VIOME

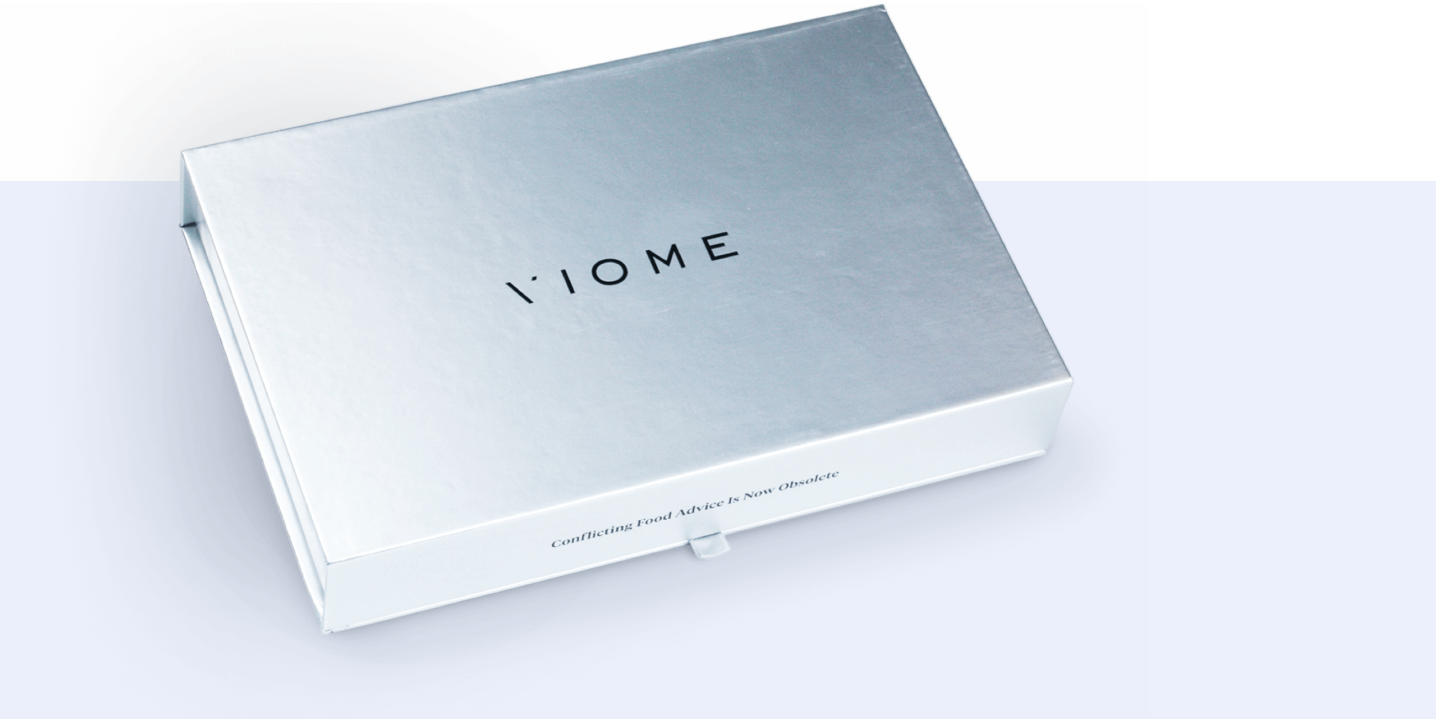
VIOME

NICHOLAS PERRY'S SCORES & RECOMMENDATIONS

VIOME

Dear Nicholas Perry,

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

Customer Name: Nicholas Perry

DOB: 05/01/1987

All My Scores

Let's improve these.

Cellular & Energy Efficiency

Not Optimal

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.

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.

LPS Biosynthesis Pathways

Not Optimal

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

Not Optimal

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.

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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 levels of activity of all microbial pathways that lead to the production of uric acid (or urate). Uric Acid is a normal byproduct that comes from the breakdown of compounds called purines, which can be found in beer, sugary sodas, seafood and shellfish, turkey, veal, bacon, and organ meats. Excessive amounts of uric acid can contribute to gout. A good score means that your uric acid production pathway levels are low.

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Bile Acid Metabolism Pathways

Not Optimal

This score assesses the levels of activity of all metabolic pathways that include bile acids. Normally bile acids are made by the liver to help with fat digestion. 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, it may be an indicator of your inability to break down fat or absorb nutrients properly, which can contribute to a pro-inflammatory environment or negative liver-related effects, as microbiome's bile acid pathways have been implicated in fatty deposits in the liver. A good score means these pathway activity levels are low in your sample.

Mitochondrial Health

Not Optimal

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.

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Mitochondrial Biogenesis Pathways

Not Optimal

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).

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 fuels our cells (otherwise known as ATP). If this score is not optimal it suggests that your mitochondrial metabolic activity may be relatively sluggish and could use a little boost from specific molecular targets or vitamin and cofactor or coenzyme supplements, such as CoQ10, NAD+ precursors, L-Carnitine, or various activators of AMPK (an activator of metabolic pathways, which stimulates mitochondrial ATP production).

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Immune System Activation

Not Optimal

Your immune system keeps you alive by activating the right pathways and functions to fight off any threat. Too much immune system activation can be damaging to your body, while too little is not optimal either. When your Immune System Activation score is high (in the high red zone), it means there is too much immune system activation that could be due to stress, fighting some infection, something that immune cells recognize as foreign (even if it is own body cell components), an allergic reaction or food sensitivity, or there may be too many pro-inflammatory (and not enough anti-inflammatory) responses telling your immune system to “let the guard down.” When there is too little expression (in the low red zone), it is also not optimal because it may suggest that too little activity is happening from the immune system side. Pathway themes combined into the Immune System Activation score include: • Antiviral or antibacterial defense response, needed to combat any foreign threat to the body by specialized immune system cells • Proinflammatory cytokine signaling (including IL-1, IL-6, IL-8, TNF-alpha, and multiple pathways of activation of NF-kappa B gene expression) • Tissue remodeling and wound healing (this can occur even in the absence of any wounds, when cellular conditions signal damage) • Histamine signaling an allergic response • Prostaglandin Biosynthesis (COX2), which can lead to increased inflammation and pain in various parts of the body

Inflammatory Activity

Good

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.

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Gut Health

Good

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.

Metabolic Fitness

Good

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.

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Immune System Health

Good

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.

Gut Lining Health

Good

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'.

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Inflammation Response

Good

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.

Gut Active Microbial Diversity

Good

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.

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Butyrate Production Pathways

Good

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 beneficially affect many wellness areas from gut lining to insulin sensitivity and satiety (feeling full). A score that is not optimal means that your microbial butyrate production could really use a good boost! Individuals with low butyrate production activity would benefit from supplements or foods that either feed or add butyrate producing microbes into your gut ecosystem.

Methane Gas Production Pathways

Good

This score assesses the levels of activity of all microbial pathways that result in giving off methane gas in your gut. This kind of activity, when high, has been linked with some motility issues in the gut (how your food moves along the digestive tract), as well as pro-inflammatory patterns that can negatively affect your intestinal lining. A good score means that the activity of methane production pathways is low.

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Ammonia Production Pathways

Good

This score assesses the levels of activity of all microbial pathways that result in the production of ammonia. Ammonia gas can be made from amino acids as a byproduct of the breaking down of protein or from ingested nitrate or nitrite molecules found in things like food preservatives or additives. This kind of activity, when high, contributes 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 also contributes up to 50% of ammonia found in the blood which can negatively impact neurotransmitter production and cognitive function. A Good score means that the activity of ammonia production pathways is low.

Salt Stress Pathways

Good

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.

Biofilm, Chemotaxis, and Virulence Pathways

Good

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.

TMA Production Pathways

Good

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.

Cellular Stress

Good

Our Cellular Stress score measures pathway activities that either lead to or are reflective of cellular stress. Too much stress at a cellular level can contribute to damage and dysfunction, which can also expedite cellular aging. A score that is not optimal means that your body needs support in mitigating one or many of the following areas: • Oxidative stress: excessive reactive oxygen species (ROS) and insufficient antioxidant activities needed to remove them (including Sirtuins and NRF2) • Unfolded protein response (UPR) or Endoplasmic Reticulum (ER) stress which can be caused by inflammation, high-fat diet, environmental exposures or microbial sources of stress • Genotoxic stress: DNA damage caused by toxins, which can elicit biochemical responses that either signal the need for quick repair or cell death (if the damage is too high). • Hypoxia-induced stress: insufficient oxygenation levels in the blood, often accompanied by HIF1-alpha - pathway activation • Stress-induced pro-apoptotic signaling, such as overly active p38/JNK or Calcium signaling pathways, all of which can cause otherwise healthy cells to die via programmed cell death, or apoptosis • Antiviral or antimicrobial stress response (cell's lowered ability to defend and sustain itself from foreign invaders)

Cellular Senescence

Good

Your Cellular Senescence score assesses processes involved in progressive decline in your cells' vital functions usually associated with cellular aging such as: • Cellular proteostasis (ability to make, fold, deliver and degrade various proteins) • DNA damage markers and repair signaling • Regulation of telomeres and cellular immortalization • Oxidative and other stress-induced progressive functional decline • Autophagy, stem-cell and regenerative signaling decline 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.

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Digestive Efficiency

Average

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.

Gas Production

Average

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.

Flagellar Assembly Pathways

Average

This score assesses the levels of activity of all microbial pathways leading to the making of a structure called flagella. Flagellar structures serve as "fins" or "tails" for various microbes to help them move. A score that is not optimal suggests that these signaling pathway activities are high, indicating unrest in your microbiome as flagellar structures are helping beneficial organisms move away from a perceived threat. Higher than usual activity can also signal the presence of opportunistic organisms that are known to have these flagellar structures. This score is an important factor in assessing your inflammatory activity patterns.

Oxalate Metabolism Pathways

Average

This score assesses the levels of activity of all microbial pathways needed to break down or metabolize oxalate. Oxalates are a major contributor to kidney stones. Oxalate-metabolizing microbes can help you by removing and digesting oxalate that you ingested from food. A good score means oxalate-metabolizing activities are high in your microbiome. When this score is not optimal, you may see some of the foods high in oxalate content on your list to minimize or even avoid.

Microbiome-Induced Stress

Average

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.

Biological Age

Average

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 a small snack daily. Avoid eating 1-2 hours 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 benefit from a variety of stretching, strength training, interval training, and aerobic exercise at least 3 times per week.

My Foods

My Superfoods

We recommend you eat more of these foods

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

Alfalfa Sprouts

Veggies

1 cup

Superfood

My Microbiome's Response to Alfalfa Sprouts

Alfalfa sprouts contain amino acids which are elemental components of proteins that are easy for our bodies to digest and absorb. After an interpretation of your microbiome and taking your questionnaire data into account, it has been determined that alfalfa sprouts in your diet will be beneficial for you.

Alfalfa sprouts may improve your Protein Fermentation score.

Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5908832*

Apple

Fruits & Grains

1 whole

Superfood

My Microbiome's Response to Apple

Apples contain pectin which is a soluble fiber. After analyzing your microbiome and taking your data into account, it has been determined that apples in your diet will be good for you. Pectin enriches the mucus layer and protects your gut lining and supports healthy digestive movement.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to apples.

Apples may improve your Digestive Efficiency and Protein Fermentation scores.

Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3257631*

Banana

Fruits & Grains
1 whole

Superfood

My Microbiome's Response to Banana

Bananas contain vitamin B6 which is a B vitamin. After an analysis of your microbiome and taking your data into account, it has been determined that bananas in your diet will be beneficial for you. Vitamin B6 has low bioavailability until metabolized by residents of your microbiome from the bacterial families Streptococcus and Lactobacillus. Although some of your microbes are able to produce vitamin B6 on their own, dietary supplementation ensures you are getting your recommended dose. Studies indicate that vitamin B6 is important for brain development, immune system function and skin collagen production.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to bananas.

Learn more…

1. *https://www.ncbi.nlm.nih.gov/pubmed/17066209*
2. *https://www.ncbi.nlm.nih.gov/pubmed/6651795*
3. *https://www.ncbi.nlm.nih.gov/pubmed/6651795*

Beets

Veggies
1 cup

Superfood

My Microbiome's Response to Beets

Beets contain nitric oxide which is a nitric oxide percursor. After analyzing your microbiome and taking your questionnaire data into account, it has been determined that beets in your diet will be helpful for you. Dietary nitrates are converted to nitric oxide inside the body. Nitric oxide regulates the activity of many different types of immune cells. NO inhibits the expression of pro-inflammatory signaling molecules like IL-1beta, TNF-alpha, IL-6, and INF-gamma in various immune cells such as lymphocytes, eosinophils and monocytes.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to beets.

Beets may improve your Immune System Activation and Immune System Health scores.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3100761/*

Chicory Root

Veggies
1/2 cup

Superfood

My Microbiome's Response to Chicory Root

Chicory contains sesquiterpene lactone which is a type of terpenoids. After an analysis of your microbiome and taking your data into account, it has been determined that chicory in your diet will be optimal for you. Sesquiterpene lactone provides the bitter taste in chicory and promotes the production of necessary digestive juices to aid in digestion and absorption of nutrients.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to chicory.

Chicory may improve your Digestive Efficiency and Protein Fermentation scores.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3709812*

Cinnamon

Spices & Other
1/4 teaspoon

Superfood

My Microbiome's Response to Cinnamon

Cinnamon contains cinnamaldehyde which is a phytochemical. After analyzing your microbiome and taking your questionnaire data into account, it has been determined that cinnamon in your diet will be beneficial for you. Phytochemicals are metabolized into smaller compounds, like cinnamaldehyde, by your microbiome prior to absorption. It has been reported that cinnamaldehyde has antimicrobial properties and can protect us from harmful bacteria, viruses, and pathogens.

Cinnamon may improve your Putrescine Production Pathways score.
Learn more...

1. *https://pubmed.ncbi.nlm.nih.gov/10617061/*

Dandelion Greens

Veggies
1 cup

Superfood

My Microbiome's Response to Dandelion Greens

Dandelion greens contain sesquiterpene lactone which is a type of terpenoids. After an analysis of your microbiome and taking your questionnaire data into account, it has been determined that dandelion greens in your diet will be optimal for you. Sesquiterpene lactone provides the bitter taste in dandelion greens and promotes the production of necessary digestive juices to aid in digestion and absorption of nutrients.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to dandelion greens.

Dandelion greens may improve your Digestive Efficiency and Protein Fermentation scores.
Learn more...

1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5553762

2. https://www.ncbi.nlm.nih.gov/pubmed/22010973

Enoki Mushrooms

Veggies
1 cup, diced

Superfood

My Microbiome's Response to Enoki Mushrooms

Enoki mushrooms contain beta-glucan which is a fiber. After an analysis of your microbiome and taking your wellness goals into account, it has been determined that enoki mushrooms in your diet will be helpful for you. Fiber is converted by your microbiome to produce butyrate. It has been reported that fiber increases microbial diversity, prevents constipation, helps manage weight, regulates blood sugar and aids with gastrointestinal distress.

Enoki mushrooms may improve your Bile Acid Metabolism Pathways score.
Learn more…

1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6892284/

Fennel Bulb

Veggies
1 cup

Superfood

My Microbiome's Response to Fennel Bulb

Fennel bulbs contain histidine which is an amino acid. After an interpretation of your microbiome and taking your data into account, it has been determined that fennel bulbs in your diet will be beneficial for you. Histidine is used to produce histamine, a neurotransmitter needed for healthy digestion and gut lining.

Fennel bulbs may improve your Digestive Efficiency and Protein Fermentation scores.
Learn more…

1. https://www.ncbi.nlm.nih.gov/pubmed/22010973

Grapefruit

Fruits & Grains
1 whole

Superfood

My Microbiome's Response to Grapefruit

Grapefruit contains naringenin which is a type of flavonoid. After an analysis of your microbiome and taking your wellness goals into account, it has been determined that grapefruit in your diet will be beneficial for you. Naringenin provides the bitter taste in grapefruit which promotes the production of necessary digestive juices to aid in digestion and absorption of necessary nutrients.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to grapefruit.

Grapefruit may improve your Digestive Efficiency and Protein Fermentation scores.
Learn more…

1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4085189

Grapes

Fruits & Grains
1 cup

Superfood

My Microbiome's Response to Grapes

Grapes contain resveratrol which is a polyphenol. After an analysis of your microbiome and taking your data into account, it has been determined that grapes in your diet will be of benefit for you. Resveratrol supports healthy mitochondrial functioning by stimulating mitochondrial biogenesis, a process in which mitochondria increase in mass and produce more energy. Resveratrol activates the peroxisome proliferator-activated receptor gamma coactivator 1-alpha (PGC-1alpha) pathway, which is a master regulator of mitochondrial biogenesis. In addition, resveratrol also regulates the gene expression of anti-oxidative enzymes such as NADPH oxidases (Nox),

superoxide dismutase (SOD) and glutathione peroxidase 1 (GPx1).

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to grapes.

Grapes may improve your Mitochondrial Biogenesis Pathways and Mitochondrial Health scores.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5883375/*
2. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6412811/*
3. *https://pubmed.ncbi.nlm.nih.gov/20083859/*

Hazelnuts

Proteins & Fat
15 nuts

Superfood

My Microbiome's Response to Hazelnuts

Hazelnuts contain fiber which is a complex carbohydrate. After analyzing your microbiome and taking your data into account, it has been determined that hazelnuts in your diet will be good for you. Fiber is converted by your microbiome to produce butyrate. It has been reported that fiber increases microbial diversity, prevents constipation, helps manage weight, regulates blood sugar and aids with gastrointestinal distress.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to hazelnuts.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pubmed/28230737*
2. *https://www.ncbi.nlm.nih.gov/pubmed/15173415*

3. https://www.ncbi.nlm.nih.gov/pubmed/29902436

Hot Pepper

Spices & Other
1/2 teaspoon

Superfood

My Microbiome's Response to Hot Pepper

Hot peppers contain capsaicin which is a phytochemical. After an analysis of your microbiome and taking your data into account, it has been determined that hot peppers in your diet will be optimal for you. Capsaicin is anti-inflammatory and promotes microbial diversity.

Hot peppers may improve your LPS Biosynthesis Pathways score.
Learn more…

1. https://pubmed.ncbi.nlm.nih.gov/12531428/

Jerusalem Artichoke

Veggies
1 cup

Superfood

My Microbiome's Response to Jerusalem Artichoke

Jerusalem artichoke contains inulin which is a prebiotic fiber. After analyzing your microbiome and taking your data into account, it has been determined that jerusalem artichoke in your diet will be good for you. Inulin is converted by your microbiome to produce butyrate. Studies indicate that inulin increases microbial diversity, prevents constipation, helps manage weight, regulates blood sugar and aids with gastrointestinal distress.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to jerusalem artichoke.
Learn more…

1. https://www.ncbi.nlm.nih.gov/pubmed/29244718

2. *https://gut.bmj.com/content/early/2017/02/17/gutjnl-2016-313271*

3. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5835350/*

4. *https://www.ncbi.nlm.nih.gov/pubmed/?term=26500686*

Kiwi

Fruits & Grains

2 whole

Superfood

My Microbiome's Response to Kiwi

Kiwi contains Vitamin C which is a water-soluble vitamin. After an analysis of your microbiome and taking your data into account, it has been determined that kiwi in your diet will be of benefit for you. Vitamin C impacts the activity, enzyme production, immune system regulation and nutrient absorption which are just some of the responsibilities of your gut microbiome. It has been reported that Vitamin C affects the function of Bifidobacterium and Clostridium species. Vitamin C is a powerful antioxidant, can protect against cardiovascular disease, boost immunity, promote nutrient utilization and help fight vision loss.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to kiwi.

Kiwi may improve your Immune System Activation, Immune System Health, and Uric Acid Production Pathways scores.

Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6723425/*

2. *https://rrtjournal.biomedcentral.com/articles/10.1186/s41100-018-0195-2*

Lamb

Proteins & Fat
2 1/2 ounces

Superfood

My Microbiome's Response to Lamb

Lamb contains protein which is an essential macronutrient. After an analysis of your microbiome and taking your data into account, it has been determined that lamb in your diet will be good for you. Your microbiome is metabolically active and converts dietary protein into amino acids, which can be used by your body or further converted by your microbes into short-chain fatty acids which are anti-inflammatory and protect your gut lining. It has been reported that protein also helps build strong muscles, improve gut integrity, balance glucose, enhance skin properties and is used to create neurotransmitters.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to lamb.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pubmed/25042240*
2. *https://www.ncbi.nlm.nih.gov/pubmed/28903954*
3. *https://www.ncbi.nlm.nih.gov/pubmed/28388917*

Lime

Fruits & Grains
1 whole, juiced

Superfood

My Microbiome's Response to Lime

Lime contains flavonoids which are a class of polyphenols. After an analysis of your microbiome and taking your wellness goals into account, it has been determined that lime in your diet will be helpful for you. Polyphenols are a complex group of many compounds released following microbial metabolism. Polyphenols balance your microbiome, encourage growth of beneficial Lactobacillus and Bifidobacteria species and inhibit growth of harmful or pathogenic bacteria. It has been reported that polyphenols decrease inflammation and benefit many biological systems including the gastrointestinal, hormonal, neurological, ocular, and immune systems.

Lime may improve your Uric Acid Production Pathways score.

Learn more…

1. *https://onlinelibrary.wiley.com/doi/full/10.1002/fft2.27*

2. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6723425/*

Maitake Mushrooms

Veggies
1 cup, diced

Superfood

My Microbiome's Response to Maitake Mushrooms

Maitake mushrooms contain beta-glucan which is a fiber. After an interpretation of your microbiome and taking your wellness goals into account, it has been determined that maitake mushrooms in your diet will be of benefit for you. Fiber is converted by your microbiome to produce butyrate. It has been reported that fiber increases microbial diversity, prevents constipation, helps manage weight, regulates blood sugar and aids with gastrointestinal distress.

Maitake mushrooms may improve your Bile Acid Metabolism Pathways score.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6892284/*

Mung Bean Sprouts

Veggies
1 cup

Superfood

My Microbiome's Response to Mung Bean Sprouts

Mung bean sprouts contain pectin which is a soluble fiber. After analyzing your microbiome and taking your data into account, it has been determined that mung bean sprouts in your diet will be of benefit for you. Pectin enriches the mucus layer and protects your gut lining and supports healthy digestive movement.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to mung bean sprouts.

Mung bean sprouts may improve your Protein Fermentation score.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3257631*

Nectarine

Fruits & Grains
1 whole

Superfood

My Microbiome's Response to Nectarine

Nectarine contains FOS which is a prebiotic. After analyzing your microbiome and taking your wellness goals into account, it has been determined that nectarine in your diet will be of benefit for you. FOS stimulates the growth of beneficial bacteria like Lactobacillus strains which produce butyrate - a short-chain fatty acid that decreases inflammation and strengthens your gut lining. It also decreases the activity of less beneficial organisms. Studies indicate that FOS helps manage weight and protects against metabolic syndrome.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to nectarine.

Nectarine may improve your Sulfide Gas Production Pathways score.
Learn more…

1. *https://www.jstage.jst.go.jp/article/bifidus1996/19/1/19_1_51/_pdf*

Oats

Fruits & Grains
1/2 cup, cooked

Superfood

My Microbiome's Response to Oats

Oats contain beta-glucan which is a fiber. After an interpretation of your microbiome and taking your wellness goals into account, it has been determined that oats in your diet will be of benefit for you. Fiber is converted by your microbiome to produce butyrate. It has been reported that fiber increases microbial diversity, prevents constipation, helps manage weight, regulates blood sugar and aids with gastrointestinal distress.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to oats.

Oats may improve your Bile Acid Metabolism Pathways score.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6892284/*

Papaya

Fruits & Grains
1 cup, sliced

Superfood

My Microbiome's Response to Papaya

Papaya contains papain which is a proteolytic enzyme. After an analysis of your microbiome and taking your questionnaire data into account, it has been determined that papaya in your diet will be helpful for you. Papain helps breakdown proteins into amino acids.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to papaya.

Papaya may improve your Digestive Efficiency and Protein Fermentation scores.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4540030*

Pineapple

Fruits & Grains
1 cup

Superfood

My Microbiome's Response to Pineapple

Pineapple contains bromelain which is a proteolytic enzyme. After analyzing your microbiome and taking your wellness goals into account, it has been determined that pineapple in your diet will be optimal for you. Bromelain helps breakdown proteins into amino acids.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to pineapple.

Pineapple may improve your LPS Biosynthesis Pathways score.
Learn more…

1. *http://www.tandfonline.com/doi/full/10.1080/08820130802083622*

Pistachios

Proteins & Fat
35 nuts

Superfood

My Microbiome's Response to Pistachios

Pistachios contain CoQ10 which is a coenzyme. After analyzing your microbiome and taking your data into account, it has been determined that pistachios in your diet will be beneficial for you. CoQ10 plays a critical role in cellular energy production. It is a component in the mitochondrial electron transport chain, which generates cellular energy in the form of ATP. CoQ10 has been shown to activate peroxisome proliferator-activated receptor gamma coactivator 1alpha (PGC-1alpha), a key player in controlling mitochondrial biogenesis and energy production. CoQ10 may also activate expression of critical mitochondrial antioxidant enzymes such as superoxide dismutase 2 (SOD-2), and isocitrate dehydrogenase 2 (IDH-2).

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to pistachios.

Pistachios may improve your Energy Production Pathways and Mitochondrial Health scores.

Learn more…

1. *https://lpi.oregonstate.edu/mic/dietary-factors/coenzyme-Q10*

2. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4025630/*

Shiitake Mushrooms

Veggies
1 cup, diced

Superfood

My Microbiome's Response to Shiitake Mushrooms

Shitake mushrooms contain beta-glucan which is a fiber. After analyzing your microbiome and taking your questionnaire data into account, it has been determined that shitake mushrooms in your diet will be helpful for you. Fiber is converted by your microbiome to produce butyrate. It has been reported that fiber increases microbial diversity, prevents constipation, helps manage weight, regulates blood sugar and aids with gastrointestinal distress.

Shitake mushrooms may improve your Bile Acid Metabolism Pathways score.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6892284/*

Strawberry

Fruits & Grains
1 cup

Superfood

My Microbiome's Response to Strawberry

Strawberries contain Vitamin C which is a water-soluble vitamin. After an analysis of your microbiome and taking your data into account, it has been determined that strawberries in your diet will be helpful for you. Vitamin C impacts the activity, enzyme production, immune system regulation and nutrient absorption which are just some of

the responsibilities of your gut microbiome. Research shows that Vitamin C affects the function of Bifidobacterium and Clostridium species. Vitamin C is a powerful antioxidant, can protect against cardiovascular disease, boost immunity, promote nutrient utilization and help fight vision loss.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to strawberries.

Strawberries may improve your Uric Acid Production Pathways score.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6723425/*

2. *https://rrtjournal.biomedcentral.com/articles/10.1186/s41100-018-0195-2*

Sunflower Seeds

Proteins & Fat
2 tablespoons

Superfood

My Microbiome's Response to Sunflower Seeds

Sunflower seeds contain Vitamin B1 (Thiamine) which is a B vitamin. After analyzing your microbiome and taking your wellness goals into account, it has been determined that sunflower seeds in your diet will be optimal for you. The body cannot synthesize Vitamin B1 (Thiamine) on its own. Vitamin B1 (Thiamine) comes from two sources: your diet or your microbiome. A small amount of dietary Vitamin B1 (Thiamine) is absorbed in the small intestine but the majority comes from phosphorylation and dephosphorylation processes. Your gut microbes use thiamine to produce more Vitamin B1 (Thiamine). Research shows that Vitamin B1 (Thiamine) is a co-factor for many biological functions such as neurological stability and cardioVascular Health.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pubmed/18642074*

2. *https://www.ncbi.nlm.nih.gov/pubmed/28951891*

Tarragon

Spices & Other
1/4 teaspoon

Superfood

My Microbiome's Response to Tarragon

Tarragon contains apigenin which is a bioflavonoid. After analyzing your microbiome and taking your wellness goals into account, it has been determined that tarragon in your diet will be optimal for you. Your microbiome plays an important role in breaking down bioflavonoids. Studies indicate that apigenin influences the diversity of your microbiome by increasing the activity of Enterococcus species and their ability to participate in DNA repair and modulation of the stress and immune responses.

Learn more…

1. *https://www.ncbi.nlm.nih.gov/pubmed/22975493/*
2. *https://www.ncbi.nlm.nih.gov/pubmed/28771188*

Tomato

Veggies
1 cup, peeled, seeded

Superfood

My Microbiome's Response to Tomato

Tomatoes contain alpha-lipoic acid which is a antioxidant. After an analysis of your microbiome and taking your data into account, it has been determined that tomatoes in your diet will be good for you. Alpha-lipoic acid (ALA) is essential for energy production and can also act as antioxidant. ALA's role in energy production involves being a critical cofactor for mitochondrial energy production enzymes such as pyruvate dehydrogenase (PDH), alpha-ketoglutarate dehydrogenase (alpha-KGDH), and branched-chain ketoacid dehydrogenase (BCKDC).

Tomatoes may improve your Energy Production Pathways and Mitochondrial Health scores.

Learn more…

1. *https://academic.oup.com/biomedgerontology/article/61/7/650/822618*

2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3600316/

White Mushroom

Veggies
1 cup, diced

Superfood

My Microbiome's Response to White Mushroom

White mushrooms contain beta-glucan which is a polysaccharide. After analyzing your microbiome and taking your questionnaire data into account, it has been determined that white mushrooms in your diet will be helpful for you. Beta-glucan has a stimulatory effect on the immune system. It works by binding to receptors on immune cells (monocytes and macrophages), which stimulates their adaptive immune response. This makes the immune system "smarter" and more prepared to react to foreign pathogens such as viruses, bacteria, and parasites. Beta-glucans stimulate immune response by increasing the gene expression of the cytokines interleukin-1 (IL-1) by macrophages, and IL-2 by T-cells.

White mushrooms may improve your Bile Acid Metabolism Pathways, Immune System Activation, and Immune System Health scores.
Learn more…

1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6618291/

Yogurt (Cow Milk, Plain)

Proteins & Fat
1/2 cup

Superfood

My Microbiome's Response to Yogurt (Cow Milk, Plain)

Yogurt (cow milk, plain) contains cobalamin which is a B vitamin. After an interpretation of your microbiome and taking your data into account, it has been determined that yogurt (cow milk, plain) in your diet will be optimal for you. Cobalamin is transformed by your microbiome and also produced by specific microbes. Cobalamin is extremely important in energy production and nerve health.

Additionally, analysis of your data predicts that you are unlikely to have an increased blood sugar response to yogurt (cow milk, plain).

Learn more…

1. *https://www.ncbi.nlm.nih.gov/pubmed/15896807*
2. *https://www.ncbi.nlm.nih.gov/pubmed/28393285*
3. *https://www.ncbi.nlm.nih.gov/pubmed/25440056*

My Foods to Avoid

We recommend you avoid these foods

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

Asparagus
Veggies

Avoid

My Microbiome's Response to Asparagus

Asparagus contains glucosinolates which has been shown to impair the absorption or utilization of essential nutrients if it is not degraded by specific microbes. An analysis of your data indicates that avoiding asparagus will be beneficial for you.

Avoiding asparagus may improve your Sulfide Gas Production Pathways score.
Learn more…

1. *https://pubmed.ncbi.nlm.nih.gov/28766244/*
2. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6767122/*
3. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4985713/*

Bell Pepper
Veggies

Avoid

My Microbiome's Response to Bell Pepper

Your microbiome contains pepper mild mottle virus, which is known to infect bell pepper. Since plant viruses in the microbiome have been associated with immune stimulation, it is recommended for you to avoid bell pepper.
Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6435874/*
2. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4405218/*

Broccoli

Veggies

Avoid

My Microbiome's Response to Broccoli

Broccoli contains glucosinolates which has been shown to impair the absorption or utilization of essential nutrients if it is not degraded by specific microbes. An analysis of your data indicates that avoiding broccoli will be beneficial for you.

Avoiding broccoli may improve your Sulfide Gas Production Pathways score.
Learn more…

1. *https://pubmed.ncbi.nlm.nih.gov/28766244/*
2. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6767122/*
3. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4985713/*

Brussels Sprouts

Veggies

Avoid

My Microbiome's Response to Brussels Sprouts

Brussels sprouts contain glucosinolates which has been shown to impair the absorption or utilization of essential nutrients if it is not degraded by specific microbes. An analysis of your data indicates that avoiding brussels sprouts will be beneficial for you.

Avoiding brussels sprouts may improve your Sulfide Gas Production Pathways score.
Learn more…

1. *https://pubmed.ncbi.nlm.nih.gov/28766244/*
2. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6767122/*
3. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4985713/*

Cabbage
Veggies

Avoid

My Microbiome's Response to Cabbage

Cabbage contains glucosinolates which has been shown to impair the absorption or utilization of essential nutrients if it is not degraded by specific microbes. An analysis of your data indicates that avoiding cabbage will be beneficial for you.

Avoiding cabbage may improve your Sulfide Gas Production Pathways score.
Learn more…

1. *https://pubmed.ncbi.nlm.nih.gov/28766244/*
2. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6767122/*

3. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4985713/*

Crab (Pacific)

Proteins & Fat

Avoid

My Microbiome's Response to Crab (Pacific)

Crab meat is high in purines. Purines are uric-acid-production-promoting compounds. High microbial production of uric acid can contribute to gout. An analysis of your data indicates that avoiding crab meat will be beneficial for you.

Avoiding crab meat may improve your Uric Acid Production Pathways score.

Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5512149*

Goat

Proteins & Fat

Avoid

My Microbiome's Response to Goat

Goat meat is high in purines. Purines are uric-acid-production-promoting compounds. High microbial production of uric acid can contribute to gout. An analysis of your data indicates that avoiding goat meat will be beneficial for you.

Avoiding goat meat may improve your Uric Acid Production Pathways score.

Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5512149*

Haddock

Proteins & Fat

Avoid

My Microbiome's Response to Haddock

Haddock is high in purines. Purines are uric-acid-production-promoting compounds. High microbial production of uric acid can contribute to gout. An analysis of your data indicates that avoiding haddock will be beneficial for you.

Avoiding haddock may improve your Uric Acid Production Pathways score.

Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5512149*

Mustard Greens

Veggies

Avoid

My Microbiome's Response to Mustard Greens

Mustard greens contain glucosinolates which has been shown to impair the absorption or utilization of essential nutrients if it is not degraded by specific microbes. An analysis of your data indicates that avoiding mustard greens will be beneficial for you.

Avoiding mustard greens may improve your Sulfide Gas Production Pathways score.

Learn more…

1. *https://pubmed.ncbi.nlm.nih.gov/28766244/*

2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6767122/

3. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4985713/

Paprika
Spices & Other

Avoid

My Microbiome's Response to Paprika

Your microbiome contains paprika mild mottle virus, which is known to infect paprika. Since plant viruses in the microbiome have been associated with enhanced immune response, it is recommended for you to avoid paprika. **Learn more…**

1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6435874/

2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4405218/

Shrimp (Domestic)
Proteins & Fat

Avoid

My Microbiome's Response to Shrimp (Domestic)

Shrimp may contain arginine that your microbiome can potentially change into a more readily absorbed or harmful form. An analysis of your data indicates that avoiding foods with arginine will be of extra benefit for you.

Avoiding shrimp may improve your Putrescine Production Pathways and Sulfide Gas Production Pathways scores.

Try having roasted garlic instead.

Learn more…

1. *https://www.tandfonline.com/doi/full/10.1080/19490976.2018.1494466*

Trout (Cold Water)

Proteins & Fat

Avoid

My Microbiome's Response to Trout (Cold Water)

Trout is high in purines. Purines are uric-acid-production-promoting compounds. High microbial production of uric acid can contribute to gout. An analysis of your data indicates that avoiding trout will be beneficial for you.

Avoiding trout may improve your Uric Acid Production Pathways score.

Learn more…

1. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5512149*

Turmeric

Spices & Other

Avoid

My Microbiome's Response to Turmeric

Turmeric stimulates the production and release of cholic acid, a bile acid important in the digestion of fats. However, if your microbes show increased bile acid related activity then excesive cholic acid may contribute to a pro-inflammatory enviroment in the gut.

Avoiding turmeric may improve your Bile Acid Metabolism Pathways score.

Learn more…

1. *https://pubmed.ncbi.nlm.nih.gov/27228476/*
2. *https://pubmed.ncbi.nlm.nih.gov/24045793/*

Turnip

Veggies

Avoid

My Microbiome's Response to Turnip

Turnips contain glucosinolates which has been shown to impair the absorption or utilization of essential nutrients if it is not degraded by specific microbes. An analysis of your data indicates that avoiding turnips will be beneficial for you.

Avoiding turnips may improve your Sulfide Gas Production Pathways score.

Learn more…

1. *https://journals.physiology.org/doi/abs/10.1152/ajpgi.00261.2020?journalCode=ajpgi*
2. *https://pubmed.ncbi.nlm.nih.gov/11101476/*

Watermelon

Fruits & Grains

Avoid

My Microbiome's Response to Watermelon

Watermelon may contain citrulline that your microbiome can potentially change into a more readily absorbed or harmful form. An analysis of your data indicates that avoiding foods with citrulline will be of extra benefit for you.

Avoiding watermelon may improve your Putrescine Production Pathways score.
Learn more…

1. *https://journals.ashs.org/hortsci/view/journals/hortsci/46/12/article-p1572.xml*

2. *https://pubag.nal.usda.gov/download/48884/PDF*

My Foods

Veggies 13 per day

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

Superfood + ●●●●●●●●●●●

Enjoy 11

Minimize 2 ●●

Alfalfa Sprouts Veggies 1 cup — Superfood	Artichoke Veggies 1 cup, diced — Enjoy
Arugula Veggies 1 cup — Enjoy	Bamboo Shoots Veggies 1 cup, sliced — Enjoy
Beet Greens Veggies 1 cup — Enjoy	Beets Veggies 1 cup — Superfood
Bok Choy Veggies 1 cup — Minimize	Burdock Root Veggies 2/3 cup — Enjoy
Cardoon Veggies 1 cup — Enjoy	Carrot Veggies 1 cup, sliced — Enjoy

Cauliflower	Minimize	Celeriac	Enjoy
Veggies		Veggies	
1 cup		1 cup	
Celery	Enjoy	Chard	Enjoy
Veggies		Veggies	
1 cup		1 cup	
Chayote Squash	Enjoy	Chicory Root	Superfood
Veggies		Veggies	
1 cup, cooked		1/2 cup	
Collard Greens	Enjoy	Cucumber	Enjoy
Veggies		Veggies	
1 cup		1 cup	
Dandelion Greens	Superfood	Eggplant	Enjoy
Veggies		Veggies	
1 cup		1 cup	
Endive	Enjoy	Enoki Mushrooms	Superfood
Veggies		Veggies	
1 cup		1 cup, diced	
Escarole	Enjoy	Fennel Bulb	Superfood
Veggies		Veggies	
1 cup		1 cup	
Gourd	Enjoy	Green Beans	Enjoy
Veggies		Veggies	
1 cup, sliced		1 cup	

Jerusalem Artichoke	Superfood	Jicama	Enjoy
Veggies		Veggies	
1 cup		1 cup	
Kale	Minimize	Kimchi	Enjoy
Veggies		Veggies	
1 cup		1 cup	
Kohlrabi	Minimize	Leek	Enjoy
Veggies		Veggies	
1 cup		1/2 cup, sliced	
Lettuce	Enjoy	Maitake Mushrooms	Superfood
Veggies		Veggies	
1 cup		1 cup, diced	
Mung Bean Sprouts	Superfood	Okra	Enjoy
Veggies		Veggies	
1 cup		1 cup	
Onion	Minimize	Oyster Mushrooms	Enjoy
Veggies		Veggies	
1 cup		1 cup, diced	
Parsley	Enjoy	Parsnip	Enjoy
Veggies		Veggies	
1 cup		1/2 cup	
Peas	Enjoy	Pepino Melon	Enjoy
Veggies		Veggies	
1/4 cup		1 cup	

Pickle (Unsweetened) Veggies 2 whole	Enjoy	Portabella Mushrooms Veggies 1 cup, diced	Enjoy
Potato Veggies 1 half	Enjoy	Pumpkin Veggies 1 cup	Enjoy
Radicchio Veggies 1 cup, sliced	Enjoy	Radish Veggies 1 cup, sliced	Enjoy
Radish Sprouts Veggies 1 cup	Enjoy	Rutabaga Veggies 1 cup, sliced	Enjoy
Sauerkraut Veggies 1 cup	Enjoy	Seaweed (Fresh) Veggies 1/4 cup	Minimize
Shallot Veggies 1 tablespoon	Enjoy	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	Enjoy

Taro Veggies 1/2 cup	Enjoy	Tomato Veggies 1 cup, peeled, seeded	Superfood
Water Chestnuts Veggies 1/2 cup	Enjoy	Watercress Veggies 1 cup	Enjoy
White Mushroom Veggies 1 cup, diced	Superfood	Winter Squash Veggies 1/4 cup, cooked	Enjoy
Yellow Squash Veggies 1 cup, cooked	Enjoy	Zucchini Veggies 1 cup, cooked	Enjoy

My Foods

Fruits & Grains 6 per day

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

Superfood + ●●●●●
Enjoy 5
Minimize 1 ●

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 — Superfood
Barley Fruits & Grains 3 ounces, cooked — 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 — Enjoy

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

Grapes Fruits & Grains 1 cup — Superfood	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 — Enjoy	Kamut Fruits & Grains 1/2 cup, cooked — Enjoy
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 — Enjoy
Mango Fruits & Grains 1 cup, sliced — Enjoy	Mangosteen Fruits & Grains 1 cup, sliced — Enjoy
Marionberry Fruits & Grains 1 cup — Enjoy	Millet Fruits & Grains 1/2 cup, cooked — Enjoy

Test Name: Gut Intelligence Test, Human Gene Expression Test

Customer Name: Nicholas Perry

DOB: 05/01/1987

Mulberries	Fruits & Grains	1 cup	Enjoy
Nectarine	Fruits & Grains	1 whole	Superfood
Oats	Fruits & Grains	1/2 cup, cooked	Superfood
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	Superfood
Plantain	Fruits & Grains	1/2 cup	Enjoy
Plum	Fruits & Grains	3 whole	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	Enjoy
Rhubarb	Fruits & Grains	1 cup, sliced	Enjoy
Rice Noodles	Fruits & Grains	1/2 cup, cooked	Enjoy
Salmonberry	Fruits & Grains	1 cup	Enjoy
Sour Cherries	Fruits & Grains	1 1/3 cup	Enjoy
Sprouted Rye Bread	Fruits & Grains	1 slice	Enjoy
Sprouted Wheat Bread	Fruits & Grains	1 slice	Enjoy
Star Fruit	Fruits & Grains	1 cup, sliced	Enjoy
Strawberry	Fruits & Grains	1 cup	Superfood
Triticale	Fruits & Grains	1/2 cup, cooked	Minimize
White Rice	Fruits & Grains	1/2 cup, cooked	Enjoy
Wild Rice	Fruits & Grains	1/2 cup, cooked	Enjoy

Test Name: Gut Intelligence Test, Human Gene Expression Test

Customer Name: Nicholas Perry

DOB: 05/01/1987

My Foods

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 1 cup, cooked — Enjoy
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	Beef (Fatty, Grass-Fed) Proteins & Fat 1 1/2 ounces — Enjoy
Beef (Lean, Grass-Fed) Proteins & Fat 2 ounces — Enjoy	Black Beans Proteins & Fat 3/4 cup, cooked — Enjoy

Test Name: Gut Intelligence Test, Human Gene Expression Test

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Black Eyed Peas Proteins & Fat 3/4 cup, cooked — Enjoy	Bone Broth (Fish) Proteins & Fat 1 cup — Enjoy
Bone Broth (Mammal) Proteins & Fat 1 cup — Enjoy	Bone Broth (Poultry) Proteins & Fat 1 cup — Enjoy
Brazil Nuts Proteins & Fat 3 nuts — Enjoy	Buffalo Proteins & Fat 3 1/2 ounces — Enjoy
Butter (Cow Milk) Proteins & Fat 1 teaspoon — Enjoy	Cashews Proteins & Fat 15 nuts — Enjoy
Catfish Proteins & Fat 2 1/2 ounces — Enjoy	Caviar or Roe Proteins & Fat 2 ounces — Enjoy
Cheese (Cow Milk) Proteins & Fat 1 ounce — Enjoy	Chestnuts Proteins & Fat 3 ounces — Enjoy
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

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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 — Enjoy	Cornish Game Hen Proteins & Fat 1 half — Enjoy
Crayfish Proteins & Fat 6 ounces — Enjoy	Duck Proteins & Fat 1 1/2 ounces — Enjoy
Eel Proteins & Fat 3 ounces — Enjoy	Egg Whites (Chicken or Duck) Proteins & Fat 3 eggs — Minimize
Egg Yolk (Chicken or Duck) Proteins & Fat 3 eggs — Minimize	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	Enjoy
Goat Cheese Proteins & Fat 1 ounce	Enjoy	Goat Milk Proteins & Fat 1/2 cup	Enjoy
Goose Proteins & Fat 3 ounces	Enjoy	Grape Seed Oil Proteins & Fat 1 tablespoon	Enjoy
Halibut (Pacific) Proteins & Fat 5 ounces	Minimize	Hazelnuts Proteins & Fat 15 nuts	Superfood
Heavy Cream (Cow Milk) Proteins & Fat 2 tablespoons	Enjoy	Hemp Hearts Proteins & Fat 3 tablespoons	Enjoy
Herring Proteins & Fat 3 ounces	Enjoy	Hickory Nuts Proteins & Fat 15 nuts	Enjoy
Kefir (Cow Milk) Proteins & Fat 1/2 cup	Enjoy	Kidney Beans Proteins & Fat 3/4 cup, cooked	Enjoy
Lamb Proteins & Fat 2 1/2 ounces	Superfood	Lentils Proteins & Fat 4 ounces, cooked	Enjoy

Lima Beans Proteins & Fat 1/2 cup, cooked Enjoy	Lobster Proteins & Fat 6 ounces Enjoy
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
Mussels Proteins & Fat 3 ounces Enjoy	Natto Proteins & Fat 2 1/2 ounces Enjoy
Navy Beans Proteins & Fat 1/2 cup, cooked Enjoy	Olive Oil Proteins & Fat 1 tablespoon Enjoy
Olives Proteins & Fat 20 olives Enjoy	Ostrich Proteins & Fat 4 ounces Enjoy
Oysters Proteins & Fat 3 ounces Enjoy	Peanuts Proteins & Fat 20 peanuts Enjoy
Pecans Proteins & Fat 15 nuts Enjoy	Perch Proteins & Fat 5 ounces Enjoy

Pheasant Proteins & Fat 4 ounces — Enjoy	Pine Nuts Proteins & Fat 1 1/2 tablespoons — Enjoy
Pinto Beans Proteins & Fat 3/4 cup, cooked — Enjoy	Pistachios Proteins & Fat 35 nuts — Superfood
Pork (Lean) Proteins & Fat 1 ounce — Enjoy	Pumpkin Seeds Proteins & Fat 2 teaspoons — Enjoy
Quail Proteins & Fat 2 1/2 ounces — Enjoy	Ricotta or Cottage Cheese (cow, 2% fat) Proteins & Fat 3 ounces — Enjoy
Safflower Oil Proteins & Fat 1 tablespoon — Enjoy	Salmon (Wild-Caught) Proteins & Fat 3 ounces — Enjoy
Sardines Proteins & Fat 2 ounces — Enjoy	Scallops Proteins & Fat 5 ounces — Enjoy
Sesame Seeds Proteins & Fat 3 tablespoons — Enjoy	Sheep Cheese Proteins & Fat 1 ounce — Enjoy
Sheep Milk Proteins & Fat 1/4 cup — Enjoy	Soy Milk (Unsweetened) Proteins & Fat 1 cup — Enjoy

Soybeans (non-GMO) Proteins & Fat 1/2 cup Enjoy	Squid Proteins & Fat 3 ounces Enjoy
Sunflower Seeds Proteins & Fat 2 tablespoons Superfood	Tempeh Proteins & Fat 1/2 cup Enjoy
Tofu Proteins & Fat 3/4 cup Enjoy	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	Veal Proteins & Fat 1 1/2 ounces Enjoy
Venison or Elk Proteins & Fat 3 1/2 ounces Enjoy	Walnuts Proteins & Fat 12 nuts Enjoy
Whole Milk (Cow Milk) Proteins & Fat 1/2 cup Enjoy	Yogurt (Cow Milk, Plain) Proteins & Fat 1/2 cup Superfood

My Foods

Spices & Other 11 per day

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

Superfood +
Enjoy 9
Minimize 2

Allspice Spices & Other 1/4 teaspoon — Enjoy	Apple Cider Vinegar Spices & Other 1 teaspoon — Enjoy
Basil Spices & Other 1/4 teaspoon — Enjoy	Bay Leaf Spices & Other 1/4 teaspoon — Enjoy
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 — Enjoy
Caraway Seed Spices & Other 1/4 teaspoon — Enjoy	Cardamom Spices & Other 1/4 teaspoon — Enjoy

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Carob Spices & Other 1 tablespoon Enjoy	Cayenne Pepper Spices & Other 1/8 teaspoon Enjoy
Celery Seed Spices & Other 1/4 teaspoon 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 Enjoy	Coconut Water Spices & Other 1 cup Enjoy
Coffee Spices & Other 1 cup Enjoy	Coriander Spices & Other 1/4 teaspoon Enjoy
Cumin Spices & Other 1/4 teaspoon Enjoy	Dill (Fresh) Spices & Other 2 tablespoons Enjoy
Fennel Seed Spices & Other 1/4 teaspoon Enjoy	Fenugreek Seed Spices & Other 1/4 teaspoon Enjoy

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Garlic Spices & Other 1 clove	Minimize	Ginger Spices & Other 1 tablespoon	Enjoy
Grape Leaves Spices & Other 4 leaves	Enjoy	Green Tea Spices & Other 1 cup	Enjoy
Herbal Tea Spices & Other 1 cup	Enjoy	Honey Spices & Other 1 teaspoon	Enjoy
Horseradish Spices & Other 1 teaspoon	Minimize	Hot Pepper Spices & Other 1/2 teaspoon	Superfood
Kombucha 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
Miso Spices & Other 1 teaspoon	Enjoy	Molasses Spices & Other 1 teaspoon	Minimize
Mustard Seed Spices & Other 1/4 teaspoon	Enjoy	Nutmeg Spices & Other 1/4 teaspoon	Enjoy

Oregano Spices & Other 1/4 teaspoon Enjoy	Peppermint (Fresh) Spices & Other 1 tablespoon Enjoy
Poppy Seed Spices & Other 1 teaspoon 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	Spearmint (Fresh) Spices & Other 1 tablespoon Enjoy
Stevia Spices & Other 1 package Enjoy	Tarragon Spices & Other 1/4 teaspoon Superfood
Thyme Spices & Other 1/4 teaspoon Enjoy	Vanilla Extract Spices & Other 1/4 teaspoon Enjoy
Vinegar (Unsweetened) Spices & Other 1 teaspoon Enjoy	Wheatgrass Spices & Other 2 tablespoons Enjoy

Test Name: Gut Intelligence Test, Human Gene Expression Test

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DOB: 05/01/1987

White Tea

Spices & Other

8 ounce

Enjoy

Supplements

Look for supplements with the following ingredients:

Probiotics

Look for supplements with the following ingredients:

Lactobacillus acidophilus, Bacillus coagulans, and Bifidobacterium strains

Offered by Klaire Labs , Thorne , or other vendors.

To support the growth and activity of beneficial microorganisms and enhance the balance in your microbial ecosystem

Bromelain

Look for supplements with the following ingredients:

Bromelain

Offered by Pure Encapsulations , Thorne , or other vendors.

To support optimal digestive functions and may help boost anti-inflammatory functions in your gut

Digestive Enzymes

Look for supplements with the following ingredients:

Protease, amylase, lipase

Offered by Metagenics , Integrative Therapeutics , or other vendors.

To support healthy protein digestion and optimal digestive processes and functions for you

Cellular and mitochondrial support

Look for supplements with the following ingredients:

Nicotinamide Riboside, Resveratrol, Quercetin, Fisetin

Offered by Life Extension , Thorne , or other vendors.

To support cellular and mitochondrial functions, such as DNA repair and protection from cellular stress and aging

Mitochondrial support

Look for supplements with the following ingredients:

CoQ10, Omega-3

Offered by Smarter Nutrition , Nordic Naturals , or other vendors.

To support mitochondrial health and increase energy production

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

Viome's results and recommendations are based on our ability to identify and quantify thousands of microbial taxa . Such vast diversity has not been captured in the genomic databases, so it is impossible to assess it comprehensively. There are microorganisms that thrive in the gut whose genomes have not been sequenced. Viome is unable to identify those specific organisms, but can identify their near neighbors, which have similar homology. There are also taxa that we cannot discriminate because of their sequence similarity, for example at the strain level. There are some RNA transcripts that may not always align and match to specific known organisms, which may be due to the fact that these sequences are poorly characterized, reliable consensus sequence may not be available for reference. Viome monitors the growth of public genomic databases and will update its own databases when there is sufficient new information to be worthy of incorporation.

Detection of a microorganism by this test does not imply having a disease. Similarly, not detecting a microorganism by this test does not exclude the presence of a disease-causing microorganism. Further, other organisms may be present that are not detected by this test. This test is not a substitute for established methods for identifying microorganisms or their antimicrobial susceptibility prole. Results are qualitative and identify the presence or absence of identified annotated organisms.

Viome's results and recommendations are based on our ability to identify and quantify thousands of human transcripts. While the test has been clinically validated and shows very high precision, it also has some limitations. As the presence of transcripts nears the limits of detection, the ability of the test to accurately detect them is diminished. This is simply due to the uneven distribution of molecules in liquid volumes, causing small random changes in the transcript concentrations. Scores rely on detection of expressed genes, as well as their levels of expression against the reference population cohort. Hence, certain sample results may be affected by

any skewing or sampling biases of the reference cohort, as opposed to solely the biology of the given customer. Scores also are limited by our current understanding of actionable or biologically meaningful insights and literature coverage to date. As Viome's reference population expands and current knowledge grows, these limitations become more negligible.

The Gut 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 Viome Inc. CLIA (50D2224932). Contact Viome for any further questions.

The Human Gene Expression 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 Viome, Inc. CLIA 50D2224932. Contact Viome for any further questions.

VIOME

NICHOLAS PERRY'S RECOMMENDATIONS

VERSION: 1.14.2

Test Name: Gut Intelligence Test, Human Gene Expression Test

Customer Name: Nicholas Perry

DOB: 05/01/1987