VIOME

VIOME

VASILIOS SYRROS'S SCORES & RECOMMENDATIONS

VIOME

Dear Vasilios Syrros,

The information on this report is for educational and informational use only. The information is not intended to be used by the customer for any diagnostic purpose and is not a substitute for professional medical advice. You should always seek the advice of your physician or other healthcare providers with any questions you may have regarding diagnosis, cure, treatment, mitigation, or prevention of any disease or other medical condition or impairment or the status of your health.

Test Name: Gut Intelligence Test, Human Gene Expression Test, Saliva Gene Expression Test

Customer Name: Vasilios Syrros

DOB: 01/01/1971

All My Scores

Let's improve these.

Inflammatory Activity

Not Optimal

This score measures the activities of your microbes that can contribute to or reflect inflammation in your gut environment. Inflammation in your gut can be caused by harmful things your microbes produce when you are either inefficiently digesting your proteins, have excessive microbial gas production, or simply have a gut environment that your microbes perceive as threatening. A score in the red zone (not optimal) means that there are relatively more pro-inflammatory activities, as opposed to anti-inflammatory or protective ones. Everyone's pattern is unique, so if your score is in the red, some of your recommendations may focus on boosting more of the protective and healing anti-inflammatory functions, while others may focus more on controlling and balancing out the more harmful pro-inflammatory microbes and functions. Follow your recommendations to maintain a good range or improve this score.

Gut Health

Not Optimal

Your gut microbiome is home to trillions of microbes that have a direct influence on everything from how you digest foods to how your immune system responds to infections or allergens. Because the gut microbiome influences how you metabolize nutrients like fats and carbohydrates from food, it also plays a leading role in the prevention and development of chronic diseases. Your Gut Health score integrates over 20 subscores that reflect the current state of your gut health. This score assesses things like the pathogenic status of the gut, both harmful and beneficial microbial activities of the gut, butyrate production, oxalate metabolism, intestinal barrier health (gut lining), and more. What a Not Optimal score means: A Not Optimal score means that your gut microbiome may be producing chemicals that are causing inflammation (such as LPS, sulfide, or ammonia) or not producing enough nutrients that your body needs (such as butyrate, serotonin, and other vitamins). When your microbiome is not functioning optimally, it can affect your immune system, metabolic function, and digestion. To support this score we may recommend specific probiotics for you and fermented foods to seed the gut with good bacteria, fiber-rich foods to feed the good bacteria and fuel butyrate production, and herbs, vitamins, and minerals to strengthen your gut lining. What a Good score means: A Good score conveys that the activities within the gut microbiome are overall supportive of a healthy gut environment. Did you know? About 100 trillion bacteria, both good and bad, live inside your digestive system. Optimizing your microbial functions can help you achieve a healthy weight, boost energy, reduce stress, improve sleep, and strengthen your immunity.

Test Name: Gut Intelligence Test, Human Gene Expression Test, Saliva Gene Expression Test

Customer Name: Vasilios Syrros

DOB: 01/01/1971

Breath Odor

Not Optimal

Occasionally, the foods we eat can cause temporary bad breath that fades, but some individuals experience bad breath long after they've eaten. This score assesses the activity of microbial pathways that result in the production of volatile sulfides and polyamines, compounds that can worsen and prolong bad breath. A Good score indicates decreased production of these foul-smelling compounds. If your score is Not Optimal, we'll provide you with precise food and supplement recommendations designed to improve pathway activities related to the production of volatile compounds and bring your oral microbiome into balance.

Gum Health

Not Optimal

Within your mouth, certain harmful microbes can contribute to gum inflammation and poor gum health. This score assesses the activities of microbes in your mouth that contribute to inflammation and abnormal mucin degradation, a gel-like substance that aids in protecting the gums. A Good score reflects lower inflammatory activity and a healthy balance of microbes in the mouth that contribute to normal levels of mucin degradation. If your score is Not Optimal, we'll provide you with food and supplement recommendations designed to balance the oral microbiome, decrease inflammation, and further support the barrier function of your gums.

Neurotransmitter Production

Not Optimal

There is an intimate two-way relationship between the gut and the brain. The thoughts we think can influence how our gut functions, while changes in our gut can influence our mood. You might even call the gut our second brain! If you've ever experienced the sensation of "butterflies" in your stomach, or a "gut-wrenching" feeling, this is the gut-brain connection in action. This bi-directional communication between the gut and the brain occurs through the vagus nerve, a very long, wandering nerve that connects the brain to the gut. Microbes in the gut can produce neurotransmitters, like GABA and serotonin. These neurotransmitters interact with the vagus nerve, sending signals to the brain that can affect your mood. A Good score reflects ideal microbial gene expression related to GABA and serotonin production. If your score is Not Optimal, we will provide you with food and supplement recommendations designed to aid in the synthesis and regulation of these key neurotransmitters.

Oral Sulfide Production Pathways

Not Optimal

We all have bad breath from time to time. However, prolonged bad breath can be a sign that the oral cavity may be producing high levels of volatile sulfur compounds from the foods we eat. This score assesses the activity of all microbial pathways contributing to volatile sulfur compounds, which promote bad breath. Foods that contain sulfur compounds act as fuel for this activity. While we've all experienced certain foods causing temporary bad breath, if your Oral Sulfide Production Pathways are Not Optimal, these foods can contribute to prolonged bad breath. A Good score means that the activity of volatile sulfur-compound producing microbes is low and you're less likely to experience prolonged bad breath from these foods.

Vitamin D Pathways

Not Optimal

Vitamin D is a fat-soluble vitamin found naturally in some foods and produced within the skin when exposed to sunlight. Vitamin D plays an important role in heart health by regulating immune and inflammatory activity, repairing damaged blood vessel walls, and suppressing genes related to high blood pressure. This score assesses the expression of genetic transcripts within the blood that are reflective of Vitamin D levels, such as those related to healthy cellular growth, blood pressure control, and immune response. While your results are not a direct measurement of your blood Vitamin D levels, a Not Optimal score suggests that supporting the body with additional Vitamin D (via food, sunlight, and/or supplementation) may be helpful.

TMA Production Pathways

Not Optimal

This score assesses microbial activities in the gut that result in the production of TMA (trimethylamine). TMA is created in the gut by microbes when certain compounds, such as choline and carnitine, are present. TMA can then be converted into TMAO in the liver and enter the bloodstream. High levels of TMAO are associated with unfavorable metabolic and cardiovascular effects. A Good score reflects a low level of microbial activity related to TMA production. If your score is Not Optimal, limiting or avoiding foods and supplements high in choline and carnitine may be helpful.

GABA Production Pathways

Not Optimal

This score assesses microbial activities which contribute to the production of gamma-aminobutyric acid (GABA). GABA is a neurotransmitter or signaling molecule that can block certain signals in the central nervous system. This can have a calming effect on brain activity and plays a role in many neurological processes including mood, anxiety, and sleep. There are many microbial species in the gut with the ability to create GABA, especially bacteria from the Bifidobacteria and Lactobacillus genus. GABA production in the gut stimulates the vagus nerve, the main nerve of the parasympathetic nervous system, which connects the gut to the brain. Stimulation of the vagus nerve influences mood and gastrointestinal motility. A Good score reflects a high level of microbial activity related to GABA production and a low level of microbial GABA consumption. If your score is Not Optimal, GABA production can be improved by providing the microbiome with GABA precursors (such as glutamate), supplying the microbiome with vitamin cofactors that aid in GABA synthesis, or eating foods that naturally contain GABA.

Oral Pathogen Activity

Not Optimal

The oral microbiome is a complex ecosystem of microbes known to be beneficial and those known to be harmful to oral health. Maintaining a healthy balance of microbes allows for a more optimal oral environment where activities that are damaging or promote disease are kept to a minimum. This score assesses the balance of microbes in your oral cavity, as well as signs of high pathogen activity, including flagellar production, which aids in the movement and colonization of opportunistic microbes, and the production of LPS, an inflammatory molecule produced by gram-negative pathogenic bacteria. What a Good score means: There is a lower level of pathogen activity in the mouth and/or there is a healthy balance of beneficial bacteria to pathogens. What a Not Optimal score means: There is a higher abundance of active pathogens compared to beneficial microbes in the mouth and/or those pathogens are engaging in activities that are known to cause damage and inflammation.

Oral Disease Promoting Microbes

Not Optimal

This score assesses the abundance of RNA detected in your saliva sample from specific microbes that can contribute to gum disease as well as from preventative microbes. These pathogens form complex communities with other bacteria in dental plaque. If the plaque is allowed to persist on the tooth surface, over time, these pathogens may start to get below the surface of the gums where they degrade gum tissue as well as the bony structure that holds teeth in place. A Good score reflects a healthy balance of preventative microbes compared to pathogens. If your score is Not Optimal, you may see dietary recommendations that help reduce the prevalence of pathogens and encourage the growth of preventative microbes.

Oral Butyrate Production Pathways

Not Optimal

This score assesses oral microbial production of butyrate from your saliva sample. In the oral cavity, butyrate has a mixed reputation as it has been shown to cause oxidative stress to the gum tissue. Interestingly, Viome's data shows that low oral butyrate production is associated with an unfavorable microbial balance and poor oral health. If your Oral Butyrate Production Pathways score is Not Optimal you may see recommendations to both restore the microbial balance of the oral cavity and mitigate any downstream effects from unfavorable activity.

Oral Flagellar Assembly Production Pathways

Not Optimal

This score assesses microbial activities related to the production of flagella. Flagella are tail-like structures that microbes produce to help them move. Flagella are produced by both commensal and opportunistic bacteria. When pathways signaling the production of flagella are high, this indicates higher-than-usual activity by opportunistic organisms that are known to have these structures. A Good score suggests a favorable microbial environment in the oral cavity. If your score is Not Optimal, you may see recommendations for foods and supplements that help reduce flagellar formation and motility and create a more favorable environment in the mouth. This score is one factor in assessing the overall activity of pathogens in the mouth.

Digestive Efficiency

Not Optimal

This score is a comprehensive microbial reflection of your gastrointestinal (GI) tract functions. The score consists of multiple activity patterns related to digestion, such as the movement of food, specific macronutrient breakdown ability, and your gut lining health from your first bite of food to the time it leaves your body. When this score is suboptimal, it means that some of your digestive functions need support.

Gut Lining Health

Not Optimal

This score focuses on your gut lining (or intestinal barrier) and the health of the mucosal layer that protects it. When your gut lining is compromised, things from the outside environment, like toxins, medications, and harmful bacteria, can make their way into your bloodstream from your gut and negatively affect your immune system and overall wellbeing. A good score (in the green zone) means more optimal microbial functions that support your intestinal barrier and fewer disruptive or harmful functions are active in your gut. Follow your recommendations to address your specific pattern of microbial functions, and to prevent any intestinal permeability known as 'leaky gut'.

Inflammation Response

Not Optimal

A healthy inflammatory response is essential for our body's ability to defend against invading pathogens and repair damaged tissues. However, prolonged inflammation due to factors such as poor diet, increased stress, and environmental toxins pose a risk for the development of chronic disease. Your Inflammation Response score assesses the overall balance of your body's pro- and anti-inflammatory activity as well as your immune system's ability to resolve (or down-regulate) inflammation. What a Not Optimal score means: A Not Optimal score could mean that there are relatively more pro-inflammatory activities, as opposed to anti-inflammatory or protective ones. This inflammatory activity can actually be destructive when misapplied and also disrupts normal immune communication and response. Your recommended food and supplements will address your unique patterns of stress at a molecular level and may include antioxidants or anti-inflammatory nutrients, flavonoids that down-regulate inflammatory mediators, and vitamins and minerals that act as anti-inflammatory agents. What a Good score means: A Good score means your gut microbiome is contributing to anti-inflammatory activity and your immune system is able to efficiently respond to and regulate inflammatory activity from infection or injury so that it does not negatively impact your host cells. Did you know? Not all inflammation is bad. Inflammation is part of the immune system's natural response needed in times of acute stress or damage to facilitate the movement of immune cells to that area. This score assesses not only the bad types of inflammation but also the good kinds.

Protein Fermentation

Not Optimal

This score reflects whether or not you are digesting your proteins properly. Protein digestion begins when you first start chewing and continues down in your stomach. If the protein is not fully broken down through this process, your microbes will digest the excess protein available and may convert it into harmful byproducts. Overly high microbial protein fermentation translates into a score within the red zone, suggesting your protein digestion is suboptimal.

Gas Production

Not Optimal

This score is an assessment of your overall gas production activity by the microbes in your gut. Overall high microbial gas production has been associated with digestive difficulties, discomfort, and gut inflammation. A good score means that your microbes are not actively engaged in gas production functions.

Methane Gas Production Pathways

Not Optimal

This score assesses the level of activity of microbial pathways that result in the production of methane gas in the gut. While some production of methane gas is normal, a high production of methane is associated with motility issues in the gut like constipation, as well as pro-inflammatory activities that can negatively affect the intestinal lining. A Good score indicates a healthy balance of methane gas production in the gut. A Not Optimal score indicates a high level of methanogens (methane-producing bacteria) in the gut along with certain nutrients in foods that methanogens can use to produce methane gas. Altering your diet to reduce nutrients that contribute to methane gas production and rebalancing the gut microbiome through the use of probiotics and herbs may help improve this score.

Putrescine Production Pathways

Not Optimal

This score assesses the levels of activity of all microbial pathways that lead to putrescine production. Putrescine is a molecular byproduct of protein fermentation - a microbial breakdown of protein. If the activities of putrescine production pathways are too high, it can be harmful to the gut environment and the intestinal barrier lining. It is also one of the signs that you may be eating too much protein that may not be digested properly.

Uric Acid Production Pathways

Not Optimal

This score assesses the level of activity of microbial pathways that lead to the production and degradation of uric acid (or urate) in the gut. Uric acid is a normal byproduct from the breakdown of compounds called purines, which can be found in beer, sugary sodas, seafood and shellfish, and some meats and vegetables. Certain bacteria in the gut microbiome are capable of breaking down dietary purines into uric acid, contributing to increased uric acid in the body. Other bacteria have the ability to degrade uric acid in the gut, thereby decreasing uric acid levels. High levels of uric acid are associated with several adverse health effects including gout, kidney stones, hypertension, and metabolic syndrome. A Good score indicates that your uric acid production pathway levels in the gut are low, suggesting an ability of your gut microbiome to degrade uric acid. A Not Optimal score reflects a higher microbial production and a lower degradation of uric acid. If your score is Not Optimal, you may see recommendations to limit foods high in purines and consume foods that contain polyphenols which can help balance the microbiome.

Salt Stress Pathways

Not Optimal

This score assesses the levels of activity of all microbial pathways that signal excessive salt in the gut environment. This kind of signaling activity, when high, suggests that you may need to adjust your salt or sodium intake and/or your hydration levels. Too much salt for your gut microbiome makes your gut environment less favorable for some beneficial or probiotic organisms to thrive. A good score means that that pathway levels that signal microbial salt stress are low.

Test Name: Gut Intelligence Test, Human Gene Expression Test, Saliva Gene Expression Test

Customer Name: Vasilios Syrros

DOB: 01/01/1971

Energy Production Pathways

Not Optimal

Your Energy Production Pathways score evaluates the efficiency of your cell's ability to convert carbohydrates (glucose) into energy molecules that fuel your cells (otherwise known as ATP). If this score is Not Optimal it suggests that your mitochondrial activity may be relatively sluggish and could use a boost from certain polyphenols, vitamins, or amino acids known to increase cellular ATP production.

Microbiome-Induced Stress

Not Optimal

Your Microbiome-Induced Stress score offers insights about those microbial activities that can lead to stress or inflammatory response not only in your gut, but also in your body. Toxins and other molecules produced by the gut microbiome may enter the bloodstream and contribute to cellular stress and pro-inflammatory pathways throughout your body. If this score is not optimal, it may suggest that these microbial activities need to be mitigated by either suppressing them, balancing them out with beneficial and protective microbial activities, or by strengthening your gut lining to prevent them from crossing the gut lining and affecting the rest of your body.

Dental Health

Good

Scientists have long studied the microbes in our mouths and determined that the balance of oral microbes significantly impacts our dental health. While some bacteria contribute to plaque formation and tooth decay, others are actually protective. This score assesses the balance of microbes in the mouth and the activity of microbes that contribute to cavity formation. A Good score reflects a healthy balance between these microbes and might indicate a lower risk for cavities. If your score is Not Optimal, we'll provide you with food and supplement recommendations designed to balance the oral microbiome, targeting plaque formation and oral pH which is necessary to keep everything in balance.

Kidney-Heart Health

Good

Your kidneys and heart work together to keep you feeling your best, and both can influence the health of the other. The kidneys impact heart health through their central role in the regulation of blood pressure as well as their ability to filter blood to remove metabolites that can injure your blood vessels and other tissues. Metabolites like homocysteine are produced by our cells as a part of normal metabolism but can cause oxidative stress if not recycled into beneficial glutathione (the master antioxidant) or filtered from the blood by the kidneys. A Good score reflects healthy human gene expression related to homocysteine metabolism as well as balanced renin-angiotensin hormone activity that influences blood pressure. If your score is Not Optimal, we'll provide you with food and supplement recommendations aimed to increase vitamins and minerals that aid in homocysteine breakdown and blood pressure management.

Cavity Promoting Microbes

Good

Cavities are a leading cause of tooth decay which is among the world's most common health problems. You can consider yourself lucky if you've never had one. The Cavity Promoting Microbes score assesses specific microbes that can contribute to dental cavities. Streptococcus Mutans (S. mutans) is commonly found in the mouth and can accumulate on the surface of teeth leading to tooth decay. Sugary foods, different types of starches, and poor oral hygiene can also contribute to the build-up of these microbes. The Cavity Promoting Microbes score generates food and supplement recommendations designed to balance the oral microbiome, targeting plaque formation, and neutralizing oral pH balance.

Cavity Promoting Pathways

Good

Cavities are a leading contributor to tooth decay and can impact the health of your mouth. They're considered one of the world's most common health problems. The Cavity Promoting Pathways score is an assessment of microbial activities which contribute to dental cavities, as well as activities that protect against dental cavities. This score also takes a deeper dive into cavity biofilm formation and acid production that can contribute to cavity formation. The Cavity Promoting Pathways score generates food and supplement recommendations designed to harmonize the oral microbiome, reduce plaque formation, and balance oral pH.

LDL Cholesterol Pathways

Good

This score is an assessment of gene expression in the blood associated with cholesterol accumulation, oxidation, and clearance. High LDL cholesterol levels are thought to be pro-atherogenic (increasing the likelihood of plaque build-up in the arteries) and a potential risk factor for developing cardiovascular disease, especially when in conjunction with high blood pressure, oxidative stress, and inflammation. As such, major medical institutions focused on cardiovascular health strongly recommend avoiding high LDL cholesterol levels. If high LDL cholesterol levels and oxidative stress are left unchecked, LDL cholesterol can become oxidized, making it more susceptible to uptake by immune cells, particularly macrophages. When macrophages engulf oxidized LDL, they can transform into foam cells and contribute to the development of plaques within arterial walls. A Good score reflects a healthy balance of LDL cholesterol. If your score is Not Optimal, decreasing foods highest in saturated fat and replacing them with foods high in polyunsaturated fats may be helpful.

Renin-Angiotensin Pathways

Good

This score analyzes gene expression associated with blood pressure management. The renin-angiotensin system is used by the body to regulate blood pressure in response to changes like hydration status and electrolyte levels. It is a critical link between the kidneys and the cardiovascular system, and while it’s not the only system that manages blood pressure, it is often a target for medications designed to treat high blood pressure. Luckily, the renin-angiotensin system is also very responsive to diet and nutrition. A Good score reflects a balanced renin-angiotensin system. A Not Optimal score indicates increased human RNA signals related to smooth muscle dysregulation, oxidative stress, sodium channel dysfunction, and inflammation, activities that have been associated with an increased risk for high blood pressure. If your score is Not Optimal you may see recommendations that directly address the renin-angiotensin system by impacting renin activity and/or other effects of renin activity.

Anxiety Associated Pathways

Good

This score assesses host pathway activities associated with anxiety. This includes pathways involved in DNA methylation, cell cycle signaling, histone packaging, circadian rhythm, neutrophils, calcium signaling, and stress which are commonly dysregulated in individuals experiencing symptoms of anxiety. A score that is Not Optimal does not equate to an anxiety diagnosis, but it does indicate increased pathway activities that may contribute to anxiety. To improve this score, you may see nutritional recommendations rich in polyphenols or vitamins which support improvements in these anxiety-associated pathways.

Oral Urease Activity Pathways

Good

This score assesses oral microbial pathway activities associated with the generation of urea, a waste product of bacteria and many living organisms. Urease activity (the enzyme required to metabolize urea) is expressed by commensal oral bacteria. Urease activity in the mouth can be beneficial because as urea is metabolized, the pH increases, which helps commensal bacteria survive harsh acidic environments. This activity provides a benefit for the mouth because a higher pH reduces your risk for unfavorable microbial activities like cavities, bad breath, and gum disease. A Good score reflects a healthy pH balance in the mouth. If your score is Not Optimal, you may see recommendations for supplements or foods that help increase urease activity or increase the pH of the mouth.

Oral Ammonia Production Pathways

Good

This score assesses oral microbial pathway activities associated with the production or consumption of ammonia. Together, these pathways indicate the overall balance of ammonia in the oral cavity, where some ammonia production provides a protective effect. Ammonia is an alkaline molecule that helps raise the pH of the mouth. Having a prolonged acidic environment, or low pH, in the mouth promotes unwanted microbial activities like cavity formation, bad breath, and gum disease. A Good score reflects a healthy balance of ammonia production, contributing to a balanced pH in the mouth. If your score is Not Optimal, you may see recommendations for supplements or foods that help increase microbial ammonia production or increase the pH of the mouth.

Vascular Health

Average

This score assesses how the body is using Vitamin D and processing LDL cholesterol, both of which strongly influence the integrity and function of the vascular system. The vascular system consists of a system of tubes called arteries, capillaries, and veins, that carry blood away from and to the heart. These tubes are dynamic and are constantly responding to hormones, metabolites, and stress by expanding and contracting. The integrity of the vascular system can be harmed by low Vitamin D levels and the accumulation of LDL cholesterol, causing stiffening or obstruction of the arteries. A Good score indicates healthy Vitamin D levels and LDL cholesterol utilization. A score that is Not Optimal may indicate a need for increased Vitamin D in the diet and/or foods and supplements that help to manage LDL cholesterol.

Microbiome-Heart Health

Average

The health of your microbiome is tied to the health of your heart through your cardiovascular system. When inflammation is produced by the microbiome in the gut, it can enter the bloodstream and negatively impact blood vessels. This score assesses toxins and inflammatory products, such as TMA, p-cresol, and indol, that are produced by the gut microbiome. When reaching the bloodstream, they can increase the body's susceptibility to oxidative stress and plaque formation in the vascular system. A Good score indicates your gut microbiome is having little impact on your heart health from increased oxidative stress and proinflammatory activity in the gut. If your score is Not Optimal, we'll provide you with food and supplement recommendations designed to reduce the intake of nutrients used by the microbiome in the production of these inflammatory substrates.

Anxiety & Stress Response

Average

Our body's gene expression may actually impact how we perceive and manage stress. While it is normal for the body to respond to short-term stress, prolonged stress can negatively impact our health. This score combines insights from human gene expression related to cortisol metabolism and feelings of anxiety. Cortisol, our body's main stress hormone, regulates physiological processes related to stress including immune function, cardiovascular function, and cognition. Additionally, an accumulation of unfavorable cellular reactions like DNA methylation, down-regulated DNA repair pathways, and inflammation are all common problems in individuals experiencing anxiety. A Good score reflects a healthy balance of cortisol production and pathways related to anxiety. If your score is Not Optimal, we will provide you with food and supplement recommendations that help manage stress and feelings of anxiety by positively influencing anxiety-related pathways and cortisol production.

Test Name: Gut Intelligence Test, Human Gene Expression Test, Saliva Gene Expression Test

Customer Name: Vasilios Syrros

DOB: 01/01/1971

Cognitive Health

Average

Your brain is under constant changes based on your metabolism, which can affect your ability to receive and process information. You may notice these effects through changes in your ability to focus, recall memories, and react to mental stimuli. This score provides insights into metabolic influences like ammonia and lactic acid accumulation that might negatively impact your ability to think and focus. These byproducts can cross both the gut lining and blood-brain barrier, impact the body's pH balance and when accumulated, are associated with chronic fatigue syndrome and neurocognitive dysfunction. A Good score reflects a healthy metabolism of ammonia and lactic acid in the gut. If your score is Not Optimal, we'll provide you with food and supplement recommendations designed to reduce substrates that lead to the production of these byproducts and provide bacteria with alternative energy sources.

Oral Polyamine Production Pathways

Average

When it comes to bad breath, unpleasant-smelling polyamine compounds are one of the largest culprits. The amino acids ornithine, lysine, tryptophan, and citrulline are commonly found in foods and can be converted to volatile polyamines by microbes. These polyamines smell rotten, making breath smell worse when pathway activity is high. A Good score means that the activity of microbes producing volatile polyamines is low.

Oral Inflammatory Pathways

Average

Just as inflammation in the body is harmful to human health, acute or chronic inflammation of the gums can also have long-term health consequences. The Oral Inflammatory Pathways score assesses whether a mouth may contain periodontopathic bacteria (bacteria that cause gum inflammation) and if these bacteria are actively involved in gum inflammatory pathways. Inflammatory bacteria thrive in dental plaques and beneath the gums where they cooperatively form biofilms and produce signals that can trigger an inflammatory response. Chronic gum inflammation can cause loss of tooth enamel and dentin (the two outer layers of the teeth). A Good score reflects low inflammatory pathway activity in these areas. Nutritional recommendations for a Not Optimal score are designed to decrease levels of inflammatory bacteria and minimize the inflammatory activity of the oral microbiome.

Oral Mucin Degradation Pathways

Average

Mucin is a thick, gel-like substance that helps coat the gums, making it difficult for bacteria to latch onto them. Mucin protects your gums from bacteria that secrete acids capable of eroding holes in your gums. While it's normal to have some mucin degradation, high mucin degradation can be damaging. Over time, these holes can actually lead to 'leaky gums' allowing bacteria to slip into our bloodstream and contribute to inflammation. Long-term inflammation in the gums is a risk factor for gum disease, infection, cardiovascular disease, and may even disrupt brain function. A Good score reflects a healthy balance of microbes in the mouth that contribute to normal levels of mucin degradation. Your Oral Mucin Degradation Pathways score generates food and supplement recommendations designed to balance the oral microbiome and support the barrier function of your gums.

Homocysteine Pathways

Average

This score is an assessment of gene expression in the blood associated with the accumulation of homocysteine. Homocysteine is an amino acid that is a normal byproduct of cellular metabolism. Homocysteine is typically recycled to support beneficial folate metabolism, protein synthesis, or antioxidant glutathione production. However, if the production of homocysteine is significantly increased or recycling is impaired, then homocysteine can accumulate. High homocysteine levels are associated with blood vessel damage and an increased risk for cardiovascular disease. Fortunately, homocysteine balance can be addressed with nutrition. A Good score reflects a healthy balance in homocysteine pathways. If your score is Not Optimal, increasing foods high in Vitamin B12, Vitamin B6, Vitamin B9, and Vitamin C may be helpful.

Uremic Toxin Production Pathways

Average

This score assesses microbial activities in the gut that cause the production of uremic toxins. Uremic toxins, like p-cresol and indoxyl sulfate, are created in the gut by microbes when certain compounds, such as tryptophan and tyrosine, are present. Uremic toxins then enter circulation where they can cause oxidative stress and harm the cells that line the vascular system. Uremic toxins are associated with an increased risk of cardiovascular disease, especially when coupled with impaired kidney function. A Good score reflects a low level of microbial activity related to uremic toxin production. If your score is Not Optimal, limiting or avoiding foods and supplements high in tryptophan and tyrosine may be helpful.

Cortisol Pathways

Average

This score is an assessment of human gene expression that contributes to the accumulation of cortisol. Cortisol is a hormone produced in response to physical or emotional stress. You can think of cortisol as the first line of defense against danger, almost like the body's built-in alarm system. Some cortisol production is normal, but if cortisol remains consistently high over time it can cause wear and tear on the body and can contribute to dysfunction in energy metabolism, sleep regulation, immune function, skeletal growth, cardiovascular function, reproduction, and cognition. While the causes of elevated cortisol production are many, a few common causes include chronic stress, excessive alcohol consumption, and the use of certain medications. A Good score reflects a healthy balance of cortisol. If your score is Not Optimal, you may see recommendations for supplements or foods to help manage high cortisol production. Activities that help reduce your perceived stress may also help improve this score.

Serotonin Promoting Microbes

Average

This score is an assessment of microbial taxa which facilitates the accumulation of serotonin. You may know serotonin as a brain neurotransmitter, but it also plays a key role in gut health. Serotonin acts as a gastrointestinal signaling molecule that conveys signals from the gut to neurons, influencing digestion through intestinal peristalsis, motility, secretion, vasodilatation, and the absorption of nutrients. Serotonin is important in brain functions such as mood, sleep, and appetite regulation. A Good score reflects a healthy balance of serotonin. A Not Optimal score suggests a low activity of microbes known to promote serotonin production and may be a result of diet, chronic stress, and/or antibiotic use.

Lactic Acid Pathways

Average

Lactic acid is a natural byproduct of microbial fermentation of carbohydrates in the gut. Lactic acid production in the gut is generally healthy, as it can be converted into beneficial short-chain fatty acids such as butyrate. However, when the lactic acid isn't easily converted into beneficial substrates, it can accumulate in the colon. High lactic acid accumulation has been linked to chronic fatigue syndrome and neurocognitive dysfunction. A Not Optimal Lactic Acid Pathways score suggests a high level of activity in microbes that produce lactic acid, accompanied by a low level of activity in microbes that convert lactic acid to beneficial substrates, leading to the accumulation of lactic acid in the gut. This score may be improved by providing lactic acid-producing bacteria with alternative energy sources like prebiotic fiber and arginine, and by limiting simple sugars in the diet.

Ammonia Production Pathways

Average

This score assesses the levels of activity of all microbial pathways that are associated with the production of ammonia. Ammonia gas can be made from amino acids as a byproduct of breaking down protein in food or from ingested nitrate or nitrite molecules found in food preservatives or additives. This activity can contribute to pro-inflammatory patterns potentially harmful to the gut lining and gut motility (the movement of food through your digestive tract). Ammonia produced in the gut significantly contributes to ammonia in the body which can negatively impact neurotransmitter production, cognitive function, and mitochondrial health. A Good score means that the activity of ammonia production pathways in the gut is low. A Not Optimal score often indicates a diet that is high in certain amino acids that contribute to ammonia production. In this case, replacing some animal-based proteins with plant-based proteins and incorporating probiotics to aid in rebalancing the gut have been shown to help reduce ammonia levels in the body.

Oral LPS Biosynthesis Pathways

Average

This score assesses the level of oral microbial activity leading to the production of LPS (lipopolysaccharides) in your mouth. When pathways signaling the production of LPS are high, this indicates higher-than-usual activity by opportunistic organisms that produce LPS, a molecule known to be pro-inflammatory, especially if it passes to the bloodstream through “leaky” gums. This is one of the mechanisms by which oral health can directly impact systemic health. The Oral LPS Biosynthesis Pathways score generates recommendations designed to limit LPS-induced inflammation and its impact on oral and systemic health.

Immune System Clearing

Average

Your immune system curtails harmful foreign threats. Imagine your immune system is like an army fighting against harmful invaders such as germs or bacteria. Once they've beaten the invaders, your immune system should return to normal, much like an army standing down. Successful calming of the immune response reduces inflammation and clears immune-activating signals. If the immune system stays on high alert for too long, it can cause problems, for example, long-term swelling, pain, and chronic inflammatory conditions. This score assesses gene expression pathways related to how your body calms the immune system, such as producing pro-resolving molecules that turn off the inflammatory cascade, enhancing the clearance of pathogens and cellular debris, inhibiting immune cell migration to past infection sites, and reducing pro-inflammatory molecule production. A Not Optimal Immune System Clearing score suggests your immune system might remain active too long, possibly due to stress, infection, foreign particles, allergies, or an excess of pro-inflammatory signals, prompting sustained immune system activity. This could mean your body's defense system is working too hard and needs some help calming down.

Metabolic Fitness

Average

This score represents active microbial organisms and functions that are associated with your blood sugar, insulin resistance, or weight control. A good score (in the green zone) means high activity of microbes and their functions favorably associated with your metabolic fitness. It is important to note that a Metabolic Fitness score that falls within the red zone does not necessarily translate to excessive weight loss or gain. Follow your recommendations to support or improve healthy metabolic functions.

Cellular & Energy Efficiency

Average

When cells lack the nutrition they need and can't function properly or produce energy efficiently over time, your metabolism slows, your body ages faster, and illness may occur. Your Cellular & Energy Efficiency score offers a complete picture of what is happening in the human body on the cellular level and takes into account the aging of your cells, cellular stress, cellular inflammation, along with the health of your mitochondria. What a Not Optimal score means: A Not Optimal score can mean that cells are not functioning optimally (not efficiently producing energy, not repairing DNA damage, or clearing metabolic waste products), resulting in accelerated aging as well as poor metabolic, cardiovascular health, and brain health. Your cells could be undergoing stress due to oxidative stress, inflammation, or environmental toxins. To improve this score, we may recommend antioxidants or anti-inflammatory food and supplements, sufficient hydration, polyphenols to neutralize free radicals, and supplements that act as cofactors for these pathways. What a Good score means: A Good score means that your cells are producing enough energy to sustain your needs and your cells are efficiently “cleaning up” cellular waste products (such as free radicals). Did you know? Mitochondria are considered the powerhouse of the cell, supplying energy for basic cellular functions like care and repair of cells in the body. Each cell contains hundreds to thousands of mitochondria that have their own DNA, known as mitochondrial DNA. In addition to analyzing your microbial and human gene expression, Viome also analyzes the gene expression from your mitochondria.

Immune System Health

Average

A healthy immune system is essential for fighting off outside invaders like viruses, bacteria, and fungi, neutralizing environmental toxins, and preventing changes within cells that lead to disease. Your Immune System Health score assesses your immune response based on the inflammatory activities throughout your body as well as inside of your gut. This score considers over 14 functional pathway scores, including those related to your body's ability to clear toxins from the gut, manage oxidative stress, and mitigate pro-inflammatory pathways. The Immune System Health score assesses immune system activity related to immune surveillance (innate immunity,) immune communication (cytokine and interleukin signaling), and immune response to microbial threats (adaptive immunity) or injury (wound healing). What a Not Optimal score means: A Not Optimal score means that your immunity is low and your immune system's preparedness to invading bacteria or viruses needs support. We may recommend specific foods or supplements that either address harmful microbial activities, stimulate anti-inflammatory nutrients (like the short-chain fatty acids produced by the gut microbiome), or suppress pro-inflammatory molecules or allergy-related reactions in the body. What a Good score means: A Good score indicates that your immune system is prepared to respond to pathogens, provides support for tissue remodeling/wound repair, and manages pro-inflammatory pathways in the body knowing also when to scale down immune activity while also calming immune responses when there is not a threat. Did you know? Your gut is home to 70% of your immune system, making it your largest immune organ and defense against the invisible invaders that seek to use you as a host to infect and reproduce. Your immune system may not be ready to fight the invading bacteria or viruses if it's dealing with inflammation caused by cellular stress, an overactive immune system, or toxins produced by your gut microbiome due to an unhealthy diet.

Oral Health

Average

Your digestive system begins with your mouth and is often your first line of defense against pathogens. Your mouth is home to over 6 billion bacteria which are commonly referred to as the oral microbiome. Your oral microbiome is distinct from the gut microbiome but its influence is just as great. Oral health impacts systems beyond the mouth and is intricately connected to your cardiovascular, immune, bone, and brain health. Your Oral Health score integrates six functional pathway scores that assess your oral microbiome, providing you with a scorecard of key components of your oral health. What a Not Optimal score means: A Not Optimal score indicates that your oral microbiome may be producing compounds that promote inflammation, cavity formation, and 'leaky gums'. Leaky gums allow bacteria and their metabolites to slip into our bloodstream and contribute to inflammation elsewhere in the body. What a Good score means: A Good score indicates an optimized oral microbiome that maximizes protective microbial pathways supporting gum health, reduced plaque and cavity formation, and fresh breath. Did

you know? The oral microbiome is the second-largest and second-most diverse microbiome in the body, just behind the gut. These microbes shape our gut microbiome as they travel through the digestive system and further determine which microbes more abundantly appear in the colon. Ultimately the health of our oral microbiome impacts our entire body.

Gut Active Microbial Diversity

Average

This score is your percentile for the total count of active microbial species detected and sequenced from your stool sample. Both microbial richness (number of microbes) and evenness (the balance of microbial species) in your gut microbiome play a role in determining the value of Gut Active Microbial Diversity. These metrics are directly influenced by how much microbial RNA is picked up from a given sample compared to what we normally see from the population. A higher percentile indicates a more diverse gut microbiome compared to the Viome population. It is important to keep in mind that Gut Active Microbial Diversity represents the overall diversity of microbes in your gut, which may include both “good” and “bad” microbes. While greater diversity in the gut microbiome has been associated with health benefits, it is certainly not the only piece of the puzzle. This is why Viome also provides biological pathway scores, in other words, what the microbes are actually doing.

Oral Active Microbial Diversity

Average

This score is your percentile of the total active microbial species detected and sequenced from your sample. Both microbial richness (number of microbes) and evenness (the balance of microbial species) in your oral microbiome play a role in determining the value of your Oral Active Microbial Diversity. These metrics are directly influenced by how much microbial RNA is picked up from a given sample. A higher percentile indicates a more diverse oral microbiome compared to the Viome population. It is important to keep in mind that Oral Active Microbial Diversity represents the overall diversity of microbes in your mouth, which may include both “good” and “bad” microbes. While the scientific community continues to uncover the importance of oral microbial diversity, it is still unclear whether a more diverse oral microbiome is optimal. However, we do know that it is not the only piece of the puzzle. This is why Viome also provides biological pathway scores to assess what the microbes are actually doing. Viome will continue to communicate findings as soon as we learn more!

Heart & Metabolic Health

Average

The heart is central to our health, pumping vital oxygen and nutrients throughout the body. While many people simply think of managing their cholesterol to improve their cardiovascular health, in reality, there are many factors at play including oxidative stress, endothelial function, kidney function, and vitamin and mineral status. Your Heart & Metabolic score combines insights from microbial and cellular transcripts to give you a comprehensive view of how your diet and lifestyle may be impacting your cardiovascular health. What a Not Optimal score means: A score that is Not Optimal may indicate high oxidative stress in the body due to toxins or inflammatory molecules produced either by the microbiome or as a byproduct of normal metabolism which may promote inflammation, atherosclerotic plaque formation, or negative changes in blood pressure. To improve this score, we may recommend antioxidants, vitamins, herbs, or minerals within foods and supplements to help minimize oxidative stress and support metabolism and vascular function. What a Good score means: A Good score implies that your microbiome and diet are supporting your heart and metabolic health by limiting the impact oxidative stress, inflammation, and elevated blood pressure have on your biology. Did you know? The heart beats about 2.5 billion times during the average lifetime. This fist-shaped organ in the center of your chest delivers 5 to 6 quarts of freshly oxygenated blood, hormones, and nutrients to your cells every minute and removes metabolic waste. The healthy functioning of the heart is essential for human life.

Butyrate Production Pathways

Average

This score assesses the levels of activity of all microbial pathways that lead to the production of a beneficial nutrient - butyrate. Butyrate is a short-chain fatty acid known to positively affect many wellness areas from gut lining to insulin sensitivity and satiety (feeling full). Butyrate is the primary energy source for cells lining the colon and provides an anti-inflammatory effect. A score that is Not Optimal often indicates a lack of prebiotic fiber in the diet and means that your microbial butyrate production could use a good boost! Individuals with low butyrate production activity may benefit from supplements or foods that either feed or add butyrate-producing microbes into the gut ecosystem, like foods rich in fiber and probiotics.

Brain & Cognitive Health

Average

The brain is the master controller of our health, constantly monitoring and adapting to the world around us while coordinating activities between various organ systems. At the same time, it carries all the thoughts, emotions, and memories that make us individuals, making it arguably the most important organ in our body. The gut microbiome aids in the development of our brain and nervous system as well as the management of neurological functions. Many neurotransmitters produced in the gut like serotonin, GABA, and other microbial metabolites, can also strongly influence brain function. Other important factors that influence our brain and cognitive health come from cellular signals associated with stress management, circadian rhythm, and methylation. Your Brain & Cognitive Health score combines insights from microbial and cellular transcripts to give a comprehensive view of how your diet and lifestyle may be impacting your cognitive health. What a Not Optimal score means: A score that is Not Optimal may indicate that there are biological processes happening in the body that can contribute to poor cognitive health such as an imbalance of hormone production, accumulation of ammonia and/or lactic acid, upregulated DNA methylation, and down-regulated DNA repair pathways. To improve this score, we may recommend foods, vitamins, minerals, and herbs to boost your mood or cognitive health and support healthy pathways in the gut microbiome. What a Good score means: A good score implies that your microbiome and diet are supporting your brain and cognitive health through appropriate metabolism of harmful microbial metabolites, DNA maintenance, and the production of hormones and neurotransmitters. Did you know? The brain is nearly 60% fat, and those fats are critical for its functioning. Not supporting your body with the optimal amount of fats may not only leave you hungry and hurt your cognitive health, but it may also increase your risk for Alzheimer's. Supporting your brain health by eating healthy fats on your Superfood or Enjoy list can help your cognitive functioning and your overall health.

LPS Biosynthesis Pathways

Average

This score assesses the levels of activity of all microbial pathways leading to the production of LPS (lipopolysaccharides) in your gut. LPS is a pro-inflammatory molecule that gut microbes make, which can trigger your immune system response, especially if it passes to the bloodstream through the gut lining. This score is an important factor in assessing your inflammatory activity patterns.

Sulfide Gas Production Pathways

Average

This score assesses the levels of activity of all microbial pathways that result in the production of hydrogen sulfide gas. It can be made from some proteins that contain sulfur amino acids or from ingested sulfate or sulfite molecules found in foods like dried fruit, preserved meats, and some alcoholic beverages. This kind of activity, when high, contributes to pro-inflammatory patterns potentially harmful to the gut lining, as well as slowing of your motility (moving the food down your digestive tract). A good score means that the activity of sulfide production pathways is low.

Flagellar Assembly Pathways

Average

This score assesses microbial activities related to the production of flagella. Flagella are tail-like structures that microbes produce to help them move, often in response to a threat or undesirable environment in the gut. Flagella are produced by both commensal and opportunistic bacteria. When pathways signaling the production of flagella are high, this indicates higher-than-usual activity by opportunistic organisms that are known to have these structures. A Good score suggests a favorable microbial environment in the gut. If your score is Not Optimal, you may see recommendations for foods and supplements that help reduce flagellar formation and motility and create a more favorable environment in the gut.

Oxalate Metabolism Pathways

Average

This score assesses the level of activity of gut microbial pathways needed to break down or metabolize oxalates. Oxalate, also known as oxalic acid, is a naturally occurring compound found in many plant foods. Oxalate can form oxalate salts when they bind with minerals like calcium or magnesium, forming crystals that inhibit the absorption of necessary minerals and contribute to kidney stones. Additionally, a high oxalate load has been shown to contribute to impaired mitochondrial and immune function. In the gut, certain microbes have the ability to metabolize oxalates in the foods you consume, helping to digest and remove these oxalates. A Good score indicates a high level of oxalate-metabolizing activities in your gut. If your score is Not Optimal, this means your gut microbiome has limited or no ability to process oxalates. In this case, we recommend avoiding or minimizing foods highest in oxalates while incorporating probiotics to help rebalance the gut and improve oxalate metabolism activities.

Biofilm, Chemotaxis, and Virulence Pathways

Average

This score assesses the levels of all activity of all metabolic pathways that suggest a pro-inflammatory or hostile environment in the gut. This includes virulence factors, biofilm formation, and chemotaxis signaling, which are all important parts of your overall inflammatory activity patterns. When this score is relatively high it means that there is some threat in the environment and your microbes are trying to either defend themselves, attack each other, or move. This type of a "microbial war zone" can negatively impact your gut environment, and some of the "bullets" secreted by the microbes may trigger an immune response. A good score means that these pathway activities are at low levels.

Bile Acid Metabolism Pathways

Average

This score assesses the levels of activity of gut microbial pathways involved in the metabolism of bile acids. Normally bile acids are made by the liver to help with fat and vitamin absorption. Bile acids enter the colon in the form of bile salts. Your gut microbiota can change them back into bile acids, after which they can even be recycled back to the liver. If this activity is relatively high or excessive, possibly due to over-stimulation of bile production by certain foods, a lack of certain fibers in the diet, and/or an unbalanced gut microbiome it may be affecting your ability to break down fat or absorb nutrients properly. This can contribute to a pro-inflammatory environment or negative liver-related effects, as the microbiome's bile acid pathways have been implicated in the development of fatty deposits in the liver. A Good score means these pathway activity levels are low in your sample.

Mitochondrial Health

Average

Your Mitochondrial Health score is an integrative score that assesses the efficiency of the functions of your mitochondria that are required to meet your body's energy and metabolic demands. If your Mitochondrial Health score is not optimal, it could mean that your cells are not receiving enough energy to function efficiently, resulting in accelerated aging, and poor metabolism, cardiovascular, and brain health. Your supplement recommendations may include nutrients to boost mitochondria production or other coenzymes needed to increase cellular energy (ATP). Scroll down below to the section titled "How We Calculate This Score" to learn more. Did you know? Mitochondria are considered the powerhouse of the cell, supplying energy for basic cellular functions like care and repair of cells in the body. Each cell contains hundreds to thousands of mitochondria that have their own DNA, known as mitochondrial DNA. In addition to analyzing microbial and human gene expression, Viome also analyzes the gene expression from your mitochondria.

Cellular Stress

Average

This score assesses pathway activities that either lead to or are reflective of cellular stress, including oxidative stress, inflammatory stress, and genotoxic stress, among others. Too much stress at a cellular level can contribute to damage and dysfunction, which can expedite cellular aging and is associated with a range of health conditions. Many of these pathways are influenced by toxins in the body, environmental exposure, inflammation, and the body' s ability to perform detoxification and cellular repair. What a Not Optimal score means: A score that is Not Optimal may indicate high oxidative stress in the body due to toxins, diet, or inflammatory molecules produced by the body. To manage this score, we may recommend antioxidants and immune-boosting foods and supplements to help minimize oxidative stress. Avoiding cooking with oils at high temperatures and limiting sugars and ultra-processed meats may also help improve this score. What a Good score means: A good score implies that your diet and lifestyle are supporting detoxification pathways and limiting the impact of oxidative stress and inflammation on the body.

Cellular Senescence

Average

The Cellular Senescence score evaluates the deterioration of vital functions in your cells, commonly linked to cellular aging. It takes into account various factors, including the ability of your cells to produce, fold, transport, and break down proteins (cellular proteostasis), markers of DNA damage and repair signaling, the regulation of telomeres and cellular longevity, the progressive decline caused by oxidative stress and other forms of stress, as well as the diminishing signaling related to autophagy, stem cells, and regenerative processes. A score that is Not Optimal suggests that your body is not providing the needed cellular activities to remedy the stress processes, restore homeostasis, and rid cells of debris in an efficient manner. Did you know? As cells age, they stop dividing. We call this cellular senescence. These aging cells become dysfunctional, excreting more and more of their harmful byproducts into your body and the bloodstream, causing further cellular inflammation, damage, and stress throughout the body.

Mitochondrial Biogenesis Pathways

Average

Your Mitochondrial Biogenesis Pathways score assesses the activity levels of molecular pathways needed to biologically generate and maintain the cellular functions of your mitochondria to meet your body's energy and metabolic demands. This includes PGC1-alpha signaling - known as the master regulator of mitochondrial biogenesis. If this score is not optimal it may imply insufficient activity in your mitochondria support functions, either due to too much oxidative stress or deficiency in specific nutrients that may serve as cofactors needed for your specific mitochondrial biogenesis pathways (such as PGC1-alpha activators or NAD+ precursors).

Immune System Activation

Average

The immune system is a complex network of cells, tissues, and organs that work together to defend the body against harmful pathogens, such as bacteria, viruses, fungi, and parasites. Your immune system keeps you alive by activating the right pathways to fight off these threats. This score assesses human gene expression pathways related to the immune system's functioning. This includes immune cell response to antigens and cytokine signaling for immune cell mobilization, apoptotic receptor activity, and DNA repair enzymes, along with transcriptional regulators that modulate immune response genes such as NF-kappa B. A Good score suggests that your immune system pathways show activity to support the immune defense. A Not Optimal score suggests there is a weak expression of genes that activate the immune system, which may result in a weakened immune response. Incorporating foods and supplements that help boost the immune response may help improve this score.

Test Name: Gut Intelligence Test, Human Gene Expression Test, Saliva Gene Expression Test

Customer Name: Vasilios Syrros

DOB: 01/01/1971

Biological Age: 46

Good

In order to determine your biological age, we assess the activities of your gut microbiome, your cells, and oral microbiome (if you collected a saliva sample) in order to determine how well you are aging in comparison with your chronological age. If your Biological Age is substantially higher than your chronological age, this means that at a cellular level, your body is aging faster compared with other people your age. Your food and supplement recommendations will target the underlying causes detailed in your other Integrative Health scores that have an impact on how you're aging internally.

Recommendations

It's here! Your personalized Viome recommendations.

Your recommendations
Your personalized recommendations are based on the activity of microbes in your gut and the information you've provided. Your recommendations are aimed at balancing your overall microbiome. Let's put it this way: Your food list highlights foods that will be transformed by your microbes into beneficial substances while limiting foods that will be transformed into harmful metabolites.
Remember, you and your microbiome are unique, and no single recommendation applies to everyone. The same foods can be beneficial for one person, neutral for another, and harmful for others. Ready to dig in?

Your foods
Your food recommendations have been classified into 4 ranks to help you achieve optimum health and well-being. These are:

1. **Superfoods.** Meet your food destiny. These are your most beneficial foods.
2. **Enjoy.** Build a strong foundation with these nutrient dense foods.
3. **Minimize.** You should still eat these foods (but within limits).
4. **Avoid.** These foods are your personal kryptonite.

Your recommended servings
We all struggle to figure out serving sizes on food labels because they only act as measurement tools, they are not personalized for you.
With your food list, you get personalized servings to inform you on how much you should eat from each food category in a given day. And under each food, you'll find Viome's serving size, so you know the exact amount of that food to eat.
Tip: If you are very active in a day, you can increase your servings from each food category proportionally for that day.
Once you master your total servings per day, you can aim to achieve diversity by eating your recommended servings for each food rank.

Before you get started
Your success means a lot to us. Read our tips below before you begin.

What About Allergies?

You may notice some foods that you are allergic or sensitive to in your recommended food lists. Err on the side of caution. If you know you have a reaction or dislike to a recommended food, please do not consume it.

Foods are specifically chosen based on your unique microbiome rather than on allergies.

What about viruses?

You may see some foods placed on your avoid list due to viruses. Viruses are known to infect foods and have been associated with an inflammatory response. Internal Viome studies suggest that temporarily avoiding the virus-related foods for 3 to 4 weeks may be sufficient to reduce or eliminate activity of the viruses. You do not have to avoid all virus-related foods at once. After temporarily removing any virus-related food, you may choose to reintroduce that food back into your diet.

When is it best to eat?

Aim to eat 3 meals a day, and you may also need to snack in between meals. Avoid eating 1 hour before you go to bed.

Go for variety

Explore foods that you haven’t tried and since we’re at it, alternate choices instead of eating the same food every day. Choose different foods from each of your superfood, enjoy, and minimize food categories based on your recommended amounts.

Listen to your body

Your recommended amounts are a guideline on the quantity of foods you should aim for. Stop eating once you are comfortably satiated or 80% full. Monitor how you feel, including your **hunger** , **energy level** , and **mood** or other forms of discomfort 1-3 hours after eating. If you consistently feel worse in any of these areas, you may need to adjust your food choices.

What else?

In addition to your food plan, your microbiome and your metabolism will gain an extra benefit from interval training at least 3 times per week.

Caloric restriction may provide more benefit than intermittent fasting.

My Foods

Veggies

72 recommended vegetables

12 avoid vegetables

8 servings of vegetables per day

Fruits & Grains

68 recommended fruits & grains

9 avoid fruits & grains

5 servings of fruits & grains per day

Proteins & Fat

114 recommended proteins & fats

19 avoid proteins & fats

8 servings of proteins & fats per day

Spices & Other

77 recommended herbs, spices & other

0 avoid herbs, spices & other

9 servings of herbs, spices & other per day

My Foods to Avoid

We recommend you avoid these foods

These are commonly known foods that will not benefit your overall wellness.

Alfalfa Sprouts
Veggies

Avoid

Gut Lining Health

Sprouts are highly susceptible to contamination by pathogens, such as E. coli. The growing process for sprouts, which includes a warm, moist environment and an abundance of nutrients, allows pathogens to survive. We recommend avoiding sprouts when your Gut Lining Health score is not optimal as you may be more at risk of pathogens crossing your gut lining and entering your bloodstream.

Artichoke
Veggies

Avoid

Methane Gas Production Pathways

Artichokes contain a type of carbohydrate that gut microbes can break down. For some people, their microbes make helpful compounds, like butyrate, from this carbohydrate. For other people, their microbes use these carbohydrates to produce methane gas, a gas that causes bloating and poor gut motility. Since your test results showed a high activity of microbes making methane gas, it's best to avoid artichokes.

Barley
Fruits & Grains

Avoid

Gut Lining Health

Gliadin is a protein found in barley. It has been shown to trigger the body to release zonulin, a protein that increases the permeability of tight junctions between cells in the gut lining, creating a leaky gut.

Beef (Fatty, Grass-Fed)

Proteins & Fat

Avoid

TMA Production Pathways

Beef contains carnitine, a compound that your microbes can use to produce TMA, a precursor to TMAO. TMAO is associated with metabolic and cardiovascular disorders.

Methane Gas Production Pathways

This food is rich in carnitine, a compound that can be converted into methane gas by some gut bacteria. Your results showed a high activity of methane gas production in the gut. Too much methane gas can disrupt your digestive system, causing damage to the gut lining, reduced motility, and gastrointestinal discomfort.

Beef (Lean, Grass-Fed)

Proteins & Fat

Avoid

Methane Gas Production Pathways

This food is rich in carnitine, a compound that can be converted into methane gas by some gut bacteria. Your results showed a high activity of methane gas production in the gut. Too much methane gas can disrupt your digestive system, causing damage to the gut lining, reduced motility, and gastrointestinal discomfort.

TMA Production Pathways

Beef contains carnitine, a compound that your microbes can use to produce TMA, a precursor to TMAO. TMAO is associated with metabolic and cardiovascular disorders.

Beet Sprouts

Veggies

Avoid

Gut Lining Health

Sprouts are highly susceptible to contamination by pathogens, such as E. coli. The growing process for sprouts, which includes a warm, moist environment and an abundance of nutrients, allows pathogens to survive. We recommend avoiding sprouts when your Gut Lining Health score is not optimal as you may be more at risk of pathogens crossing your gut lining and entering your bloodstream.

Bell Pepper
Veggies

Avoid

Plant virus

Your microbiome contains a plant virus that is known to infect this food. Since plant viruses in the microbiome are associated with an inflammatory response, we recommend avoiding this food for 30 days. Avoid all forms of the food, cooked or raw. After 30 days, reintroduce it slowly in small amounts and see how your body reacts.

Black Beans
Proteins & Fat

Avoid

Methane Gas Production Pathways

Black beans have a type of carbohydrate that gut microbes can break down. For some people, their microbes make helpful compounds from these carbohydrates. For other people, their microbes use the carbohydrates in black beans to produce methane gas, a gas that causes bloating and poor gut motility. Since your test results showed a high activity of microbes making methane gas, it's best to avoid black beans.

Broccoli Sprouts
Veggies

Avoid

Gut Lining Health

Sprouts are highly susceptible to contamination by pathogens, such as E. coli. The growing process for sprouts, which includes a warm, moist environment and an abundance of nutrients, allows pathogens to survive. We recommend avoiding sprouts when your Gut Lining Health score is not optimal as you may be more at risk of pathogens crossing your gut lining and entering your bloodstream.

Buffalo
Proteins & Fat

Avoid

TMA Production Pathways

Buffalo contains carnitine, a compound that your microbes can use to produce TMA, a precursor to TMAO. TMAO is associated with metabolic and cardiovascular disorders.

Methane Gas Production Pathways

This food is rich in carnitine, a compound that can be converted into methane gas by some gut bacteria. Your results showed a high activity of methane gas production in the gut. Too much methane gas can disrupt your digestive system, causing damage to the gut lining, reduced motility, and gastrointestinal discomfort.

Bulgur

Fruits & Grains

Avoid

Gut Lining Health

Gliadin is a protein found in bulgur. It has been shown to trigger the body to release zonulin, a protein that increases the permeability of tight junctions between cells in the gut lining, creating a leaky gut.

Caviar or Roe

Proteins & Fat

Avoid

TMA Production Pathways

Caviar contains choline, a compound your microbes use to produce TMA. Since TMA is a precursor to TMAO, which is associated with harmful metabolic and cardiovascular effects, avoiding foods highest in choline is recommended.

Chicory Root

Veggies

Avoid

Methane Gas Production Pathways

Chicory contains a type of carbohydrate that gut microbes can break down. For some people, their microbes make helpful compounds, like butyrate, from this carbohydrate. For other people, their microbes use these carbohydrates to produce methane gas, a gas that causes bloating and poor gut motility. Since your test results showed a high activity of microbes making methane gas, it's best to avoid chicory.

Couscous

Fruits & Grains

Avoid

Gut Lining Health

Gliadin is a protein found in couscous. It has been shown to trigger the body to release zonulin, a protein that increases the permeability of tight junctions between cells in the gut lining, creating a leaky gut.

Crab (Pacific)

Proteins & Fat

Avoid

Food sensitivity

You reported a sensitivity to this food.

Uric Acid Production Pathways

This food contains purines, which are broken down by your gut microbiome to produce uric acid. Your results suggest a high activity level of microbes producing uric acid in the gut. Excessive uric acid in the body contributes to unwanted health effects like gout, kidney stones, hypertension, and metabolic syndrome.

Egg Yolk (Chicken or Duck)

Proteins & Fat

Avoid

TMA Production Pathways

Egg yolks contain choline, a compound your microbes use to produce TMA. Since TMA is a precursor to TMAO, which is associated with harmful metabolic and cardiovascular effects, avoiding foods highest in choline is recommended.

Goat

Proteins & Fat

Avoid

Uric Acid Production Pathways

This food contains purines, which are broken down by your gut microbiome to produce uric acid. Your results suggest a high activity level of microbes producing uric acid in the gut. Excessive uric acid in the body contributes to unwanted health effects like gout, kidney stones, hypertension, and metabolic syndrome.

Haddock
Proteins & Fat

Avoid

Uric Acid Production Pathways

This food contains purines, which are broken down by your gut microbiome to produce uric acid. Your results suggest a high activity level of microbes producing uric acid in the gut. Excessive uric acid in the body contributes to unwanted health effects like gout, kidney stones, hypertension, and metabolic syndrome.

Hemp Hearts
Proteins & Fat

Avoid

Oral Flagellar Assembly Production Pathways

Nickel is used by pathogens in the mouth to enhance the pathogen's survivability. Avoiding foods highest in nickel can help reduce a pathogen's ability to survive in the oral cavity.

Hemp Milk
Proteins & Fat

Avoid

Oral Flagellar Assembly Pathways

Nickel is used by pathogens in the mouth to enhance the pathogen's survivability. Avoiding foods highest in nickel can help reduce a pathogen's ability to survive in the oral cavity.

Hemp Protein Powder
Proteins & Fat

Avoid

Oral Flagellar Assembly Pathways

Nickel is used by pathogens in the mouth to enhance the pathogen's survivability. Avoiding foods highest in nickel can help reduce a pathogen's ability to survive in the oral cavity.

Jerusalem Artichoke

Veggies

Avoid

Methane Gas Production Pathways

Jerusalem artichokes contain a type of carbohydrate that gut microbes can break down. For some people, their microbes make helpful compounds, like butyrate, from this carbohydrate. For other people, their microbes use these carbohydrates to produce methane gas, a gas that causes bloating and poor gut motility. Since your test results showed a high activity of microbes making methane gas, it's best to avoid Jerusalem artichokes.

Jicama

Veggies

Avoid

Methane Gas Production Pathways

Jicama contains a type of carbohydrate that gut microbes can break down. For some people, their microbes make helpful compounds, like butyrate, from this carbohydrate. For other people, their microbes use these carbohydrates to produce methane gas, a gas that causes bloating and poor gut motility. Since your test results showed a high activity of microbes making methane gas, it's best to avoid jicama.

Kamut

Fruits & Grains

Avoid

Gut Lining Health

Gliadin is a protein found in kamut. It has been shown to trigger the body to release zonulin, a protein that increases the permeability of tight junctions between cells in the gut lining, creating a leaky gut.

Lamb

Proteins & Fat

Avoid

TMA Production Pathways

Lamb contains carnitine, a compound that your microbes can use to produce TMA, a precursor to TMAO. TMAO is associated with metabolic and cardiovascular disorders.

Methane Gas Production Pathways

This food is rich in carnitine, a compound that can be converted into methane gas by some gut bacteria. Your results showed a high activity of methane gas production in the gut. Too much methane gas can disrupt your digestive system, causing damage to the gut lining, reduced motility, and gastrointestinal discomfort.

Mung Bean Sprouts
Veggies

Avoid

Gut Lining Health

Sprouts are highly susceptible to contamination by pathogens, such as E. coli. The growing process for sprouts, which includes a warm, moist environment and an abundance of nutrients, allows pathogens to survive. We recommend avoiding sprouts when your Gut Lining Health score is not optimal as you may be more at risk of pathogens crossing your gut lining and entering your bloodstream.

Onion
Veggies

Avoid

Methane Gas Production Pathways

Onions have a type of carbohydrate that gut microbes can break down. For some people, their microbes make helpful compounds from these carbohydrates. For other people, their microbes use the carbohydrates in onions to produce methane gas, a gas that causes bloating and poor gut motility. Since your test results showed a high activity of microbes making methane gas, it’s best to avoid onions.

Pecans
Proteins & Fat

Avoid

Oral Flagellar Assembly Production Pathways

Nickel is used by pathogens in the mouth to enhance the pathogen's survivability. Avoiding foods highest in nickel can help reduce a pathogen's ability to survive in the oral cavity.

Pinto Beans
Proteins & Fat

Avoid

Methane Gas Production Pathways

Pinto beans have a type of carbohydrate that gut microbes can break down. For some people, their microbes make helpful compounds from these carbohydrates. For other people, their microbes use the carbohydrates in pinto beans to produce methane gas, a gas that causes bloating and poor gut motility. Since your test results showed a high activity of microbes making methane gas, it's best to avoid pinto beans.

Plum

Fruits & Grains

Avoid

Plant virus

Your microbiome contains a plant virus that is known to infect this food. Since plant viruses in the microbiome are associated with an inflammatory response, we recommend avoiding this food for 30 days. Avoid all forms of the food, cooked or raw. After 30 days, reintroduce it slowly in small amounts and see how your body reacts.

Pork (Lean)

Proteins & Fat

Avoid

TMA Production Pathways

Pork contains carnitine, a compound that your microbes can use to produce TMA, a precursor to TMAO. TMAO is associated with metabolic and cardiovascular disorders.

Radish Sprouts

Veggies

Avoid

Gut Lining Health

Sprouts are highly susceptible to contamination by pathogens, such as E. coli. The growing process for sprouts, which includes a warm, moist environment and an abundance of nutrients, allows pathogens to survive. We recommend avoiding sprouts when your Gut Lining Health score is not optimal as you may be more at risk of pathogens crossing your gut lining and entering your bloodstream.

Scallops
Proteins & Fat

Avoid

Oral Flagellar Assembly Production Pathways

Nickel is used by pathogens in the mouth to enhance the pathogen's survivability. Avoiding foods highest in nickel can help reduce a pathogen's ability to survive in the oral cavity.

Shallot
Veggies

Avoid

Methane Gas Production Pathways

Shallots have a type of carbohydrate that gut microbes can break down. For some people, their microbes make helpful compounds from these carbohydrates. For other people, their microbes use the carbohydrates in shallots to produce methane gas, a gas that causes bloating and poor gut motility. Since your test results showed a high activity of microbes making methane gas, it’s best to avoid shallots.

Shrimp (Domestic)
Proteins & Fat

Avoid

Putrescine Production Pathways

Shrimp contains arginine, which your microbiome can change into putrescine, a byproduct of protein fermentation that can damage the gut lining.

Food Allergy

You self-reported an allergy to this food.

Sprouted Rye Bread
Fruits & Grains

Avoid

Gut Lining Health

Gliadin is a protein found in rye. It has been shown to trigger the body to release zonulin, a protein that increases the permeability of tight junctions between cells in the gut lining, creating a leaky gut.

Sprouted Wheat Bread
Fruits & Grains

Avoid

Gut Lining Health

Gliadin is a protein found in wheat. It has been shown to trigger the body to release zonulin, a protein that increases the permeability of tight junctions between cells in the gut lining, creating a leaky gut.

Triticale
Fruits & Grains

Avoid

Gut Lining Health

Gliadin is a protein found in triticale. It has been shown to trigger the body to release zonulin, a protein that increases the permeability of tight junctions between cells in the gut lining, creating a leaky gut.

Trout (Cold Water)
Proteins & Fat

Avoid

Uric Acid Production Pathways

This food contains purines, which are broken down by your gut microbiome to produce uric acid. Your results suggest a high activity level of microbes producing uric acid in the gut. Excessive uric acid in the body contributes to unwanted health effects like gout, kidney stones, hypertension, and metabolic syndrome.

Watermelon
Fruits & Grains

Avoid

Putrescine Production Pathways

Watermelon contains citrulline, which your microbiome can change into putrescine, a harmful byproduct of protein fermentation that is damaging to the gut lining.

My Superfoods

We recommend you eat more of these foods

These foods are specially forumulated to prioritize your gut's health and biodiversity.

Adzuki Beans

Proteins & Fat

3/4 cup

Superfood

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

GABA Production Pathways

Adzuki beans are a natural source of GABA, a neurotransmitter that supports mood and stress response. Eating foods that contain GABA supports the body when GABA Production Pathway activity is low.

Apple

Fruits & Grains

1 whole

Superfood

Oral Sulfide Production Pathways

Polyphenols from apples can help deodorize the mouth by reducing the volatile organic compounds that cause bad breath.

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Protein Fermentation

Apples are a source of pectin, a prebiotic fiber. Studies demonstrate that a low-fiber diet shifts the composition of the microbiome and results in increased protein fermentation in the gut due to the lack of fermentable carbohydrates available. Fibers like pectin, help decrease protein fermentation in the gut.

Digestive Efficiency

Apples contain pectin, which is a soluble fiber. Pectin enriches the mucus layer of the gut, protecting your gut lining, and supports healthy digestive movement.

Arugula

Veggies
1 cup

Superfood

Oral Sulfide Production Pathways

Dietary nitrates from vegetables like arugula are an efficient energy source for microbes in the mouth. When nitrates are present, it limits the microbial use of other compounds that produce volatile gasses. This helps reduce the production of gasses that cause bad breath.

Bee Pollen

Spices & Other
1 tbsp

Superfood

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Gut Lining Health

Kaempferol is a natural compound found in bee pollen that is released after it is broken down by gut microbes. Kaempferol promotes an increase in tight junction proteins in the gut lining, supporting a stronger gut barrier. If you've never had bee pollen, it's best to start with a small amount.

Beets

Veggies
1 cup

Superfood

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Oral Sulfide Production Pathways

Dietary nitrates from vegetables like beets are an efficient energy source for microbes in the mouth. When nitrates are present, it limits the microbial use of other compounds that produce volatile gasses. This helps reduce the production of gasses that cause bad breath.

Bone Broth (Fish)

Proteins & Fat
1 cup

Superfood

Methane Gas Production Pathways

Fish bone broth contains both vitamin B12 and omega-3 fatty acids, which have been shown to influence the gut microbiome balance in a way that reduces methane gas production.

Bone Broth (Mammal)

Proteins & Fat
1 cup

Superfood

Inflammatory Activity

Mammal bone broth contains glutamine, an amino acid that the body requires during times of stress or inflammation. Glutamine is a primary energy source for immune cells in the gut lining.

Gut Lining Health

Mammal bone broth has an important amino acid called glycine that helps protect and strengthen the digestive tract. This is done by preventing oxidative damage to the cells that line the digestive tract, regulating the immune system in the gut, and reducing inflammation.

Broccoli

Veggies
1 cup

Superfood

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Energy Production Pathways

Broccoli contains alpha-lipoic acid (ALA), which helps our bodies make energy. ALA is needed by enzymes in your mitochondria, the cell's powerhouse, allowing the mitochondria to produce energy for the body.

Brussels Sprouts

Veggies
1 cup

Superfood

Weight management

Brussels sprouts contain glucosinolates, which have been shown to help manage weight and balance hormones.

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Inflammatory Activity

Brussels sprouts are a source of vitamin C, which helps manage inflammatory activities in the gut through several mechanisms. Vitamin C is a powerful antioxidant that protects the gut microbiome from oxidative stress and also acts as a prebiotic in the gut promoting the growth and activity of beneficial bacteria in the gut.

Cabbage

Veggies
1 cup

Superfood

Gut Lining Health

Cabbage contains the amino acid glutamine. Glutamine plays a vital role in strengthening the gut barrier by serving as a primary fuel source for the cells lining the gut, helping these cells regenerate.

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Inflammatory Activity

Cabbage is a source of glutamine, an amino acid used by specific gut bacteria to produce butyrate. Butyrate helps strengthen the gut lining which limits inflammatory molecules from reaching the bloodstream.

Capers
Spices & Other
1 teaspoon

Superfood

Oral Butyrate Production Pathways

Quercetin, found in capers, has natural properties that help reduce the availability of substances that benefit oral pathogens, making it harder for pathogens to survive. Quercetin has also been shown to reduce gum inflammation (gingivitis) and alveolar bone loss (the structure that holds teeth in place).

Carp
Proteins & Fat
4 oz

Superfood

Vitamin D Pathways

Carp is rich in vitamin D, essential to many cardio and metabolic activities such as blood pressure control, healthy cellular growth, blood vessel repair, and immune response.

Chard
Veggies
1 cup

Superfood

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Gut Lining Health

Kaempferol is a flavonoid found in chard that is released following microbial metabolism in the gut. Kaempferol has been shown to promote an increase in tight junction proteins in the gut lining, supporting a stronger gut barrier.

Cinnamon
Spices & Other
1/4 teaspoon

Superfood

Putrescine Production Pathways

Cinnamon has been shown to inhibit the enzyme histidine decarboxylase, which microbes use to produce polyamines like putrescine.

Cocoa (Unsweetened)

Spices & Other
1 tablespoon

Superfood

Energy Production Pathways

The natural compounds called flavonoids found in cocoa help increase cellular energy production by activating genes involved in beta-oxidation, a process that uses fatty acids to generate energy.

Coffee

Spices & Other
1 cup

Superfood

Energy Production Pathways

Caffeine is known to stimulate the central nervous system, which increases alertness and reduces fatigue. Caffeine also helps increase cellular energy production by activating gene expression involved in mitochondrial function. When consuming foods with caffeine, be mindful of your total intake and timing of consumption.

Uric Acid Production Pathways

Coffee contains chlorogenic acid. Chlorogenic acid inhibits an enzyme involved in the production of uric acid, helping to lower uric acid levels in the body. Decaffeinated coffee offers the same benefits.

Cranberry

Fruits & Grains
1/2 cup

Superfood

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Oral Disease Promoting Microbes

The flavonoids in cranberries have antimicrobial effects against the bacteria that contribute to gum disease.

Oral Flagellar Assembly Production Pathways

The polyphenols in cranberries decrease the movement of harmful bacteria in the oral cavity by blocking the flagellar rotation. When pathogens produce flagellar tails, they use them in a swarming motion to move throughout the oral cavity. Blocking the ability of pathogens to move reduces their ability to survive and cause harm.

Dandelion Tea

Spices & Other
1 cup

Superfood

Digestive Efficiency

Dandelion tea contains sesquiterpene lactone, a natural plant compound. Sesquiterpene lactone gives dandelion its bitter taste and signals the body to make necessary digestive juices to aid in digestion and absorption of nutrients.

Fennel Bulb

Veggies
1 cup

Superfood

Protein Fermentation

Fennel bulbs contain histidine, an amino acid that is used to produce histamine. Histamine acts as a signaling molecule that stimulates the body's production of gastric acid needed to break down and digest proteins.

Digestive Efficiency

Fennel has traditionally been used to support healthy digestion. Fennel contains natural compounds that help relax the gastrointestinal tract muscles and promote the production of digestive juices, easing digestive discomfort. Fennel is also a source of fiber, promoting regular bowel movements.

Ghee

Proteins & Fat
1 teaspoon

Superfood

Gut Lining Health

Butter is a food source of butyrate, a short-chain fatty acid that is the primary fuel source for the cells that line your gut. By nourishing these cells, butyrate contributes to a stronger gut lining.

Ginger

Spices & Other
1 tablespoon

Superfood

TMA Production Pathways

Gingerol, a polyphenol found in ginger, alters the composition and activity of gut microbes. It can selectively inhibit the growth of bacteria involved in TMA production.

Grapefruit

Fruits & Grains
1 whole

Superfood

Protein Fermentation

Grapefruit contains a flavonoid called naringenin. Naringenin gives grapefruit its bitter taste and promotes the production of digestive juices to aid in the digestion and absorption of nutrients like protein.

Digestive Efficiency

Grapefruit contains natural enzymes that help the body break down carbohydrates and proteins. Additionally, the compounds in grapefruit stimulate the body to make digestive juices necessary to properly digest fats and fat-soluble vitamins.

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Grape Seed Oil

Proteins & Fat
1 tablespoon

Superfood

TMA Production Pathways

Grape seed oil contains an organic compound called 3,3-Dimethyl-1-butanol (DMB). DMB has been shown to inhibit TMA production by microbes and reduce levels of TMAO.

Green Tea

Spices & Other
1 cup

Superfood

Weight management

EGCG, found in green tea, supports fat metabolism and is linked to lower inflammation and oxidative damage.

Oral Sulfide Production Pathways

The flavonoids in green tea inhibit the growth of odor-causing bacteria and help decrease the production of volatile organic compounds that contribute to bad breath.

Oral Disease Promoting Microbes

EGCG has antimicrobial effects against bacteria that contribute to gum disease. Try swishing green tea in your mouth for a few minutes before swallowing.

Herring

Proteins & Fat
3 ounces

Superfood

Inflammatory Activity

Essential fatty acids, like those found in herring, are critical for a stable microbiome. They increase microbial diversity and beneficial butyrate-producing bacteria. Butyrate is anti-inflammatory and promotes a strong gut lining by tightening the junctions between cells to prevent inflammatory molecules from reaching the bloodstream.

Kiwi

Fruits & Grains
2 whole

Superfood

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Uric Acid Production Pathways

Vitamin C is crucial in managing uric acid in the body. Vitamin C prevents the body from making too much uric acid, makes it easier for your kidneys to eliminate uric acid through urine, and reduces oxidative damage caused by uric acid.

Lime

Fruits & Grains
1 whole, juiced

Superfood

Uric Acid Production Pathways

Limes contain polyphenols that block the enzyme responsible for producing uric acid from purines in foods. Blocking this action helps manage uric acid production.

Maitake Mushrooms

Veggies
1 cup, diced

Superfood

Vitamin D Pathways

Maitake mushrooms are rich in vitamin D, essential to many cardio and metabolic activities such as blood pressure control, healthy cellular growth, blood vessel repair, and immune response. Exposing mushrooms to sunlight for as little as 15 minutes can dramatically increase Vitamin D concentration.

Matcha

Spices & Other
1 teaspoon

Superfood

Energy Production Pathways

Caffeine is known to stimulate the central nervous system, which increases alertness and reduces fatigue. Caffeine also helps increase cellular energy production by activating gene expression involved in mitochondrial function. When consuming foods with caffeine, be mindful of your total intake and timing of consumption.

Morel Mushrooms

Veggies
1 cup, diced

Superfood

Vitamin D Pathways

Morel mushrooms are rich in vitamin D, which is essential to many cardiovascular and metabolic activities such as blood pressure control, healthy cellular growth, blood vessel repair, and immune response. Exposing mushrooms to sunlight for as little as 15 minutes can dramatically increase Vitamin D concentration.

Olive Oil

Proteins & Fat
1 tablespoon

Superfood

TMA Production Pathways

Olive oil contains an organic compound called 3,3-Dimethyl-1-butanol (DMB). DMB has been shown to inhibit TMA production by microbes and reduce levels of TMAO. Olive oils from Turkey, Spain, Greece, and/or California typically have higher levels of DMB.

Gut Lining Health

Essential fatty acids found in olive oil are critical for a stable microbiome. They increase microbial diversity and beneficial butyrate-producing bacteria. Butyrate is anti-inflammatory and promotes a strong gut lining by tightening the junctions between cells that line the gut.

Oregano

Spices & Other
1/4 teaspoon

Superfood

Inflammatory Activity

Oregano contains polyphenols that balance your microbiome by encouraging the growth of beneficial bacteria and inhibiting the growth of harmful bacteria. Polyphenols modulate inflammatory pathways in the gut. They can inhibit the production of pro-inflammatory molecules, such as cytokines and prostaglandins, and suppress the activity of enzymes involved in the inflammatory process.

Oyster Mushrooms

Veggies

1 cup, diced

Superfood

Oral Flagellar Assembly Production Pathways

Flagella are tiny, tail-like structures that pathogens produce to help them move and are related to the pathogen's ability to cause damage. Leucine, an amino acid found in oyster mushrooms, reduces flagella formation by inhibiting the expression of genes needed to create flagella.

Papaya

Fruits & Grains

1 cup, sliced

Superfood

Inflammatory Activity

Papaya contains polyphenols that balance your microbiome by encouraging the growth of beneficial bacteria and inhibiting the growth of harmful bacteria. Polyphenols modulate inflammatory pathways in the gut. They can inhibit the production of pro-inflammatory molecules, such as cytokines and prostaglandins, and suppress the activity of enzymes involved in the inflammatory process.

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Protein Fermentation

Papaya contains papain, which is a digestive enzyme. Papain helps break down proteins into amino acids to be absorbed in the small intestine. Proper digestion of proteins helps reduce the likelihood of proteins reaching the large intestine, where they can be fermented by gut microbes to produce harmful metabolites.

Parsley

Veggies

1 cup

Superfood

Oral Sulfide Production Pathways

Polyphenols from parsley deodorize the mouth by reducing the volatile organic compounds that cause bad breath.

Peppermint (Fresh)

Spices & Other
1 tablespoon

Superfood

Oral Sulfide Production Pathways

Polyphenols from peppermint deodorize the mouth by reducing the volatile organic compounds that cause bad breath.

Pistachios

Proteins & Fat
35 nuts

Superfood

Energy Production Pathways

Pistachios contain CoQ10. CoQ10 has an important role in our cells' power production system called the mitochondrial electron transport chain. It acts as a carrier for electrons, creating a proton gradient in the mitochondria, which drives the production of ATP. ATP is the main energy source that all cells in your body use.

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Portabella Mushrooms

Veggies
1 cup, diced

Superfood

Vitamin D Pathways

Portabella mushrooms are rich in vitamin D, essential to many cardio and metabolic activities such as blood pressure control, healthy cellular growth, blood vessel repair, and immune response. Exposing mushrooms to sunlight for as little as 15 minutes can dramatically increase Vitamin D concentration.

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Raspberry

Fruits & Grains

1 cup

Superfood

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Gut Lining Health

Raspberry contains quercetin. Quercetin regulates the expression and function of tight junction proteins, helping to strengthen and preserve the integrity of the gut lining.

Supports mitochondrial function

Raspberries are packed with anthocyanins, which support mitochondrial function by scavenging free radicals and reducing oxidative stress, ultimately leading to more efficient energy production and reduced muscle fatigue.

Rhubarb

Fruits & Grains

1 cup, sliced

Superfood

Oral Sulfide Production Pathways

Dietary nitrates from vegetables like rhubarb are an efficient energy source for microbes in the mouth. When nitrates are present, it limits the microbial use of other compounds that produce volatile gasses. This helps reduce the production of gasses that cause bad breath.

Sauerkraut

Veggies

1 cup

Superfood

Inflammatory Activity

The probiotics found in sauerkraut help restore and promote diversity and balance in your microbiome. This helps to decrease and prevent inflammation in the gut and manage symptoms of gastrointestinal distress.

Methane Gas Production Pathways

Probiotics, like those in sauerkraut, help rebalance the gut microbiome and reduce methane gas-producing microbes.

Weight management

As a fermented food, sauerkraut contains live beneficial bacteria (probiotics) that support a healthy gut microbiota. Research shows that a healthy gut microbiota composition plays a role in weight management.

Shiitake Mushrooms

Veggies
1 cup, diced

Superfood

GABA Production Pathways

Shiitake mushrooms are a natural source of GABA, a neurotransmitter that supports mood and stress response. Eating foods that contain GABA supports the body when GABA Production Pathway activity is low.

Soybeans (non-GMO)

Proteins & Fat
1/2 cup

Superfood

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Energy Production Pathways

Soybeans contain CoQ10. CoQ10 has an important role in our cells' power production system called the mitochondrial electron transport chain. It acts as a carrier for electrons, creating a proton gradient in the mitochondria, which drives the production of ATP. ATP is the main energy source that all cells in your body use.

Spearmint (Fresh)

Spices & Other
1 tablespoon

Superfood

Oral Sulfide Production Pathways

Polyphenols from spearmint deodorize the mouth by reducing the volatile organic compounds that cause bad breath.

Strawberry

Fruits & Grains

1 cup

Superfood

Uric Acid Production Pathways

Strawberries are a source of vitamin C, which is crucial in managing uric acid in the body. Vitamin C prevents the body from making too much uric acid, makes it easier for your kidneys to eliminate uric acid through urine, and reduces oxidative damage caused by uric acid.

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Sweet Potato or Yam

Veggies

1/2 cup

Superfood

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

Inflammatory Activity

Saponins, found in sweet potatoes and yams, increase the diversity and abundance of butyrate-producing and other beneficial bacteria, such as Bifidobacterium species. Studies indicate that saponins decrease inflammatory pathways that regulate the immune response.

Tofu

Proteins & Fat

3/4 cup

Superfood

Good blood sugar response

Each person has a unique blood sugar response to foods rich in carbohydrates (and natural sugar). Your results suggest that you are unlikely to have an increased blood sugar response to this food.

GABA Production Pathways

Tofu is a source of glutamate, an amino acid. Certain gut microbes utilize glutamate to produce GABA, an important neurotransmitter. Higher GABA levels in the body are associated with better mood.

Tomato

Veggies
1 cup, peeled, seeded

Superfood

Energy Production Pathways

Alpha-lipoic acid (ALA) in tomatoes is essential for energy production. ALA is needed by enzymes in your mitochondria, the cell's powerhouse, allowing the mitochondria to produce energy for the body.

Turmeric

Spices & Other
1/2 teaspoon

Superfood

Inflammatory Activity

Curcumin provides anti-inflammatory benefits to the gut, helping to balance the gut microbiome and neutralize harmful free radicals in the gut.

Walnut Oil

Proteins & Fat
1 Tbsp

Superfood

Inflammatory Activity

Essential fatty acids, like those found in walnut oil, are critical for a stable microbiome. They increase microbial diversity and beneficial butyrate-producing bacteria. Butyrate is anti-inflammatory and promotes a strong gut lining by tightening the junctions between cells to prevent inflammatory molecules from reaching the bloodstream.

White Mushroom

Veggies
1 cup, diced

Superfood

Vitamin D Pathways

White mushrooms are rich in vitamin D, essential to many cardio and metabolic activities such as blood pressure control, healthy cellular growth, blood vessel repair, and immune response. Exposing mushrooms to sunlight for as little as 15 minutes can dramatically increase Vitamin D concentration.

White Tea
Spices & Other
8 ounce

Superfood

GABA Production Pathways

White tea is a natural source of GABA, a neurotransmitter that supports mood and stress response. Eating foods that contain GABA supports the body when GABA Production Pathway activity is low.

My Veggies

8 per day

We recommend you break your daily Veggies intake by the following servings

Superfood + ●●●●●●●
Enjoy 7
Minimize 1 ●

Arugula
Veggies
1 cup

Superfood

Asparagus
Veggies
15 spears

Minimize

Bamboo Shoots Veggies 1 cup, sliced — Enjoy	Beech Mushroom Veggies 1 cup, diced — Enjoy
Beet Greens Veggies 1 cup — Enjoy	Beets Veggies 1 cup — Superfood
Bok Choy Veggies 1 cup — Enjoy	Broccoli Veggies 1 cup — Superfood
Brussels Sprouts Veggies 1 cup — Superfood	Burdock Root Veggies 2/3 cup — Enjoy
Cabbage Veggies 1 cup — Superfood	Cardoon Veggies 1 cup — Enjoy
Carrot Veggies 1 cup, sliced — Enjoy	Cauliflower Veggies 1 cup — Enjoy
Celeriac Veggies 1 cup — Enjoy	Celery Veggies 1 cup — Enjoy
Chanterelle Mushrooms Veggies 1 cup, diced — Enjoy	Chard Veggies 1 cup — Superfood

Chayote Squash Veggies 1 cup, cooked — Enjoy	Collard Greens Veggies 1 cup — Enjoy
Cucumber Veggies 1 cup — Enjoy	Daikon Veggies 1 cup — Enjoy
Dandelion Greens Veggies 1 cup — Minimize	Eggplant Veggies 1 cup — Enjoy
Endive Veggies 1 cup — Enjoy	Enoki Mushrooms Veggies 1 cup, diced — Enjoy
Escarole Veggies 1 cup — Enjoy	Fennel Bulb Veggies 1 cup — Superfood
Gourd Veggies 1 cup, sliced — Enjoy	Green Beans Veggies 1 cup — Enjoy
Green Onion (greens only) Veggies 2 tbsp — Enjoy	Kale Veggies 1 cup — Enjoy
Kimchi Veggies 1 cup — Minimize	Kohlrabi Veggies 1 cup — Enjoy

Leek Veggies 1/2 cup, sliced Minimize	Lettuce Veggies 1 cup Enjoy
Lion's Mane Mushroom Veggies 1 cup Enjoy	Maitake Mushrooms Veggies 1 cup, diced Superfood
Morel Mushrooms Veggies 1 cup, diced Superfood	Mustard Greens Veggies 1 cup Enjoy
Okra Veggies 1 cup Enjoy	Oyster Mushrooms Veggies 1 cup, diced Superfood
Parsley Veggies 1 cup Superfood	Parsnip Veggies 1/2 cup Minimize
Peas Veggies 1/4 cup Enjoy	Pepino Melon Veggies 1 cup Enjoy
Pickle (Unsweetened) Veggies 2 whole Minimize	Poblano Pepper Veggies 2/3 cup Enjoy
Portabella Mushrooms Veggies 1 cup, diced Superfood	Potato Veggies 1 half Enjoy

Pumpkin	Veggies	1 cup	Enjoy
Purple Kale	Veggies	1 cup	Enjoy
Radicchio	Veggies	1 cup, sliced	Enjoy
Radish	Veggies	1 cup, sliced	Enjoy
Rutabaga	Veggies	1 cup, sliced	Enjoy
Sauerkraut	Veggies	1 cup	Superfood
Seaweed (Fresh)	Veggies	1/4 cup	Minimize
Shiitake Mushrooms	Veggies	1 cup, diced	Superfood
Snap Peas	Veggies	1 cup	Enjoy
Spinach	Veggies	1 cup	Minimize
Spirulina	Veggies	2 teaspoon	Minimize
Sweet Potato or Yam	Veggies	1/2 cup	Superfood
Taro	Veggies	1/2 cup	Enjoy
Tomatillo	Veggies	1/2 cup	Enjoy
Tomato	Veggies	1 cup, peeled, seeded	Superfood
Turnip	Veggies	1 cup	Enjoy

Water Chestnuts Veggies 1/2 cup Enjoy	Watercress Veggies 1 cup Enjoy
White Mushroom Veggies 1 cup, diced Superfood	Winter Squash Veggies 1 cup, cooked Enjoy
Yellow Squash Veggies 1 cup, cooked Enjoy	Zucchini Veggies 1 cup, cooked Enjoy

Test Name: Gut Intelligence Test, Human Gene Expression Test, Saliva Gene Expression Test

Customer Name: Vasilios Syrros

DOB: 01/01/1971

My Fruits & Grains

5 per day

We recommend you break your daily Fruits & Grains intake by the following servings

Superfood + ●●●●
Enjoy 4
Minimize 1 ●

Acai Berry Fruits & Grains 1 packet (100 grams) Enjoy	Amaranth Fruits & Grains 1/2 cup, cooked Enjoy
Apple Fruits & Grains 1 whole Superfood	Apricot Fruits & Grains 3 whole Enjoy
Banana Fruits & Grains 1 whole Minimize	Bilberry Fruits & Grains 1 cup Enjoy
Blackberry Fruits & Grains 1 cup Enjoy	Blueberry Fruits & Grains 1 cup Enjoy
Boysenberry Fruits & Grains 1 cup Enjoy	Breadfruit Fruits & Grains 1 cup, sliced Minimize

Brown Rice Fruits & Grains 1/2 cup, cooked Minimize	Buckwheat Fruits & Grains 1/2 cup, cooked Enjoy
Cantaloupe Fruits & Grains 1 cup, diced Enjoy	Cassava Fruits & Grains 1/2 cup, sliced Minimize
Cherry Fruits & Grains 1 cup Enjoy	Corn Fruits & Grains 1/2 cup Enjoy
Cranberry Fruits & Grains 1/2 cup Superfood	Currant Fruits & Grains 1 cup Enjoy
Dates Fruits & Grains 2 whole Minimize	Dragon Fruit Fruits & Grains 1 cup, diced Enjoy
Elderberry (Boiled) Fruits & Grains 1 cup Enjoy	Farro Fruits & Grains 1/2 cup, cooked Minimize
Fig Fruits & Grains 2 whole Enjoy	Freekeh Fruits & Grains 1/2 cup, cooked Minimize
Goji Berry Fruits & Grains 1/2 cup Minimize	Gooseberry Fruits & Grains 1 cup Enjoy

Grapefruit Fruits & Grains 1 whole	Superfood	Grapes Fruits & Grains 1 cup	Minimize
Guava Fruits & Grains 2 whole	Enjoy	Honeydew Melon Fruits & Grains 1 cup, sliced	Enjoy
Huckleberry Fruits & Grains 1 cup	Enjoy	Jackfruit Fruits & Grains 1 cup	Minimize
Kiwi Fruits & Grains 2 whole	Superfood	Kumquat Fruits & Grains 12 whole	Enjoy
Lemon Fruits & Grains 1 whole, juiced	Enjoy	Lime Fruits & Grains 1 whole, juiced	Superfood
Loganberries Fruits & Grains 1 cup	Enjoy	Lychee Fruits & Grains 1 cup	Minimize
Mango Fruits & Grains 1 cup, sliced	Minimize	Mangosteen Fruits & Grains 1 cup, sliced	Minimize
Marionberry Fruits & Grains 1 cup	Enjoy	Millet Fruits & Grains 1/2 cup, cooked	Minimize

Mulberries	Fruits & Grains	1 cup	Enjoy
Nectarine	Fruits & Grains	1 whole	Minimize
Oats	Fruits & Grains	1/2 cup, cooked	Minimize
Orange	Fruits & Grains	1 whole	Enjoy
Papaya	Fruits & Grains	1 cup, sliced	Superfood
Passionfruit	Fruits & Grains	3/4 cup	Enjoy
Peach	Fruits & Grains	1 whole	Enjoy
Pear	Fruits & Grains	1 whole	Enjoy
Persimmon	Fruits & Grains	2 whole	Enjoy
Pineapple	Fruits & Grains	1 cup	Enjoy
Plantain	Fruits & Grains	1/2 cup	Enjoy
Pomegranate	Fruits & Grains	1 half	Enjoy
Prunes	Fruits & Grains	6 whole	Enjoy
Pummelo	Fruits & Grains	1 half	Enjoy
Quinoa	Fruits & Grains	1/2 cup, cooked	Enjoy
Raspberry	Fruits & Grains	1 cup	Superfood

Test Name: Gut Intelligence Test, Human Gene Expression Test, Saliva Gene Expression Test

Customer Name: Vasilios Syrros

DOB: 01/01/1971

Rhubarb	Fruits & Grains	1 cup, sliced	Superfood
Rice Noodles	Fruits & Grains	1/2 cup, cooked	Minimize
Salmonberry	Fruits & Grains	1 cup	Enjoy
Sour Cherries	Fruits & Grains	1 1/3 cup	Enjoy
Star Fruit	Fruits & Grains	1 cup, sliced	Enjoy
Strawberry	Fruits & Grains	1 cup	Superfood
Tangerine	Fruits & Grains	1 cup	Enjoy
Tapioca	Fruits & Grains	3 tablespoons	Minimize
White Rice	Fruits & Grains	1/2 cup, cooked	Minimize
Wild Rice	Fruits & Grains	1/2 cup, cooked	Enjoy

My Proteins & Fat

8 per day

We recommend you break your daily Proteins & Fat intake by the following servings

Superfood + ●●●●●●●
Enjoy 7
Minimize 1 ●

Abalone Proteins & Fat 3 ounces — Enjoy	Adzuki Beans Proteins & Fat 3/4 cup — Superfood
Almond Milk (Unsweetened) Proteins & Fat 1 cup — Enjoy	Almonds Proteins & Fat 20 nuts — Enjoy
Anchovies Proteins & Fat 3 ounces — Enjoy	Avocado Proteins & Fat 1 half — Enjoy
Avocado Oil Proteins & Fat 1 tablespoon — Enjoy	Black Beluga Lentils Proteins & Fat 1/2 cup, cooked — Enjoy
Black Eyed Peas Proteins & Fat 3/4 cup, cooked — Enjoy	Blue Cheese Proteins & Fat 1 oz — Enjoy

Test Name: Gut Intelligence Test, Human Gene Expression Test, Saliva Gene Expression Test

Customer Name: Vasilios Syrros

DOB: 01/01/1971

Bone Broth (Fish) Proteins & Fat 1 cup — Superfood	Bone Broth (Mammal) Proteins & Fat 1 cup — Superfood
Bone Broth (Poultry) Proteins & Fat 1 cup — Enjoy	Brazil Nuts Proteins & Fat 3 nuts — Enjoy
Brown Lentils Proteins & Fat 1/2 cup, cooked — Enjoy	Butter (Cow Milk) Proteins & Fat 1 teaspoon — Enjoy
Carp Proteins & Fat 4 oz — Superfood	Cashew Milk Proteins & Fat 1 cup — Enjoy
Cashews Proteins & Fat 15 nuts — Enjoy	Catfish Proteins & Fat 2 1/2 ounces — Enjoy
Cheese (Cow Milk) Proteins & Fat 1 ounce — Enjoy	Chestnuts Proteins & Fat 3 ounces — Minimize
Chia Seeds Proteins & Fat 1 ounce, dry — Enjoy	Chicken (Dark Meat) Proteins & Fat 2 1/2 ounces — Enjoy
Chicken (White Meat) Proteins & Fat 3 ounces — Enjoy	Chickpeas Proteins & Fat 1/2 cup, cooked — Enjoy

Clams Proteins & Fat 3 ounces — Enjoy	Coconut Meat Proteins & Fat 1 1/2 ounces — Enjoy
Coconut Milk (Unsweetened) Proteins & Fat 1/4 cup — Enjoy	Coconut Oil Proteins & Fat 1 tablespoon — Enjoy
Cod (Alaskan) Proteins & Fat 6 ounces — Minimize	Cornish Game Hen Proteins & Fat 1 half — Enjoy
Cotija Cheese Proteins & Fat 1 oz — Enjoy	Crayfish Proteins & Fat 6 ounces — Minimize
Duck Proteins & Fat 1 1/2 ounces — Enjoy	Eel Proteins & Fat 3 ounces — Enjoy
Egg Whites (Chicken or Duck) Proteins & Fat 3 eggs — Enjoy	Emu Proteins & Fat 4 ounces — Enjoy
Fava Beans Proteins & Fat 1/2 cup, cooked — Enjoy	Flax Oil Proteins & Fat 1 tablespoon — Enjoy
Flax Seeds Proteins & Fat 2 tablespoons — Enjoy	Ghee Proteins & Fat 1 teaspoon — Superfood

Goat Cheese Proteins & Fat 1 ounce — Enjoy	Goat Milk Proteins & Fat 1/2 cup — Minimize
Goose Proteins & Fat 3 ounces — Enjoy	Gorgonzola Cheese Proteins & Fat 1 oz — Enjoy
Grape Seed Oil Proteins & Fat 1 tablespoon — Superfood	Green Lentils Proteins & Fat 1/2 cup, cooked — Enjoy
Halibut (Pacific) Proteins & Fat 5 ounces — Minimize	Hazelnuts Proteins & Fat 15 nuts — Enjoy
Heavy Cream (Cow Milk) Proteins & Fat 2 tablespoons — Enjoy	Herring Proteins & Fat 3 ounces — Superfood
Hickory Nuts Proteins & Fat 15 nuts — Enjoy	Jackfruit Seeds Proteins & Fat 2 oz — Enjoy
Kefir (Cow Milk) Proteins & Fat 1/2 cup — Minimize	Kidney Beans Proteins & Fat 3/4 cup, cooked — Enjoy
Lima Beans Proteins & Fat 1/2 cup, cooked — Enjoy	Lobster Proteins & Fat 6 ounces — Minimize

Lotus Seeds Proteins & Fat 4 ounces — Enjoy	MCT Oil Proteins & Fat 1 tablespoon — Enjoy
Macadamia Nuts Proteins & Fat 10 nuts — Enjoy	Mackerel Proteins & Fat 3 ounces — Enjoy
Mahi Mahi Proteins & Fat 5 oz — Enjoy	Mussels Proteins & Fat 3 ounces — Enjoy
Natto Proteins & Fat 2 1/2 ounces — Enjoy	Navy Beans Proteins & Fat 1/2 cup, cooked — Enjoy
Oat Milk Proteins & Fat 1 cup — Enjoy	Olive Oil Proteins & Fat 1 tablespoon — Superfood
Olives Proteins & Fat 20 olives — Minimize	Ostrich Proteins & Fat 4 ounces — Enjoy
Oysters Proteins & Fat 3 ounces — Enjoy	Paneer Proteins & Fat 1 oz — Enjoy
Parmesan Cheese Proteins & Fat 1 oz — Enjoy	Pea Protein Powder Proteins & Fat 30 grams — Enjoy

Peanuts Proteins & Fat 20 peanuts Minimize	Perch Proteins & Fat 5 ounces Enjoy
Pheasant Proteins & Fat 4 ounces Enjoy	Pine Nuts Proteins & Fat 1 1/2 tablespoons Enjoy
Pistachios Proteins & Fat 35 nuts Superfood	Pumpkin Seeds Proteins & Fat 2 teaspoons Enjoy
Puy Lentils Proteins & Fat 1/2 cup, cooked Enjoy	Quail Proteins & Fat 2 1/2 ounces Enjoy
Red/Yellow Lentils Proteins & Fat 1/2 cup, cooked Enjoy	Rice Protein Powder Proteins & Fat 30 grams Enjoy
Ricotta or Cottage Cheese (cow, 2% fat) Proteins & Fat 3 ounces Minimize	Sacha Inchi Seeds Proteins & Fat 16 nuts Enjoy
Salmon (Wild-Caught) Proteins & Fat 3 ounces Enjoy	Sardines Proteins & Fat 2 ounces Enjoy
Sea Bass Proteins & Fat 5 oz Enjoy	Sesame Oil Proteins & Fat 1 tablespoon Enjoy

Sesame Seeds Proteins & Fat 3 tablespoons — Enjoy	Sheep Cheese Proteins & Fat 1 ounce — Enjoy
Sheep Milk Proteins & Fat 1/4 cup — Minimize	Snapper Proteins & Fat 4 oz — Enjoy
Soy Milk (Unsweetened) Proteins & Fat 1 cup — Enjoy	Soy Protein Powder Proteins & Fat 30 grams — Enjoy
Soybeans (non-GMO) Proteins & Fat 1/2 cup — Superfood	Squid Proteins & Fat 3 ounces — Enjoy
Sunflower Seeds Proteins & Fat 2 tablespoons — Enjoy	Swordfish Proteins & Fat 3 oz — Minimize
Tempeh Proteins & Fat 1/2 cup — Enjoy	Tofu Proteins & Fat 3/4 cup — Superfood
Tuna (Wild, Pole Caught) Proteins & Fat 5 ounces — Minimize	Turbot Proteins & Fat 5 ounces — Enjoy
Turkey (Dark Meat) Proteins & Fat 2 1/2 ounces — Enjoy	Turkey (White Meat) Proteins & Fat 3 ounces — Enjoy

Venison or Elk Proteins & Fat 3 1/2 ounces — Minimize	Walnut Oil Proteins & Fat 1 Tbsp — Superfood
Walnuts Proteins & Fat 12 nuts — Enjoy	Whey Protein Powder Proteins & Fat 30 grams — Enjoy
Whole Milk (Cow Milk) Proteins & Fat 1/2 cup — Minimize	Yogurt (Cow Milk, Plain) Proteins & Fat 1/2 cup — Minimize
Yogurt (coconut, plain) Proteins & Fat 6 oz — Enjoy	Yogurt (soy, plain) Proteins & Fat 6 oz — Enjoy

My Spices & Other

9 per day

We recommend you break your daily Spices & Other intake by the following servings

Superfood + ●●●●●●●●
Enjoy 8
Minimize 1 ●

Allspice Spices & Other 1/4 teaspoon — Enjoy	Allulose Spices & Other 1 teaspoon — Enjoy
Aloe Vera Juice Spices & Other 2 oz — Enjoy	Apple Cider Vinegar Spices & Other 1 teaspoon — Enjoy
Balsamic Vinegar Spices & Other 1 tbsp — Enjoy	Basil Spices & Other 1/4 teaspoon — Enjoy
Bay Leaf Spices & Other 1/4 teaspoon — Enjoy	Bee Pollen Spices & Other 1 tbsp — Superfood
Black Pepper Spices & Other 1/4 teaspoon — Enjoy	Black Tea Spices & Other 1 cup — Enjoy

Cane Sugar Spices & Other 1 teaspoon Minimize	Capers Spices & Other 1 teaspoon Superfood
Caraway Seed Spices & Other 1/4 teaspoon Enjoy	Cardamom Spices & Other 1/4 teaspoon Enjoy
Carob Spices & Other 1 tablespoon Enjoy	Cayenne Pepper Spices & Other 1/8 teaspoon Enjoy
Celery Seed Spices & Other 1/4 teaspoon Enjoy	Chamomile Tea Spices & Other 1 cup Enjoy
Chervil Spices & Other 1/4 teaspoon Enjoy	Chili Powder Spices & Other 1/4 teaspoon Enjoy
Cilantro Spices & Other 2 tablespoons Enjoy	Cinnamon Spices & Other 1/4 teaspoon Superfood
Cloves Spices & Other 1/8 teaspoon Enjoy	Cocoa (Unsweetened) Spices & Other 1 tablespoon Superfood
Coconut Sugar Spices & Other 1 tsp Minimize	Coconut Water Spices & Other 1 cup Enjoy

Coffee	Spices & Other	1 cup	Superfood
Coriander	Spices & Other	1/4 teaspoon	Enjoy
Cumin	Spices & Other	1/4 teaspoon	Enjoy
Dandelion Tea	Spices & Other	1 cup	Superfood
Dill (Fresh)	Spices & Other	2 tablespoons	Enjoy
Fennel Seed	Spices & Other	1/4 teaspoon	Enjoy
Fenugreek Seed	Spices & Other	1/4 teaspoon	Enjoy
Garlic	Spices & Other	1 clove	Minimize
Ginger	Spices & Other	1 tablespoon	Superfood
Grape Leaves	Spices & Other	4 leaves	Enjoy
Green Tea	Spices & Other	1 cup	Superfood
Herbal Tea	Spices & Other	1 cup	Enjoy
Honey	Spices & Other	1 teaspoon	Minimize
Horseradish	Spices & Other	1 teaspoon	Enjoy
Hot Pepper	Spices & Other	1/2 teaspoon	Enjoy
Kombucha	Spices & Other	1 cup	Enjoy

Lavender Tea Spices & Other 1 cup	Enjoy	Lemon Balm Tea Spices & Other 1 cup	Enjoy
Mace Spices & Other 1/8 teaspoon	Enjoy	Maple Syrup Spices & Other 1 teaspoon	Minimize
Marjoram Spices & Other 1/8 teaspoon	Enjoy	Matcha Spices & Other 1 teaspoon	Superfood
Miso Spices & Other 1 teaspoon	Enjoy	Molasses Spices & Other 1 teaspoon	Minimize
Mustard Seed Spices & Other 1/4 teaspoon	Enjoy	Nettle Leaf Tea Spices & Other 1 cup	Enjoy
Nutmeg Spices & Other 1/4 teaspoon	Enjoy	Nutritional Yeast Spices & Other 3 tablespoon	Enjoy
Oolong Tea Spices & Other 1 cup	Enjoy	Oregano Spices & Other 1/4 teaspoon	Superfood
Paprika Spices & Other 1/4 teaspoon	Enjoy	Peppermint (Fresh) Spices & Other 1 tablespoon	Superfood

Poppy Seed Spices & Other 1 teaspoon Enjoy	Raspberry Leaf Tea Spices & Other 1 cup Enjoy
Rice Milk (Unsweetened) Spices & Other 3/4 cup Enjoy	Rosemary (Fresh) Spices & Other 1 teaspoon Enjoy
Saffron Spices & Other 1/8 teaspoon Enjoy	Sage Spices & Other 1/4 teaspoon Enjoy
Salt (Sea, Himalayan, Celtic or Bonaire) Spices & Other 1/8 teaspoon Minimize	Savoury Spices & Other 1/4 teaspoon Enjoy
Soy Sauce Spices & Other 2 tablespoon Minimize	Spearmint (Fresh) Spices & Other 1 tablespoon Superfood
Stevia Spices & Other 1 package Enjoy	Tarragon Spices & Other 1/4 teaspoon Enjoy
Thyme Spices & Other 1/4 teaspoon Enjoy	Turmeric Spices & Other 1/2 teaspoon Superfood
Vanilla Extract Spices & Other 1/4 teaspoon Enjoy	Vinegar (Unsweetened) Spices & Other 1 teaspoon Enjoy

Wheatgrass

Spices & Other

2 tablespoons

Enjoy

White Mulberry Leaf Tea

Spices & Other

1 cup

Enjoy

White Tea

Spices & Other

8 ounce

Superfood

Viome Methodology

Microbial total RNA is extracted, ribosomal RNA molecules are removed from total RNA, and the remaining RNA molecules are sequenced on Illumina NextSeq or NovaSeq. Proprietary bioinformatics algorithms are used to perform taxonomic classification and functional analysis of the sequencing data.

Whole blood total RNA is extracted, polyadenylated transcripts are captured from total RNA and sequenced on Illumina NextSeq or NovaSeq. Proprietary bioinformatics algorithms are used to perform quantitative gene expression analysis of the sequencing data. Results are reported to Viome customers in the context of integrative functional health themes communicated as scores derived largely from proprietary pathway content and analytics methodology. Each score is built to account for molecular pathway topology and strength of literature evidence manually curated by translational science experts in systems biology. Scoring results are CLIA-validated and are end-to-end automated in the production system, which uses each customer's gene expression data as input.

Method Limitation

The Full Body Intelligence Test(™) was developed by, and its performance characteristics determined by Viome Inc. It has not been cleared or approved by the US Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary. This laboratory is registered under CLIA (50D2224932) to perform high complexity testing. Sequencing was performed at The OMRF Clinical Genomics Center CLIA (37D2111727). Contact Viome for any further questions.

VIOME

VASILIOS SYRROS'S RECOMMENDATIONS

VERSION: 1.14.2