



# Functional Health Report

A comprehensive analysis of your test results.

## BLOOD CHEMISTRY ANALYSIS



### Client Report

Prepared for      Female Sample  
58 year old female born Nov 01, 1966  
57 years old at the time this lab test was taken  
Fasting



Requested by      Mrs. Ashley Woosley  
11:1 Holistic Health + Fitness



Collected Date      Aug 02, 2024

Lab      Quest

Powered by      OptimalDX

# What's Inside?

## SECTION 1: INTRODUCTION

An introduction to Functional Blood Chemistry Analysis and your Functional Health Report.

- 1 What's Inside?
- 3 Practitioner's Notes
- 4 FBCA Introduction
- 5 Client Report

## SECTION 2: ANALYSIS

An in-depth analysis of your biomarker results.

- 7 Blood Test Results
- 22 Out of Optimal Range

## SECTION 3: ASSESSMENT

An in-depth functional system and nutrient evaluation.

- 34 Functional Body Systems
- 37 Accessory Systems
- 38 Nutrient Status
- 41 Nutrient Deficiencies

## SECTION 4: HEALTH CONCERNS

The health concerns that need the most support.

- 46 Health Concerns

## SECTION 5: DISCLAIMER

Additional information pertinent to this report.

- 51 Disclaimer



An introduction to Functional Blood Chemistry Analysis  
and your Functional Health Report (FHR).

---

# Introduction

- 1 What's Inside?
- 3 Practitioner's Notes
- 4 FBCA Introduction
- 5 Client Report

# Mrs. Ashley Woosley's Notes Report

This report highlights the notes made about the results of this blood test.

## REPORT NOTES

### Health Goals:

1. Reduce sugar cravings
2. Improve digestion
3. Improve immune system and decrease number of coughs and colds
4. Improve sleep

### Signs and Symptoms

The following signs and symptoms were reported:

1. Heartburn or acid reflux
2. Bloating one hour after meal
3. stomach pains or cramps
4. Catch colds at beginning of winter
5. Frequent colds or flu
6. Easily fatigued
7. Difficulty losing weight



# Functional Blood Chemistry Analysis (FBCA)

Functional Blood Chemistry Analysis, or FBCA, takes a deep dive into what your blood can tell us about your health. It's a way of sorting through all the different markers in your blood to get a clear picture of how your body's systems are doing. Think of it as a comprehensive health check-up that looks not just at how your body is working right now, but also checks if you're getting all the nutrients you need. Plus, it helps us see if you're moving towards better health or if there are areas we need to work on to get you feeling your best.



Mrs. Ashley Woosley  
11:1 Holistic Health + Fitness

## WHY BLOOD TESTING?

Your blood tells a comprehensive story about your health. Among all medical lab tests, the Blood Chemistry and CBC/hematology test stands out as the most frequently ordered. It's a cornerstone of Western clinical medicine, helping doctors make informed diagnostic decisions. You've likely been told that blood testing is a standard procedure for assessing health.

Yet, many people start feeling unwell long before traditional blood tests show anything amiss. Often, you might hear from your doctor that "everything on your blood test looks normal," even when you don't feel right.

## NORMAL IS NOT OPTIMAL

If you're feeling "unwell" but your blood test comes back "normal," it doesn't necessarily mean everything is fine. Clinical experience shows that being "normal" is quite different from being functionally optimal. You might not have a diagnosed disease, but it's possible to be dysfunctional, meaning your body's systems aren't operating as well as they should, and you're starting to feel the effects.

The problem isn't with the blood tests themselves—they're powerful diagnostic tools. The issue lies in the reference ranges used, which are based on average populations, not indicators of optimal health or function. "Normal" ranges are often too broad to detect early signs of health issues or to identify when you're moving away from optimal health.

## THE FUNCTIONAL APPROACH

The functional approach to blood testing focuses on changes in your body's function rather than looking for disease. We use optimal physiological ranges instead of "normal" population averages. This results in a more precise "Functional Physiological Range." It helps us spot issues within the "normal" range that could indicate your body's systems are starting to struggle. This approach enables us to detect shifts in your physiological function and identify what might be preventing you from reaching your best physiological, biochemical, and metabolic health.

Unlike traditional methods, which examine each biomarker in isolation, Functional Blood Chemistry Analysis uses trends and relationships between biomarkers to uncover hidden risks and opportunities for improving your health.

## THE FUNCTIONAL HEALTH REPORT

The Functional Health Report is generated from an in-depth algorithmic analysis of your blood test results. Our software digs into the data, uncovering the intricate patterns and subtle indicators of functional changes in your body, often before you're aware anything's amiss.

## SUMMARY

Blood testing has evolved beyond its role in diagnosing disease or managing injury. It's now an essential element of Functional Medicine, offering a critical window into your health. It helps reveal hidden health trends and is a key tool in promoting overall wellness and preventing disease.



# Client Report

Your report is the result of a detailed and proprietary algorithmic analysis of your complex and comprehensive blood biomarkers.



Mrs. Ashley Woosley  
11:1 Holistic Health + Fitness

## THE FUNCTIONAL HEALTH REPORT

Your blood test results have been analyzed for their hidden meaning and the subtle, web-like patterns concealed within the numbers that signal the first stages of functional change in your body. The Functional Health Report (FHR) takes all of this analytical information and provides a comprehensive interpretation of the results in a written and graphical format.

The report gives you a window into the state of health in the main functional physiological systems of the body, its supporting accessory systems, and the degree of deficiency in individual nutrients. The report is broken down into 3 main sections:

### ASSESSMENT

The Assessment section is at the very heart of the Functional Health Report. It is here that the findings of the risk analysis are presented.

The Functional Body Systems and Accessory reports show the risk of dysfunction in the various physiological and supporting accessory systems in your body.

The Nutrient Status report gives you an indication of your general nutritional status and the Nutrient Deficiencies report shows the risk of deficiency for individual nutrients.

Each of the assessment reports is accompanied by a section that contains detailed descriptions and explanations of the results presented in each of the reports in this section.

## ANALYSIS

The Analysis section shows you the actual results of your blood test itself.

The Blood Test Results Report lists your blood test results and shows if an individual biomarker is optimal, outside the optimal range or outside of the standard range.

The Blood Test Results Comparative Report compares results of the latest and previous blood test and gives you a sense of whether or not there has been an improvement in the individual biomarker results.

The Blood Test History report allows you to compare results over time and see where improvement has been made and allows you to track progress in the individual biomarkers.

The Out of Optimal Range report shows all of the biomarkers that are out of the optimal range and gives you some important information as to why each biomarker might be elevated or decreased. Each biomarker in the Out of Optimal Range report hyperlinks back into the Blood Test Results report so you can see a more detailed view of the blood test results.

## HEALTH CONCERNS

All the information on the Assessment and Analysis sections of the report are summarized in the Health Concerns section, which focuses on the top areas of need as presented in this report.



A full breakdown of all the individual biomarker results, showing if a particular biomarker is outside the optimal range or the standard range, plus a comparative and historical view.

---

## Analytics

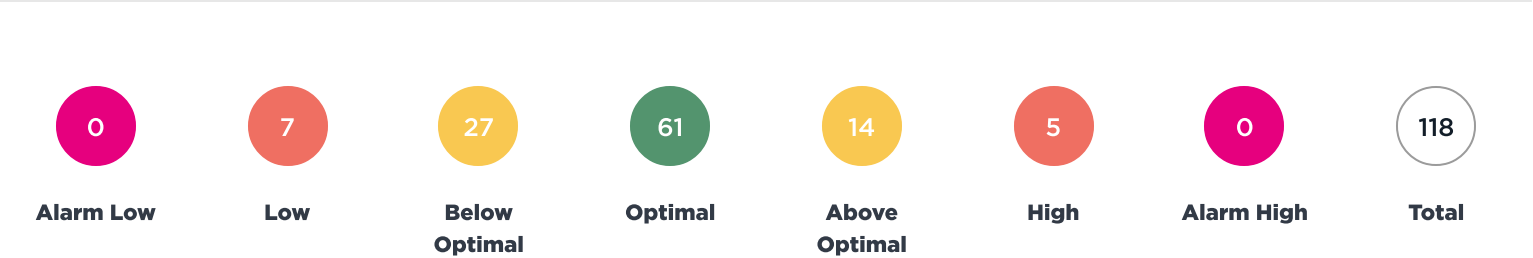
7 Blood Test Results

22 Out of Optimal Range

# Blood Test Results

The Blood Test Results Report lists the results from your Chemistry Screen and CBC and shows you whether or not an individual biomarker is optimal, outside of the optimal range, or outside of the standard range. The biomarkers are grouped into their most common categories.

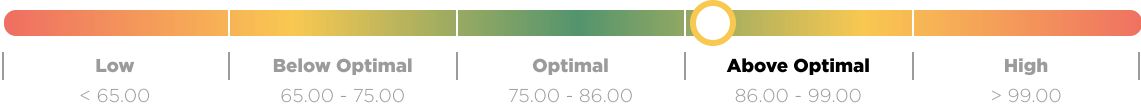
Some biomarkers in the Blood Test Results Report that are above or below the Optimal or marked Low or High may be hyperlinked into the "Out of Optimal Range Report", so you can read some background information on those biomarkers and why they may be high or low.



## BLOOD GLUCOSE

Keeping your blood sugar balanced is one of the best ways to maintain steady energy and overall wellness. The tests in this category show how well your body handles sugar both day-to-day and over longer periods, helping to catch early signs of trouble before they turn into bigger issues. By taking a functional approach, we can use these results to make simple yet powerful changes to support healthier blood sugar levels.

Glucose Fasting   
87.50 mg/dL

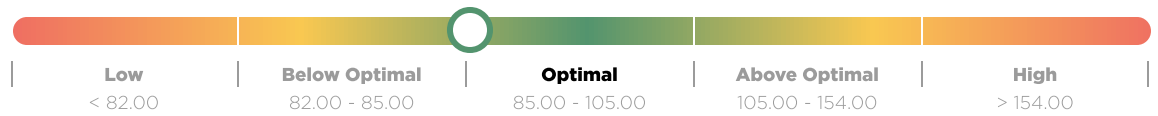


Hemoglobin A1C  
4.60 %





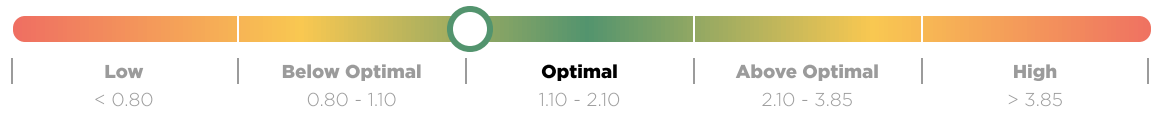
eAG  
85.00 mg/dL



Insulin - Fasting  
3.70  $\mu$ U/mL




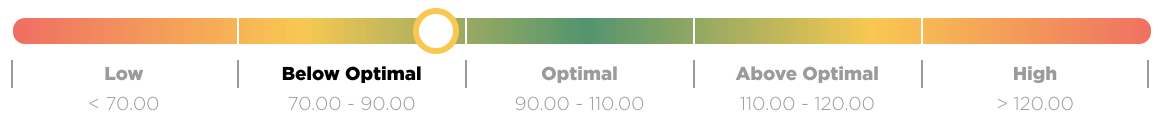
C-Peptide  
1.11 ng/mL



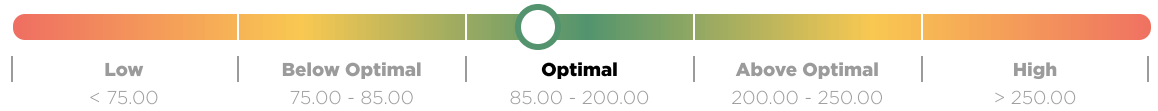
Fructosamine  
201.00  $\mu$ mol/L



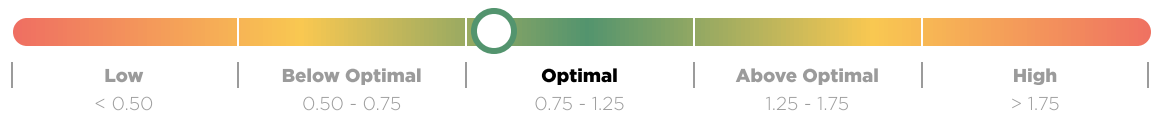
HOMA2-%B   
87.50 %



HOMA2-%S  
124.00 %



HOMA2-IR  
0.80 Index



QUICKI   
0.40 Index




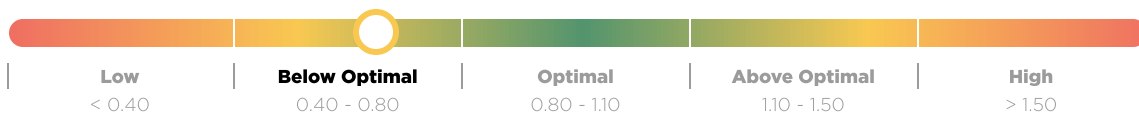
## KIDNEY


Your kidneys act as filters, clearing out waste and keeping the right balance of fluids and minerals in your blood. These biomarkers measure how well your kidneys are doing their job, often catching early changes so we can address them before they become bigger problems. A functional approach means looking at the whole picture—from diet and hydration to everyday habits that support kidney health.

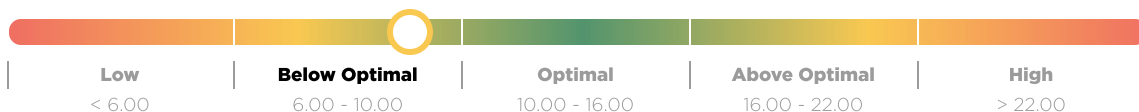
BUN   
6.00 mg/dL



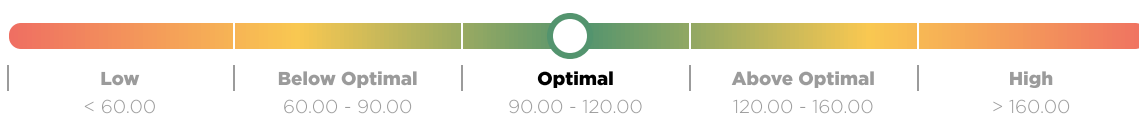
Creatinine   
0.65 mg/dL



BUN : Creatinine   
9.00 Ratio



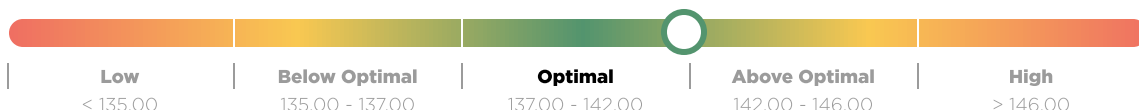
eGFR  
104.00 mL/min



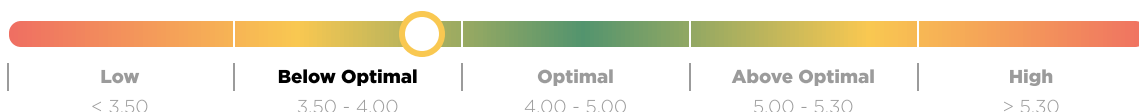
## ELECTROLYTES

Electrolytes help your body stay hydrated, regulate blood pressure, and keep your muscles and nerves working properly. When these levels are out of balance, you may feel fatigued, dizzy, or have muscle cramps. By monitoring these important minerals in your blood, we can understand how well your body maintains its internal balance and guide you toward the right choices to help you feel energized and well.

Sodium  
141.90 mEq/L



Potassium   
3.90 mEq/L




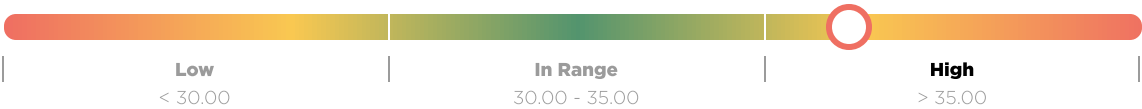
Chloride  
106.00 mEq/L



CO2  
26.00 mEq/L



Sodium : Potassium   
36.38 ratio



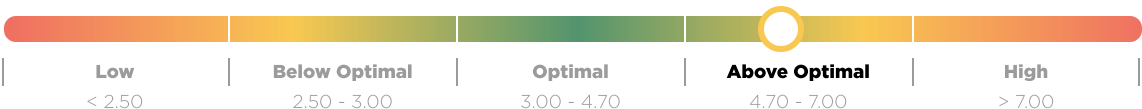
METABOLIC

Metabolic biomarker analysis provides key insights into how your body manages energy, muscle function, and electrolyte balance. By spotting early changes in these biomarkers, we can develop appropriate support strategies to keep your metabolism running smoothly.

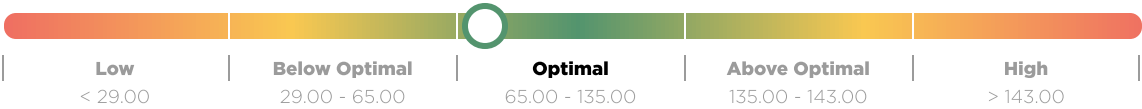
Anion Gap  
13.80 mEq/L



Uric Acid   
5.65 mg/dL



Creatine Kinase (CK)  
72.00 U/L



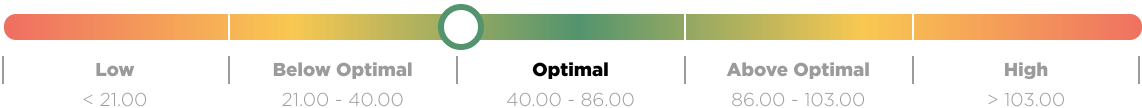
Leptin   
12.20 ng/mL



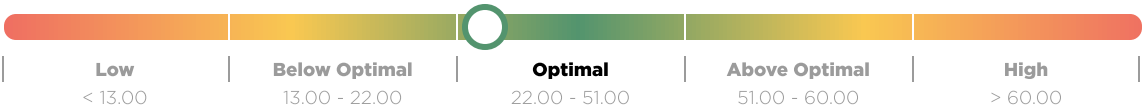
ENZYMES

Your body's enzymes help break down food and convert nutrients into energy. By looking at your enzyme levels, we can identify why you might be experiencing digestive issues or other symptoms and guide you toward choices that support your body's natural enzyme function.

Amylase  
42.00 U/L



Lipase  
25.00 U/L

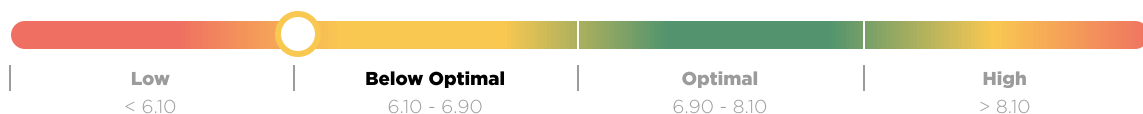


PROTEINS

Protein analysis gives us a clear look at the proteins in your blood, which play a vital role in keeping you healthy by supporting everything from your immune system to your overall nutrition. With these insights, we can help you maintain a balanced level of these important proteins and boost your well-being.

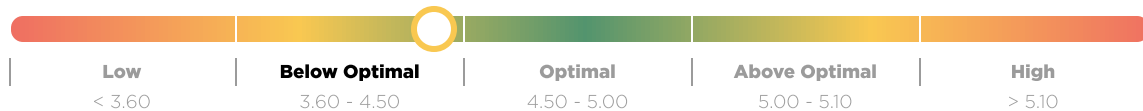
Protein - Total 

6.10 g/dL



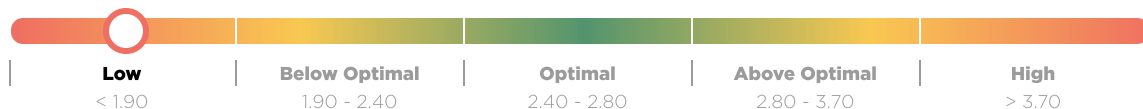
Albumin 

4.40 g/dL



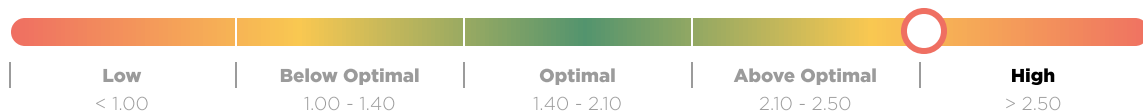
Globulin - Total 

1.70 g/dL



Albumin : Globulin 

2.60 ratio



## MINERALS

Minerals are essential for everything from bone health to energy production and immune function. By measuring both the minerals in your blood and inside your cells, we can understand if you're getting and properly using these vital nutrients, helping us guide you toward choices that maintain optimal mineral balance for your health.

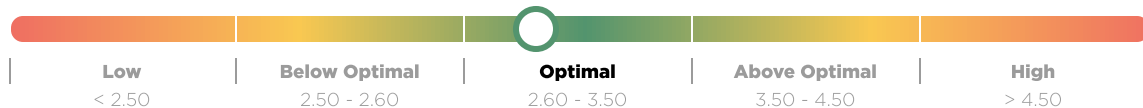
Calcium

9.10 mg/dL



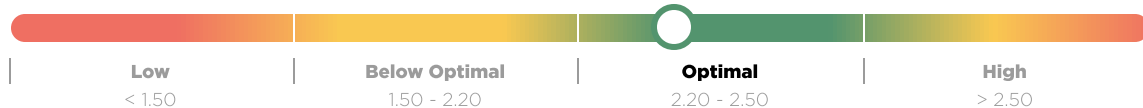
Phosphorus

2.90 mg/dL



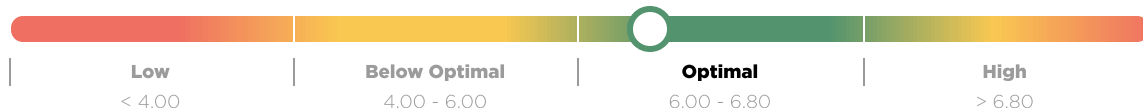
Magnesium - Serum

2.30 mg/dL



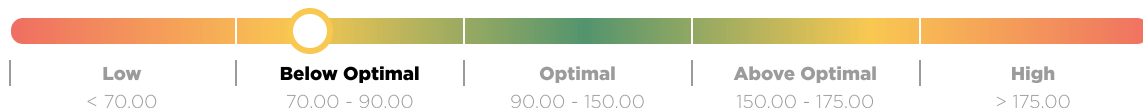
Magnesium - RBC

6.20 mg/dL




Copper - Serum 

76.00 µg/dL



Zinc - Serum   
65.70 µg/dL



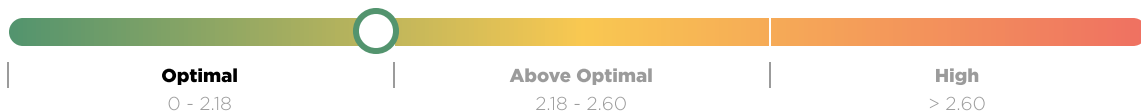
Zinc - RBC   
9.20 mg/L



Copper : Zinc Ratio  
1.16 Ratio



Calcium : Albumin  
2.07 ratio



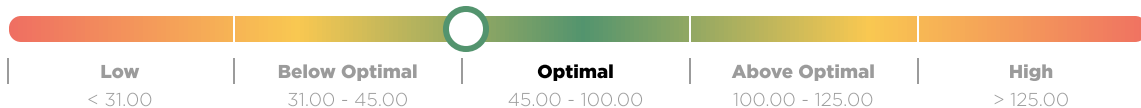
Calcium : Phosphorus  
3.14 ratio



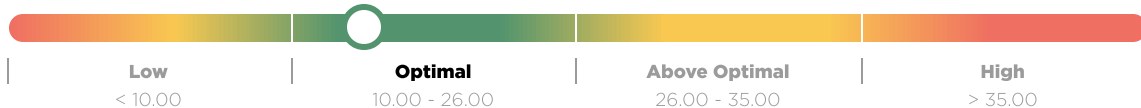
## LIVER AND GB

Liver and gallbladder biomarkers give us an indication of how well your liver and gallbladder are working to support your overall health. By spotting early signs of stress or imbalance, we can make appropriate support strategies to help keep these vital organs functioning smoothly and support their optimal function.

Alk Phos  
46.00 IU/L



AST  
14.00 IU/L



ALT  
11.00 IU/L



LDH   
131.00 IU/L



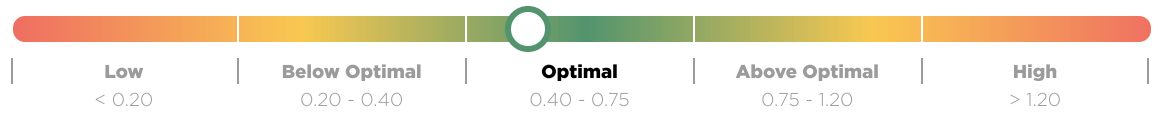
Bilirubin - Total  
0.60 mg/dL



Bilirubin - Direct  
0.10 mg/dL




Bilirubin - Indirect  
0.50 mg/dL



GGT   
8.00 IU/L




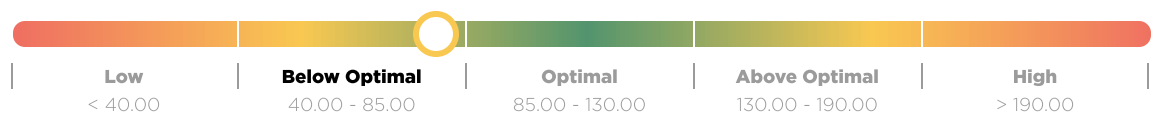
AST : ALT   
1.27 Ratio



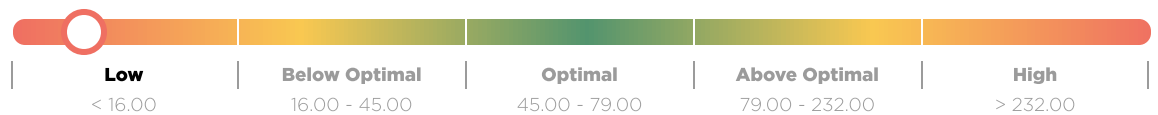
## IRON MARKERS

Iron is a key mineral your body relies on to keep you feeling energized and healthy. Around 70% of your total iron is found in red blood cells, where it carries oxygen from your lungs to all the parts of your body that need it. By measuring different aspects of how your body handles iron, we can understand if you're getting and using the right amount – not too little or too much – and guide you toward choices that help maintain healthy iron levels for optimal energy and wellness.

Iron - Serum   
79.00 µg/dL

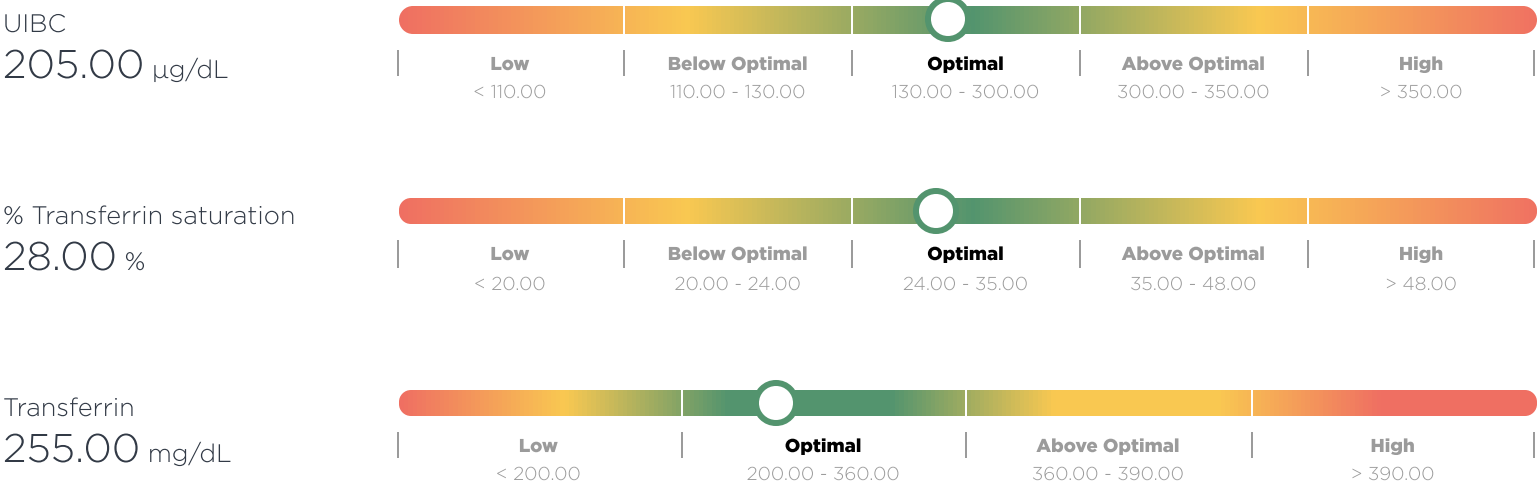


Ferritin   
12.00 ng/mL



TIBC  
284.00 µg/dL





LIPIDS

The lipid panel assesses the distribution and ratios of various lipid fractions. By examining these different markers, we can better understand the role lipids play in your cardiovascular health



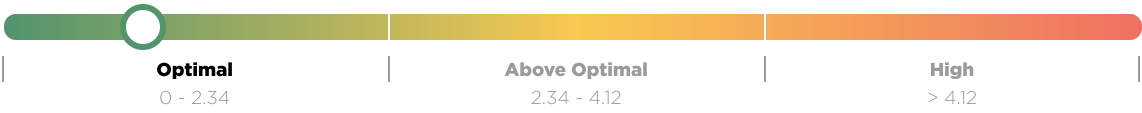
Cholesterol : HDL  
2.04 Ratio



Triglyceride:HDL  
0.80 ratio




LDL : HDL  
0.86 Ratio



CARDIOMETABOLIC

Your heart and blood vessel health depends on many complex factors, and these specialized tests help us understand how your cardiovascular system is working at a deeper level than standard heart tests. By looking at these biomarkers, we can spot potential concerns early and guide you toward specific strategies that best support your long-term heart health and overall wellness.

Homocysteine   
7.50 μmol/L



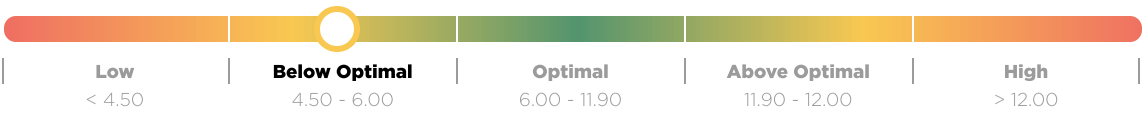
THYROID

Your thyroid is like your body's metabolic thermostat, controlling energy production, temperature regulation, and countless other functions throughout your body. By looking at thyroid biomarkers, we can understand how well your thyroid is working at every stage, helping us guide you toward strategies that support optimal thyroid function.

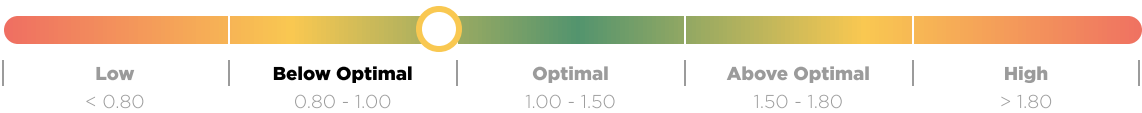
TSH   
2.95 mIU/L



T4 - Total   
5.20 μg/dL

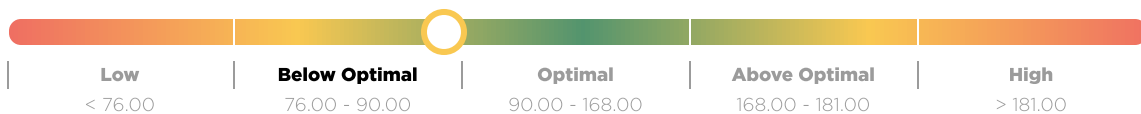


T4 - Free   
0.98 ng/dL





T3 - Total   
89.20 ng/dL




T3 - Free   
2.80 pg/mL




Reverse T3   
28.00 ng/dL



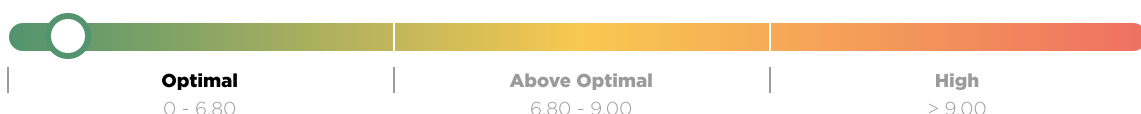
T3 Uptake   
26.20 %



Free Thyroxine Index (T7)   
1.36 Index



Thyroid Peroxidase (TPO)  
Abs  
1.10 IU/mL




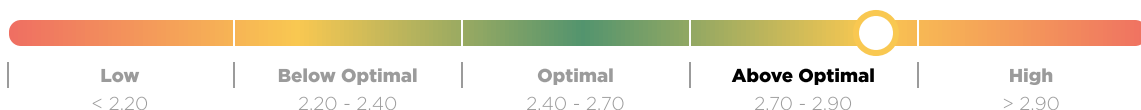
Thyroglobulin Abs  
<1.00 IU/mL



Free T3 : Reverse T3  
10.00 Ratio



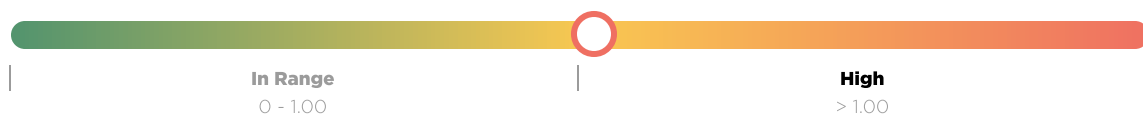
Free T3 : Free T4   
2.86 Ratio




## INFLAMMATION

Inflammatory biomarkers enable us to evaluate both acute and chronic systemic inflammation. While some inflammation is normal and helpful, too much can affect your energy, mood, and overall health, which is why we measure these markers to guide personalized recommendations that can help your body maintain a healthy balance.

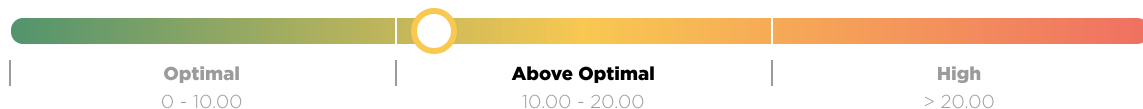
Hs CRP   
1.15 mg/L



C-Reactive Protein   
4.65 mg/L



ESR   
11.20 mm/hr



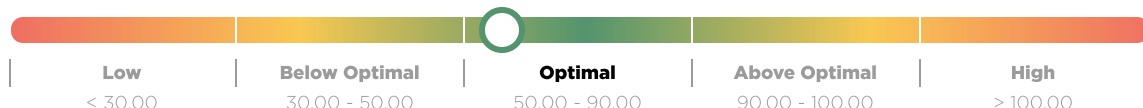
Fibrinogen Activity  
221.00 mg/dL




## VITAMINS

Vitamin biomarker analysis helps us see if your body is getting the right vitamins to produce energy, support your immune system, and maintain overall health. By measuring both the amounts and active forms of these vital nutrients, we can understand if you're getting and properly using the vitamins you need, helping us guide you toward choices that optimize your nutritional status.

Vitamin D (25-OH)  
56.20 ng/mL




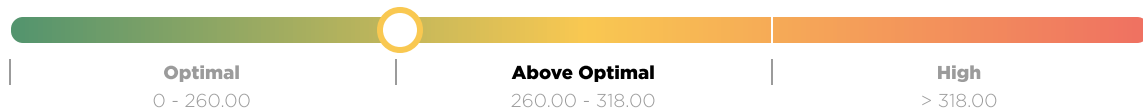
Vitamin B12   
462.00 pg/mL



Folate - Serum  
15.20 ng/mL



Methylmalonic Acid   
261.00 nmol/L



Folate - RBC   
376.00 ng/mL



HORMONES

Hormones act as your body’s messengers, controlling energy, mood, sleep, and overall well-being. When they are out of balance, you may feel tired, stressed, or have trouble with weight, focus, or sleep. By measuring various hormone levels, we can understand how well your endocrine system is performing as a whole and guide you toward strategies that help maintain optimal hormonal balance.

DHEA-S  
285.00 µg/dL




FSH  
Unknown  
16.30 mIU/mL

Follicular	2.50-10.20	Luteal	1.50-9.10
Ovulation	3.10-17.70	Post Menopausal	23.00-116.30

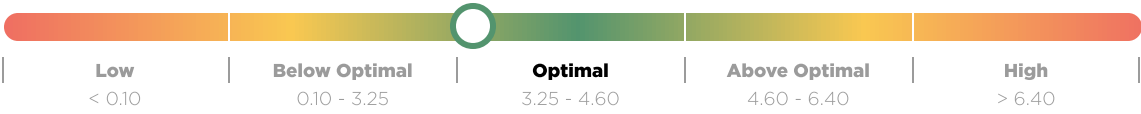
LH  
Unknown  
9.80 mIU/mL

Follicular	1.90-12.50	Luteal	0.50-16.90
Ovulation	8.70-76.30	Post Menopausal	10.00-54.70

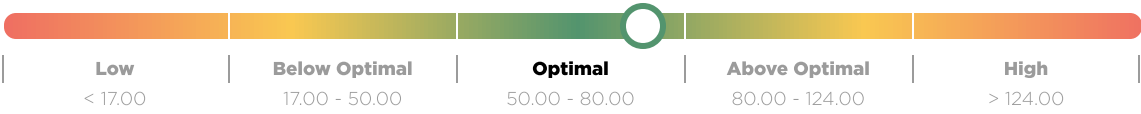
Testosterone Total   
33.20 ng/dL



Testosterone Free  
3.38 pg/mL



Sex Hormone Binding  
Globulin  
75.00 nmol/L




Estradiol  
Unknown  
55.00 pg/mL

Follicular	19.00-144.00	Luteal	56.00-214.00
Ovulation	64.00-357.00	Post Menopausal	0.00-31.00

Progesterone  
Unknown  
8.00 ng/mL

Follicular	0.00-1.00	Luteal	2.60-21.50
Ovulation	0.10-12.00	Post Menopausal	0.00-0.50

Cortisol - Total/AM   
9.00 µg/dL



Cortisol : DHEA-S  
0.03 ratio



Gastrin  
46.00 pg/mL



Testosterone Bioavailable  
8.10 ng/dL



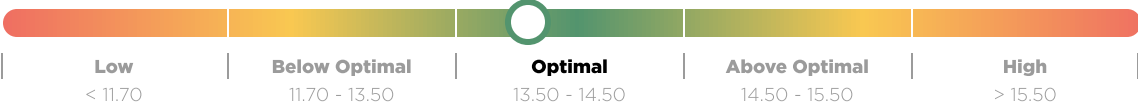
## CBC

Your blood is responsible for carrying oxygen and supporting your immune system. The biomarkers on the Complete Blood Count (CBC) help us understand how well they're doing their job. By looking at the number, size, and characteristics of the different blood cells in the CBC, we can spot early signs of imbalances that might affect your energy, immune function, or overall health. We can then guide you toward choices that support healthy blood cell production.

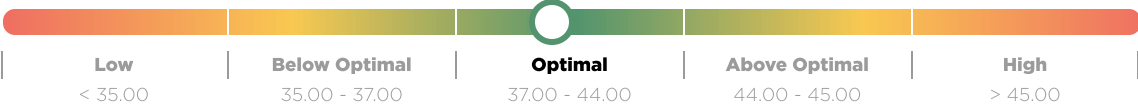
RBC   
4.23 m/cumm



Hemoglobin  
13.80 g/dL



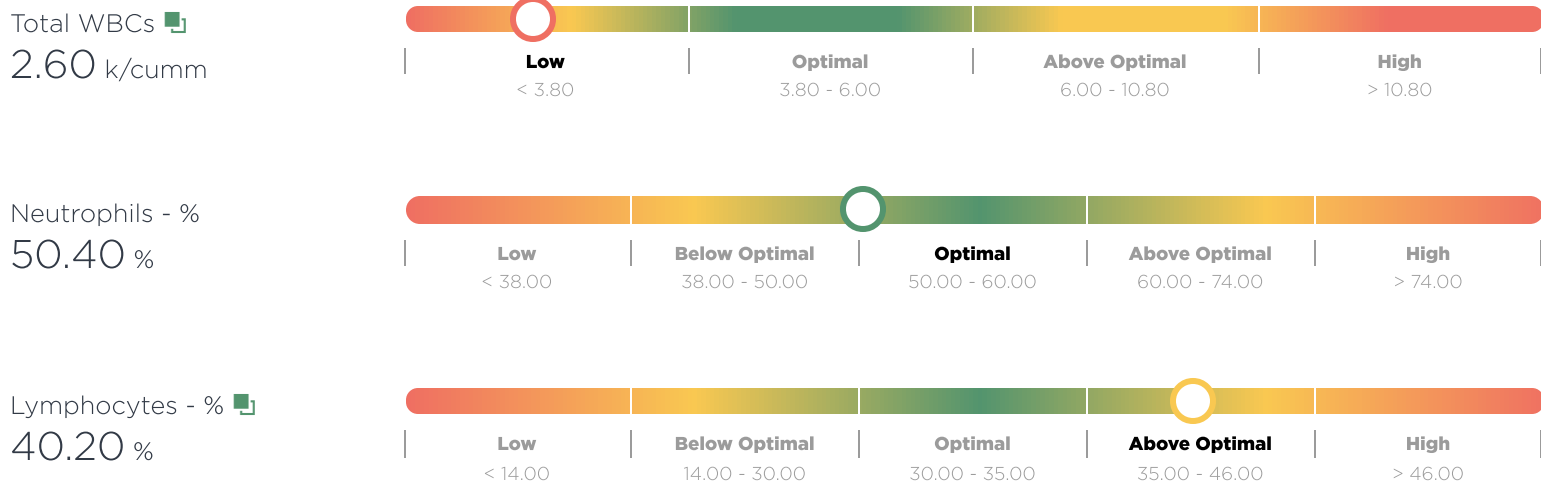
Hematocrit  
40.00 %





## WBCS

White blood cell analysis checks the different types of cells that help fight off infections and keep your body balanced. With this information, we can spot any early signs of immune-related issues and put together strategies to support your immune health and overall well-being.



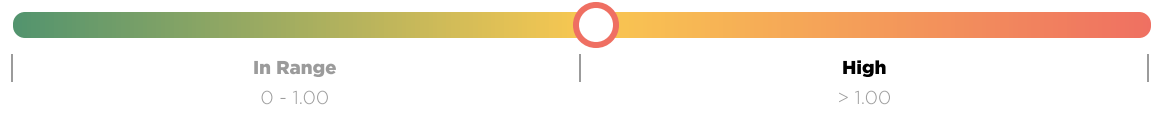
Monocytes - %  
6.80 %



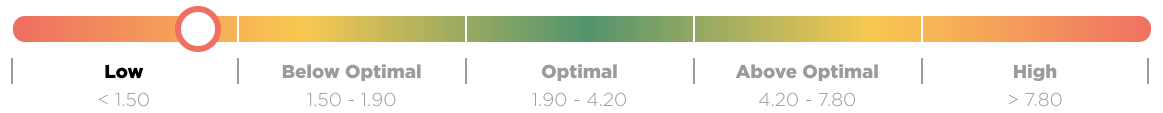
Eosinophils - %  
1.50 %



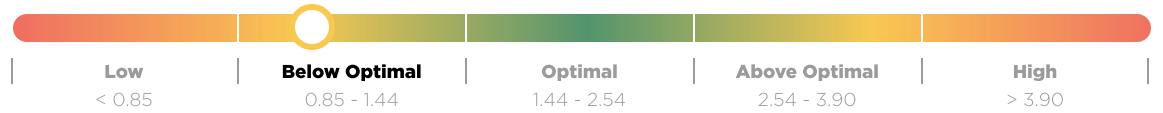
Basophils - %  
1.10 %



Neutrophils - Absolute  
1.31 k/cumm



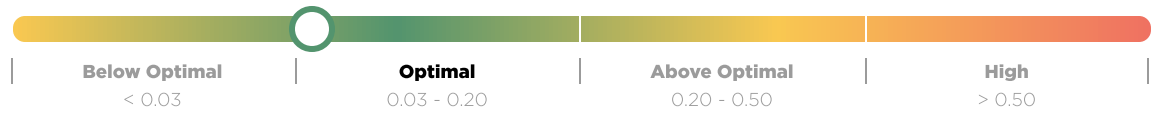
Lymphocytes - Absolute  
1.05 k/cumm



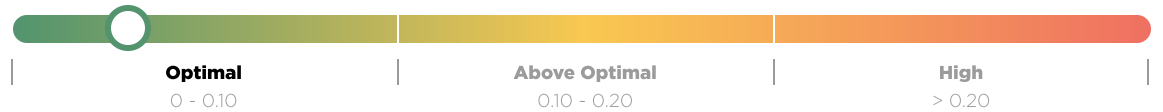
Monocytes - Absolute  
0.18 k/cumm



Eosinophils - Absolute  
0.04 k/cumm



Basophils - Absolute  
0.03 k/cumm

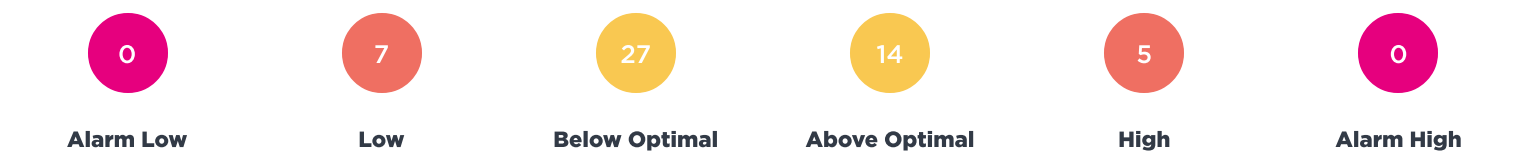


Neutrophil : Lymphocyte  
1.25 Ratio

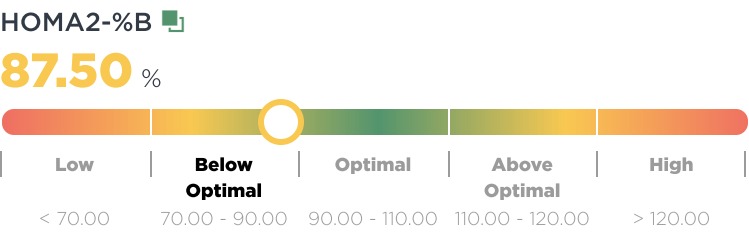


# Out of Optimal Range

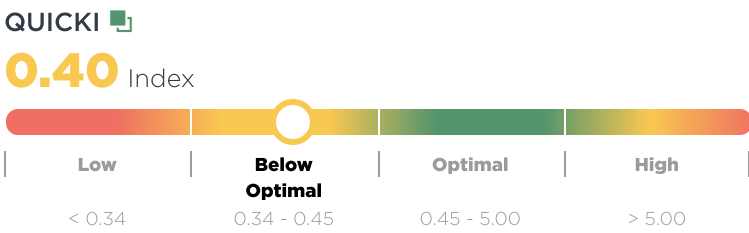
The following report shows all of the biomarkers that are out of the optimal range and gives you some important information as to why each biomarker might be elevated or decreased.



## BLOOD GLUCOSE



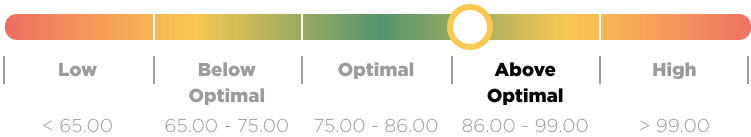
HOMA2-%B is a calculation that helps estimate how well the insulin-producing cells (beta cells) in your pancreas are working. If your HOMA2-%B is low, it means your pancreas may not be making as much insulin as it should. This could be an early warning sign that your blood sugar might become harder to control over time.



QUICKI is a calculation that uses your fasting blood sugar and insulin levels to estimate how sensitive your body is to insulin. If your QUICKI score is low, it means your body may be becoming resistant to insulin, which could raise your risk of problems like Type 2 Diabetes or heart disease over time.

Glucose Fasting

87.50 mg/dL

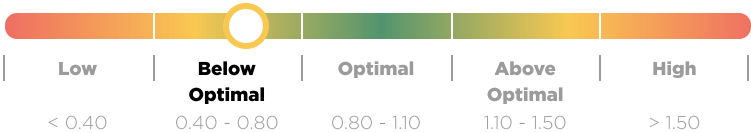


Fasting blood glucose (FBG) measures how much sugar is in your blood after you’ve gone without eating for several hours. Insulin and glucagon are two key hormones that help keep blood sugar in balance: insulin lowers your blood sugar by helping it move into your cells, and glucagon raises your blood sugar by telling your liver to release stored sugar. When FBG levels are high, it often means your body isn’t making enough insulin or isn’t using it effectively. This happens in type 1 diabetes, where the pancreas doesn’t produce enough insulin, and type 2 diabetes, where the body becomes resistant to insulin over time. High FBG can also be a sign of other conditions, like prediabetes or metabolic syndrome, which both indicate possible trouble with how your body handles sugar and other nutrients.

KIDNEY

Creatinine

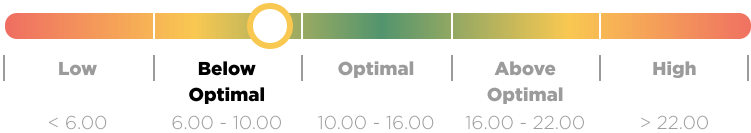
0.65 mg/dL



Serum creatinine is a waste product that comes from muscle activity and is normally filtered out by the kidneys. If your serum creatinine is low, it often simply means you have less muscle mass, or you’ve been losing muscle for some reason (like inactivity or certain health conditions).

BUN : Creatinine

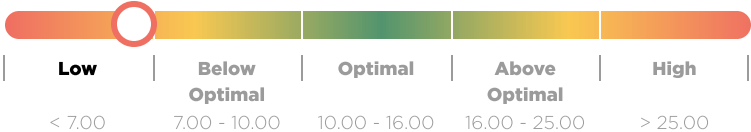
9.00 Ratio



The BUN:Creatinine ratio shows how your body’s protein waste (BUN) compares to another waste product (creatinine), both of which are normally cleared by your kidneys. If your ratio is low, it often means you’re eating less protein or that your body isn’t making as much urea as usual.

BUN

6.00 mg/dL



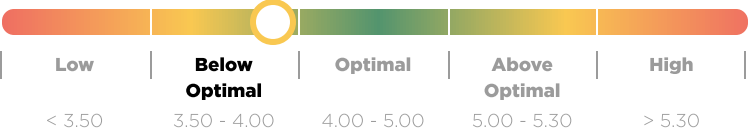
Blood Urea Nitrogen (BUN) is a test that measures a waste product called urea in your blood, which can give clues about how your body is breaking down protein and how well your kidneys and liver are working. If your BUN level is low, it usually isn’t a big concern. It can sometimes happen if you’re drinking a lot of fluids (diluting the urea), you’re low in protein, or your liver isn’t producing as much urea as usual.



ELECTROLYTES

Potassium

3.90 mEq/L



Potassium is a mineral in your blood that helps keep your muscles, nerves, and heart working properly. If your potassium level is low, it might be a sign that your body is losing too much of it (through certain medicines or digestive issues) or not getting enough from your diet. Low potassium can sometimes cause muscle cramps or weakness.

Sodium : Potassium

36.38 ratio

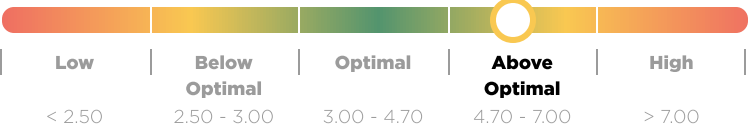


The sodium:potassium ratio compares two important minerals in your blood, both controlled by hormones from your adrenal glands. If your ratio is high, it often means you're under sudden or "acute" stress that boosts a hormone called aldosterone. This hormone helps your body hold on to sodium and release potassium, raising the ratio. High aldosterone can also contribute to inflammation, pain, and discomfort.

METABOLIC

Uric Acid

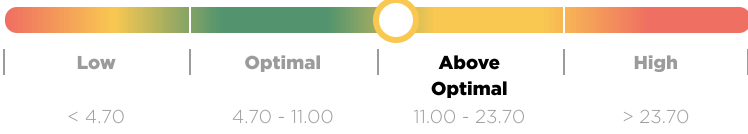
5.65 mg/dL



Uric acid is a waste product your body makes when it breaks down certain substances (purines) found in foods and cells. If your uric acid level is high, it can be linked to conditions like gout—a painful buildup of crystals in the joints—or might indicate that your kidneys aren't excreting uric acid as well as they should. High levels can also go along with inflammation and raise your risk for heart or blood vessel problems.

Leptin

12.20 ng/mL

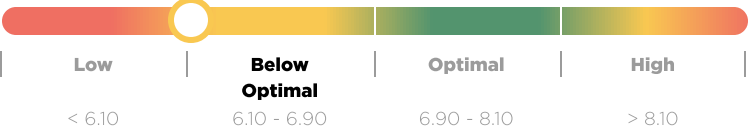


Leptin is a hormone made by your body's fat cells. It helps control your appetite and plays a role in your overall energy levels. If your leptin level is high, it often means you have more body fat, or your body isn't responding to leptin correctly—a condition sometimes called leptin resistance. This situation is often linked to weight gain, insulin resistance, and other health issues.

PROTEINS

Protein - Total

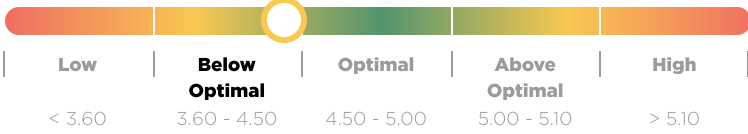
6.10 g/dL



Your blood's total protein is mainly made up of two kinds of proteins: albumin and globulins. If your total protein is low, it may be because you're not getting enough nutrients or you aren't digesting your food as well as you should. It can also happen if your liver isn't making enough protein.

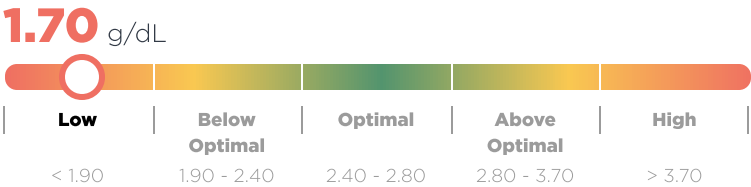
Albumin

4.40 g/dL



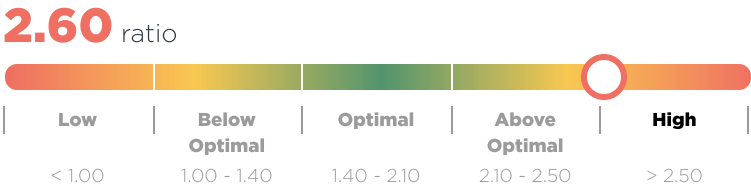
Albumin is the main protein in your blood that helps keep fluid inside your blood vessels and carries nutrients around your body. When your albumin level is low, it can suggest you're not getting enough protein in your diet, your liver isn't working well, or your body is dealing with long-term inflammation.

Globulin - Total



Total globulin is a measure of proteins in your blood that help with fighting infections and carry other substances through your body. If your total globulin is low, it can mean your body isn't making enough of these proteins, sometimes due to problems with your immune system or not getting enough nutrients.

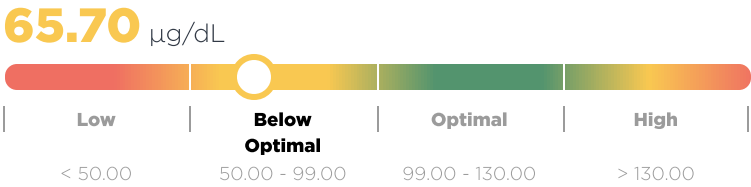
Albumin : Globulin



The albumin:globulin ratio compares two main types of proteins in your blood: albumin (made by your liver) and globulins (which include antibodies and other important proteins). A high ratio might occur if your body isn't making enough globulins or if your albumin level is relatively high, sometimes due to dehydration or other factors affecting protein balance.

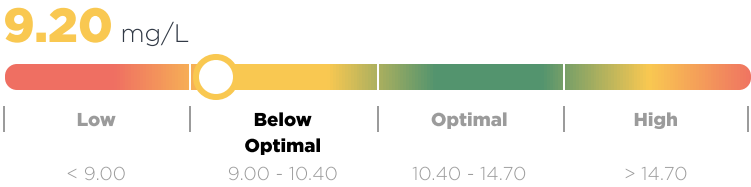
MINERALS

Zinc - Serum



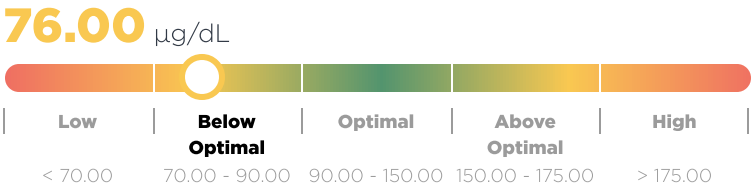
Zinc is a trace mineral that participates in a significant number of metabolic functions and is found throughout the body's tissues and fluids. Low levels of serum zinc are associated with zinc deficiency.

Zinc - RBC



Zinc is a trace mineral that participates in a significant number of metabolic functions and is found throughout the body's tissues and fluids. Low levels of serum zinc are associated with zinc deficiency. Measuring RBC zinc provides a better assessment of intracellular and long-term zinc status than serum zinc alone.

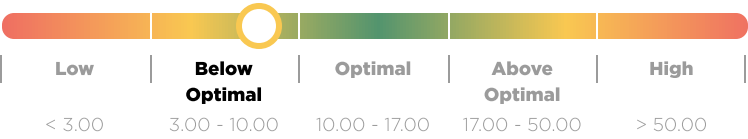
Copper - Serum



Serum copper is a measure of the copper in your blood, a mineral important for energy, brain function, blood cell production, and building strong bones. Low copper levels can affect your brain, liver, and other tissues, leading to problems with movement, poor blood health, or skin and hair changes. This may happen due to poor diet or problems with absorbing nutrients.

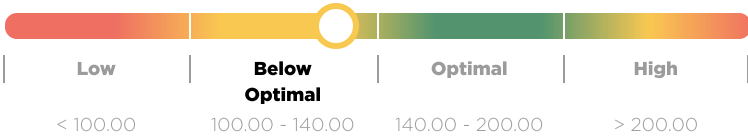
LIVER AND GB

GGT   
8.00 IU/L



Gamma Glutamyl Transferase, or GGT, is a protein mainly found in the liver but also in smaller amounts in the kidneys, prostate, and pancreas. While low levels of GGT are often seen as ideal, decreased levels are associated with vitamin B6 and magnesium deficiency.

LDH   
131.00 IU/L



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.

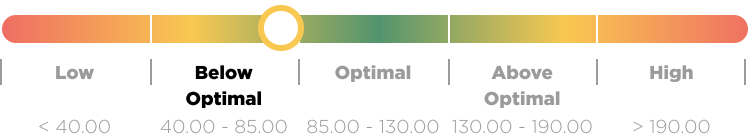
AST : ALT   
1.27 Ratio



The AST:ALT ratio, also known as the De Ritis ratio, provides a tool for assessing and monitoring liver function and the progression and the severity of liver disease. An increasing AST:ALT ratio above 1 is associated with a trend towards progressive impairment of liver function

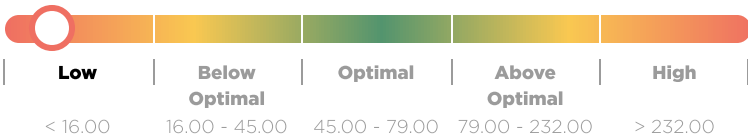
IRON MARKERS

Iron - Serum   
79.00 µg/dL



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. 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.

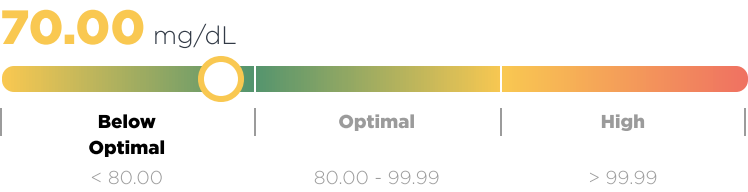
Ferritin   
12.00 ng/mL



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.

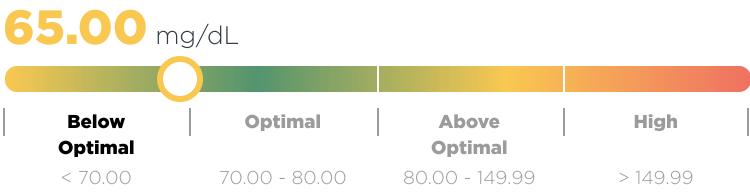
LIPIDS

LDL Cholesterol



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. There is no clinical significance for a decreased LDL level.

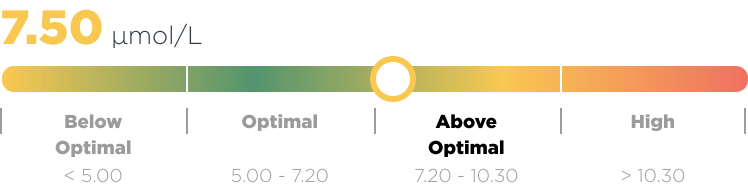
Triglycerides



Serum triglycerides are composed of fatty acid molecules that enter the bloodstream either from the liver or from the diet. Serum Triglyceride levels may be decreased in liver dysfunction, a diet deficient in fat, and inflammatory processes.

CARDIOMETABOLIC

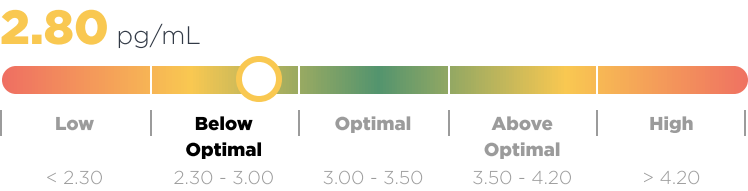
Homocysteine



Homocysteine is a molecule formed from the incomplete metabolism of the amino acid methionine. Increased levels of homocysteine are associated with an increased risk of cardiovascular disease and stroke.

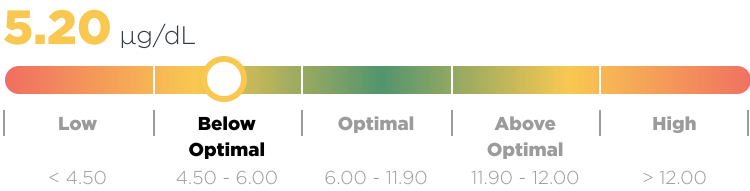
THYROID

T3 - Free



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 decreased with hypothyroidism and is associated with selenium deficiency.

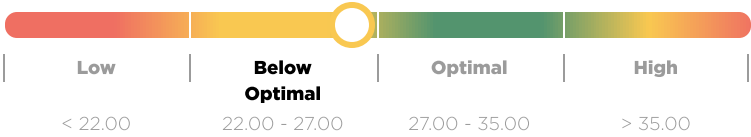
T4 - Total



T-4 is the major hormone secreted by the thyroid gland. T-4 production and secretion from the thyroid gland is stimulated by the pituitary hormone TSH. Total T4 reflects the total amount of T4 present in the blood i.e. amount bound to thyroxine-binding globulin and free levels. Decreased total T-4 levels are associated with Hypothyroidism and/or a selenium deficiency.

T3 Uptake

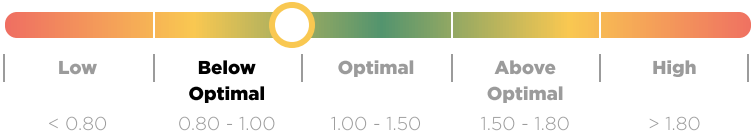
26.20 %



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

T4 - Free

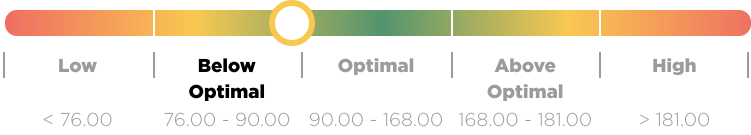
0.98 ng/dL



T-4 is the major hormone secreted by the thyroid gland. T-4 production and secretion from the thyroid gland are stimulated by the pituitary hormone TSH. Deficiencies of zinc, copper, and vitamins A, B2, B3, B6, and C will cause a decrease in the production of T4 by the follicles of the thyroid gland. Free T-4 is the unbound form of T4 in the body. Only about 0.03 – 0.05% of circulating T4 is in the free form. Free T-4 will be decreased in hypothyroidism and is associated with iodine deficiency.

T3 - Total

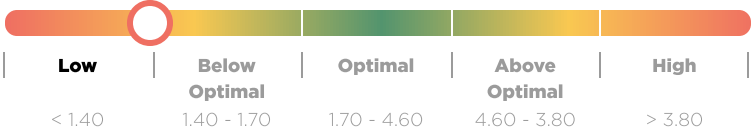
89.20 ng/dL



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. Decreased total T-3 are associated with Hypothyroidism and/or a selenium deficiency.

Free Thyroxine Index (T7)

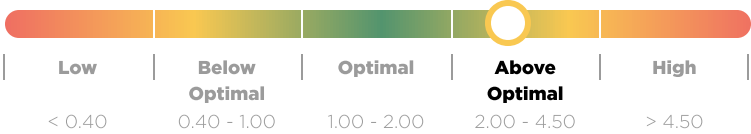
1.36 Index



The Free Thyroxine Index is a calculated measurement used to determine how much active thyroid hormone (thyroxine/Free T4) is available. Decreased levels are associated with hypothyroidism.

TSH

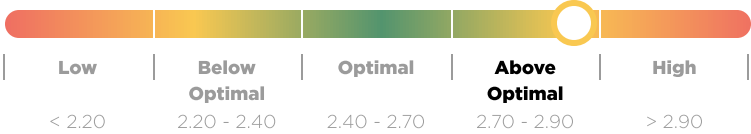
2.95 mIU/L



TSH or thyroid-stimulating hormone is a hormone produced by the anterior pituitary to control the thyroid gland's production of the thyroid hormone thyroxine (T4). TSH levels can be confusing because TSH levels increase when there is too little thyroid hormone in circulation. An elevated TSH is a sign that the body needs more thyroid hormone. Elevated levels of TSH are associated with primary hypothyroidism.

Free T3 : Free T4

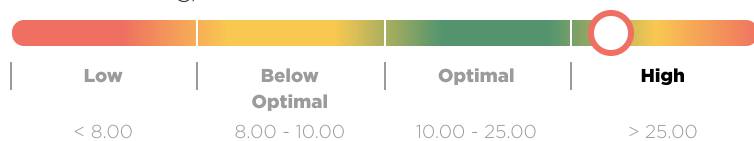
2.86 Ratio



The Free T3: Free T4 ratio is a measure that assesses the balance between two important thyroid hormones in your blood: Free T3 (triiodothyronine) and Free T4 (thyroxine). These hormones play vital roles in regulating energy, metabolism, and many other bodily functions. A normal ratio indicates a balanced conversion of T4 (a storage hormone) to T3 (the active hormone). A high ratio, on the other hand, indicates that there might be an excessive conversion of T4 to T3, which can be seen in situations of hyperactive thyroid function where there's excessive T3 production. In certain situations, an elevated ratio may also be associated with an emerging hypothyroidism.

## Reverse T3

**28.00** ng/dL

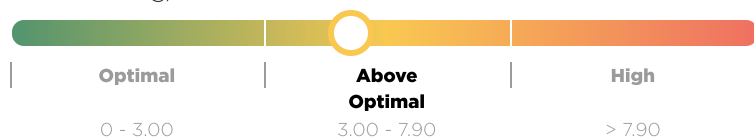


Reverse T-3 is formed from the thyroid hormone T-4 (thyroxine). It is thought to be an inactive form of thyroid hormone that acts as a sort of metabolic brake on the body. High stress and cortisol levels, chronic illness, inflammation, multiple vitamin deficiencies, fasting, yo-yo dieting, poor nutrition, calorie restriction, lack of exercise, and increased alcohol intake can all raise reverse T-3 levels.

## INFLAMMATION

### C-Reactive Protein

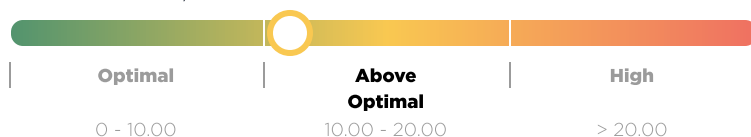
**4.65** mg/L



C-Reactive Protein is a blood marker that can help indicate the level of inflammation in the body.

### ESR

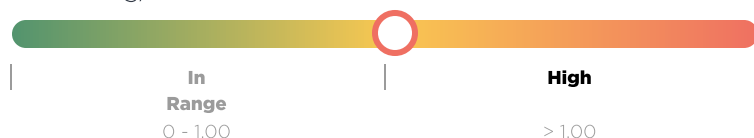
**11.20** mm/hr



The ESR test is based on the fact that certain blood proteins will become altered in inflammatory conditions, causing aggregation of the red blood cells. Elevated levels of ESR are associated with inflammation.

### Hs CRP

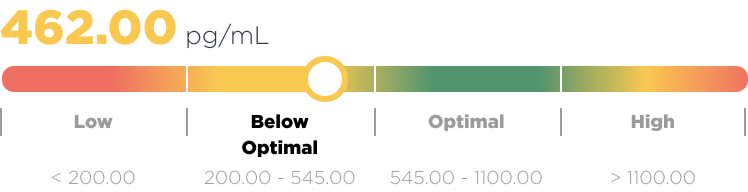
**1.15** mg/L



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.

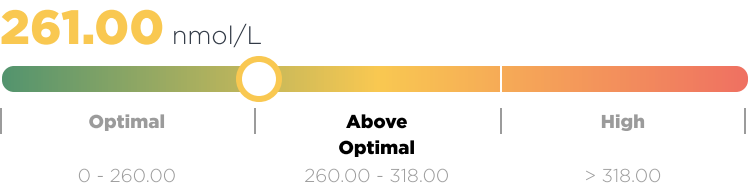
VITAMINS

Vitamin B12



Vitamin B12 is an essential nutrient for DNA synthesis and red blood cell maturation and is also necessary for myelin sheath formation and the maintenance of nerves in the body. Decreased serum B12 levels are associated with a deficiency of B12, insufficient B12 intake in the diet, or malabsorption.

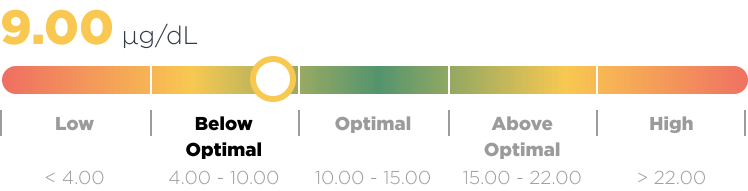
Methylmalonic Acid



Methylmalonic acid (MMA) is a byproduct of the metabolism of certain fatty acids and amino acids, a process that requires vitamin B12. Testing for MMA can help detect an early B12 deficiency and help differentiate between folate and B12 deficiency. Elevated levels reflect a B12 deficiency.

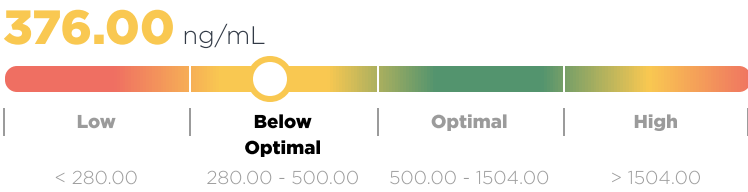
HORMONES

Cortisol - Total/AM



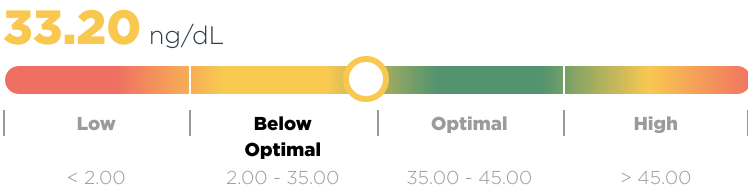
The serum cortisol test is used to identify dysfunction in the adrenal gland. Decreased levels are associated with adrenal hypofunction, a dysfunction where the adrenal glands do not produce enough cortisol.

Folate - RBC



Folate functions as a coenzyme in the process of methylation. Along with vitamin B12, folate is essential for DNA synthesis. Low folate intake can result in folate deficiency, which can impair methylation, DNA synthesis, and red blood cell production.

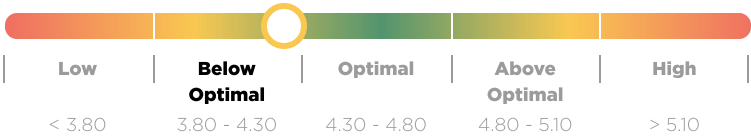
Testosterone Total



The total testosterone test measures both the testosterone that is bound to serum proteins and the unbound form (free testosterone). In women, low total testosterone levels have been linked to an increased risk for the following: osteoporosis, decreased lean body mass and decreased libido.

RBC

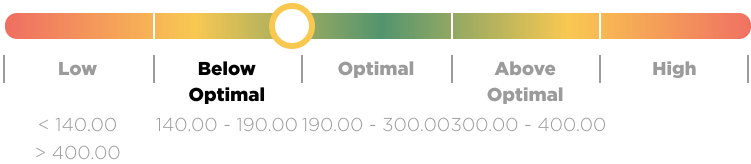
4.23 m/cumm



The RBC Count determines the total number of red blood cells or erythrocytes found in a cubic millimeter of blood. 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. Decreased levels are primarily associated with anemia.

Platelets

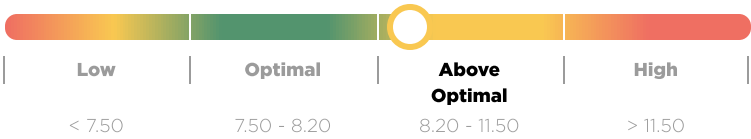
187.00 10E3/uL



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. Decreased levels are associated with oxidative stress, heavy metal body burden and infections.

MPV

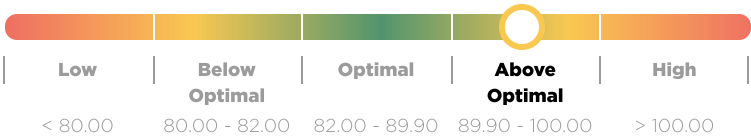
8.80 fL



MPV or Mean Platelet Volume is a calculated measurement of the relative size of platelets in the blood. Elevated levels of MPV are seen with platelet destruction.

MCV

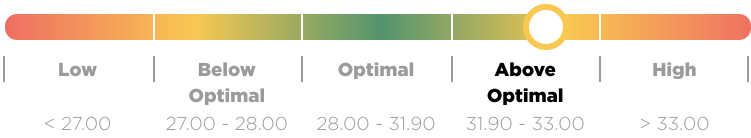
94.60 fL



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.

MCH

32.60 pg

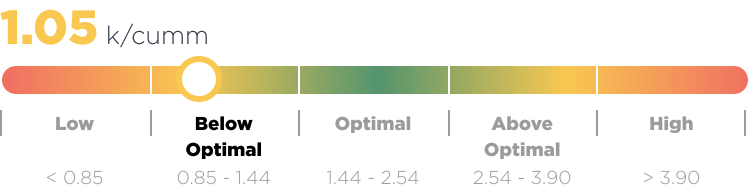


The Mean Corpuscular Hemoglobin (MCH) is a calculated value and is an expression of the average weight of hemoglobin per red blood cell. MCH, along with MCV can be helpful in determining the type of anemia present. It is elevated with B12/folate deficiency and hypochlorhydria.



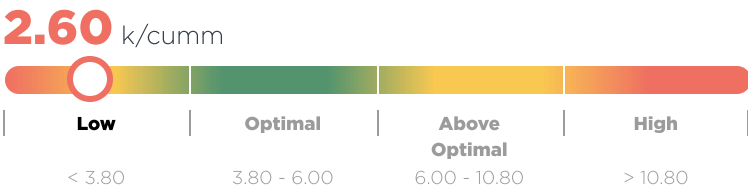
WBCS

Lymphocytes - Absolute



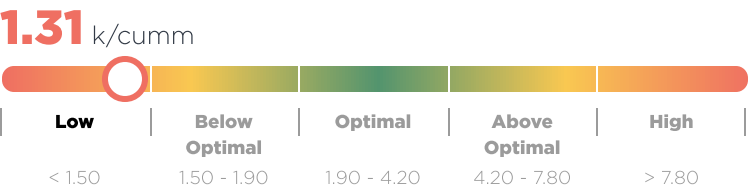
Lymphocytes are a type of white blood cell. Decreased levels are often seen in a chronic viral infection when the body can use up a large number of lymphocytes and oxidative stress. A decreased **Lymphocytes - Absolute** count may also indicate the presence of a fatigued immune response, especially with a low Total WBC count.

Total WBCs



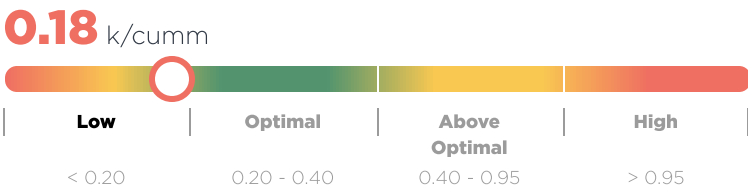
The total White Blood Cell (WBC) count measures the sum of all the WBCs in the peripheral blood. Decreased total White Blood Cell Levels are associated with chronic bacterial or viral infections, immune insufficiency, and may be seen in people eating a raw food diet.

Neutrophils - Absolute



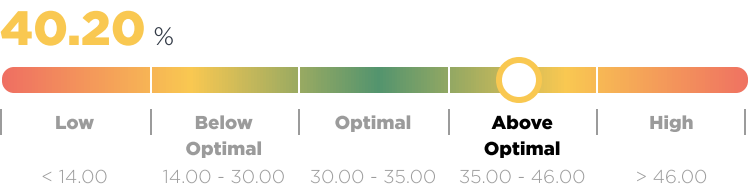
Neutrophils are the white blood cells used by the body to combat bacterial infections and are the most numerous and important white cell in the body's reaction to inflammation. **Neutrophils - Absolute** is an actual count of the number of neutrophils in a known volume of blood. Decreased levels are often seen in chronic viral infections.

Monocytes - Absolute



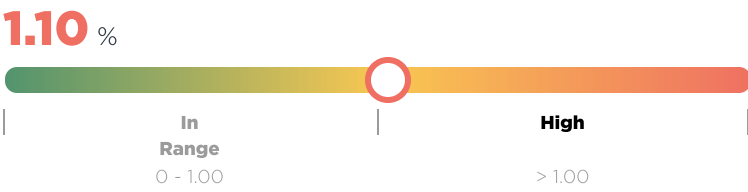
Monocytes are white blood cells that are the body's second line of defense against infection. They are phagocytic cells that are capable of movement and remove dead cells, microorganisms, and particulate matter from circulating blood. Levels tend to rise at the recovery phase of an infection or with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

Lymphocytes - %



Lymphocytes are a type of white blood cell. An increase in **Lymphocytes - %** is usually a sign of a viral infection but can also be a sign of increased toxicity in the body or inflammation.

Basophils - %



Basophils are a type of white blood cell that plays a key role in your body's immune response. They are part of the larger family of cells that help protect you from infections and respond to allergies. Basophils are particularly important in fighting parasitic infections and are involved in allergic reactions. When you have an allergic reaction, basophils release chemicals like histamine, which cause inflammation and other symptoms typical of allergies, such as itching, swelling, and redness. In general, basophils make up a very small portion of your white blood cells, and their levels can change based on your health condition. Elevated levels of basophils can indicate an allergic reaction, an ongoing infection with parasites, or certain immune system-related health issues.



A comprehensive assessment of Functional Body Systems plus a detailed evaluation of your Nutrient Status, ensuring a holistic understanding of your health and well-being.

---

## Assessment

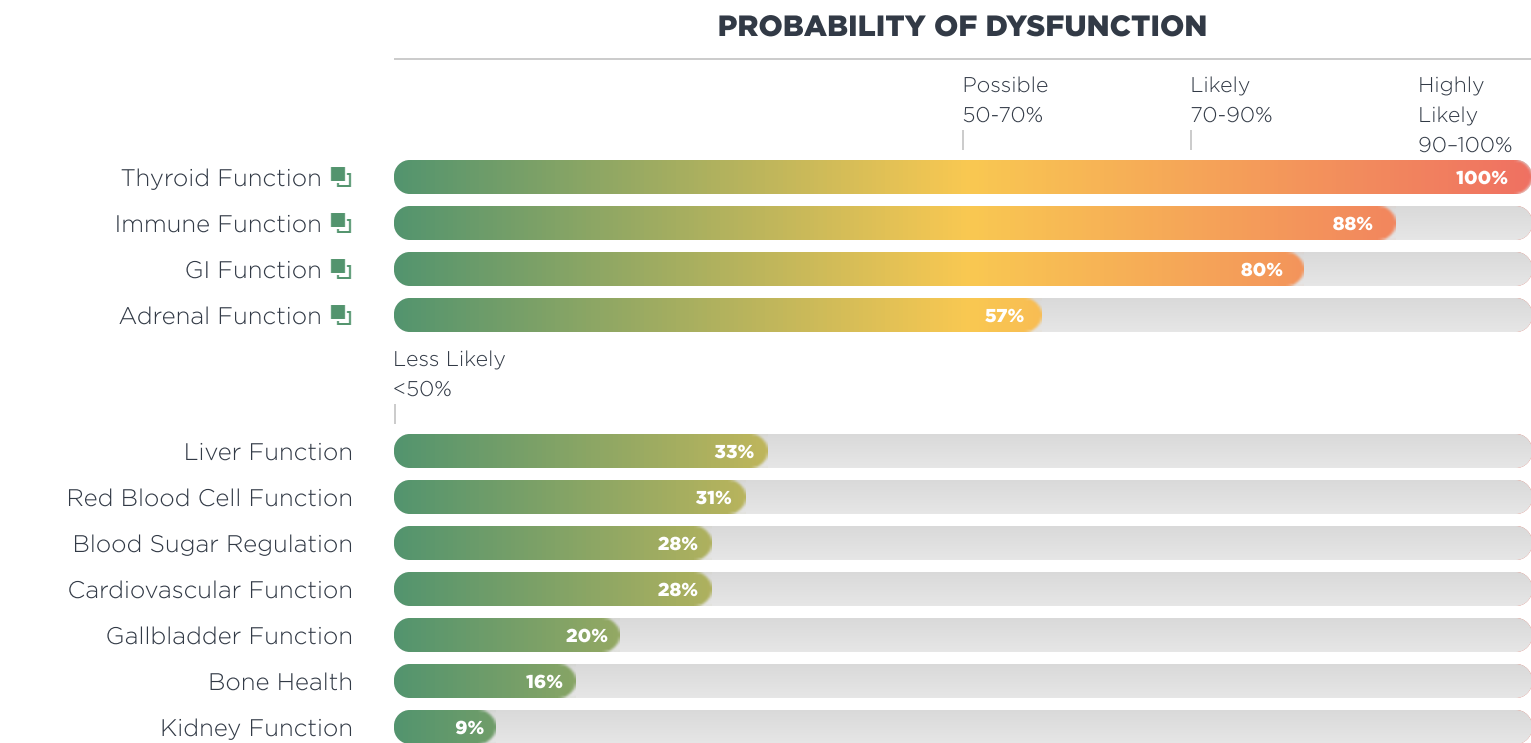
- 34 Functional Body Systems
- 37 Accessory Systems
- 38 Nutrient Status
- 41 Nutrient Deficiencies



# Functional Body Systems

The Functional Body System results represent an algorithmic analysis of this blood test. These results have been converted into your individual Functional Body Systems 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 your body. Each Body System that has a probability of dysfunction above 50% is included in the section that follows so you can read a detailed description and individual explanation of the results shown in this report.



# Functional Body Systems Details

This section contains detailed descriptions and explanations of the results presented in the Functional Body Systems Report including all the biomarkers considered in the algorithmic analysis and the rationale behind the interpretation.



Dysfunction Highly Likely.  
Much improvement  
required.

## THYROID FUNCTION

The Thyroid Function score looks at biomarkers on this blood test that reflect the degree of risk in the function of your thyroid. A high Thyroid Function score indicates that you may be at an increased risk of Thyroid dysfunction. The thyroid produces hormones that control how the body uses energy. They are responsible for controlling metabolism in the body, maintaining body temperature, regulating cholesterol, and controlling mood. By examining specific biomarkers on the blood test we can see if your thyroid is in a state of increased activity, in a state of decreased function, or hopefully optimal function! In summary, your score is high, which indicates that your Thyroid might not function as optimally as it should and may need support moving forward.

### Rationale

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

### Biomarkers considered

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



Dysfunction Likely  
Improvement required.

## IMMUNE FUNCTION

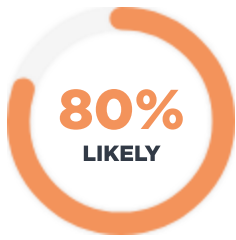
The Immune Function score reflects the degree of function in your immune system. When the immune system is in a state of balance, we can cope and deal with infections with little or no lasting negative side effects. The Immune Function score looks for clues in your blood test that can help determine if there's immune dysregulation and, if so, what it is. Your score is moderate, which indicates that your immune is not functioning as well as it should and may need support moving forward.

### Rationale

Total WBCs , Globulin - Total , Lymphocytes - % , Monocytes - Absolute , Lymphocytes - Absolute , Neutrophils - Absolute 

### Biomarkers considered

Total WBCs, Globulin - Total, Neutrophils - %, Lymphocytes - %, Monocytes - %, Monocytes - Absolute, Lymphocytes - Absolute, Neutrophils - Absolute, Albumin, Alk Phos, Ferritin



Dysfunction Likely  
Improvement required.

## GI FUNCTION

The GI Function score reflects the degree of function in your gastrointestinal (GI) system. The gastrointestinal system is responsible for the digestion and breakdown of macronutrients (proteins, fats, and carbohydrates) into small particles so they can be easily absorbed and utilized. The GI system is also responsible for the excretion and elimination of waste from the body. The GI Function score looks for clues in your blood test that can help determine if there's dysregulation and, if so, what it is. Your score is moderate, which indicates that your GI is not functioning as well as it should and may need support moving forward.

### Rationale

BUN ↓, Protein - Total ↓, Globulin - Total ↓, Albumin ↓, MCV ↑, Basophils - % ↑, Iron - Serum ↓, Creatinine ↓, Total WBCs ↓

### Biomarkers considered

BUN, Protein - Total, Globulin - Total, Albumin, Phosphorus, Alk Phos, MCV, Eosinophils - %, Basophils - %, Iron - Serum, Creatinine, Chloride, Calcium, Total WBCs, Gastrin



Dysfunction Possible  
There may be  
improvement needed in  
certain areas.

## ADRENAL FUNCTION

It is possible that you may be at risk of an emerging adrenal dysfunction. While this may not require immediate attention, we will want to watch this on future blood tests.

### Rationale

Potassium ↓, Sodium : Potassium ↑, Cortisol - Total/AM ↓

### Biomarkers considered

Sodium, Potassium, Sodium : Potassium, DHEA-S, Cortisol - Total/AM, Chloride

### Biomarkers not available in this test - consider having run in future tests:

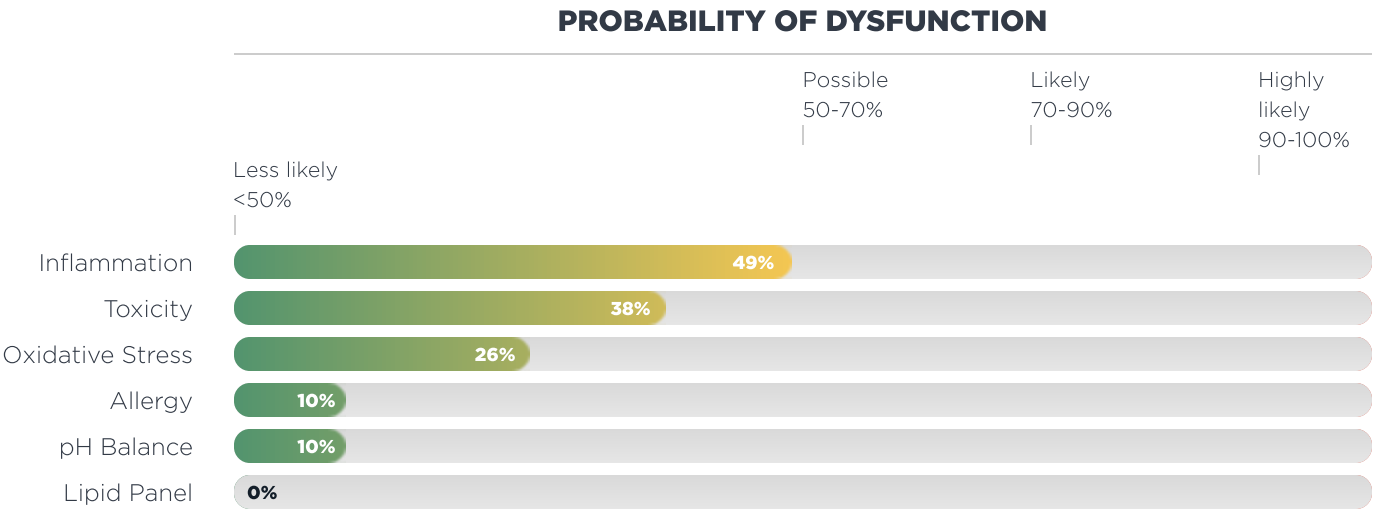
Aldosterone, Cortisol - PM

# Accessory Systems

The Accessory Systems are additional physiological systems that are not related to individual organs or body systems.

The Accessory Systems Report represents an algorithmic analysis of this blood test. These results have been converted into an individualized risk evaluation based on the latest research.

Each Accessory System that has a probability of dysfunction above 50% is included in the section that follows so you can read a detailed description and individual explanation of the results shown in this report.

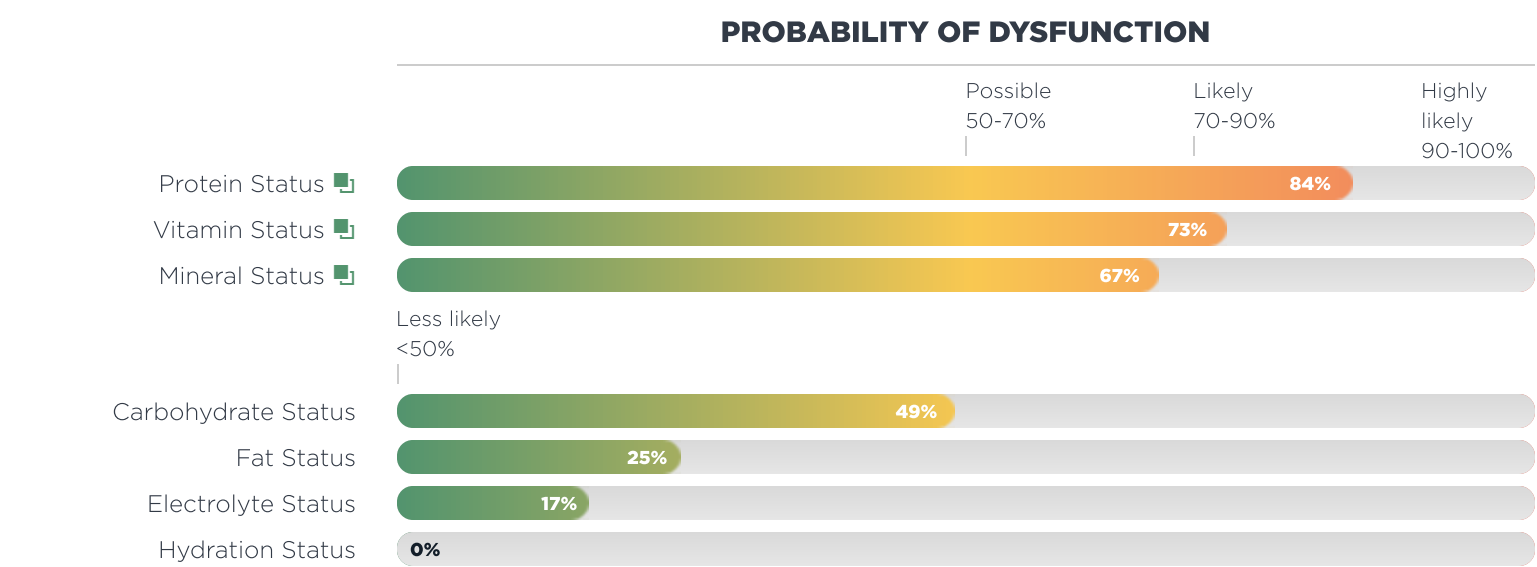


# Nutrient Status

The Nutrient Status results represent an algorithmic analysis of this blood test. These results have been converted into your individual Nutrient Status Report based on our latest research.

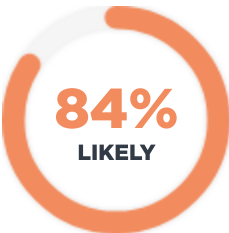
This report gives you an indication of your general nutritional status. The Nutrient Status is influenced by actual dietary intake, digestion, absorption, assimilation, and cellular uptake of the nutrients themselves.

Each Nutrient category that has a probability of dysfunction above 50% is included in the section that follows so you can read a detailed description and individual explanation of the results shown in this report.



# Nutrient Status Details

This section contains detailed descriptions and explanations of the results presented in the Nutrient Status report including all the biomarkers considered in the algorithmic analysis and the rationale behind the interpretation.



Dysfunction Likely.  
Improvement required.

## PROTEIN STATUS

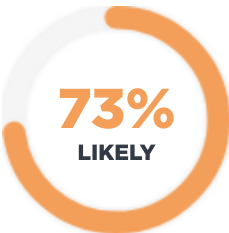
You may be trending toward a protein deficiency or need, causing an increase in your Protein Status score. Protein is an essential nutrient for the body and a vital part of every tissue, cell, and organ. Your Protein Status score is higher than ideal, indicating that you may need protein support moving forward.

### Rationale

Protein - Total ↓, BUN ↓, Albumin ↓, Creatinine ↓, BUN : Creatinine ↓, C-Reactive Protein ↑

### Biomarkers considered

Protein - Total, BUN, Albumin, Calcium : Albumin, Creatinine, BUN : Creatinine, C-Reactive Protein, Hs CRP, ALT, AST, CO2, GGT, Total WBCs, TIBC



Dysfunction Likely.  
Improvement required.

## VITAMIN STATUS

You may be trending towards a vitamin deficiency or need, causing an increase in your Vitamin Status score. Vitamin levels constantly fluctuate based on several factors, such as the amount in your diet, your ability to digest and break down individual vitamins from the food or supplements you consume, and the ability of those vitamins to be absorbed, transported, and ultimately taken up into the cells themselves. Your Vitamin Status score is higher than ideal, indicating that you may need vitamin support moving forward.

### Rationale

GGT ↓, Homocysteine ↑, MCV ↑, Vitamin B12 ↓, Methylmalonic Acid ↑, Folate - RBC ↓

### Biomarkers considered

Albumin, AST, ALT, GGT, Homocysteine, Vitamin D (25-OH), MCV, Folate - Serum, Vitamin B12, Methylmalonic Acid, Folate - RBC





Dysfunction Possible.  
There may be  
improvement needed in  
certain areas.

## MINERAL STATUS

You may be in the early stages of mineral deficiency or need, causing an increase in your Mineral Status score. While this may not require immediate attention, we will want to keep an eye on your mineral levels and monitor this in future blood tests.

### Rationale

Potassium ↓, Iron - Serum ↓, Ferritin ↓, Copper - Serum ↓, Zinc - Serum ↓, Zinc - RBC ↓

### Biomarkers considered

Potassium, Uric Acid, Calcium, Phosphorus, Alk Phos, Iron - Serum, Ferritin, Magnesium - Serum, Copper - Serum, Zinc - Serum, Zinc - RBC, Magnesium - RBC

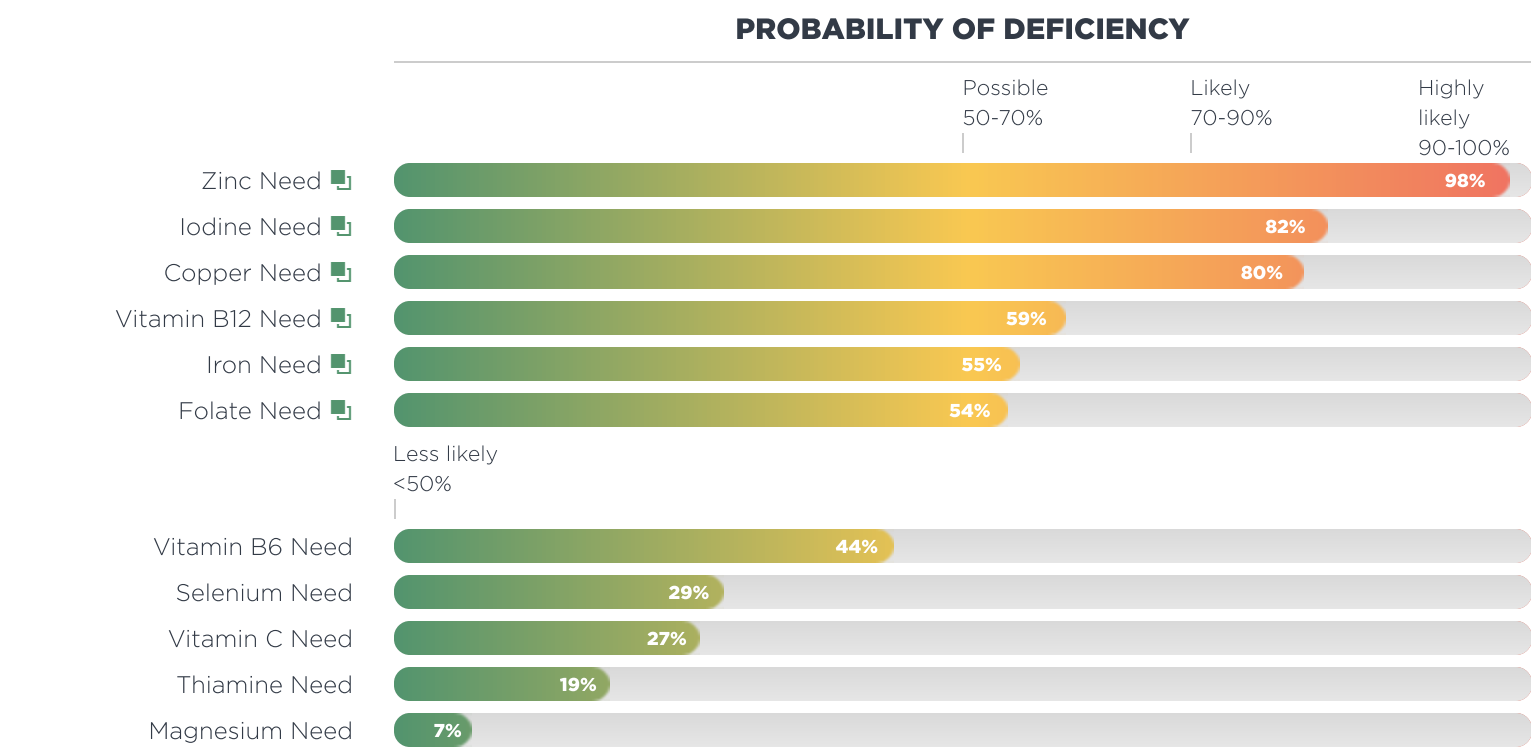
### Biomarkers not available in this test - consider having run in future tests:

Selenium - Serum, Selenium - RBC, Chromium, Copper - RBC

# Individual Nutrient Deficiencies

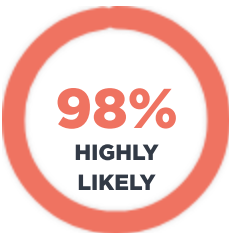
The scores represent the degree of deficiency for individual nutrients based on your blood results. The status of an individual nutrient is based on a number of factors such as actual dietary intake, digestion, absorption, assimilation and cellular uptake of the nutrients themselves. All of these factors will be taken into consideration before determining whether or not you actually need an individual nutrient.

Each individual Nutrient Deficiency that has a probability of dysfunction above 50% is included in the section that follows so you can read a detailed description and individual explanation of the results shown in this report.



# Individual Nutrient Deficiency Details

This section contains detailed descriptions and explanations of the results presented in the Nutrient Deficiencies report including all the biomarkers considered in the algorithmic analysis and the rationale behind the interpretation.



Deficiency Highly Likely.  
Much improvement  
required.

## ZINC NEED

Your blood test results show a high need for zinc, which means you are very likely not getting enough zinc. Low zinc levels can cause problems like getting sick often, hair loss, skin issues, slow healing of cuts, and changes in taste. To help improve your zinc levels, try to eat more zinc-rich foods like meat, shellfish, legumes, seeds, and nuts. If you have conditions like digestive problems, liver, or kidney issues, or if you eat a lot of foods high in phytates (like whole grains and legumes), it might be harder for your body to absorb zinc.

### Rationale

Zinc - Serum ↓, Zinc - RBC ↓

### Biomarkers considered

Zinc - Serum, Zinc - RBC



Deficiency Likely.  
Improvement required.

## IODINE NEED

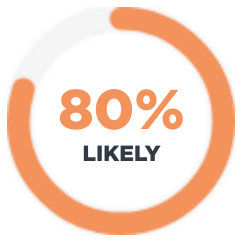
Your blood test results suggest that you are likely not getting enough iodine, which can affect your energy levels, weight, and overall health. To help prevent further decline in iodine levels, try to include more iodine-rich foods in your diet, such as fish, dairy products, eggs, and iodized salt. Some conditions, like thyroid issues or a low dietary intake of iodine, can make it harder for your body to maintain adequate iodine levels.

### Rationale

T4 - Total ↓, T4 - Free ↓, T3 Uptake ↓, TSH ↑

### Biomarkers considered

T4 - Total, T4 - Free, T3 - Total, T3 - Free, T3 Uptake, TSH



Deficiency Likely.  
Improvement required.

## COPPER NEED

Your blood test results suggest that you are likely not getting enough copper, which can affect your energy levels and immune function. To help prevent further decline in copper levels, try to include more copper-rich foods in your diet, such as shellfish, nuts, seeds, and whole grains. Some conditions, like digestive issues or an imbalance of other minerals, can make it harder for your body to maintain adequate copper levels.

### Rationale

Copper - Serum ↓

### Biomarkers considered

Copper - Serum

### Biomarkers not available in this test - consider having run in future tests:

Copper - RBC



Deficiency Possible.  
There may be  
improvement needed in  
certain areas.

## VITAMIN B12 NEED

Your blood test results show that you may be starting to have a vitamin B12 deficiency. Although it may not be a major concern yet, it is important to monitor your vitamin B12 levels and include more vitamin B12-rich foods in your diet. Keep an eye on your energy levels and cognitive function, and talk to us about any conditions or lifestyle factors that might affect your vitamin B12 absorption. With regular monitoring, we can likely prevent further deficiency.

### Rationale

Vitamin B12 ↓, Methylmalonic Acid ↑, Homocysteine ↑, MCV ↑

### Biomarkers considered

Vitamin B12, Methylmalonic Acid, Homocysteine, LDH, MCV, RDW

### Biomarkers not available in this test - consider having run in future tests:

Active B12



Deficiency Possible.

There may be improvement needed in certain areas.

## IRON NEED

Your blood test results show that you may be starting to have an iron deficiency. Although it may not be a major concern yet, it is important to monitor your iron levels and include more iron-rich foods in your diet. Keep an eye on your energy levels and overall health, and talk to us about any conditions or lifestyle factors that might affect your iron absorption. With regular monitoring, we can likely prevent further deficiency.

### Rationale

Iron - Serum ↓, Ferritin ↓, RBC ↓

### Biomarkers considered

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



Deficiency Possible.

There may be improvement needed in certain areas.

## FOLATE NEED

Your blood test results show that you may be starting to have a folate deficiency. Although it may not be a major concern yet, it's important to monitor your folate levels and include more folate-rich foods in your diet. Keep an eye on how you're feeling, especially if you notice any changes in your energy levels or mood. Talk to your healthcare provider about any conditions or lifestyle factors that might affect your folate absorption. Regular monitoring and making sure your diet includes plenty of folate-rich foods can help prevent further deficiency.

### Rationale

Folate - RBC ↓, Homocysteine ↑, MCV ↑

### Biomarkers considered

Folate - RBC, Folate - Serum, Homocysteine, MCV, RDW



The Health Concerns report takes all the information on this report and focuses on the top areas that need the most support.

---

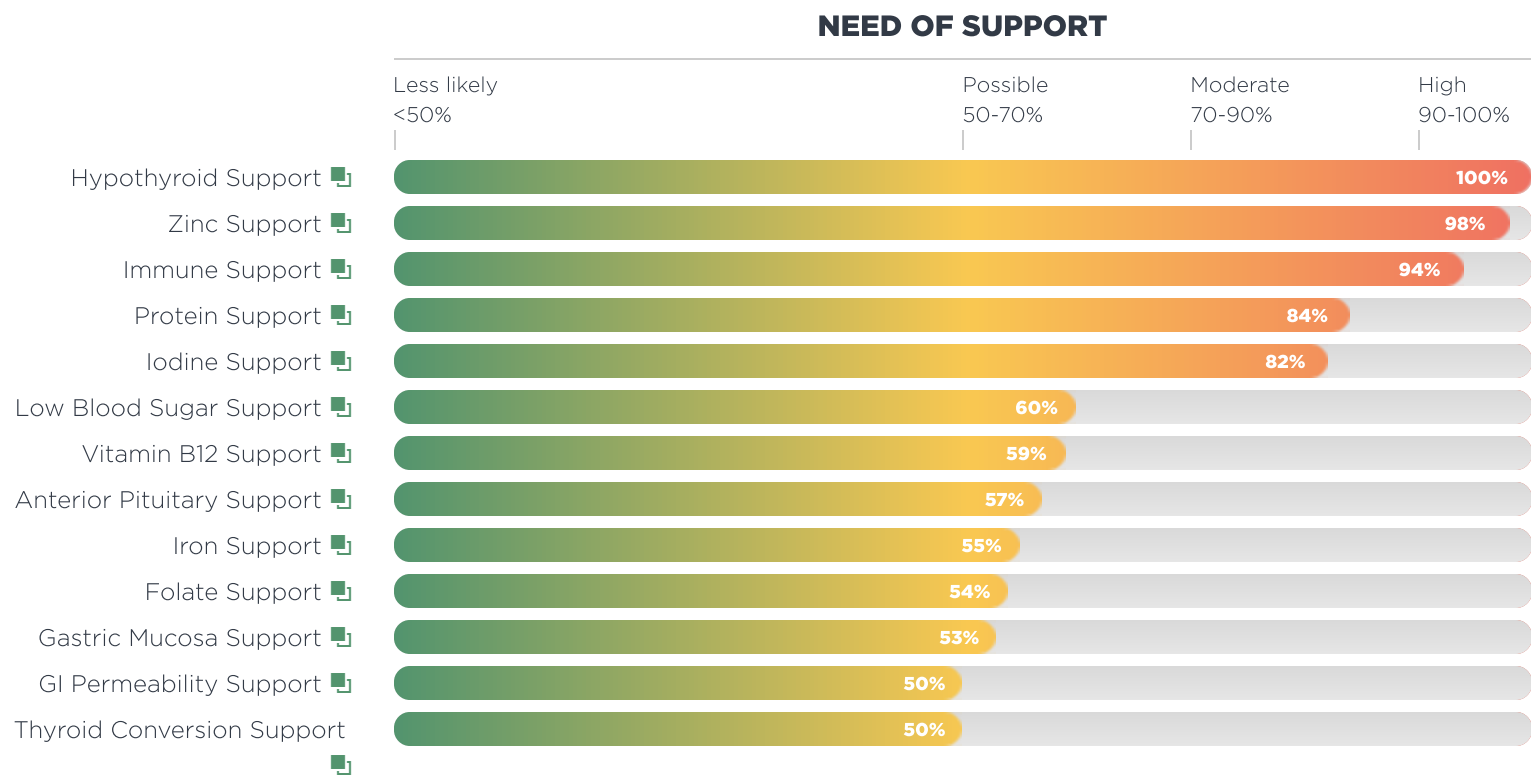
## Health Concerns

46 Health Concerns

# Health Concerns Report

The Health Concerns Report takes all the information in this report and focuses on the top areas that need the most support.

Each health concern is included in the following section so you can read an explanation of the results shown in this report.



# Health Concerns Details

This section contains an explanation of the results presented in the Health Concerns Report including all the biomarkers considered in the analysis and the rationale behind the interpretation.

## HYPOTHYROID SUPPORT

The results of your blood test indicate a tendency towards hypothyroidism and a need for thyroid gland support.

### Rationale

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



## ZINC SUPPORT

The results of your blood test indicate that your zinc levels might be lower than optimal and shows a need for zinc supplementation.

### Rationale

Zinc - Serum , Zinc - RBC 



## IMMUNE SUPPORT

The results of your blood test indicate a tendency towards immune insufficiency and a need for immune support.

### Rationale

Total WBCs , Albumin , Globulin - Total 

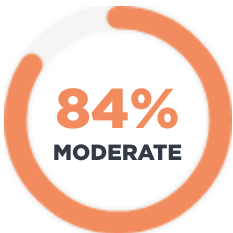


## PROTEIN SUPPORT

The results of your blood test indicate that your protein levels might be lower than optimal and shows a need for protein supplementation.

### Rationale

Protein - Total , BUN , Albumin , Creatinine , BUN : Creatinine , C-Reactive Protein 

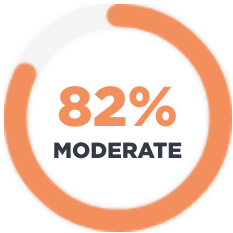


## IODINE SUPPORT

The results of your blood test indicate that your iodine levels might be lower than optimal and shows a need for iodine supplementation.

### Rationale

T4 - Total , T4 - Free , T3 Uptake , TSH 





LOW BLOOD SUGAR SUPPORT

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

Rationale

LDH ↓



VITAMIN B12 SUPPORT

The blood test results indicate that your vitamin B12 levels might be lower than optimal and that vitamin B12 supplementation may be needed.

Rationale

Vitamin B12 ↓, Methylmalonic Acid ↑, Homocysteine ↑, MCV ↑



ANTERIOR PITUITARY SUPPORT

The results of your blood test indicate a need for thyroid support.

Rationale

T4 - Total ↓, T4 - Free ↓, T3 - Free ↓, Free Thyroxine Index (T7) ↓, T3 - Total ↓



IRON SUPPORT

The results of your blood test indicate that your iron levels might be lower than optimal and shows a need for iron supplementation.

Rationale

Iron - Serum ↓, Ferritin ↓, RBC ↓



FOLATE SUPPORT

The blood test results indicate that your folate levels might be lower than optimal and that folate supplementation may be needed.

Rationale

Folate - RBC ↓, Homocysteine ↑, MCV ↑



GASTRIC MUCOSA SUPPORT

The results of your blood test indicate a tendency towards gastric inflammation and a need for support for the stomach lining.

Rationale

Protein - Total ↓, Creatinine ↓, Albumin ↓, ESR ↑, Basophils - % ↑



GI PERMEABILITY SUPPORT 📄

The results of your blood test indicate a tendency towards intestinal hyperpermeability, a condition commonly called Leaky Gut Syndrome, and a need for support for the mucosal lining of the gastrointestinal tract.

Rationale

Uric Acid ⬆



THYROID CONVERSION SUPPORT 📄

The results of your blood test indicate a tendency towards a difficulty converting thyroxine (T4) into triiodothyronine (T3), which can cause symptoms of hypothyroidism, and a need for thyroid gland support.

Rationale

T3 - Total ⬇, T3 - Free ⬇, Reverse T3 ⬆





## — Disclaimer

51 Disclaimer



# Disclaimer

This Report contains information for the exclusive use of the named recipient only, and contains confidential, and privileged information. If you are not the named recipient or have not been given permission by the person, you are prohibited from reading or utilizing this report in any way, and you are further notified that any distribution, dissemination, or copying of this Report is strictly prohibited.

All information provided in this Report is provided for educational purposes only, including without limitation the 'optimal ranges' set forth in this Report. Neither this Report, nor any of the information contained in this Report, is intended for, or should be used for the purpose of, medical diagnosis, prevention, or treatment, including self-diagnosis, prevention, or treatment. This Report should not be used as a substitute for professional medical care, and should not be relied upon in diagnosing or treating a medical condition, ailment, or disease.

The 'optimal ranges' set forth in this Report are general reference recommendations only, and are not intended to be guidelines for any specific individual. The 'optimal ranges' set forth in this Report are for educational purposes only, and are not intended to be, nor should they be construed as, a claim or representation of medical diagnosis or treatment.

Neither this Report, nor any information contained in this Report, should be considered complete, or exhaustive. This report does not contain information on all diseases, ailments, physical conditions or their treatment. This report is based on the lab data provided, which may or may not include all relevant and appropriate measures of your biochemistry.

The absence of a warning for a given drug or supplement or any combination thereof in no way should be construed to indicate that the drug or supplement or any combination thereof is safe, effective, or appropriate for you. Statements made about a supplement, product, or treatment have not been evaluated by the Food and Drug Administration (FDA) U.S. or MHRA U.K. Any mentioned supplement, product, or treatment is not intended to diagnose, treat, cure or prevent any disease. The FDA or MHRA U.K. has not evaluated the information contained in this Report.

You are encouraged to confirm any information obtained from this Report with other sources, and review all information regarding any medical condition or the treatment of such condition with your physician.

**NEVER DISREGARD PROFESSIONAL MEDICAL ADVICE, DELAY SEEKING MEDICAL ADVICE OR TREATMENT, OR STOP CURRENT MEDICAL TREATMENT, BECAUSE OF SOMETHING YOU HAVE READ IN THIS REPORT.**

Consult your physician or a qualified healthcare practitioner regarding the applicability of any of the information or materials provided in this Report in regards to your symptoms or medical condition. Always consult your physician before beginning a new treatment, diet, exercise, fitness plan, or health plan or program, and before taking any drug, supplement, or any combination thereof; or if you have questions or concerns about your health, a medical condition, or any plan or course of treatment. If you think you have a medical emergency, call for emergency medical assistance or your doctor immediately.