Afr. American ↓ 88.00 mL/min/1.73m2 (- 57 %)

The eGFR is a calculated estimate of the kidney's Glomerular Filtration Rate. It uses 4 variables: age, race, creatinine levels and gender to estimate kidney function. Levels below 90 are an indication of a mild loss of kidney function. Levels below 60 indicate a moderate loss of kidney function and may require a visit to a renal specialist for further evaluation.

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%
Liver Function Index		100%
Gallbladder Function Index		100%
Cardiovascular Risk Index		93%
Lipid Panel Index		91%
Inflammation Index		82%
Acid-Base Index		80%
Blood Sugar Index		69%
Oxidative Stress Index		46%
Toxicity Index		33%
Kidney Function Index		29%
Red Blood Cell Index		26%
Adrenal Function Index		22%
Thyroid Function Index		18%
Bone Health Index		18%
Immune Function Index		16%
Heavy Metal Index		15%
GI Function Index		12%
Allergy Index	0%	
Electrolyte Index	0%	
Sex Hormone Index - Female	0%	

Liver Function Index

The Liver Function Index reflects the degree of function in your liver. The liver has over 500 known functions. It is involved with detoxification, digestion, the hormonal system, the immune system, controlling blood sugar, storing nutrients, and protein and fat metabolism. The liver also produces a substance called bile that is stored in the gallbladder. Bile is essential for proper fat digestion and is also a major route of elimination for the body. Factors affecting liver function include the accumulation of fat within the liver (a condition called fatty liver), inflammation of the liver cells from infections, toxins, etc. (a condition called hepatitis), actual damage to the liver cells themselves (a condition called cirrhosis) or a decrease in the ability of the liver to detoxify, which leads to detoxification issues. There are elements in the blood that we can measure that can indicate the relative function of the liver. For your blood test, your Liver Function Index is:

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

Rationale:

ALT (SGPT) ↑, AST (SGOT) ↑, Bilirubin - Total ↑, Cholesterol - Total ↑, Iron - Serum ↑, Ferritin ↑, Bilirubin - Direct ↑, GGT ↑, RDW ↑, MCV ↑

Gallbladder Function Index

The Gallbladder Function Index reflects the degree of function in your gallbladder. The gallbladder plays an essential role in helping your body digest the fat in the diet. It does this through the release of a substance called bile. Bile is not only essential for fat digestion but it also helps the body get rid of certain toxins and also excess cholesterol from the body. Factors affecting gallbladder function include the inability of the liver to produce bile (a condition called biliary insufficiency), the progressive thickening of the bile in the gallbladder (a condition called biliary stasis) or the presence of obstructions in the gallbladder itself (a condition called biliary obstruction). For your blood test, your Gallbladder Function Index is:

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

Rationale:

GGT ↑, Cholesterol - Total ↑, ALT (SGPT) ↑, Bilirubin - Total ↑, Bilirubin - Direct ↑

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:

[93%] - Dysfunction Highly Likely. Much improvement required.

Rationale:

AST (SGOT) ↑, Cholesterol - Total ↑, Triglycerides ↑, LDL Cholesterol ↑, Ferritin ↑, Hs CRP, Female ↑, Homocysteine ↑, Insulin - Fasting ↑, Vitamin D (25-OH) ↓

Lipid Panel Index

The Lipid Panel index gives us an indication of the levels of cholesterol and fat in your blood. An increased Lipid Panel Index indicates that you have higher than optimal levels of cholesterol and fat in your blood (a condition called hyperlipidemia). Hyperlipidemia is associated with an increased risk of cardiovascular disease and may be genetic or be due to dietary factors, hormonal imbalances, blood sugar dysregulation and/or other metabolic imbalances. For your blood test, your Lipid Panel Index is:

[91%] - Dysfunction Highly Likely. Much improvement required.

Rationale:

Cholesterol - Total ↑, Triglycerides ↑, LDL Cholesterol ↑

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:

[82%] - Dysfunction Likely. Improvement required.

Rationale:

Hs CRP, Female ↑, Homocysteine ↑, Iron - Serum ↑, Ferritin ↑, RDW ↑, 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:

[80%] - Dysfunction Likely. Improvement required.

Rationale:

Anion gap ↑, CO2 ↓

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:

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

Rationale:

Insulin - Fasting ↑, Cholesterol - Total ↑, Triglycerides ↑, LDL Cholesterol ↑

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%
Carbohydrate Index		62%
Protein Index		41%
Hydration Index		30%
Fat Index		25%
Mineral 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 ↑, Homocysteine ↑, Vitamin D (25-OH) ↓, MCV ↑

Carbohydrate Index

The Carbohydrate Index gives us an assessment of your dietary intake of carbohydrates, especially refined carbohydrates (white flour, white rice, white pasta, etc.) and sugars. A diet high in refined carbohydrates and sugars will deplete important nutrients that are used by the body to handle carbohydrates and may also increase blood glucose and blood fat levels, all of which can be measured in your blood. For your blood test, your Carbohydrate Index is:

[62%] - Moderate Nutrient Status. There may be improvement needed in certain areas.

Rationale:

Cholesterol - Total ↑, Triglycerides ↑, LDL Cholesterol ↑

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%
Vitamin D Need		100%
Glutathione Need		100%
Vitamin B12/Folate Need		71%
Thiamine Need		70%
Calcium Need		43%
Selenium Need		33%
Vitamin B6 Need		20%
Iodine Need		18%
Vitamin C Need		11%
Iron Deficiency		2%
Magnesium Need	0%	
DHEA Need	0%	
Molybdenum Need	0%	

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) ↓

Glutathione Need

The results of your blood test indicate that your glutathione levels might be lower than optimal. Glutathione is one of the most powerful antioxidants in your body.

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

Rationale:

GGT ↑

Vitamin B12/Folate Need

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

[71%] - Dysfunction Likely. Improvement required.

Rationale:

MCV ↑, Homocysteine ↑, RDW ↑

Thiamine Need

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

[70%] - Dysfunction Likely. Improvement required.

Rationale:

Anion gap ↑, CO2 ↓

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 left 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
	Jan 18 2020
Glucose	83.00
Hemoglobin A1C	5.40
Insulin - Fasting	13.60 ↑
Fructosamine	
C-Peptide	
BUN	14.00
Creatinine	0.75 ↓
Creatinine, 24-hour urine	
Creatinine Clearance	
eGFR Non-Afr. American	88.00 ↓
eGFR African American	101.00
BUN/Creatinine Ratio	18.66 ↑
Sodium	142.00
Potassium	4.40
Sodium/Potassium Ratio	32.27
Chloride	105.00
CO2	23.00 ↓
Anion gap	18.40 ↑
Uric Acid, female	4.70
Protein, total	7.20
Albumin	4.50
Globulin, total	2.70
Albumin/Globulin Ratio	1.66
Calcium	9.30 ↓
Calcium/Albumin Ratio	2.06
Phosphorus	3.60
Calcium/Phosphorous Ratio	2.58
Collagen Cross-Linked NTx	
Magnesium	2.30

Element	Latest Test Result
	Jan 18 2020
Alk Phos	90.00
LDH	165.00
AST (SGOT)	36.00 ↑
ALT (SGPT)	40.00 ↑
GGT	107.00 ⚠
Bilirubin - Total	1.40 ↑
Bilirubin - Direct	0.31 ↑
Bilirubin - Indirect	1.09 ↑
Iron - Serum	242.00 ↑
Ferritin	661.00 ⚠
TIBC	260.00
% Transferrin saturation	93.00 ⚠
Cholesterol - Total	216.00 ↑
Triglycerides	114.00 ↑
LDL Cholesterol	130.00 ↑
HDL Cholesterol	63.00
VLDL Cholesterol	
Cholesterol/HDL Ratio	3.40 ↑
Triglyceride/HDL Ratio	1.80
Leptin, Female	
TSH	2.71
Total T4	8.40
Total T3	133.00
Free T4	1.16
Free T3	3.40
T3 Uptake	23.00 ↓
Free Thyroxine Index (T7)	1.93
Thyroid Peroxidase (TPO) Abs	12.00
Thyroglobulin Abs	
Reverse T3	24.50
C-Reactive Protein	
Hs CRP, Female	4.38 ↑
ESR, Female	
Homocysteine	8.50 ↑
Fibrinogen	

Element	Latest Test Result
	Jan 18 2020
Creatine Kinase	
Vitamin D (25-OH)	31.50 ↓
Vitamin B12	
Folate	
DHEA-S, Female	
Cortisol - AM	
Cortisol - PM	
Testosterone, Free Female	
Testosterone, Total Female	
Sex Hormone Binding Globulin, female	
Estradiol, Female	
Progesterone, Female	
Total WBCs	6.00
RBC, Female	5.10 ↑
Reticulocyte count	
Hemoglobin, Female	16.20 ↑
Hematocrit, Female	47.40 ↑
MCV	93.00 ↑
MCH	31.80
MCHC	34.20
Platelets	292.00
RDW	13.10 ↑
Neutrophils	58.00
Bands	
Lymphocytes	31.00
Monocytes	8.00 ↑
Eosinophils	3.00
Basophils	0.00

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