

Health Report – Apr 15, 2024

Key Findings

How to read your report

Optimal - Your biomarker is at an **optimal** range. Keep it up!

Monitor only - Your biomarker is **trending away from the optimal range**, but not significantly enough to need immediate attention.

Pay attention - Your biomarker is **outside the optimal range** and is something to pay attention to.

Note: The provided reference ranges are preliminary and might still change slightly in the future. Values represent the marker's concentrations in micromolar (µM).

CATEGORY	CONTRIBUTING FACTORS	ACTION ITEMS
Metabolic Health Pay Attention	<p>Factors:</p> <ul style="list-style-type: none"> Regular exercise and a balanced diet with fruits, vegetables, and whole grains support healthy metabolism Certain supplements you take (B complex, CoQ10, magnesium) are important for energy metabolism Your low asparagine levels may increase your risk of developing diabetes in the future <p>How they affect you:</p> <ul style="list-style-type: none"> Low asparagine levels are linked to impaired glucose metabolism and a higher risk of diabetes Exercise and a nutrient-dense diet help regulate blood sugar, improve insulin sensitivity, and maintain a healthy weight B vitamins, CoQ10, and magnesium are essential for energy production and proper metabolic function 	<ul style="list-style-type: none"> Increase your vegetable intake to 4 servings a day or more to support healthy metabolism Increase your fruit intake to 4 servings a day or more for essential vitamins and minerals Increase your whole grain intake to 3 servings a day or more for sustained energy and improved glucose control
Digestive Health Pay Attention	<p>Factors:</p> <ul style="list-style-type: none"> Your food intolerances (dairy, gluten, sulfites) may be contributing to digestive issues Certain supplements you take (probiotics, digestive enzymes, glutamine) are beneficial for gut health Your low glutamine levels can lead to damage of the intestinal lining <p>How they affect you:</p> <ul style="list-style-type: none"> Food intolerances can cause inflammation and irritation in the digestive tract, leading to symptoms like bloating, diarrhea, and abdominal pain Low glutamine levels are linked to increased intestinal permeability ("leaky gut") and inflammatory bowel diseases Probiotics, digestive enzymes, and glutamine help support healthy digestion and repair of the gut lining 	<ul style="list-style-type: none"> Keep taking glutamine supplements at 5 g per day to support your digestive health
Liver Health Monitor Only	<p>Factors:</p> <ul style="list-style-type: none"> Regular alcohol consumption can put additional strain on the liver Certain supplements you take (NAC, milk thistle) support liver detoxification and health Your Fischer's ratio is slightly below the optimal range, which may indicate early signs of liver dysfunction <p>How they affect you:</p> <ul style="list-style-type: none"> A low Fischer's ratio is associated with impaired liver function and has been reported as a prognostic factor in liver diseases Alcohol is metabolized by the liver, and excessive consumption can lead to liver damage and inflammation NAC and milk thistle help protect the liver from damage, improve detoxification, and support overall liver health 	<ul style="list-style-type: none"> Keep your alcohol consumption to a minimum to reduce the burden on your liver Increase your vegetable intake to 4 servings a day or more for liver-protective nutrients Increase your fruit intake to 4 servings a day or more to support liver health and detoxification

CATEGORY	CONTRIBUTING FACTORS	ACTION ITEMS
<p>Inflammation Pay Attention</p>	<p>Factors:</p> <ul style="list-style-type: none"> • Regular intense exercise can contribute to higher levels of inflammation • Certain supplements you take (quercetin, bromelain, white willow) have anti-inflammatory properties • Your elevated kynurenine-to-tryptophan ratio indicates increased inflammation in your body <p>How they affect you:</p> <ul style="list-style-type: none"> • Chronic inflammation is associated with an increased risk of various diseases, such as diabetes, cardiovascular disease, and certain cancers • Intense exercise causes muscle damage and inflammation, which is necessary for muscle growth and repair but can be detrimental in excess • Anti-inflammatory supplements help modulate the inflammatory response and reduce overall inflammation in the body 	<ul style="list-style-type: none"> • Increase your vegetable intake to 4 servings a day or more for their anti-inflammatory compounds • Increase your fruit intake to 4 servings a day or more to benefit from their antioxidants and anti-inflammatory properties • Consider adjusting your exercise routine to allow for adequate recovery and reduce excessive inflammation

Your Recommendations

	RECOMMENDED CHANGES FOR YOU	YOUR CURRENT HABIT	WHAT IT CAN IMPROVE	EXAMPLES
Add glutamine supplements	5 g per day	glutamine	Digestive Health	Glutamine powder, glutamine capsules, glutamine tablets
Exercise regularly	Maintain 3 times per week or more	Everyday	Inflammation	Swimming, yoga, cycling
Increase sleep time	Maintain 7 hours a night or more	8-9 hours a night	Inflammation	Establish bedtime routine, limit caffeine intake, create a sleep-friendly environment
Add more fruits	4 servings a day or more	2-3 servings a day	Inflammation, Liver Health, Metabolic Health	Kiwi, pineapple, cherries
Add more seafood	2 servings a week or more	2-3 servings a month	All health categories	Salmon, shrimp, mackerel
Add more vegetables	4 servings a day or more	2-3 servings a day	Inflammation, Liver Health, Metabolic Health	Kale, bell peppers, zucchini
Add more whole grains	3 servings a day or more	2-3 servings a month	All health categories	Quinoa, brown rice, gluten-free oats

Your Health Categories

MARKER	RESULT	OPTIMAL RANGE	CLASSIFICATION
Metabolic Health			
<p>Asparagine</p> <p>Asparagine is a naturally occurring amino acid that plays a crucial role in cellular processes, including energy metabolism and protein synthesis. Research has shown that low levels of asparagine may be linked to an increased risk of developing diabetes in the future.</p> <p>References [1, 2, 3]</p>	10.7 µM	higher than 28.4 µM	Pay Attention
<p>Isoleucine</p> <p>Isoleucine is a branched-chain amino acid. High levels have been associated with diabetes, obesity, and cardiovascular disease. This can be a sign of an unhealthy lifestyle and might affect people of all weight ranges, not just those who are overweight.</p> <p>References [1, 2]</p>	26.3 µM	less than 90.62 µM	Optimal
<p>Leucine</p> <p>Leucine is a branched-chain amino acid. High levels have been associated with diabetes, obesity, and cardiovascular disease. This can be a sign of an unhealthy lifestyle and might affect people of all weight ranges, not just those who are overweight.</p> <p>References [1, 2]</p>	59.95 µM	less than 146.17 µM	Optimal
<p>Serine</p> <p>Serine is an amino acid with various roles in the body, including the protein synthesis, supporting the immune system, and the generation of essential phospholipids. Low levels have been associated with type 1 and type 2 diabetes.</p> <p>References [1]</p>	72.45 µM	higher than 66.29 µM	Optimal
<p>Tyrosine</p> <p>Tyrosine is an amino acid in your body and one of the building blocks of proteins. High levels in blood have been associated with insulin resistance and an increased risk for diabetes.</p> <p>References [1, 2, 3]</p>	35.5 µM	less than 63.97 µM	Optimal
<p>Alpha-aminoadipic acid</p> <p>Alpha-aminoadipic acid is an amino acid in your body. A clinical study has shown that it is a biomarker for future diabetes.</p> <p>References [1, 2, 3, 4]</p>	0.38 µM	less than 1.27 µM	Optimal
<p>Lactate</p> <p>Lactate is a byproduct of sugar breakdown in your body, especially during physical exercise. High levels of this metabolite in a fasting state have been associated with various metabolic conditions, including obesity, dyslipidemia and hypertension.</p> <p>References [1, 2, 3, 4]</p>	4.47 mM	less than 9.38 mM	Optimal
<p>Aromatic amino acids</p> <p>This measure determines the concentrations of certain amino acids in your blood. High levels have been associated with insulin resistance and future diabetes.</p> <p>References [1, 2]</p>	0.1 mM	less than 0.16 mM	Optimal
<p>Choline-to-betaine ratio</p> <p>Choline and betaine are common nutrients and serve as building blocks for fat molecules. An increased choline-to-betaine ratio has been associated with heart disease and liver disease.</p> <p>References [1, 2, 3, 4]</p>	1.1 µM/µM	less than 5.15 µM/µM	Optimal

MARKER	RESULT	OPTIMAL RANGE	CLASSIFICATION
<p>Diglycerides</p> <p>Diglycerides are a type of fat that your body uses for energy. High levels in blood have been shown to interfere with sugar regulation, which might increase the risk for diabetes and metabolic disease.</p> <p>References [1, 2]</p>	4.67 points	less than 11.13 points	Optimal
<p>Phospholipids</p> <p>Phospholipids are a type of building block for all cells in the body and have been associated with insulin resistance which lead to high blood sugar levels and increased risk of diabetes.</p> <p>References [1, 2, 3]</p>	4.37 points	higher than 4.05 points	Optimal
Digestive Health			
<p>Glutamine</p> <p>Glutamine is an amino acid that is found in high amounts in blood and is an important source of energy for many tissues in the body. Low levels have been linked to damage to the lining of the intestines, which may contribute to inflammatory bowel syndrome, leaky gut syndrome, and other gastrointestinal diseases.</p> <p>References [1, 2]</p>	0.14 mM	higher than 0.2 mM	Pay Attention
Inflammation			
<p>Kynurenine-to-Tryptophan ratio</p> <p>An increased kynurenine-to-tryptophan ratio has been associated with inflammation and various related diseases, such as diabetes and cardiovascular disease, liver issues, a weakened immune system, and the risk for certain types of cancer.</p> <p>References [1, 2, 3, 4]</p>	55.88 nM/μM	less than 47.94 nM/μM	Pay Attention
<p>Arachidonic acid</p> <p>Arachidonic acid is an omega-6 fatty acid that is involved in the regulation of inflammation in the body. High levels have been associated with various metabolic diseases, including obesity, diabetes, non-alcoholic fatty liver disease, and cardiovascular disease.</p> <p>References [1, 2]</p>	1.48 points	less than 1.91 points	Optimal
Liver Health			
<p>Fischer's ratio</p> <p>This measure determines the balance of certain amino acids in your blood. A low level has been associated with liver disease.</p> <p>References [1, 2, 3, 4]</p>	1.97 μM/μM	higher than 2.07 μM/μM	Monitor only
<p>Glycocholic acid</p> <p>GCA is a molecule produced by the bacteria in your gut and has been shown to be an indicator of liver function. High levels in blood have been associated with liver diseases, scarring and dysfunction.</p> <p>References [1, 2, 3, 4, 5, 6, 7, 8, 9]</p>	0.23 μM	less than 0.62 μM	Optimal
Mental Health			
<p>Acetylcarnitine</p> <p>Acetylcarnitine is a metabolite related to energy metabolism in your body. Low levels have been associated with depression, narcolepsy, as well as Alzheimer's disease and dementia.</p> <p>References [1, 2, 3, 4, 5]</p>	6.51 μM	higher than 5.15 μM	Optimal

MARKER	RESULT	OPTIMAL RANGE	CLASSIFICATION
<p>Indoxyl sulfate</p> <p>Indoxyl sulfate is a toxin produced by specific bacteria in your gut when they break down the amino acid tryptophan, which is contained in some foods. High Indoxyl sulfate levels can increase the risk for anxiety, depression, and dementia.</p> <p>References [1, 2, 3, 4, 5, 6, 7, 8, 9]</p>	0.83 μM	less than 4.35 μM	Optimal
Fat Burning Efficiency			
<p>Hydroxybutyrylcarnitine</p> <p>Hydroxybutyrylcarnitine is a key helper in our body's process of breaking down small fat molecules to create energy. Higher levels in blood have been associated with the risk to develop insulin resistance and diabetes.</p> <p>References [1, 2]</p>	0.57 points	less than 1.5 points	Optimal
<p>Palmitoylcarnitine</p> <p>Palmitoylcarnitine serves as a transport form for fat, enabling cells to convert it into energy. The presence of palmitoylcarnitine in the bloodstream signifies a disruption in this fat metabolism process. Research has demonstrated that increased blood concentrations may be linked to diminished heart function.</p> <p>References [1, 2]</p>	0.38 μM	less than 1.88 μM	Optimal
Brain Toxins			
<p>Glutamate</p> <p>Glutamate is an amino acid that has been found to be toxic for the brain. It has been found to be elevated in various neurological diseases, such as multiple sclerosis and Parkinson's disease.</p> <p>References [1, 2, 3, 4, 5]</p>	0.12 mM	less than 0.21 mM	Optimal
<p>Glycodeoxycholic acid</p> <p>GDCA is a molecule produced by the bacteria in your gut. High concentrations have been associated with cognitive decline in the context of Alzheimer's disease.</p> <p>References [1, 2, 3]</p>	9.73 nM	less than 331.45 nM	Optimal
<p>Glycolithocholic acid</p> <p>GLCA is a molecule produced by the bacteria in your gut. High concentrations have been associated with cognitive decline in the context of Alzheimer's disease.</p> <p>References [1, 2, 3]</p>	1.35 nM	less than 15.36 nM	Optimal
Longevity			
<p>Methionine</p> <p>Methionine is one of the essential amino acids your body needs for basic functioning. However, too high levels of methionine have been associated with heart problems and accelerated aging.</p> <p>References [1, 2, 3, 4]</p>	8.4 μM	less than 25.92 μM	Optimal
<p>Taurine</p> <p>Taurine is a nutrient in our bodies that reduces as we age. Studies have shown that when animals have more taurine, they live longer and are healthier. In humans, low taurine levels are associated with several age-related health problems. Additionally, exercise appears to increase our body's taurine levels, suggesting its potential role in maintaining our health as we age.</p> <p>References [1]</p>	91.73 μM	higher than 82.78 μM	Optimal
Heart Health			

MARKER	RESULT	OPTIMAL RANGE	CLASSIFICATION
<p>3-Methylhistidine</p> <p>3-Methylhistidine is a biomarker for poultry consumption, such as chicken, turkey, duck, and others. High levels may indicate a high consumption of poultry. While lean poultry, like chicken breast, may be healthy, consuming too much poultry that contains fat, such as chicken skin, may increase your cholesterol levels which in turn has been associated with heart diseases.</p> <p>References [1, 2, 3, 4]</p>	1.71 μM	less than 21.28 μM	Optimal
<p>Asymmetric dimethylarginine</p> <p>ADMA is a byproduct of protein breakdown and plays a role in regulating blood vessel function. It can interfere with a molecule called nitric oxide, which helps our blood vessels relax and maintain a healthy blood flow. High levels of ADMA have been linked to an increased risk of cardiovascular diseases and other health issues.</p> <p>References [1, 2]</p>	0.19 μM	less than 0.42 μM	Optimal
<p>Homoarginine</p> <p>Homoarginine is a molecule involved in the regulation of blood pressure and the functioning of the immune system. Low levels of homoarginine have been linked to an increased risk of cardiovascular disease.</p> <p>References [1, 2, 3]</p>	1.15 μM	higher than 0.49 μM	Optimal
<p>Succinate</p> <p>Succinate is a substance involved in central metabolic processes in the body. High levels have been associated with heart-related conditions, such as hypertension, ischemic heart disease, and diabetes.</p> <p>References [1, 2, 3]</p>	18.01 μM	less than 21.96 μM	Optimal
<p>Ceramide 18:0</p> <p>Ceramides are a type of fat that regulate various processes in the body. The particular ceramide reported here called "18:0" has been reported to predict future heart events, such as myocardial infarction.</p> <p>References [1, 2]</p>	0.79 points	less than 1.43 points	Optimal
<p>Triglycerides</p> <p>Triglycerides are a type of fat that your body uses for energy. High levels or too much of it in blood have been associated with various heart-related conditions.</p> <p>References [1, 2]</p>	39.48 points	less than 138.26 points	Optimal
Kidney Health			
<p>Symmetric dimethylarginine</p> <p>SDMA is a byproduct of proteins breaking down in your body and is passed out by your kidneys. Studies have demonstrated that SDMA in blood reflects kidney function better than the commonly used eGFR measurement. High blood levels of SDMA have been shown to be an early sign of kidney damage.</p> <p>References [1, 2, 3]</p>	0.23 μM	less than 0.36 μM	Optimal
<p>p-Cresol sulfate</p> <p>p-Cresol sulfate is a so-called uremic toxin produced by specific bacteria in your gut when they consume the amino acid tyrosine contained in certain foods in your diet. High levels of this chemical have been shown to damage your kidneys.</p> <p>References [1, 2, 3, 4, 5]</p>	12.38 μM	less than 47 μM	Optimal
Bone Health			

MARKER	RESULT	OPTIMAL RANGE	CLASSIFICATION
<p>trans-Hydroxyproline</p> <p>Trans-Hydroxyproline is a molecule involved in the production of collagen, a protein that provides structure and support to tissues in your body. High levels of trans-hydroxyproline have been linked to an increased risk of osteoporosis, a condition in which the bones become weak and fragile. PC</p> <p>References [1, 2, 3, 4, 5]</p>	5.18 µM	less than 18.17 µM	Optimal
Colorectal Carcinogens			
<p>Deoxycholic acid</p> <p>DCA is a molecule produced by bacteria in your gut. A long stool transit time causes the accumulation of this molecule in the intestines. This molecule damages cells in your colon and may lead to the development of colorectal cancer.</p> <p>References [1, 2, 3, 4]</p>	0.098 µM	less than 0.29 µM	Optimal
Immune Health			
<p>Spermidine</p> <p>Spermidine is a beneficial molecule that has been found to be anti-inflammatory, to boost the immune system, and to generally slow down the process of aging. Low levels may indicate issues with your immune system and stress levels.</p> <p>References [1, 2, 3, 4, 5, 6]</p>	2.68 µM	higher than 2.12 µM	Optimal
Omega-3 fatty acid balance			
<p>Docosahexaenoic Acid</p> <p>DHA is an omega-3 fatty acid, which is an essential fat that improves health. High levels have an anti-inflammatory and antioxidant effect in the body. Low levels have been linked to various health-related issues, such as multiple sclerosis and Parkinson's disease.</p> <p>References [1, 2, 3, 4]</p>	1.9 µM	higher than 1.23 µM	Optimal
Stress			
<p>Cortisol</p> <p>Cortisol is a hormone that helps your body respond to stress. High levels of cortisol might indicate acute or chronic stress. Please note that cortisol levels are also higher in the morning and can be increased by coffee consumption.</p> <p>References [1, 2, 3]</p>	0.15 µM	less than 0.3 µM	Optimal
Hormonal Health			
<p>Dehydroepiandrosterone sulfate</p> <p>DHEAS is a sex hormone found in both men and women. It controls heart rate, blood pressure, and other functions in your body.</p> <p>References [1, 2]</p>	0.43 µM	0.42 to 2.82 µM	Optimal
Gut Microbiome Health			
<p>Indolepropionic acid</p> <p>Indolepropionic acid is a molecule produced by the bacteria in your gut and has neuroprotective and antioxidant effects. Low levels have been linked to an imbalance in the gut microbiome that could lead to higher risk of heart, metabolic and neurodegenerative diseases.</p> <p>References [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13]</p>	1.29 µM	higher than 0.14 µM	Optimal
Oxidative Stress			

MARKER	RESULT	OPTIMAL RANGE	CLASSIFICATION
Hypoxanthine-to-Xanthine ratio Xanthine and Hypoxanthine are two molecules involved in the degradation of purines, the building blocks of DNA and RNA. An increased hypoxanthine-to-xanthine ratio has been associated with oxidative stress in various diseases. References [1, 2, 3, 4, 5, 6]	29.53 $\mu\text{M}/\mu\text{M}$	less than 33.81 $\mu\text{M}/\mu\text{M}$	Optimal
Health Booster			
Trigonelline Trigonelline is an antioxidant plant hormone, or “phytohormone”, that has been suggested to have beneficial effects for humans, including sugar regulation and protection of the brain. References [1, 2, 3, 4]	0.085 μM		

Metabolic Health
Pay Attention

Asparagine (Asp)

Pay Attention

What was measured in your blood?

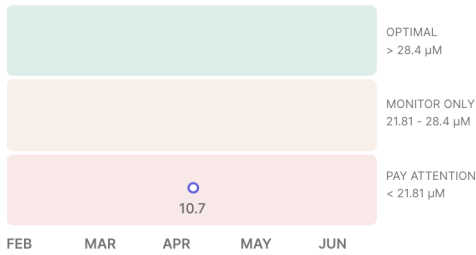
Asparagine. Your value is 10.7 μM , which is **lower** compared to the optimal range. This puts you in the **pay attention** range, meaning that your values are considered outside of the optimal range.

Reference ranges:

- Optimal: higher than 28.4 μM
- Monitor only: 21.81 to 28.4 μM
- Pay attention: less than 21.81 μM

Pay Attention

FEB - JUN 2024



What is it?

Asparagine is a naturally occurring amino acid that plays a crucial role in cellular processes, including energy metabolism and protein synthesis. Research has shown that low levels of asparagine may be linked to an increased risk of developing diabetes in the future.

Recommendations

	RECOMMENDED CHANGES FOR YOU	YOUR CURRENT HABIT	EXAMPLES
Add more vegetables	4 servings a day or more	2-3 servings a day	Broccoli, spinach, carrots
Add more fruits	4 servings a day or more	2-3 servings a day	Berries, apples, oranges

References [1, 2, 3]



Metabolic Health

Pay Attention

Isoleucine

Optimal

What was measured in your blood?

Isoleucine. Your value is 26.3 μM , which is in the **optimal** range.

Reference ranges:

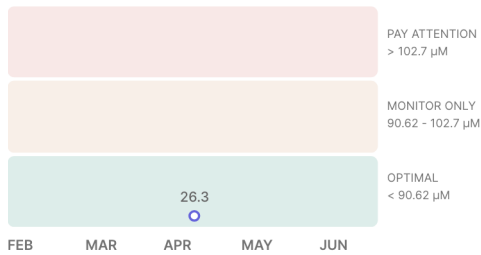
Optimal: less than 90.62 μM

Monitor only: 90.62 to 102.7 μM

Pay attention: higher than 102.7 μM

Optimal

FEB - JUN 2024



What is it?

Isoleucine is a branched-chain amino acid. High levels have been associated with diabetes, obesity, and cardiovascular disease. This can be a sign of an unhealthy lifestyle and might affect people of all weight ranges, not just those who are overweight.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2]



Metabolic Health

Pay Attention

Leucine

Optimal

What was measured in your blood?

Leucine. Your value is 59.95 μM , which is in the **optimal** range.

Reference ranges:

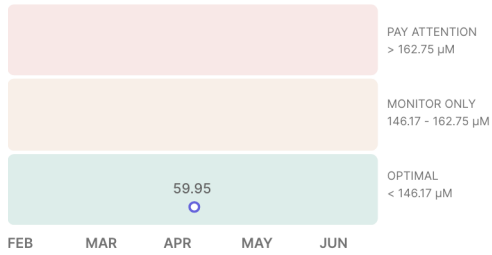
Optimal: less than 146.17 μM

Monitor only: 146.17 to 162.75 μM

Pay attention: higher than 162.75 μM

Optimal

FEB - JUN 2024



What is it?

Leucine is a branched-chain amino acid. High levels have been associated with diabetes, obesity, and cardiovascular disease. This can be a sign of an unhealthy lifestyle and might affect people of all weight ranges, not just those who are overweight.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1. 2]

Metabolic Health
Pay Attention

Serine
Optimal

What was measured in your blood?

Serine. Your value is 72.45 μM , which is in the **optimal** range.

Reference ranges:

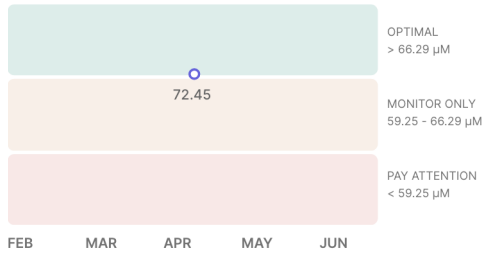
Optimal: higher than 66.29 μM

Monitor only: 59.25 to 66.29 μM

Pay attention: less than 59.25 μM

Optimal

FEB - JUN 2024



What is it?

Serine is an amino acid with various roles in the body, including the protein synthesis, supporting the immune system, and the generation of essential phospholipids. Low levels have been associated with type 1 and type 2 diabetes.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1]

Metabolic Health
Pay Attention

Tyrosine
Optimal

What was measured in your blood?

Tyrosine. Your value is 35.5 μM , which is in the **optimal** range.

Reference ranges:

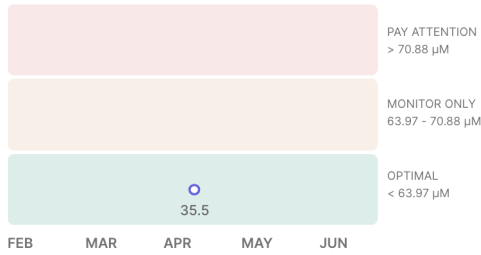
Optimal: less than 63.97 μM

Monitor only: 63.97 to 70.88 μM

Pay attention: higher than 70.88 μM

Optimal

FEB - JUN 2024



What is it?

Tyrosine is an amino acid in your body and one of the building blocks of proteins. High levels in blood have been associated with insulin resistance and an increased risk for diabetes.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [[1](#), [2](#), [3](#)]



Metabolic Health

Pay Attention

Alpha-aminoadipic acid (alpha-AAA)

Optimal

What was measured in your blood?

Alpha-aminoadipic acid. Your value is 0.38 μM , which is in the **optimal** range.

Reference ranges:

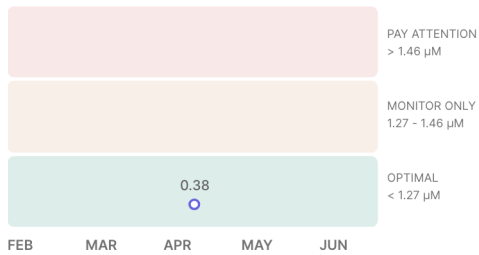
Optimal: less than 1.27 μM

Monitor only: 1.27 to 1.46 μM

Pay attention: higher than 1.46 μM

Optimal

FEB - JUN 2024



What is it?

Alpha-aminoadipic acid is an amino acid in your body. A clinical study has shown that it is a biomarker for future diabetes.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2, 3, 4]



Metabolic Health

Pay Attention

Lactate

Optimal

What was measured in your blood?

Lactate. Your value is 4.47 mM, which is in the **optimal** range.

Reference ranges:

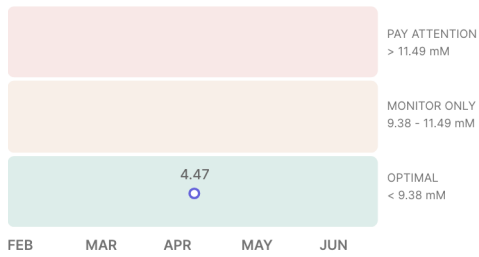
Optimal: less than 9.38 mM

Monitor only: 9.38 to 11.49 mM

Pay attention: higher than 11.49 mM

Optimal

FEB - JUN 2024



What is it?

Lactate is a byproduct of sugar breakdown in your body, especially during physical exercise. High levels of this metabolite in a fasting state have been associated with various metabolic conditions, including obesity, dyslipidemia and hypertension.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1. 2. 3. 4]



Metabolic Health

Pay Attention

Aromatic amino acids (Aro-AAs)

Optimal

What was measured in your blood?

Aromatic amino acids. Your value is 0.1 mM, which is in the **optimal** range.

Reference ranges:

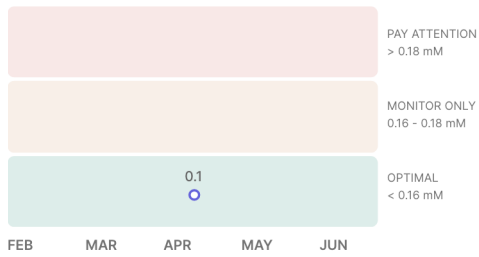
Optimal: less than 0.16 mM

Monitor only: 0.16 to 0.18 mM

Pay attention: higher than 0.18 mM

Optimal

FEB - JUN 2024



What is it?

This measure determines the concentrations of certain amino acids in your blood. High levels have been associated with insulin resistance and future diabetes.

This marker includes the following molecules: Phenylalanine, Tryptophan, Tyrosine.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1. 2]

**Metabolic Health**

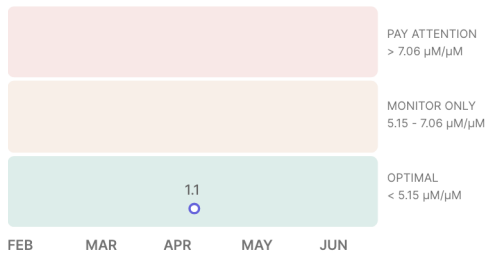
Pay Attention

Choline-to-betaine ratio (CB ratio)

Optimal

What was measured in your blood?**Choline-to-betaine ratio.** Your value is 1.1 $\mu\text{M}/\mu\text{M}$, which is in the **optimal** range.**Reference ranges:**Optimal: less than 5.15 $\mu\text{M}/\mu\text{M}$ Monitor only: 5.15 to 7.06 $\mu\text{M}/\mu\text{M}$ Pay attention: higher than 7.06 $\mu\text{M}/\mu\text{M}$ **Optimal**

FEB - JUN 2024

**What is it?**

Choline and betaine are common nutrients and serve as building blocks for fat molecules. An increased choline-to-betaine ratio has been associated with heart disease and liver disease.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [[1](#), [2](#), [3](#), [4](#)]

Metabolic Health
Pay Attention

Diglycerides (DGs) Beta ⓘ

Optimal

What was measured in your blood?

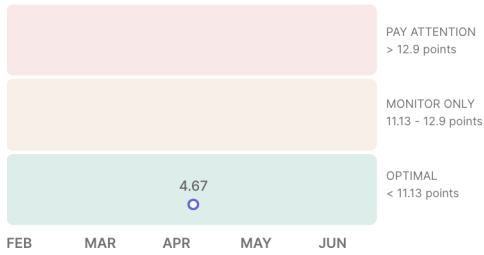
Diglycerides. Your value is 4.67 points, which is in the **optimal** range.

Reference ranges:

- Optimal: less than 11.13 points
- Monitor only: 11.13 to 12.9 points
- Pay attention: higher than 12.9 points

Optimal

FEB - JUN 2024



What is it?

Diglycerides are a type of fat that your body uses for energy. High levels in blood have been shown to interfere with sugar regulation, which might increase the risk for diabetes and metabolic disease.

This marker includes the following molecules: DG(16:0_18:2), DG(16:0_20:0), DG(16:1_18:0), DG(16:1_18:2), and others.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [[1](#), [2](#)]

Metabolic Health
Pay Attention

Phospholipids (PCs) Beta ⓘ

Optimal

What was measured in your blood?

Phospholipids. Your value is 4.37 points, which is in the **optimal** range.

Reference ranges:

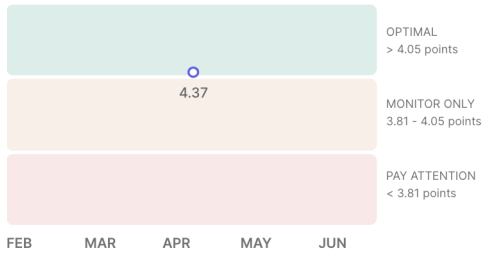
Optimal: higher than 4.05 points

Monitor only: 3.81 to 4.05 points

Pay attention: less than 3.81 points

Optimal

FEB - JUN 2024



What is it?

Phospholipids are a type of building block for all cells in the body and have been associated with insulin resistance which lead to high blood sugar levels and increased risk of diabetes.

This marker includes the following molecules: PC ae C34:0, PC ae C34:1, PC ae C36:3, PC ae C44:5, and others.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [[1](#), [2](#), [3](#)]



Digestive Health

Pay Attention

Glutamine

Pay Attention

What was measured in your blood?

Glutamine. Your value is 0.14 mM, which is **lower** compared to the optimal range. This puts you in the **pay attention** range, meaning that your values are considered outside of the optimal range.

Your Glutamine levels are out of range. Given that you are already taking glutamine supplements, it's possible that your body is not properly absorbing or utilizing the supplemental glutamine.

Reference ranges:

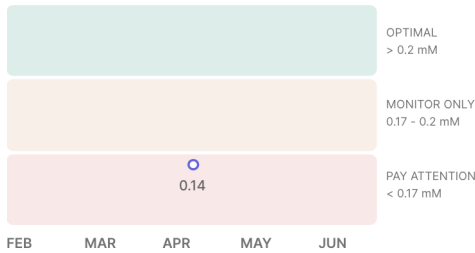
Optimal: higher than 0.2 mM

Monitor only: 0.17 to 0.2 mM

Pay attention: less than 0.17 mM

Pay Attention

FEB - JUN 2024



What is it?

Glutamine is an amino acid that is found in high amounts in blood and is an important source of energy for many tissues in the body.

Low levels have been linked to damage to the lining of the intestines, which may contribute to inflammatory bowel syndrome, leaky gut syndrome, and other gastrointestinal diseases.

Recommendations

	RECOMMENDED CHANGES FOR YOU	YOUR CURRENT HABIT	EXAMPLES
Add glutamine supplements	5 g per day	glutamine	Glutamine powder, glutamine capsules, glutamine tablets

References [1, 2]

Inflammation
Pay Attention

Kynurenine-to-Tryptophan ratio (KT ratio)

Pay Attention

What was measured in your blood?

Kynurenine-to-Tryptophan ratio. Your value is 55.88 nM/μM, which is **higher** compared to the optimal range. This puts you in the **pay attention** range, meaning that your values are considered outside of the optimal range.

Reference ranges:

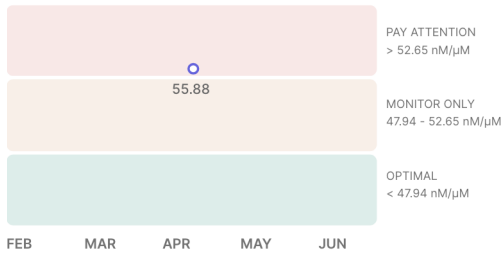
Optimal: less than 47.94 nM/μM

Monitor only: 47.94 to 52.65 nM/μM

Pay attention: higher than 52.65 nM/μM

Pay Attention

FEB - JUN 2024



What is it?

An increased kynurenine-to-tryptophan ratio has been associated with inflammation and various related diseases, such as diabetes and cardiovascular disease, liver issues, a weakened immune system, and the risk for certain types of cancer.

Recommendations

	RECOMMENDED CHANGES FOR YOU	YOUR CURRENT HABIT	EXAMPLES
Exercise regularly	Maintain 3 times per week or more	Everyday	Swimming, yoga, cycling
Add more vegetables	4 servings a day or more	2-3 servings a day	Kale, bell peppers, zucchini
Add more fruits	4 servings a day or more	2-3 servings a day	Kiwi, pineapple, cherries
Increase sleep time	Maintain 7 hours a night or more	8-9 hours a night	Establish bedtime routine, limit caffeine intake, create a sleep-friendly environment

References [1, 2, 3, 4]

Inflammation
Pay Attention

Arachidonic acid (AA)

Optimal

What was measured in your blood?

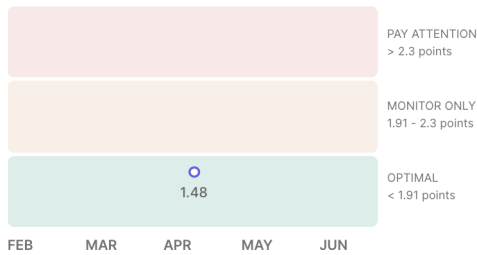
Arachidonic acid. Your value is 1.48 points, which is in the **optimal** range.

Reference ranges:

- Optimal: less than 1.91 points
- Monitor only: 1.91 to 2.3 points
- Pay attention: higher than 2.3 points

Optimal

FEB - JUN 2024



What is it?

Arachidonic acid is an omega-6 fatty acid that is involved in the regulation of inflammation in the body. High levels have been associated with various metabolic diseases, including obesity, diabetes, non-alcoholic fatty liver disease, and cardiovascular disease.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2]

Liver Health

Monitor Only

Fischer's ratio (F ratio)

Monitor Only

What was measured in your blood?

Fischer's ratio. Your value is 1.97 $\mu\text{M}/\mu\text{M}$, which is **slightly lower** compared to the optimal range. This puts you in the **monitor only** range, meaning that your values are trending towards levels considered outside of the optimal range.

Reference ranges:

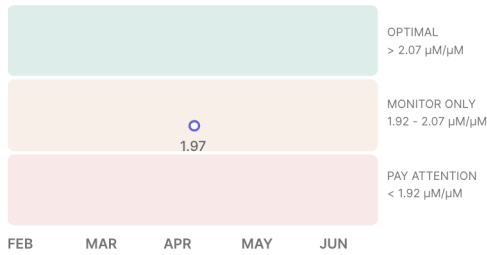
Optimal: higher than 2.07 $\mu\text{M}/\mu\text{M}$

Monitor only: 1.92 to 2.07 $\mu\text{M}/\mu\text{M}$

Pay attention: less than 1.92 $\mu\text{M}/\mu\text{M}$

Monitor only

FEB - JUN 2024



What is it?

This measure determines the balance of certain amino acids in your blood. A low level has been associated with liver disease. Moreover, low levels of this marker have been suggested as a marker for the development of polycystic ovary syndrome (PCOS) in women.

This marker includes the following molecules: Isoleucine, Leucine, Valine, Phenylalanine, and others.

Recommendations

	RECOMMENDED CHANGES FOR YOU	YOUR CURRENT HABIT	EXAMPLES
Add more vegetables	4 servings a day or more	2-3 servings a day	Cauliflower, Brussels sprouts, sweet potatoes
Add more fruits	4 servings a day or more	2-3 servings a day	Grapefruit, blueberries, strawberries

References [1, 2, 3, 4]

Liver Health
Monitor Only

Glycocholic acid (GCA)

Optimal

What was measured in your blood?

Glycocholic acid. Your value is 0.23 μM , which is in the **optimal** range.

Reference ranges:

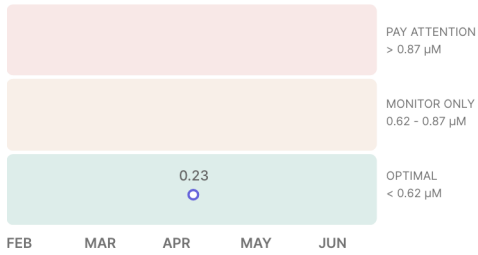
Optimal: less than 0.62 μM

Monitor only: 0.62 to 0.87 μM

Pay attention: higher than 0.87 μM

Optimal

FEB - JUN 2024



What is it?

GCA is a molecule produced by the bacteria in your gut and has been shown to be an indicator of liver function.

High levels in blood have been associated with liver diseases, scarring and dysfunction.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range. Glycocholic acid's levels may be improved by high-fiber foods, certain foods that support a healthy liver.

References [[1](#), [2](#), [3](#), [4](#), [5](#), [6](#), [7](#), [8](#), [9](#)]



Acetylcarnitine (Acetyl C)

Optimal

What was measured in your blood?

Acetylcarnitine. Your value is 6.51 μM , which is in the **optimal** range.

Reference ranges:

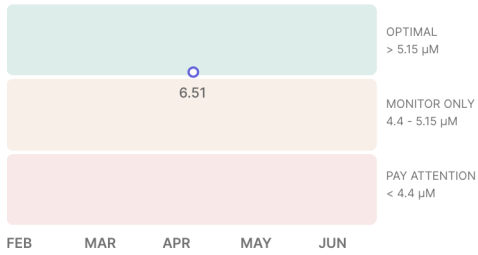
Optimal: higher than 5.15 μM

Monitor only: 4.4 to 5.15 μM

Pay attention: less than 4.4 μM

Optimal

FEB - JUN 2024



What is it?

Acetylcarnitine is a metabolite related to energy metabolism in your body. Low levels have been associated with depression, narcolepsy, as well as Alzheimer's disease and dementia.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range. Acetylcarnitine's levels may be improved by acetyl-L-carnitine supplements.

References [[1](#), [2](#), [3](#), [4](#), [5](#)]



Indoxyl sulfate (Indoxyl S)

Optimal

What was measured in your blood?

Indoxyl sulfate. Your value is 0.83 μM , which is in the **optimal** range.

Reference ranges:

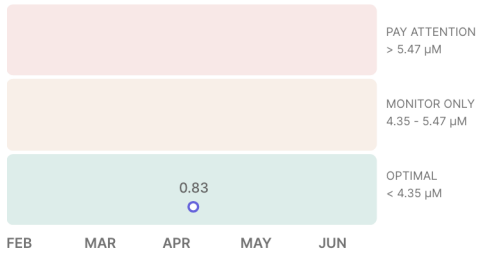
Optimal: less than 4.35 μM

Monitor only: 4.35 to 5.47 μM

Pay attention: higher than 5.47 μM

Optimal

FEB - JUN 2024



What is it?

Indoxyl sulfate is a toxin produced by specific bacteria in your gut when they break down the amino acid tryptophan, which is contained in some foods. High Indoxyl sulfate levels can increase the risk for anxiety, depression, and dementia.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range. Indoxyl sulfate's levels may be improved by probiotic foods, polyphenol-rich foods, polyphenols supplements, high-fiber foods.

References [[1](#), [2](#), [3](#), [4](#), [5](#), [6](#), [7](#), [8](#)]

 **Fat Burning Efficiency**
Optimal

Hydroxybutyrylcarnitine (Butyryl C)
Optimal

What was measured in your blood?

Hydroxybutyrylcarnitine. Your value is 0.57 points, which is in the **optimal** range.

Reference ranges:

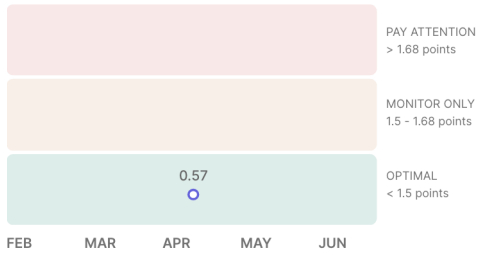
Optimal: less than 1.5 points

Monitor only: 1.5 to 1.68 points

Pay attention: higher than 1.68 points

Optimal

FEB - JUN 2024



What is it?

Hydroxybutyrylcarnitine is a key helper in our body's process of breaking down small fat molecules to create energy. Higher levels in blood have been associated with the risk to develop insulin resistance and diabetes.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2]

Fat Burning Efficiency

Optimal

Palmitoylcarnitine (Palm C)

Optimal

What was measured in your blood?

Palmitoylcarnitine. Your value is 0.38 μM , which is in the **optimal** range.

Reference ranges:

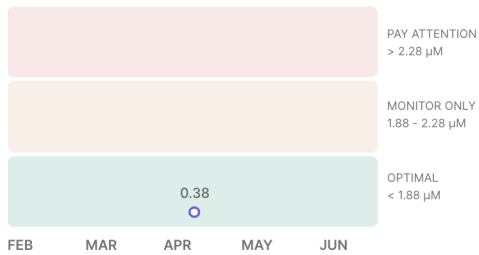
Optimal: less than 1.88 μM

Monitor only: 1.88 to 2.28 μM

Pay attention: higher than 2.28 μM

Optimal

FEB - JUN 2024



What is it?

Palmitoylcarnitine serves as a transport form for fat, enabling cells to convert it into energy. The presence of palmitoylcarnitine in the bloodstream signifies a disruption in this fat metabolism process. Research has demonstrated that increased blood concentrations may be linked to diminished heart function.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1. 2]

Brain Toxins

Optimal

Glutamate

Optimal

What was measured in your blood?

Glutamate. Your value is 0.12 mM, which is in the **optimal** range.

Reference ranges:

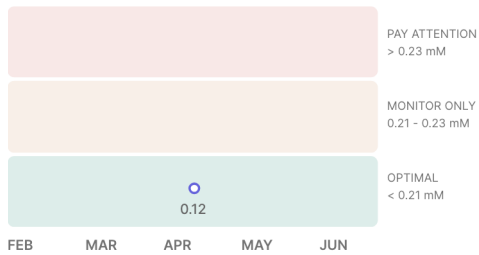
Optimal: less than 0.21 mM

Monitor only: 0.21 to 0.23 mM

Pay attention: higher than 0.23 mM

Optimal

FEB - JUN 2024



What is it?

Glutamate is an amino acid that has been found to be toxic for the brain. It has been found to be elevated in various neurological diseases, such as multiple sclerosis and Parkinson's disease.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2, 3, 4, 5]



Glycodeoxycholic acid (GDCA)

Optimal

What was measured in your blood?

Glycodeoxycholic acid. Your value is 9.73 nM, which is in the **optimal** range.

Reference ranges:

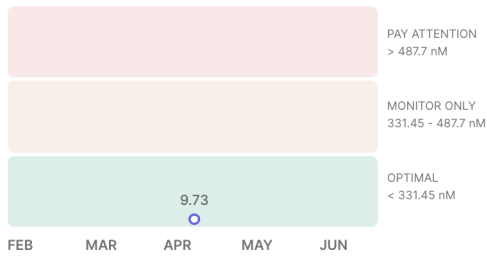
Optimal: less than 331.45 nM

Monitor only: 331.45 to 487.7 nM

Pay attention: higher than 487.7 nM

Optimal

FEB - JUN 2024



What is it?

GDCA is a molecule produced by the bacteria in your gut. High concentrations have been associated with cognitive decline in the context of Alzheimer's disease.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range. Glycodeoxycholic acid's levels may be improved by high-fiber foods.

References [1, 2, 3]

Brain Toxins

Optimal

Glycolithocholic acid (GLCA)

Optimal

What was measured in your blood?

Glycolithocholic acid. Your value is 1.35 nM, which is in the **optimal** range.

Reference ranges:

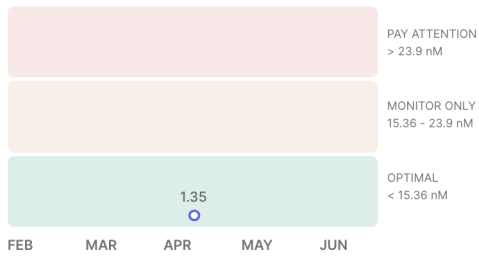
Optimal: less than 15.36 nM

Monitor only: 15.36 to 23.9 nM

Pay attention: higher than 23.9 nM

Optimal

FEB - JUN 2024



What is it?

GLCA is a molecule produced by the bacteria in your gut. High concentrations have been associated with cognitive decline in the context of Alzheimer's disease.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range. Glycolithocholic acid's levels may be improved by high-fiber foods.

References [1, 2, 3]



Methionine

Optimal

What was measured in your blood?

Methionine. Your value is 8.4 μM , which is in the **optimal** range.

Reference ranges:

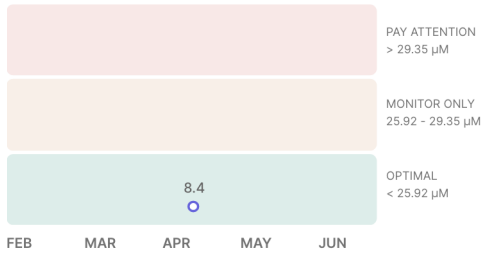
Optimal: less than 25.92 μM

Monitor only: 25.92 to 29.35 μM

Pay attention: higher than 29.35 μM

Optimal

FEB - JUN 2024



What is it?

Methionine is one of the essential amino acids your body needs for basic functioning. However, too high levels of methionine have been associated with heart problems and accelerated aging.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1. 2. 3. 4]



Taurine

Optimal

What was measured in your blood?

Taurine. Your value is 91.73 μM , which is in the **optimal** range.

Reference ranges:

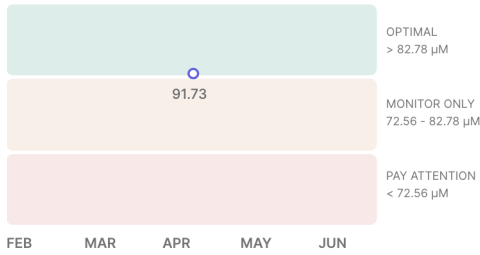
Optimal: higher than 82.78 μM

Monitor only: 72.56 to 82.78 μM

Pay attention: less than 72.56 μM

Optimal

FEB - JUN 2024



What is it?

Taurine is a nutrient in our bodies that reduces as we age. Studies have shown that when animals have more taurine, they live longer and are healthier. In humans, low taurine levels are associated with several age-related health problems. Additionally, exercise appears to increase our body's taurine levels, suggesting its potential role in maintaining our health as we age.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range. Taurine's levels may be improved by taurine-rich food, taurine supplements, physical exercise.

References [1]



3-Methylhistidine (3-MH)

Optimal

What was measured in your blood?

3-Methylhistidine. Your value is 1.71 μM , which is in the **optimal** range.

Reference ranges:

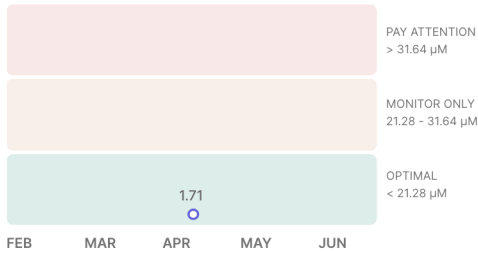
Optimal: less than 21.28 μM

Monitor only: 21.28 to 31.64 μM

Pay attention: higher than 31.64 μM

Optimal

FEB - JUN 2024



What is it?

3-Methylhistidine is a biomarker for poultry consumption, such as chicken, turkey, duck, and others.

High levels may indicate a high consumption of poultry. While lean poultry, like chicken breast, may be healthy, consuming too much poultry that contains fat, such as chicken skin, may increase your cholesterol levels which in turn has been associated with heart diseases.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range. 3-Methylhistidine's levels may be improved by reduced poultry consumption.

References [[1](#), [2](#), [3](#), [4](#)]



Asymmetric dimethylarginine (ADMA)

Optimal

What was measured in your blood?

Asymmetric dimethylarginine. Your value is 0.19 μM , which is in the **optimal** range.

Reference ranges:

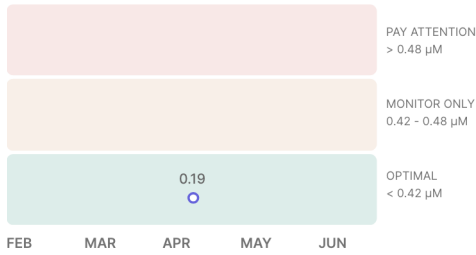
Optimal: less than 0.42 μM

Monitor only: 0.42 to 0.48 μM

Pay attention: higher than 0.48 μM

Optimal

FEB - JUN 2024



What is it?

ADMA is a byproduct of protein breakdown and plays a role in regulating blood vessel function. It can interfere with a molecule called nitric oxide, which helps our blood vessels relax and maintain a healthy blood flow. High levels of ADMA have been linked to cardiovascular diseases and other health issues.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2]



Homoarginine (Homo Arg)

Optimal

What was measured in your blood?

Homoarginine. Your value is 1.15 μM , which is in the **optimal** range.

Reference ranges:

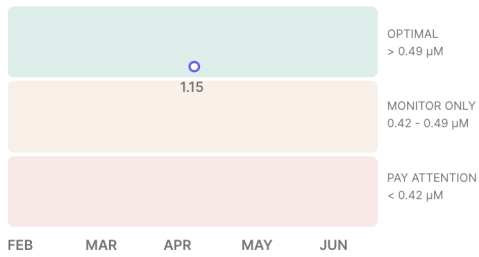
Optimal: higher than 0.49 μM

Monitor only: 0.42 to 0.49 μM

Pay attention: less than 0.42 μM

Optimal

FEB - JUN 2024



What is it?

Homoarginine is a molecule involved in the regulation of blood pressure and the functioning of the immune system.

Low levels of homoarginine have been linked to an increased risk of cardiovascular disease.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2, 3]



Succinate

Optimal

What was measured in your blood?

Succinate. Your value is 18.01 μM , which is in the **optimal** range.

Reference ranges:

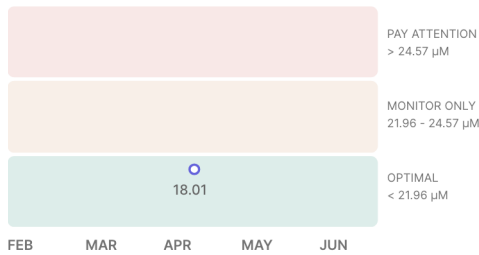
Optimal: less than 21.96 μM

Monitor only: 21.96 to 24.57 μM

Pay attention: higher than 24.57 μM

Optimal

FEB - JUN 2024



What is it?

Succinate is a substance involved in central metabolic processes in the body. High levels have been associated with heart-related conditions, such as hypertension, ischemic heart disease, and diabetes.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2, 3]



Ceramide 18:0 (Cer 18:0)

Optimal

What was measured in your blood?

Ceramide 18:0. Your value is 0.79 points, which is in the **optimal** range.

Reference ranges:

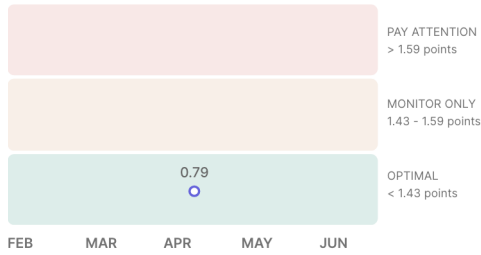
Optimal: less than 1.43 points

Monitor only: 1.43 to 1.59 points

Pay attention: higher than 1.59 points

Optimal

FEB - JUN 2024



What is it?

Ceramides are a type of fat that regulate various processes in the body. The particular ceramide reported here called "18:0" has been reported to predict future heart events, such as myocardial infarction.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2]

 **Heart Health**
Optimal

Triglycerides (TGs) Beta

Optimal

What was measured in your blood?

Triglycerides. Your value is 39.48 points, which is in the **optimal** range.

Reference ranges:

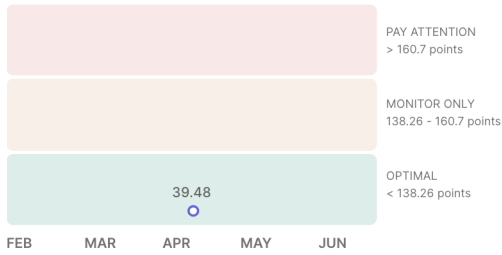
Optimal: less than 138.26 points

Monitor only: 138.26 to 160.7 points

Pay attention: higher than 160.7 points

Optimal

FEB - JUN 2024



What is it?

Triglycerides are a type of fat that your body uses for energy. High levels or too much of it in blood have been associated with various heart-related conditions.

This marker includes the following molecules: TG(14:0_36:2), TG(14:0_36:3), TG(14:0_38:4), TG(16:0_32:3), and others.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2]



Symmetric dimethylarginine (SDMA)

Optimal

What was measured in your blood?

Symmetric dimethylarginine. Your value is 0.23 μM , which is in the **optimal** range.

Reference ranges:

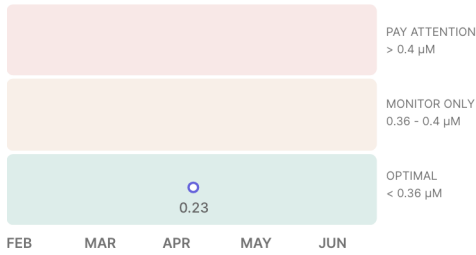
Optimal: less than 0.36 μM

Monitor only: 0.36 to 0.4 μM

Pay attention: higher than 0.4 μM

Optimal

FEB - JUN 2024



What is it?

SDMA is a byproduct of proteins breaking down in your body and is passed out by your kidneys. Studies have demonstrated that SDMA in blood reflects kidney function better than the commonly used eGFR measurement. High blood levels of SDMA have been shown to be an early sign of kidney damage.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2, 3]



p-Cresol sulfate (Cresol S)

Optimal

What was measured in your blood?

p-Cresol sulfate. Your value is 12.38 μM , which is in the **optimal** range.

Reference ranges:

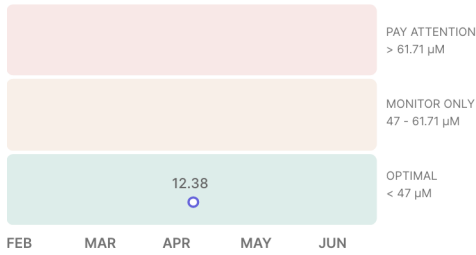
Optimal: less than 47 μM

Monitor only: 47 to 61.71 μM

Pay attention: higher than 61.71 μM

Optimal

FEB - JUN 2024



What is it?

p-Cresol sulfate is a so-called uremic toxin produced by specific bacteria in your gut when they consume the amino acid tyrosine contained in certain foods in your diet. High levels of this chemical have been shown to damage your kidneys.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range. p-Cresol sulfate's levels may be improved by probiotic foods, polyphenol-rich foods, polyphenols supplements, high-fiber foods.

References [[1](#), [2](#), [3](#), [4](#), [5](#)]



trans-Hydroxyproline (TransOHP)

Optimal

What was measured in your blood?

trans-Hydroxyproline. Your value is 5.18 μM , which is in the **optimal** range.

Reference ranges:

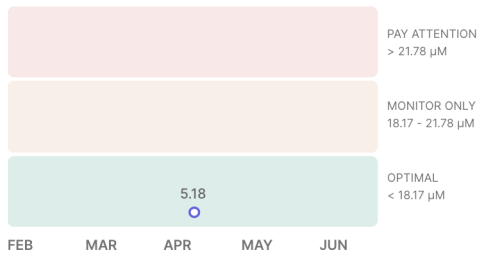
Optimal: less than 18.17 μM

Monitor only: 18.17 to 21.78 μM

Pay attention: higher than 21.78 μM

Optimal

FEB - JUN 2024



What is it?

Trans-Hydroxyproline is a molecule involved in the production of collagen, a protein that provides structure and support to tissues in your body.

High levels of trans-hydroxyproline have been linked to an increased risk of osteoporosis, a condition in which the bones become weak and fragile. PC

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2, 3, 4]



Colorectal Carcinogens

Optimal

Deoxycholic acid (DCA)

Optimal

What was measured in your blood?

Deoxycholic acid. Your value is 0.098 μM , which is in the **optimal** range.

Reference ranges:

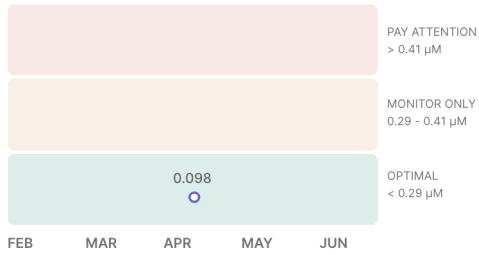
Optimal: less than 0.29 μM

Monitor only: 0.29 to 0.41 μM

Pay attention: higher than 0.41 μM

Optimal

FEB - JUN 2024



What is it?

DCA is a molecule produced by bacteria in your gut. A long stool transit time causes the accumulation of this molecule in the intestines. This molecule damages cells in your colon and may lead to the development of colorectal cancer.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range. Deoxycholic acid's levels may be improved by high-fiber foods.

References [[1](#), [2](#), [3](#), [4](#)]



Spermidine (Spr)

Optimal

What was measured in your blood?

Spermidine. Your value is 2.68 μM , which is in the **optimal** range.

Reference ranges:

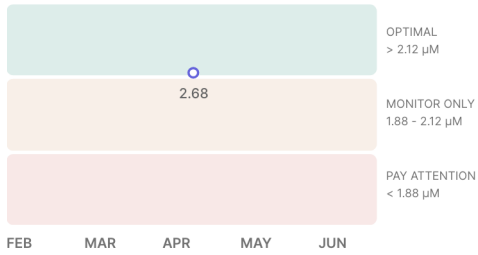
Optimal: higher than 2.12 μM

Monitor only: 1.88 to 2.12 μM

Pay attention: less than 1.88 μM

Optimal

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What is it?

Spermidine is a beneficial molecule that has been found to be anti-inflammatory, to boost the immune system, and to generally slow down the process of aging. Low levels may indicate issues with your immune system and stress levels.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range. Spermidine's levels may be improved by polyamine-rich foods.

References [[1](#), [2](#), [3](#), [4](#), [5](#), [6](#)]



Omega-3 Fatty Acid Balance

Optimal

Docosahexaenoic Acid (DHA)

Optimal

What was measured in your blood?

Docosahexaenoic Acid. Your value is 1.9 μM , which is in the **optimal** range.

Reference ranges:

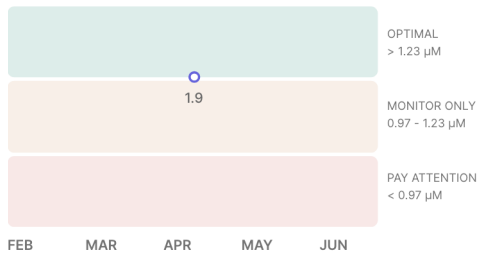
Optimal: higher than 1.23 μM

Monitor only: 0.97 to 1.23 μM

Pay attention: less than 0.97 μM

Optimal

FEB - JUN 2024



What is it?

DHA is an omega-3 fatty acid, which is an essential fat that improves health. High levels have an anti-inflammatory and antioxidant effect in the body. Low levels have been linked to various health-related issues, such as multiple sclerosis and Parkinson's disease.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1. 2. 3. 4]



Cortisol

Optimal

What was measured in your blood?

Cortisol. Your value is 0.15 μM , which is in the **optimal** range.

Reference ranges:

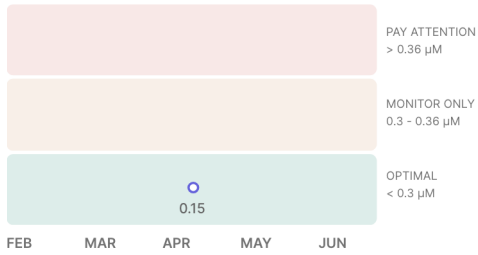
Optimal: less than 0.3 μM

Monitor only: 0.3 to 0.36 μM

Pay attention: higher than 0.36 μM

Optimal

FEB - JUN 2024



What is it?

Cortisol is a hormone that helps your body respond to stress.

High levels of cortisol might indicate acute or chronic stress. Please note that cortisol levels are also higher in the morning and can be increased by coffee consumption.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2, 3]

Hormonal Health
Optimal

Dehydroepiandrosterone sulfate (DHEAS)

Optimal

What was measured in your blood?

Dehydroepiandrosterone sulfate. Your value is 0.43 μM , which is in the **optimal** range.

Reference ranges:

Optimal: 0.42 to 2.82 μM

Monitor only:

- Slightly low: 0.32 to 0.42 μM

- Slightly high: 2.82 to 3.69 μM

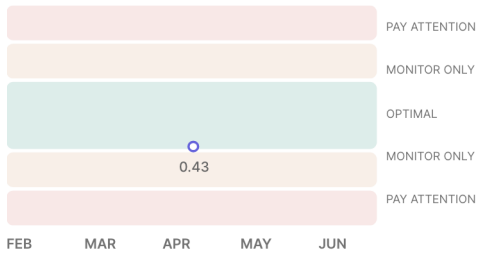
Pay attention:

- Low: less than 0.32 μM

- High: more than 3.69 μM

Optimal

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What is it?

DHEAS is a sex hormone found in both men and women. It controls heart rate, blood pressure, and other functions in your body.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [1, 2]



Gut Microbiome Health

Optimal

Indolepropionic acid (IPA)

Optimal

What was measured in your blood?

Indolepropionic acid. Your value is 1.29 μM , which is in the **optimal** range.

Reference ranges:

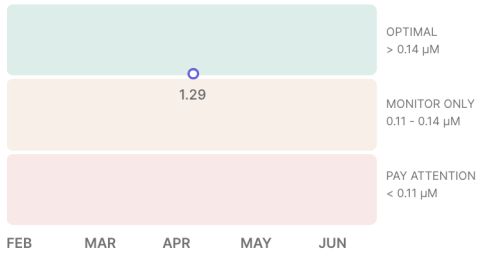
Optimal: higher than 0.14 μM

Monitor only: 0.11 to 0.14 μM

Pay attention: less than 0.11 μM

Optimal

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What is it?

Indolepropionic acid is a molecule produced by the bacteria in your gut and has neuroprotective and antioxidant effects.

Low levels have been linked to an imbalance in the gut microbiome that could lead to higher risk of heart, metabolic and neurodegenerative diseases.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range. Indolepropionic acid's levels may be improved by probiotic foods, polyphenol-rich foods, polyphenols supplements, high-fiber foods.

References [[1](#), [2](#), [3](#), [4](#), [5](#), [6](#), [7](#), [8](#), [9](#), [10](#), [11](#), [12](#)]

 **Oxidative Stress**
Optimal

Hypoxanthine-to-Xanthine ratio (HXX ratio) Beta ⓘ

Optimal

What was measured in your blood?

Hypoxanthine-to-Xanthine ratio. Your value is 29.53 $\mu\text{M}/\mu\text{M}$, which is in the **optimal** range.

Reference ranges:

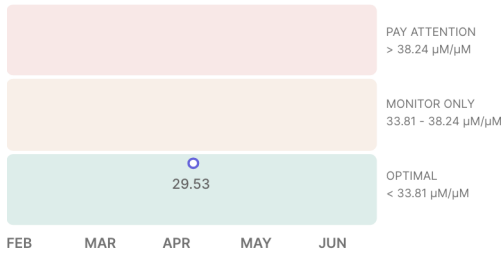
Optimal: less than 33.81 $\mu\text{M}/\mu\text{M}$

Monitor only: 33.81 to 38.24 $\mu\text{M}/\mu\text{M}$

Pay attention: higher than 38.24 $\mu\text{M}/\mu\text{M}$

Optimal

FEB - JUN 2024



What is it?

Xanthine and Hypoxanthine are two molecules involved in the degradation of purines, the building blocks of DNA and RNA. An increased hypoxanthine-to-xanthine ratio has been associated with oxidative stress in various diseases.

Recommendations

Your current values for this marker are optimal. It's important to maintain a balanced diet and lifestyle to keep your levels in the recommended range.

References [[1](#), [2](#), [3](#), [4](#), [5](#)]

 **Health Booster**

Trigonelline (Trg)

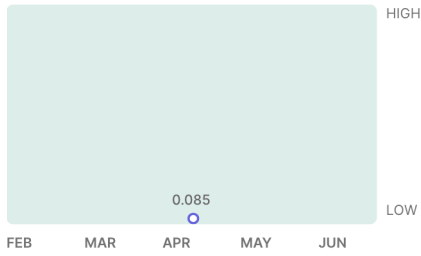
0.085

What was measured in your blood?

Trigonelline. Your value is 0.085 μ M.

Trigonelline

FEB - JUN 2024



What is it?

Trigonelline is an antioxidant plant hormone, or “phytohormone”, that has been suggested to have beneficial effects for humans, including sugar regulation and protection of the brain.

Recommendations

Blood levels can be increased by intake of fruits and vegetables with a high trigonelline content. Trigonelline is particularly abundant in fenugreek and coffee beans.

Trigonelline's levels may be improved by trigonelline-rich foods, trigonelline supplements.

References [[1](#), [2](#), [3](#), [4](#)]

If your test results are non-optimal, it may indicate a health problem. Consult a medical professional to determine the cause and appropriate course of action. It's important to understand that optimal test results do not guarantee overall health in that specific area, as there are other markers of health that may not be measured by iollo.