



THE EVEXIA CLINIC

Functional Health Report

Clinician Copy

JANE DOE

Lab Test on Jan 29, 2019
Conventional US Units

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Product Summary Report



The Product Summary Report takes all the information on this report and provides a summary of the nutritional supplements recommended to help bring the systems of the body back into balance. This plan focuses on the top areas of need as presented in this report.

Protocols	Primary Product	Dosage	<input checked="" type="checkbox"/>
Hypoglycemia			
Hyperlipidemia			
Hypothyroidism			
Thyroid Conversion Issues			
Metabolic Syndrome			
Zinc Need			
Molybdenum Need			
B Vitamin Need			

Other Potential Product Recommendations

There are no results available for this report.

This Product Summary Report has been prepared for your patient based upon current algorithms. Additional personalized recommendations for nutritional support may be applicable based on this laboratory evaluation, your patient's history and your clinical practice experience.

* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

Health Improvement Plan



The Health Improvement Plan takes all the information on this report and focuses on the top areas that need the most attention.

Hypoglycemia

The results of this blood test indicate a tendency towards hypoglycemia or low blood sugar and a need for blood sugar support.

Rationale:

LDH ↓

Hyperlipidemia

The results of this blood test indicate a tendency towards hyperlipidemia, which has been shown to increase the risk of developing atherosclerotic coronary artery disease. There is a need for cardiovascular support, especially support to help lower excessive blood fats.

Rationale:

Cholesterol - Total ↑, Triglycerides ↑, LDL Cholesterol ↑, Cholesterol/HDL Ratio ↑, HDL Cholesterol ↓

Hypothyroidism

The results of this blood test indicate a tendency towards hypothyroidism and a need for thyroid gland support. If you haven't done so already, you may want to consider running a thyroid antibody panel to rule out autoimmune thyroiditis.

Rationale:

TSH ↑, Total T3 ↓, Cholesterol - Total ↑, Triglycerides ↑, Free T3 ↓

Thyroid Conversion Issues

The results of this blood test indicate a tendency towards a type of hypothyroidism connected to a difficulty converting thyroxine (T4) into triiodothyronine (T3).

Rationale:

Total T3 ↓, Free T3 ↓

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Metabolic Syndrome

The results of this blood test indicate a tendency towards metabolic syndrome and a need for blood sugar support.

Rationale:

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

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This Health Improvement Plan has been prepared for your patient based upon current algorithms. Additional personalized recommendations for nutritional support may be applicable based on this laboratory evaluation, your patient's history and your clinical practice experience.

Suggested Individual Nutrient Recommendations

The Health Improvement Plan takes all the information on this report and focuses on the top areas that need the most attention.

Zinc Need

The results of this blood test indicate that this patient's zinc levels might be lower than optimal and shows a need for zinc supplementation.*

Rationale:

Alk Phos ↓

Molybdenum Need

The results of this blood test indicate that this patient's molybdenum levels might be lower than optimal and shows a need for molybdenum supplementation and/or support for phase 2 liver detoxification.

Rationale:

Uric Acid, female ↓

B Vitamin Need

The results of this blood test indicate that this patient's B vitamin levels might be lower than optimal and shows a need for B complex supplementation.

Rationale:

Anion gap ↑, LDH ↓, Hemoglobin, Female ↓, Hematocrit, Female ↓

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This Health Improvement Plan has been prepared for your patient based upon current algorithms. Additional personalized recommendations for nutritional support may be applicable based on this laboratory evaluation, your patient's history and your clinical practice experience.

Blood Test Results Report



The Blood Test Results Report lists the results of the patient's Chemistry Screen and CBC and shows you whether or not an individual element is outside of the optimal range and/or outside of the clinical lab range. The elements appear in the order in which they appear on the lab test form.

Above Optimal Range 7 Current 11 Previous	Above Standard Range 6 Current 4 Previous	Alarm High 2 Current 3 Previous
Below Optimal Range 11 Current 4 Previous	Below Standard Range 2 Current 1 Previous	Alarm Low 0 Current 5 Previous

Element	Current	Previous		Impr	Optimal Range	Standard Range	Units
	Jan 29 2019	Sep 19 2018					
Glucose	85.00	84.00			72.00 - 90.00	65.00 - 99.00	mg/dL
Hemoglobin A1C	5.00	5.00			5.00 - 5.50	0.00 - 5.60	%
Insulin - Fasting	8.10	7.50	↑	👎	2.00 - 5.00	2.00 - 19.00	μIU/ml
BUN	10.00	15.00			10.00 - 16.00	7.00 - 25.00	mg/dL
Creatinine	0.61	0.76	↓	👎	0.80 - 1.10	0.40 - 1.35	mg/dL
BUN/Creatinine Ratio	16.39	19.73	↑	👍	10.00 - 16.00	6.00 - 22.00	Ratio
eGFR Non-Afr. American	117.00	102.00	↑	👍	90.00 - 120.00	60.00 - 90.00	mL/min/1.73m2
eGFR African American	136.00	118.00	↑	👎	90.00 - 120.00	60.00 - 90.00	mL/min/1.73m2
Sodium	134.00	136.00	↓	👎	135.00 - 142.00	135.00 - 146.00	mEq/L
Potassium	4.20	4.40			4.00 - 4.50	3.50 - 5.30	mEq/L
Sodium/Potassium Ratio	31.90	30.90			30.00 - 35.00	30.00 - 35.00	ratio
Chloride	101.00	100.00			100.00 - 106.00	98.00 - 110.00	mEq/L
CO2	25.00	26.00			25.00 - 30.00	19.00 - 30.00	mEq/L
Anion gap	12.20	14.40	↑	👍	7.00 - 12.00	6.00 - 16.00	mEq/L
Uric Acid, female	2.80	5.30	↓	👎	3.00 - 5.50	2.50 - 7.00	mg/dL
Protein, total	7.00	7.90	↑	👍	6.90 - 7.40	6.10 - 8.10	g/dL
Albumin	4.50	5.00			4.00 - 5.00	3.60 - 5.10	g/dL
Globulin, total	2.50	2.90	↑	👍	2.40 - 2.80	2.00 - 3.50	g/dL
Albumin/Globulin Ratio	1.80	1.70			1.40 - 2.10	1.00 - 2.50	ratio
Calcium	9.50	9.70			9.40 - 10.10	8.60 - 10.40	mg/dL
Calcium/Albumin Ratio	2.11	1.94			0.00 - 2.60	0.00 - 2.70	ratio
Phosphorus	4.20	4.60	↑	👍	3.50 - 4.00	2.50 - 4.50	mg/dL
Calcium/Phosphorous Ratio	2.26	2.10	↓	👍	2.30 - 2.70	2.30 - 2.70	ratio
Magnesium	2.20	2.40			2.20 - 2.50	1.50 - 2.50	mg/dl
Alk Phos	54.00	65.00	↓	👎	70.00 - 100.00	35.00 - 115.00	IU/L
AST (SGOT)	13.00	15.00			10.00 - 26.00	10.00 - 35.00	IU/L


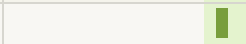




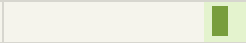
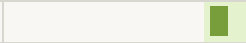
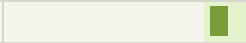
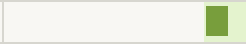
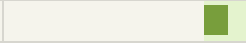
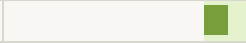
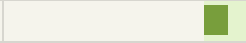
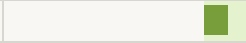

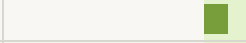
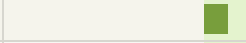
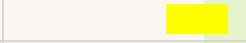
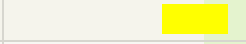
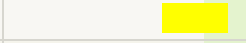
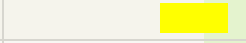
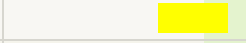



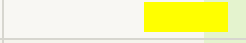




ALT (SGPT)	10.00	9.00	↓	👍	10.00 - 26.00	6.00 - 29.00	IU/L
LDH	120.00	↓ 133.00	↓	👎	140.00 - 200.00	120.00 - 250.00	IU/L
Bilirubin - Total	0.40	0.50			0.10 - 0.90	0.20 - 1.20	mg/dL
Bilirubin - Direct	0.10	0.10			0.00 - 0.20	0.00 - 0.19	mg/dL
Bilirubin - Indirect	0.30	0.40			0.10 - 0.70	0.20 - 1.20	mg/dL
GGT	15.00	16.00			10.00 - 30.00	3.00 - 70.00	IU/L
Iron - Serum	57.00	↓ 107.00		👎	85.00 - 130.00	40.00 - 160.00	µg/dL
Ferritin	75.00	60.00			40.00 - 150.00	10.00 - 232.00	ng/mL
TIBC	338.00	395.00	↑	👍	250.00 - 350.00	250.00 - 425.00	µg/dL
% Transferrin saturation	17.00	↓ 27.00		👎	24.00 - 50.00	15.00 - 50.00	%
Cholesterol - Total	258.00	↑ 355.00	⚠️	👍	155.00 - 190.00	125.00 - 200.00	mg/dL
Triglycerides	129.00	↑ 119.00	↑	👎	50.00 - 100.00	0.00 - 150.00	mg/dL
LDL Cholesterol	178.00	⚠️ 258.00	⚠️	👍	0.00 - 120.00	0.00 - 130.00	mg/dL
HDL Cholesterol	54.00	↓ 71.00	↑	👎	55.00 - 70.00	46.00 - 100.00	mg/dL
Cholesterol/HDL Ratio	4.80	↑ 5.00	↑	👍	0.00 - 3.00	0.00 - 5.00	Ratio
Triglyceride/HDL Ratio	2.38	↑ 1.67		👎	0.00 - 2.00	0.00 - 3.30	ratio
TSH	6.63	↑ 106.73	⚠️	👍	1.00 - 3.00	0.40 - 4.50	µU/mL
Free T3	2.70	↓ 1.50	⚠️	👍	2.80 - 3.50	2.30 - 4.20	pg/ml
Total T3	81.00	↓ 34.00	⚠️	👍	90.00 - 168.00	76.00 - 181.00	ng/dL
Free T4	1.10	0.40	⚠️	👍	1.00 - 1.50	0.80 - 1.80	ng/dL
Total T4	6.10	2.20	⚠️	👍	6.00 - 11.90	4.50 - 12.00	µg/dL
T3 Uptake	35.00	29.00			27.00 - 35.00	22.00 - 35.00	%
Free Thyroxine Index (T7)	2.13	0.63	⚠️	👍	1.70 - 4.60	1.40 - 3.80	Index
Hs CRP, Female	3.20	↑ 3.70	↑	👍	0.00 - 0.99	0.00 - 2.90	mg/L
Vitamin D (25-OH)	53.00	54.00			50.00 - 90.00	30.00 - 100.00	ng/ml
Total WBCs	7.00	7.40			5.30 - 7.50	3.80 - 10.80	k/cumm
RBC, Female	4.22	4.68	↑	👍	3.90 - 4.50	3.80 - 5.10	m/cumm
Hemoglobin, Female	12.60	↓ 13.50		👎	13.50 - 14.50	11.70 - 15.50	g/dl
Hematocrit, Female	36.90	↓ 41.60		👎	37.00 - 44.00	35.00 - 45.00	%
MCV	87.40	88.90			85.00 - 92.00	80.00 - 100.00	fL
MCH	29.90	28.80			27.00 - 31.90	27.00 - 33.00	pg
MCHC	34.10	32.50			32.00 - 35.00	32.00 - 36.00	g/dL
Platelets	417.00	⚠️ 369.00		👎	150.00 - 400.00	140.00 - 415.00	k/cumm
RDW	12.20	13.20	↑	👍	11.70 - 13.00	11.00 - 15.00	%
Neutrophils	48.00	55.00			40.00 - 60.00	40.00 - 60.00	%
Lymphocytes	38.00	36.00			25.00 - 40.00	25.00 - 40.00	%
Monocytes	8.00	↑ 6.00		👎	0.00 - 7.00	0.00 - 7.00	%
Eosinophils	6.00	↑ 3.00		👎	0.00 - 3.00	0.00 - 3.00	%
Basophils	0.00	0.00			0.00 - 1.00	0.00 - 1.00	%

% Deviation from Optimal Report



This report shows the elements on the blood test that are farthest from optimal expressed as a %. The elements that appear closest to the top and the bottom are those elements that are farthest from optimal and should be carefully reviewed.

Element	% from Median	Lab Result	Low	High	Optimal Reference Ranges	
					Low	High
Hs CRP, Female	273	3.20	0.00	0.99		
Cholesterol - Total	244	258.00	155.00	190.00		
TSH	232	6.63	1.00	3.00		
Insulin - Fasting	153	8.10	2.00	5.00		
Eosinophils	150	6.00	0.00	3.00		
Cholesterol/HDL Ratio	110	4.80	0.00	3.00		
Triglycerides	108	129.00	50.00	100.00		
eGFR African American	103	136.00	90.00	120.00		
LDL Cholesterol	98	178.00	0.00	120.00		
Phosphorus	90	4.20	3.50	4.00		
Triglyceride/HDL Ratio	69	2.38	0.00	2.00		
Monocytes	64	8.00	0.00	7.00		
Platelets	57	417.00	150.00	400.00		
BUN/Creatinine Ratio	56	16.39	10.00	16.00		
Anion gap	54	12.20	7.00	12.00		
T3 Uptake	50	35.00	27.00	35.00		
eGFR Non-Afr. American	40	117.00	90.00	120.00		
TIBC	38	338.00	250.00	350.00		
Lymphocytes	37	38.00	25.00	40.00		
Calcium/Albumin Ratio	31	2.11	0.00	2.60		
Total WBCs	27	7.00	5.30	7.50		
Glucose	22	85.00	72.00	90.00		
MCHC	20	34.10	32.00	35.00		
MCH	9	29.90	27.00	31.90		
Albumin/Globulin Ratio	7	1.80	1.40	2.10		
RBC, Female	3	4.22	3.90	4.50		
Albumin	0	4.50	4.00	5.00		
Bilirubin - Direct	0	0.10	0.00	0.20		
Potassium	-10	4.20	4.00	4.50		
Neutrophils	-10	48.00	40.00	60.00		
RDW	-12	12.20	11.70	13.00		
Sodium/Potassium Ratio	-12	31.90	30.00	35.00		
Bilirubin - Total	-12	0.40	0.10	0.90		
MCV	-16	87.40	85.00	92.00		
Bilirubin - Indirect	-17	0.30	0.10	0.70		

Ferritin	-18	75.00	40.00	150.00	
GGT	-25	15.00	10.00	30.00	
Globulin, total	-25	2.50	2.40	2.80	
Protein, total	-30	7.00	6.90	7.40	
Free T4	-30	1.10	1.00	1.50	
AST (SGOT)	-31	13.00	10.00	26.00	
Chloride	-33	101.00	100.00	106.00	
Free Thyroxine Index (T7)	-35	2.13	1.70	4.60	
Calcium	-36	9.50	9.40	10.10	
Vitamin D (25-OH)	-42	53.00	50.00	90.00	
Total T4	-48	6.10	6.00	11.90	
ALT (SGPT)	-50	10.00	10.00	26.00	
CO2	-50	25.00	25.00	30.00	
BUN	-50	10.00	10.00	16.00	
Hemoglobin A1C	-50	5.00	5.00	5.50	
Basophils	-50	0.00	0.00	1.00	
Magnesium	-50	2.20	2.20	2.50	
Hematocrit, Female	-51	36.90	37.00	44.00	
HDL Cholesterol	-57	54.00	55.00	70.00	
Uric Acid, female	-58	2.80	3.00	5.50	
Calcium/Phosphorous Ratio	-60	2.26	2.30	2.70	
Total T3	-62	81.00	90.00	168.00	
Free T3	-64	2.70	2.80	3.50	
Sodium	-64	134.00	135.00	142.00	
% Transferrin saturation	-77	17.00	24.00	50.00	
LDH	-83	120.00	140.00	200.00	
Alk Phos	-103	54.00	70.00	100.00	
Iron - Serum	-112	57.00	85.00	130.00	
Creatinine	-113	0.61	0.80	1.10	
Hemoglobin, Female	-140	12.60	13.50	14.50	

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 and should be carefully reviewed.

Above Optimal Range

15 Total



Below Optimal Range

13 Total



Above Optimal

Hs CRP, Female ↑ 3.20 mg/L (+ 273 %)

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 an increased risk of inflammation, cardiovascular disease, stroke, and diabetes.

Cholesterol - Total ↑ 258.00 mg/dL (+ 244 %)

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.

TSH ↑ 6.63 µU/mL (+ 232 %)

TSH is a hormone produced from the anterior pituitary to control thyroid function. TSH stimulates the thyroid cells to increase the production of thyroid hormone (T-4), to store thyroid hormone and to release thyroid hormone into the bloodstream. TSH synthesis and secretion is regulated by the release of TRH (Thyroid Releasing Hormone) from the hypothalamus. TSH levels describe the body's desire for more thyroid hormone (T4 or T3), which is done in relation to the body's ability to use energy. A high TSH is the body's way of saying "we need more thyroid hormone". A low TSH reflects the body's low need for thyroid hormone. Optimal TSH levels tell us that the thyroid hormone levels match the body's current need and/or ability to utilize the energy.

Insulin - Fasting ↑ 8.10 µIU/ml (+ 153 %)

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.

Eosinophils ↑ 6.00 % (+ 150 %)

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.

Cholesterol/HDL Ratio ↑ 4.80 Ratio (+ 110 %)

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%.

Triglycerides ↑ 129.00 mg/dL (+ 108 %)

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.

eGFR African American ↑ 136.00 mL/min/1.73m2 (+ 103 %)

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.

LDL Cholesterol ↑ 178.00 mg/dL (+ 98 %)

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.

Phosphorus ↑ 4.20 mg/dL (+ 90 %)

Phosphorous levels, like calcium, are regulated by parathyroid hormone (PTH). Phosphate levels are closely tied with calcium, but they are not as strictly controlled as calcium. Plasma levels may be decreased after a high carbohydrate meal or in people with a diet high in refined carbohydrates. Serum phosphorous is a general marker for digestion. Decreased phosphorous levels are associated with hypochlorhydria. Serum levels of phosphorous may be increased with a high phosphate consumption in the diet, with parathyroid hypofunction and renal insufficiency.

Triglyceride/HDL Ratio ↑ 2.38 ratio (+ 69 %)

The Triglyceride:HDL ratio is determined from serum triglyceride and HDL levels. Increased ratios are associated with an increased risk of developing insulin resistance and Type II Diabetes. A decreased ratio is associated with a decreased risk of developing insulin resistance and Type II Diabetes.

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.

Platelets ↑ 417.00 k/cumm (+ 57 %)

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.

BUN/Creatinine Ratio ↑ 16.39 Ratio (+ 56 %)

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.

Anion gap ↑ 12.20 mEq/L (+ 54 %)

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.

Below Optimal

Hemoglobin, Female ↓ 12.60 g/dl (- 140 %)

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.

Creatinine ↓ 0.61 mg/dL (- 113 %)

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.

Iron - Serum ↓ 57.00 µg/dL (- 112 %)

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 (hemochromatosis and hemosiderosis) 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.

Alk Phos ↓ 54.00 IU/L (- 103 %)

Alkaline phosphatase (ALP) is a group of isoenzymes that originate in the bone, liver, intestines, skin, and placenta. It has a maximal activity at a pH of 9.0-10.0, hence the term alkaline phosphatase. Decreased levels of ALP have been associated with zinc deficiency.

LDH ↓ 120.00 IU/L (- 83 %)

LDH represents a group of enzymes that are involved in carbohydrate metabolism. Decreased levels of LDH often correspond to hypoglycemia (especially reactive hypoglycemia), pancreatic function, and glucose metabolism. Increased levels are used to evaluate the presence of tissue damage to the cell causing a rupture in the cellular cytoplasm. LDH is found in many of the tissues of the body, especially the heart, liver, kidney, skeletal muscle, brain, red blood cells, and lungs. Damage to any of these tissues will cause an elevated serum LDH level.

% Transferrin saturation ↓ 17.00 % (- 77 %)

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 sensitive screening test for iron deficiency anemia if it is below the optimal range.

Sodium ↓ 134.00 mEq/L (- 64 %)

Sodium is an important blood electrolyte and functions to maintain osmotic pressure, acid-base balance, aids in nerve impulse transmission, as well as renal, cardiac and adrenal functions. Increased sodium is most often due dehydration (sweating, diarrhea, vomiting, polyuria, etc.) or adrenal stress. Decreased sodium levels are associated with adrenal insufficiency and edema.

Free T3 ↓ 2.70 pg/ml (- 64 %)

T-3 is the most active thyroid hormone and is primarily produced from the conversion of thyroxine (T-4) in the peripheral tissue. Free T3 is the unbound form of T3 measured in the blood. Free T3 represents approximately 8 – 10% of circulating T3 in the blood. Free T-3 levels may be elevated with hyperthyroidism and decreased with hypothyroidism.

Total T3 ↓ 81.00 ng/dL (- 62 %)

T-3 is the most active thyroid hormone and is primarily produced from the conversion of thyroxine (T-4) in the peripheral tissue. T-3 is 4 -5 times more metabolically active than T-4. Total T3 reflects the total amount of T3 present in the blood i.e. amount bound to protein and free levels. Elevated total T-3 levels can be very useful in the diagnosis of Hyperthyroidism especially if the Total or Free T4 level is normal. Decreased total T-3 levels should be used in conjunction with other abnormal thyroid tests before coming to a diagnosis of Hypothyroidism.

Calcium/Phosphorous Ratio ↓ 2.26 ratio (- 60 %)

The Calcium:Phosphorus ratio is determined from the serum calcium and serum phosphorus levels. This ratio is maintained by the parathyroid glands and is also affected by various foods. Foods high in phosphorus and low in calcium tend to disrupt the balance and shift the body toward metabolic acidity, depleting calcium and other minerals and increasing inflammation.

Uric Acid, female ↓ 2.80 mg/dL (- 58 %)

Uric acid is produced as an end-product of purine, nucleic acid, and nucleoprotein metabolism. Levels can increase due to over-production by the body or decreased excretion by the kidneys. Increased uric acid levels are associated with gout, atherosclerosis, oxidative stress, arthritis, kidney dysfunction, circulatory disorders and intestinal permeability. Decreased levels are associated with detoxification issues, molybdenum deficiency, B12/folate anemia, and copper deficiency.

HDL Cholesterol ↓ 54.00 mg/dL (- 57 %)

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.

Hematocrit, Female ↓ 36.90 % (- 51 %)

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.

Functional Index Report



The indices shown below represent an analysis of this blood test. These results have been converted into your patient's individual Functional Index Report based on our latest research. This report gives you an indication of the level of dysfunction that exists in the various physiological systems in the body. Please use this report in conjunction with the "Practitioner's Only Clinical Dysfunctions Report" to identify which dysfunctions and conditions are causing changes in the Functional Index and to put together a unique treatment plan designed to bring their 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%
Lipid Panel Index	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100%	
Thyroid Function Index	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100%	
Blood Sugar Index	<div style="width: 94%;"><div style="width: 94%;"></div></div> 94%	
Allergy Index	<div style="width: 80%;"><div style="width: 80%;"></div></div> 80%	
Cardiovascular Risk Index	<div style="width: 64%;"><div style="width: 64%;"></div></div> 64%	
Adrenal Function Index	<div style="width: 56%;"><div style="width: 56%;"></div></div> 56%	
Red Blood Cell Index	<div style="width: 38%;"><div style="width: 38%;"></div></div> 38%	
GI Function Index	<div style="width: 37%;"><div style="width: 37%;"></div></div> 37%	
Electrolyte Index	<div style="width: 33%;"><div style="width: 33%;"></div></div> 33%	
Immune Function Index	<div style="width: 32%;"><div style="width: 32%;"></div></div> 32%	
Acid-Base Index	<div style="width: 30%;"><div style="width: 30%;"></div></div> 30%	
Toxicity Index	<div style="width: 28%;"><div style="width: 28%;"></div></div> 28%	
Inflammation Index	<div style="width: 28%;"><div style="width: 28%;"></div></div> 28%	
Gallbladder Function Index	<div style="width: 25%;"><div style="width: 25%;"></div></div> 25%	
Kidney Function Index	<div style="width: 25%;"><div style="width: 25%;"></div></div> 25%	
Oxidative Stress Index	<div style="width: 21%;"><div style="width: 21%;"></div></div> 21%	
Heavy Metal Index	<div style="width: 15%;"><div style="width: 15%;"></div></div> 15%	
Bone Health Index	<div style="width: 12%;"><div style="width: 12%;"></div></div> 12%	
Liver Function Index	<div style="width: 5%;"><div style="width: 5%;"></div></div> 5%	
Sex Hormone Index - Female	0%	

Lipid Panel Index

A high Lipid Panel Index indicates that there is a strong clinical indication of hyperlipidemia, which has been shown to indicate a potential risk of developing atherosclerotic coronary artery disease. Although hyperlipidemia is a cause, it's important to look at many other risks for this disease including smoking, blood sugar dysregulation, hypertension, elevated homocysteine and other diet and lifestyle considerations. Based on this blood test, your patient's Lipid Panel is:

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

Rationale:

Cholesterol - Total ↑, Triglycerides ↑, LDL Cholesterol ↑, Cholesterol/HDL Ratio ↑, HDL Cholesterol ↓

Elements Considered:

Cholesterol - Total, Triglycerides, LDL Cholesterol, Cholesterol/HDL Ratio, HDL Cholesterol

Thyroid Function Index

A high Thyroid Index indicates that there is dysfunction in your patient's thyroid and there is a need for further assessment and treatment. There is a strong likelihood that there's significant distress in the systems that help regulate the thyroid gland in the body. This may be caused by increased levels of stress, adrenal insufficiency, iodine and/or selenium deficiency, liver dysfunction, kidney insufficiency, a low calorie diet etc. Consider that the dysfunction might be a hyperactive thyroid (hyperthyroid) or a hypothyroid situation: primary hypothyroidism (a dysfunction in the thyroid itself), secondary hypothyroidism (dysfunction in the anterior pituitary), or low T3 syndrome (T4 under conversion). Based on this blood test, your patient's Thyroid Function Index is:

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

Rationale:

TSH ↑, Total T3 ↓, Free T3 ↓

Elements Considered:

TSH, Total T4, Free T4, Total T3, Free T3, T3 Uptake, Free Thyroxine Index (T7)

Patient Result Not Available - Consider Running In Future Tests:

Reverse T3

Blood Sugar Index

A high Blood Sugar Index indicates that there is dysfunction in this patient's blood sugar regulation. Blood sugar dysregulation is affected by genetics, diet, lifestyle, nutrition and environment. Some factors to consider include hypoglycemia, metabolic syndrome, insulin resistance, hyperinsulinemia, and type 2 Diabetes. Based on this blood test, your patient's Blood Sugar Index is:

[94%] - Dysfunction Highly Likely. Much improvement required.

Rationale:

LDH ↓, Insulin - Fasting ↑, Cholesterol - Total ↑, Triglycerides ↑, LDL Cholesterol ↑, HDL Cholesterol ↓

Elements Considered:

Glucose, LDH, Hemoglobin A1C, Insulin - Fasting, Cholesterol - Total, Triglycerides, LDL Cholesterol, HDL Cholesterol

Patient Result Not Available - Consider Running In Future Tests:

DHEA-S, Female, Leptin, Female

Allergy Index

The Allergy Index reflects the degree of food or environmental sensitivities/allergies your patient 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 through allergy elimination/challenge, more sophisticated allergy testing and/or GI function assessment. Based on this blood test, your patient's Allergy Index is:

[80%] - Dysfunction Likely. Improvement required.

Rationale:

Eosinophils ↑

Elements Considered:

Eosinophils, Basophils

Cardiovascular Risk Index

The Cardiovascular Risk Index is based on the measurement of 15 elements in a blood test that indicate an increase risk of this patient developing cardiovascular disease (heart attack, coronary artery disease and stroke). A high Cardiovascular Risk Index indicates that your patient may have an increased risk of cardiovascular disease, atherosclerosis, endothelial dysfunction, and inflammation. Based on this blood test, your patient's Cardiovascular Risk Index is:

[64%] - Dysfunction Possible. There may be improvement needed in certain areas.

Rationale:

Cholesterol - Total ↑, Triglycerides ↑, LDL Cholesterol ↑, HDL Cholesterol ↓, Hs CRP, Female ↑, Insulin - Fasting ↑

Elements Considered:

Glucose, AST (SGOT), LDH, Cholesterol - Total, Triglycerides, LDL Cholesterol, HDL Cholesterol, Ferritin, Hs CRP, Female, Hemoglobin A1C, Insulin - Fasting, Vitamin D (25-OH)

Patient Result Not Available - Consider Running In Future Tests:

Fibrinogen, Homocysteine, Testosterone, Free Female

Adrenal Function Index

A high Adrenal Function Index indicates that there is dysfunction within your patient's adrenal system and further assessment is needed to find out what the dysfunction is. Consider factors that contribute to adrenal hyperactivity, stress, or adrenal insufficiency. Based on this blood test, your patient's Adrenal Function Index is:

[56%] - Dysfunction Possible. There may be improvement needed in certain areas.

Rationale:

Sodium ↓, Cholesterol - Total ↑, Triglycerides ↑

Elements Considered:

Sodium, Potassium, Sodium/Potassium Ratio, Glucose, BUN, Chloride, CO2, Cholesterol - Total, Triglycerides

Patient Result Not Available - Consider Running In Future Tests:

DHEA-S, Female, Cortisol - AM, Cortisol - PM

Nutrient Index Report



The indices shown below represent an analysis of your patient's blood test results. These results have been converted into their individual Nutrient Assessment Report based on our latest research. This report gives you an indication of their general nutritional status. Nutritional status is influenced by actual dietary intake, digestion, absorption, assimilation and cellular uptake of the nutrients themselves. You can use this information, along with information about individual nutrient deficiencies, to put together a unique treatment plan designed to bring their 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%
Carbohydrate Index		100%
Mineral Index		71%
Protein Index		24%
Vitamin Index		14%
Hydration Index	0%	
Fat Index	0%	

Carbohydrate Index

The Carbohydrate Index gives us an assessment of your patient's dietary intake of carbohydrates, especially refined carbohydrates and sugars. A diet high in refined carbohydrates and sugars will deplete phosphorus stores and other important co-factors for carbohydrate metabolism. It may also increase serum glucose and serum triglyceride levels. Follow up a high Carbohydrate Index with a thorough assessment of blood sugar regulation and also an investigation into this patient's dietary consumption of sugars and refined carbohydrates. Based on this blood test, your patient's Carbohydrate Index is:

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

Rationale:

LDH ↓, Cholesterol - Total ↑, Triglycerides ↑, LDL Cholesterol ↑, HDL Cholesterol ↓

Elements Considered:

Glucose, Phosphorus, LDH, Cholesterol - Total, Triglycerides, LDL Cholesterol, HDL Cholesterol, Total WBCs

Mineral Index

The Mineral Index gives us a general indication of the balance of certain minerals in the body based on the results of this blood test. A high Mineral Index indicates a level of deficiency or need in one or more of the minerals reflected in this index, which includes calcium, zinc, copper, potassium, molybdenum, selenium, magnesium, iodine and iron. Factors to consider include the amount in the diet, the ability to digest and breakdown individual minerals from food or supplements consumed, the ability of those minerals to be absorbed, transported and ultimately taken up by the cells themselves. In the case of certain minerals, such as iron and potassium, you must also consider the possibility of a mineral deficiency due to increased excretion or loss, such as increased bleeding causing an iron deficiency. Please use the information at the bottom of this report to identify which mineral or minerals may be deficient. Based on this blood test, your patient's Mineral Index is:

[71%] - Moderate Nutrient Status. There may be improvement needed in certain areas.

Rationale:

Uric Acid, female ↓, Alk Phos ↓, Iron - Serum ↓, % Transferrin saturation ↓, Total T3 ↓, Free T3 ↓

Elements Considered:

Potassium, Uric Acid, female, Calcium, Phosphorus, Alk Phos, GGT, Iron - Serum, Ferritin, TIBC, % Transferrin saturation, Total T3, Free T3, MCV, Magnesium

Individual Nutrient Deficiencies

The values below represent the degree of deficiency for individual nutrients based on your patient’s 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 your patient/client actually needs an individual nutrient. Use the information in this section to put together an individualized treatment plan to bring your patient 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.

Nutrient Deficiencies	0%	100%
Molybdenum Need		100%
Zinc Need		90%
Thiamine Need		70%
Selenium Need		67%
Iron Deficiency		52%
Calcium Need		43%
Vitamin C Need		22%
Vitamin B6 Need		20%
Vitamin B12/Folate Need		20%
Iodine Need	0%	
Magnesium Need	0%	
DHEA Need	0%	
Glutathione Need	0%	

Molybdenum Need

Suspect molybdenum deficiency if there is a **decreased uric acid level** and a normal MCV and MCH

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

Rationale:

Uric Acid, female ↓

Elements Considered:

Uric Acid, female

Zinc Need

Consider a zinc need if the **Alk phos** levels are decreased.

[90%] - Dysfunction Highly Likely. Much improvement required.

Rationale:

Alk Phos ↓

Elements Considered:

Alk Phos

Thiamine Need

Consider Thiamine deficiency with an **increased anion gap** along with a **decreased CO₂. Hemoglobin** and **hematocrit** levels may be normal or decreased. Due to thiamine's role in glycolysis, **LDH** levels may be decreased and **glucose** levels may be normal to increased.

[70%] - Dysfunction Likely. Improvement required.

Rationale:

Anion gap ↑, LDH ↓, Hemoglobin, Female ↓, Hematocrit, Female ↓

Elements Considered:

Anion gap, CO₂, Glucose, LDH, Hemoglobin, Female, Hematocrit, Female

Selenium Need

Consider selenium deficiency if the **total T-3** is reduced, the **free T-3** is reduced or **T-3 uptake** is reduced along with a normal **TSH** and T-4 level. Inactive T-4 is converted into T-3, the active thyroid hormone, by cleaving an iodine molecule from its structure. Selenium plays an active role in this cleaving process.

[67%] - Dysfunction Possible. There may be improvement needed in certain areas.

Rationale:

Total T3 ↓, Free T3 ↓

Elements Considered:

Total T3, Free T3, T3 Uptake

Iron Deficiency

Consider an iron deficiency if there is a **decreased serum iron** with a **decreased MCH, MCV, and MCHC**, ferritin, % **transferrin saturation** and/or **HGB** and/or **HCT**, and increased **RDW** and an increased **TIBC**.

[52%] - Dysfunction Possible. There may be improvement needed in certain areas.

Rationale:

Iron - Serum ↓, Hemoglobin, Female ↓, Hematocrit, Female ↓, % Transferrin saturation ↓

Elements Considered:

Iron - Serum, Ferritin, RBC, Female, Hemoglobin, Female, Hematocrit, Female, MCV, MCHC, % Transferrin saturation, MCH, TIBC, RDW

Recommended Further Testing



Advanced Practitioner Only Report

Based on the results of the analysis of this blood test, the following areas may require further investigation. The suggestions for further testing are merely examples and do not attempt to provide you with an exhaustive list of further evaluation methods.

Intestinal Parasites

The results of this blood test indicate that this patient may be dealing with intestinal parasites because a number of elements on a blood test, such as the ones listed below, may be out of optimal range in association with intestinal parasites. A blood test cannot tell what parasites your patient may be dealing with or even if your patient has an intestinal parasite so you may want to do further testing or evaluation to rule this out. This may include a thorough investigation of the subjective signs and symptoms associated with parasites and/or stool testing for ova and parasites.

Rationale:

Eosinophils ↑, Hemoglobin, Female ↓, Hematocrit, Female ↓, Monocytes ↑

Zinc Deficiency

The results of this blood test indicate that this patient may be dealing with a zinc deficiency because the alk phos level is decreased. We cannot tell categorically that your patient has a zinc deficiency because there are no tests specifically testing for zinc levels on a common Chemistry Screen. The likelihood of zinc deficiency increases with the presence of clinical signs of zinc deficiency: white spots on nails, reduced sense of smell or taste, cuts that are slow to heal, acne, increased susceptibility to colds, infections, and flu, and for our male patients prostatic hypertrophy. If you suspect zinc deficiency, you may want to follow up with an in-office Zinc Taste Test or check White Blood cell or Red Blood cell zinc levels, which may be decreased.

Rationale:

Alk Phos ↓

Primary Hypothyroidism

The results of this blood test indicate that this patient might be at an increased risk of Primary Hypothyroidism, which may be causing the elements listed below to be outside the optimal range. If you haven't done so already, you may want to consider running additional thyroid tests such as a Thyroid Antibody Panel to rule out possible Hashimoto's Thyroiditis. The Thyroid Antibodies to consider running are: Thyroid Peroxidase Antibodies (TPO Ab) and Thyroglobulin Antibodies (TGH Ab).

Rationale:

TSH ↑, Total T3 ↓, Cholesterol - Total ↑, Triglycerides ↑, Free T3 ↓

Additional Lipid Testing

The results of this blood test indicate that this patient may be dealing with hyperlipidemia, which may be causing the elements listed below to be outside the optimal range. If you haven't done so already, you may want to consider running additional lipid tests such as the Cardio IQ (TM) Lipoprotein Fractionation Test to get more information on the nature of the hyperlipidemia and its associated cardiovascular disease risk. The Cardio IQ (TM) Lipoprotein Fractionation Test precisely quantifies lipoprotein fractions across the entire lipoprotein spectrum; this comprises VLDL, IDL, LDL, and HDL particles.

Rationale:

Cholesterol - Total ↑, Triglycerides ↑, LDL Cholesterol ↑, Cholesterol/HDL Ratio ↑, HDL Cholesterol ↓

Allergies

The results of this blood test indicate that this patient may be dealing with food or environmental sensitivities/allergies because a number of elements on a blood test, such as the ones listed below, may be out of optimal range in association with food allergies/sensitivities. We cannot tell what things your patient may be allergic to so you may want to do further testing or evaluation to rule this out. This may include doing an allergy elimination/challenge, more sophisticated immunological testing and/or gut function assessment because allergies may be a manifestation of a deeper gut issue such as intestinal hyperpermeability and/or malabsorption.

Rationale:

Eosinophils ↑

Blood Test History Report



The Blood Test History Report lists the results of your patient's 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 progress.

Element	Latest 2 Test Results	
	Sep 19 2018	Jan 29 2019
Glucose	84.00	85.00
Hemoglobin A1C	5.00	5.00
Insulin - Fasting	7.50 ↑	8.10 ↑
Fructosamine		
C-Peptide		
BUN	15.00	10.00
Creatinine	0.76 ↓	0.61 ↓
Creatinine, 24-hour urine		
Creatinine Clearance		
eGFR Non-Afr. American	102.00	117.00
eGFR African American	118.00	136.00 ↑
BUN/Creatinine Ratio	19.73 ↑	16.39 ↑
Sodium	136.00	134.00 ↓
Potassium	4.40	4.20
Sodium/Potassium Ratio	30.90	31.90
Chloride	100.00	101.00
CO2	26.00	25.00
Anion gap	14.40 ↑	12.20 ↑
Uric Acid, female	5.30	2.80 ↓
Protein, total	7.90 ↑	7.00
Albumin	5.00	4.50
Globulin, total	2.90 ↑	2.50
Albumin/Globulin Ratio	1.70	1.80
Calcium	9.70	9.50
Calcium/Albumin Ratio	1.94	2.11
Phosphorus	4.60 ↑	4.20 ↑
Calcium/Phosphorous Ratio	2.10 ↓	2.26 ↓
Collagen Cross-Linked NTx		
Magnesium	2.40	2.20

Element	Latest 2 Test Results	
	Sep 19 2018	Jan 29 2019
Alk Phos	65.00 ↓	54.00 ↓
LDH	133.00 ↓	120.00 ↓
AST (SGOT)	15.00	13.00
ALT (SGPT)	9.00 ↓	10.00
GGT	16.00	15.00
Bilirubin - Total	0.50	0.40
Bilirubin - Direct	0.10	0.10
Bilirubin - Indirect	0.40	0.30
Iron - Serum	107.00	57.00 ↓
Ferritin	60.00	75.00
TIBC	395.00 ↑	338.00
% Transferrin saturation	27.00	17.00 ↓
Cholesterol - Total	355.00 ⚠	258.00 ↑
Triglycerides	119.00 ↑	129.00 ↑
LDL Cholesterol	258.00 ⚠	178.00 ⚠
HDL Cholesterol	71.00 ↑	54.00 ↓
VLDL Cholesterol		
Cholesterol/HDL Ratio	5.00 ↑	4.80 ↑
Triglyceride/HDL Ratio	1.67	2.38 ↑
Leptin, Female		
TSH	106.73 ⚠	6.63 ↑
Total T4	2.20 ▼	6.10
Total T3	34.00 ▼	81.00 ↓
Free T4	0.40 ▼	1.10
Free T3	1.50 ▼	2.70 ↓
T3 Uptake	29.00	35.00
Free Thyroxine Index (T7)	0.63 ▼	2.13
Thyroid Peroxidase (TPO) Abs		
Thyroglobulin Abs		
Reverse T3		
C-Reactive Protein		
Hs CRP, Female	3.70 ↑	3.20 ↑
ESR, Female		
Homocysteine		

Element	Latest 2 Test Results	
	Sep 19 2018	Jan 29 2019
Fibrinogen		
Creatine Kinase		
Vitamin D (25-OH)	54.00	53.00
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	7.40	7.00
RBC, Female	4.68 ↑	4.22
Reticulocyte count		
Hemoglobin, Female	13.50	12.60 ↓
Hematocrit, Female	41.60	36.90 ↓
MCV	88.90	87.40
MCH	28.80	29.90
MCHC	32.50	34.10
Platelets	369.00	417.00 ⚠
RDW	13.20 ↑	12.20
Neutrophils	55.00	48.00
Bands		
Lymphocytes	36.00	38.00
Monocytes	6.00	8.00 ↑
Eosinophils	3.00	6.00 ↑
Basophils	0.00	0.00

Clinical Dysfunctions Report



Advanced Practitioner Only Report

The Clinical Dysfunctions Report shows a list of likely Health Concerns and Nutrient Deficiencies that your patient may be suffering from based on an analysis of their Chemistry Screen and CBC results. Health Concerns that are most likely are listed at the top of the report and the least likely at the bottom.

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

Health Concerns	0%	100%
Hypothyroidism - Primary		100%
Hypoglycemia		100%
Hypothyroidism - T4 under conversion		100%
Intestinal Parasites		100%
Hyperinsulinemia		86%
Metabolic Syndrome		80%
Adrenal Insufficiency		71%
Atherosclerotic Process		65%
Anemia		38%
Fatty Liver - Early Stage		36%
Endothelial Dysfunction		36%
Muscle Atrophy/Breakdown		33%
Hypothyroidism - Secondary		31%
Metabolic Acidosis		29%
Gastric Inflammation		27%
Immune Insufficiency		25%
Hypochlorhydria		19%
Biliary Insufficiency/Stasis		18%
Bacterial Infection		18%
Gout		17%
Viral Infection		15%
Renal Insufficiency		14%
Liver Dysfunction		5%
Adrenal Stress	0%	
Biliary Obstruction	0%	
Fatty Liver/Steatosis	0%	
Hyperactive Thyroid	0%	
Iron Overload	0%	
Liver Cell Damage	0%	
Pancreatic Insufficiency	0%	
Renal Disease	0%	

Health Concerns	0%	100%
Liver Cirrhosis	0%	
Metabolic Alkalosis	0%	
Testosterone Deficiency	0%	
Intestinal Hyperpermeability	0%	
Dysglycemia	0%	

Hypothyroidism - Primary

In primary hypothyroidism the problem is located in the thyroid gland itself, which fails to produce thyroid hormone. Consider primary hypothyroidism with an increased **TSH**, a decreased **Total T4**, a decreased **Total T3**, a decreased **Free T4**, a decreased **Free T3** and a decreased **T3-uptake**. Additional elements that may be out of range with primary hypothyroidism include an increased **total cholesterol** and **triglyceride** level. Primary hypothyroidism is often preceded by autoimmune thyroid disease. If you have a patient with suspected thyroid disease you should screen for thyroid antibodies.

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

Rationale:

TSH ↑, Total T3 ↓, Cholesterol - Total ↑, Triglycerides ↑, Free T3 ↓

Elements Considered:

TSH, Total T4, Total T3, T3 Uptake, Cholesterol - Total, Triglycerides, Free T4, Free T3, Free Thyroxine Index (T7)

Patient Result Not Available - Consider Running In Future Tests:

Thyroid Peroxidase (TPO) Abs, Thyroglobulin Abs

Hypoglycemia

Consider hypoglycemia with a decreased fasting **blood glucose** along with a decreased **LDH**. Additional elements that may be out of range with hypoglycemia include a decreased **Hemoglobin A1C** and an increased **SGPT/ALT** level.

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

Rationale:

LDH ↓

Elements Considered:

Glucose, LDH, Hemoglobin A1C

Hypothyroidism - T4 under conversion

T4 under conversion or low T3 syndrome is a form of hypothyroidism that clearly demonstrates the problem of using TSH alone as a marker for Hypothyroidism. Consider T4 under conversion or low T3 syndrome when you have a **normal TSH** along with a **decreased Total T3**, a **decreased Free T3**, a **normal Total T4**, a **normal Free T4** and an **increased reverse T3**. These patients will be suffering from all the classic signs and symptoms of low thyroid.

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

Rationale:

Total T3 ↓, Free T3 ↓

Elements Considered:

Total T3, Free T3

Patient Result Not Available - Consider Running In Future Tests:

Reverse T3

Intestinal Parasites

Consider intestinal parasites with increased **eosinophils**, increased **basophils**, and increased **monocytes**. Intestinal parasites are **probable** and should be ruled out. Additional elements that may be out of range with intestinal parasites include a decreased **hemoglobin**, a decreased **hematocrit** and a decreased **serum iron**. It is important to do further studies if you suspect intestinal parasites, i.e. a stool analysis with ova and parasite, especially if the subjective indicators are present.

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

Rationale:

Eosinophils ↑, Hemoglobin, Female ↓, Hematocrit, Female ↓, Monocytes ↑

Elements Considered:

Eosinophils, Basophils, Iron - Serum, Hemoglobin, Female, Hematocrit, Female, Monocytes

Hyperinsulinemia

Insulin resistance is the condition in which people lose sensitivity to the hormone insulin. As the cells become resistant to insulin, levels of insulin and blood glucose will rise. Consider insulin resistance with an increased **fasting insulin** and an increased **fasting blood glucose**, an increased **Hemoglobin A1C**, an increased **triglyceride** and an increased **Triglyceride/HDL ratio**. You may also see an increased **total cholesterol**, an increased **C-Peptide**, a decreased **HDL** and a decreased **phosphorous**.

[86%] - Dysfunction Likely. Improvement required.

Rationale:

Cholesterol - Total ↑, Triglycerides ↑, HDL Cholesterol ↓, Insulin - Fasting ↑, Triglyceride/HDL Ratio ↑

Elements Considered:

Glucose, Phosphorus, Cholesterol - Total, Triglycerides, HDL Cholesterol, Insulin - Fasting, Triglyceride/HDL Ratio

Patient Result Not Available - Consider Running In Future Tests:

C-Peptide

Metabolic Syndrome

Consider metabolic syndrome with an increased **triglyceride**, an increased **total cholesterol**, an increased **LDL cholesterol**, a decreased **HDL**, an increased fasting **blood glucose** and an increased **hemoglobin A1C**. Additional elements that may be out of range with metabolic syndrome include an increased fasting **insulin**, an increased **uric acid** and decreased **DHEA**.

[80%] - Dysfunction Likely. Improvement required.

Rationale:

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

Elements Considered:

Glucose, Triglycerides, Hemoglobin A1C, Insulin - Fasting, Uric Acid, female, Cholesterol - Total, LDL Cholesterol, HDL Cholesterol

Patient Result Not Available - Consider Running In Future Tests:

DHEA-S, Female, Leptin, Female

Adrenal Insufficiency

Adrenal insufficiency can cause a decrease in the secretions of both the glucocorticoid and mineralcorticoid hormones. A decrease in aldosterone, the major mineralcorticoid, from adrenal insufficiency will have an impact on potassium and sodium metabolism causing an increase in serum potassium and a decrease in serum sodium. Consider Adrenal Insufficiency with an **increased serum potassium** along with a **decreased sodium and/or chloride** and a **decreased serum DHEA-sulfate**. Additional elements that may be out of range with adrenal insufficiency include an **increased blood glucose** and an **increased serum triglyceride**. Urinary chloride will be increased. Adrenal insufficiency can be confirmed with salivary cortisol/DHEA studies.

[71%] - Dysfunction Likely. Improvement required.

Rationale:

Sodium ↓, Cholesterol - Total ↑, Triglycerides ↑

Elements Considered:

Sodium/Potassium Ratio, Sodium, Potassium, Glucose, Chloride, Cholesterol - Total, Triglycerides

Patient Result Not Available - Consider Running In Future Tests:

DHEA-S, Female, Cortisol - AM, Cortisol - PM

Atherosclerotic Process

Consider an atherosclerotic process with an **increased triglyceride level** in relation to an **increased total cholesterol** and an **increased uric acid level**, a **decreased HDL** and an **increased LDL**. Additional elements that may be out of range with an atherosclerotic process include an **increased platelet level**, an **increased homocysteine**, an **increased HS-CRP**, and an **increased fibrinogen**. **AST/SGOT may be elevated** due to the presence of this enzyme in heart tissue and **CO2 may be elevated** as well.

[65%] - Dysfunction Possible. There may be improvement needed in certain areas.

Rationale:

Cholesterol - Total ↑, LDL Cholesterol ↑, HDL Cholesterol ↓, Platelets ↑, Hs CRP, Female ↑

Elements Considered:

Uric Acid, female, Triglycerides, Cholesterol - Total, LDL Cholesterol, HDL Cholesterol, Platelets, CO2, AST (SGOT), Hs CRP, Female

Patient Result Not Available - Consider Running In Future Tests:

Homocysteine, Fibrinogen

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