

TRIAD PROFILE GUIDE



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TRIADSM PROFILE GUIDE

YOUR TRIAD PROFILE REPORT CONTAINS:

- Your laboratory results
- A Supplement Recommendation Summary
- This Triad Guide booklet

The Triad Profile combines three separate laboratory tests providing easy customization of diet and supplementation:

- **THE ORGANIX™ PROFILE** evaluates products of metabolism and identifies specific nutrients you may need that are critical for energy production, nervous system function, elimination of toxins, protection from cellular damage, and metabolism of nutrients.
- **THE AMINO ACID PROFILE** identifies levels of certain amino acids, the components of protein that are essential for healthy function of nearly every metabolic process in your body.
- **THE IGG FOOD ANTIBODY PROFILE** identifies foods you are reacting to that may be putting undue stress on your body; it can also reveal digestive problems that may need improvement.

Although we all need vitamins, minerals, proteins, fats, and carbohydrates, we differ in how much of these we require to maintain healthy tissues and fight the processes of disease, degeneration, and accelerated aging. Genetic makeup, individual lifestyle, and environmental influences all help define our unique nutritional needs. Customization of diet and supplementation is key to optimizing your health.

Your healthcare provider, with full knowledge of your medical history and health concerns, can use your Triad Profile results to help design a program tailored to your individual needs.

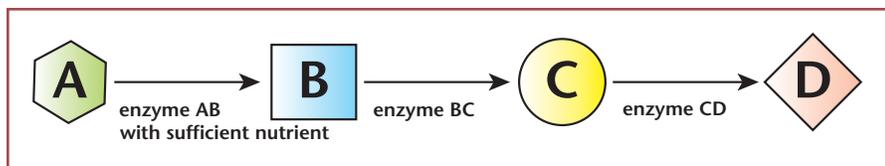


ORGANIX™ PROFILE

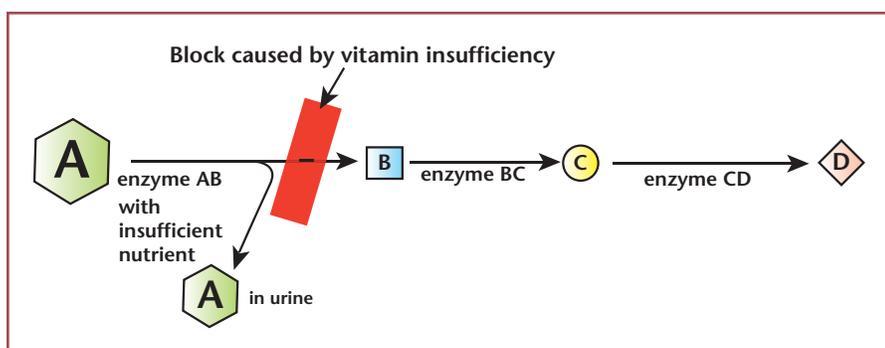
The Organix™ Comprehensive Profile is like an emission test performed on your car: the exhaust is examined to see how efficiently the engine is burning fuel. Similarly, certain compounds in your urine called “organic acids” reveal the efficiency of your body’s machinery.

Many organic acids result from the metabolic pathways, or chemical reactions, your body uses to transform food into energy, growth, maintenance, and repair of body tissue. Like spark plugs that ignite fuel in a car engine, vitamins and other essential nutrients are necessary for these chemical reactions that power your metabolic machinery. Thousands of these reactions occur in your body every second and are the basis of your level of health and vitality.

The figure below illustrates a well-functioning metabolic pathway. Molecule A is converted to Molecule B by the enzyme AB. Molecule B is converted to Molecule C by the enzyme BC and so on, all the way down the metabolic pathway. Many enzymes require nutrient co-factors such as specific vitamins and minerals in order to perform their functions in converting one molecule to another.



If one or more of these specific nutrients are not available in adequate amounts, important reactions cannot occur as well as they should. The illustration below shows what happens when the nutrient is not present in adequate amounts so that enzyme AB functions inefficiently. A small amount of Molecule A is converted to Molecule B and the remainder builds up and spills into the urine. Notice that Molecules C through D downstream are also affected.



Visualize this process as a dam blocking a stream—very little water flowing downstream and an overflow occurring upstream. The Organix Comprehensive Profile measures the overflow of certain organic acids in your urine to determine what blockages may be occurring in your metabolic pathways due to nutrient insufficiencies or other issues.

High levels of many organic acids on your report can indicate which nutrient insufficiencies may be affecting your health. Other organic acids come from toxins you have been exposed to, and still others show how your body is responding to toxins. When these are high on your Organix Profile, you may benefit from therapies that support your body’s detoxification processes. A few organic acids are significant at low levels; all are discussed below.

The numbers that follow correspond to the numbers on your Organix Profile test results.

1, 2, AND 3. ADIPATE, SUBERATE, AND ETHYLMALONATE elevations can indicate that you may need additional carnitine and/or vitamin B₂ to assist your cells in converting fats into energy efficiently. Carnitine is a nutrient necessary for moving

fatty acids into the mitochondria where they are converted to energy using vitamin B₂. When insufficient levels of carnitine or vitamin B₂ slow down this process, other parts of the cellular machinery take over and make adipate and suberate. A similar block in

another pathway may cause high ethylmalonate. Since much of your body’s energy is produced from the burning of fatty acids, your muscles and brain suffer when this cellular energy pathway is blocked. Vitamin B₂ insufficiency can underlie impaired carbohydrate metabolism, migraines and dementia. Research has shown carnitine supplementation may improve Alzheimer’s and age-related cognitive decline.

4. PYRUVATE may be elevated when B vitamins, particularly B₁ and B₅, are insufficient. When both lactate (#5) and pyruvate are high, there may be insufficient lipoic acid, a type of B vitamin. Lipoic acid is an important antioxidant, so low levels can lead to aging-related illnesses. Studies have shown that lipoic acid was beneficial in diabetes and liver disease.

The proteins, fats, and carbohydrates that you eat are fuel for your physical engine. The vitamins and minerals are its spark plugs. You need both high quality fuel and the ability to “fire on all cylinders” in order to achieve optimal health. An automobile can run with misfiring spark plugs, but for how long and how well? How fast and efficiently can it respond to an emergency demand for more power? The stress of living in our fast-paced world demands that kind of emergency power for our bodies on a daily basis.

Think of other nutrients as protecting agents. Just as your car has additives and devices that protect the body, engine, and driver, nutrients serve to protect your heart, brain, and other critical organs. Just as a car’s gauges warn the driver of potential problems, your body has certain chemical indicators that can alert you to potential problems. Early warnings can help you make diet and lifestyle changes that may both extend your life and enhance your quality of life.

kinds of heart disease, cancer and hypertension are increased when CoQ10 is insufficient.

6. β -HYDROXYBUTYRATE is a by-product of ketosis. Ketosis occurs when cells do not get a steady supply of sugar from dietary carbohydrate, so they burn fat instead. If you eat a low carbohydrate diet or if your insulin is not working, then you can have metabolic ketosis. It is not necessarily a serious matter, but your doctor may need to find out just what the cause is. If your insulin is not working well enough, its action may be improved by increasing your intake of chromium, vanadium and lipoic acid.

7, 8, AND 9. CITRATE, CIS-ACONITATE, AND ISOCITRATE are involved in both energy production and removal of toxic ammonia. High levels can indicate increased ammonia levels. Chronic loss of these valuable compounds can contribute to loss of organ reserve and disturbances in neurological function. Low citrate has been associated with kidney stone formation.

5. L-LACTATE is a product of muscle use, so it is constantly produced in normal daily activity. Low L-lactate is seen in people with very little physical activity and in highly trained athletes. High L-lactate can cause muscle cramping, fatigue and brain fog, and indicates insufficiency of coenzyme Q10 (CoQ10), a nutrient that enables the body to use oxygen to generate large amounts of energy. It is important for athletes in maintaining intense muscular activity. CoQ10 is also a potent antioxidant and may help to slow the aging process and prevent a variety of degenerative diseases. Risk for certain

10. α -KETOGLUTARATE This marker shows the same vitamin deficiencies listed below as the other Alpha-keto compounds. (See 15, 16, and 17)

In the time it takes you to read this sentence, your amazing body will have analyzed, synthesized, restructured, and utilized thousands of nutrient molecules. It will have split proteins, burned sugars, pumped minerals, exchanged gases, and transferred electrons.

Thousands of chemical reactions occur each second in your body, every second of your life. Just imagine the energy required to perform this biochemical magic that powers your human machine!

Where does your body get this energy? The foods you eat provide fuel for your body. The nutrients you consume each day are your body’s only source of raw materials. A shortage of any nutrient can shut down the “assembly lines” that are your body’s biochemical pathways. Your body is amazingly adaptive and can sometimes function for long periods of time even though particular biochemical “assembly lines” are closed down. Eventually, however, certain nagging symptoms can progress to become diseases that can destroy the quality of life or even life itself.

11, 12, AND 13. SUCCINATE, MALATE, AND FUMARATE are used in the body’s metabolic pathway that generates cellular energy – the Citric Acid Cycle. This cycle critically supports organ maintenance and neurological function. Higher levels of these compounds in urine indicate inefficiencies in energy production, which can be due to insufficiency of coenzyme Q10. Low levels can indicate a general amino acid insufficiency because amino acids are used to make these compounds.

14. HYDROXYMETHYLGLUTARATE (HMG) is used by your cells to make CoQ10. Statin drugs, which lower cholesterol, block this process, causing HMG to become elevated and inhibiting the production by the cells of CoQ10. There can be other causes, too, for this metabolic block. High levels of HMG generally indicate need for CoQ10 supplementation.

15, 16, AND 17. α -KETOISOVALERATE, α -KETOISOCAPROATE AND α -KETO- β -METHYLVALERATE require Vitamins B₁, B₂, B₃, B₅ and lipoic acid to be metabolized. Elevations of these organic acids can indicate insufficiency of these B vitamins, especially B₁ and B₅. These B vitamins are involved in neurological function and are critical for childhood development and learning. A variety of disorders have been associated with lack of these vitamins, including memory loss, anemia, and dermatitis.

18. XANTHURENATE is formed from an amino acid that comes from protein in your diet. Insufficient vitamin B₆ causes much higher excretion of this compound. Insufficiency of vitamin B₆ can be caused by many pharmaceuticals, such as birth control pills. Problems with balance, fatigue, and mental/emotional stability (such as PMS and ADHD) are frequently found in patients with inadequate vitamin B₆. Some research has shown that symptoms of autism were ameliorated with vitamin B₆ supplementation.

19. β-HYDROXYISOVALERATE is a sensitive indicator of biotin deficiency. Biotin deficiencies develop for a number of reasons including pregnancy, antibiotic use, intestinal issues, and anticonvulsant therapy. Symptoms can include hair loss, skin rash, dermatitis, immune deficiencies, and muscle weakness.

20. METHYLMALONATE requires vitamin B₁₂ for its metabolism. High levels indicate insufficient vitamin B₁₂ that can contribute to nervous system dysfunction. Anemia and the associated symptoms of fatigue result from low vitamin B₁₂. Even mild insufficiencies cause elevation of a well-known cardiovascular disease risk factor, homocysteine. Absorption of vitamin B₁₂ requires normal digestive function.

21. FORMIMINOGLUTAMATE (FIGLU) is a functional marker of folic acid (a B vitamin) insufficiency. Pregnant women especially need to have adequate folic acid to prevent birth defects. Childhood developmental problems have also been associated with folic acid insufficiency. Folic acid deficiency can play a role in depression and immune function; it is a risk factor for cardiovascular disease.

22 AND 23. VANILMANDELATE (VMA) & HOMOVANILLATE (HVA) are breakdown products from neurotransmitters involved in hormone and nerve impulse transmission. When these compounds are low, it indicates your body is not making enough of these neurotransmitters. Symptoms associated with this condition are depression, sleep disturbances, inability to deal with stress, and fatigue. Treatments to improve digestion and supplementation of tyrosine or phenylalanine can help improve the ability to keep up with demand for these neurotransmitters. Elevations of VMA and HVA indicate an over-activation of nervous system function involving these neurotransmitters

for various reasons, but most commonly associated with stress—both internal (e.g., mental/emotional) and external (e.g. environmental toxins). Addressing the source of stress and improving the body's ability to handle stress are useful in these cases.

24. 5-HYDROXYINDOLACETATE (5-HIA) is a breakdown product of the neurotransmitter serotonin. Low 5-HIA indicates inadequate production of serotonin. Associated symptoms can include constipation, depression, fatigue, insomnia, attention deficit, and behavioral disorders. High 5-HIA may occur when there is an increased utilization and breakdown of serotonin. Many antidepressant medications cause a strong increase in the amount of serotonin that is made and broken down. This stimulation can contribute to loss of the essential amino acid, L-tryptophan, from which serotonin is made. Dietary therapy may focus on protein digestion via stomach acid and pancreatic enzymes, or on consumption of foods high in tryptophan. Your doctor may talk with you about nutritional supplements that may be helpful.

25. KYNURENATE can reduce the toxic effects of quinolinate (see #26). Elevations can also indicate an insufficiency of vitamin B₆, especially when xanthurenate (see #18) is high.

26. QUINOLINATE elevations are caused by inflammatory processes induced by the immune system, such as during infection (especially viral). High levels in the brain can cause insomnia, irritability, and nervousness. These effects may be improved by removing the source of inflammation and supplementation with magnesium.

27. PICCOLINATE elevations are also caused by inflammation processes induced by the immune system. A high protein diet may increase production of piccolinate whereas polyunsaturated fatty acids may divert the flow through the kynurenate pathway to quinolinate. In cases of elevated urinary piccolinate, supplemental mineral-piccolinate salts may be contributing sources.

28. p-HYDROXYPHENYLACTATE (HPLA) is a regulator of normal cell growth. High levels of HPLA are associated with abnormal cell growth. Vitamin C may lower levels of HPLA.

29. **8-HYDROXY-2'-DEOXYGUANOSINE (8-OHdG)** is a non-invasive marker of cell damage. Some cell damage is a normal part of metabolism, but it is kept to a minimum by the cell's protective mechanisms. Under certain circumstances, the balance between the damaging chemicals and protective mechanisms can be upset, resulting in a condition termed "oxidative stress." Although numerous cell damage products can be formed, the one most often studied is 8-OHdG. When oxidative damage occurs to the cells, repair mechanisms produce 8-OHdG, which is excreted unchanged in the urine. High levels reflect high oxidative stress to the cells.

30. **2-METHYLHIPPURATE** is a by-product of detoxification of the common solvent, xylene. Elevations indicate an exposure to this potentially toxic compound found in paint, varnishes, paint thinners, solvents, and many aerosols. Such exposures increase the burden on liver detoxification. An abundant supply of the amino acid glycine and vitamin B₅ are important for removing xylene from the body.

31. **OROTATE** is a marker of your liver's capacity to convert toxic ammonia to non-toxic urea that you can excrete. That capacity can be increased by additional arginine. Ammonia impairs brain function, causing difficulty with thinking, fatigue, headaches, and increased food sensitivities. Increased orotate may identify a need for magnesium.

32. **GLUCARATE** helps your liver perform its important role in removing from your body many types of toxins such as pesticides, prescription drugs, food components, and intestinal bacteria. Enzymes create glucarate when they are stimulated to increase liver detoxification. High levels indicate your liver is working to remove these toxins. Removing the source of exposure and supporting the liver's detoxification with nutrients such as glycine, glutathione, N-acetylcysteine, and liver-specific antioxidants are helpful.

33. **A-HYDROXYBUTYRATE** is elevated in your body's attempt to respond to metabolic stress by making additional glutathione. Because glutathione is critical for removing toxins and acting as a powerful antioxidant, your body is constantly making it in large amounts. Many disease processes can be influenced by insufficiency of this vital nutrient. Elevated a-hydroxybutyrate indicates high cell demand for glutathione. Supplementation with various sulfur amino acids and glutathione can be used to support adequate levels of this compound.

34. **PYROGLUTAMATE** elevation indicates the body is using up glutathione to keep from losing amino acids. Glutathione is important for protection of cells from oxidation. Various amino acids, especially methionine and glycine, can help rebuild total body glutathione. Pyroglutamate elevation can also indicate a glycine insufficiency; supplementation with this amino acid may be indicated.

35. **SULFATE** is an indicator of your liver's efficiency in removing many drugs, steroid hormones, and toxic compounds. High sulfate may indicate that this pathway is very active. Low sulfate indicates the fuel to run this pathway has been used up and the liver's ability to remove toxic compounds is suppressed. Cysteine, taurine, and salts of sulfate are used to replenish sulfur pathways and restore and maintain the liver's supply of sulfate.

36. **BENZOATE** is produced by intestinal bacteria. It can also occur in the urine because of exposure to foods that contain benzoate as a preservative, such as pickles and lunchmeats. The amino acid glycine and vitamin B₅ are required to eliminate benzoate from your body. When benzoate is high, regardless of the source, these nutrients will help to lower the level.

37. **HIPPURATE** is made as your liver metabolizes benzoate in preparation for elimination. Bacteria also convert certain food components (polyphenols) into hippurate. Generally, high hippurate is a marker for bacterial overgrowth in the intestines.

38 AND 39. **PHENYLACETATE AND PHENYLPROPIONATE** elevations result from too much bacterial growth in the intestines. This can indicate problems with digestion of food or by use of antibiotic medications. It can result in further loss of intestinal health and in symptoms due to toxic effects of the bacterial products.

40 AND 41. **P-HYDROXYBENZOATE AND P-HYDROXYPHENYLACETATE** are made by different kinds of bacteria from food components. Certain antibiotics will cause an increase in this type of bacteria.

42. **INDICAN** is made by bacteria from dietary protein in the small intestine. It is present only at low levels in a healthy person. High levels indicate bacterial overgrowth in the small intestine. Indican excretion is reduced when the intestines are populated with strains of lactobacillus, a form of healthy bacteria.

43. **TRICARBALLYLATE** is produced by strains of bacteria that are likely to grow after use of antibiotics and acid-blocking drugs. It binds tightly to minerals such as magnesium, calcium and zinc, blocking their absorption, and can lead to low mineral levels when this compound is high.

44. **D-LACTATE** goes up when species that are normally beneficial, such as *Lactobacillus acidophilus*, are too high. An elevation of *L. acidophilus* in the small intestine can be a result of an inability to absorb carbohydrates. Probiotics containing beneficial bacteria other than *Lactobacillus* should be given to restore the balance of beneficial flora.

45. **3,4-DIHYDROXYPHENYLPROPIONATE** is produced by a number of species including *Clostridium*. Studies have shown that *Clostridium* overgrowth can be controlled by adding other beneficial organisms.

46. **D-ARABINITOL** is one of the most well researched markers for yeast overgrowth in the intestine. Many symptoms can result from yeast overgrowth, such as fatigue, sensitivity to carbohydrates or sugar, and “foggy-headedness.”

AMINO ACID PROFILE

Amino acids are the building blocks of protein and are the second most prevalent component of your body (water is the first). They serve so many critical roles—including regulation of muscle, immune, nerve, and hormone activity and formation and maintenance of every tissue in your body—that adequate levels are vital to health. Between meals, amino acids supply energy to keep cells functioning. Chronic stress, depression, and toxic chemical exposure increase your need for amino acids. Healthy digestion is critical for adequate amino acid status.

ESSENTIAL (E) AND CONDITIONALLY ESSENTIAL (CE) AMINO ACIDS

Essential amino acids are those that the body cannot synthesize and thus must be obtained from the diet. Conditionally essential amino acids are those the body normally can synthesize from the diet, but that may need to be obtained directly from the diet or supplementation under specific circumstances. All others listed are amino acid derivatives (also called “non-essential amino acids”) which can, under normal conditions, be made by the body in sufficient quantities from essential amino acids. After ruling out chronic dietary deficiency, if many amino acids are very low, consider malabsorption or low hydrochloric acid in the stomach. When replenishing with amino acid supplements, use a balanced or individualized formulation with all the L-amino acids in order to avoid a relative deficiency of the missing groups.

Your Amino Acid Profile measures your levels of amino acids. Low levels of amino acids mean you are not getting enough essential amino acids from your diet either from inadequate intake of quality protein or from poor digestion. Supplementing essential amino acids can greatly benefit people who have very low protein diets, have trouble adequately digesting protein, or who have increased demand for specific amino acids to maintain body processes.

LYSINE (E) is a well known amino acid required for carnitine formation. Lysine is used in treating herpes infections. It is abundant in muscle tissue. Prolonged stress results in low levels of this amino acid. Lysine can help fight lead toxicity and can help treat osteoporosis by reducing calcium loss.



METHIONINE (E) is the most important sulfur-containing amino acid. It is a precursor to cysteine, taurine, and glutathione. Low levels are associated with a low-quality protein diet, high tannin intake, or increased excretion. High levels may be seen with supplementation, impaired hepatic function, or reduced excretion.

TRYPTOPHAN (E) has special functions in brain chemistry and is the precursor to the brain chemical serotonin and the vitamin niacin in the body. Low tryptophan levels are correlated with depression in patients. Supplementation has been shown to help induce sleep in those with insomnia.

ISOLEUCINE (E) is a part of carbohydrate and fat metabolism. Studies have shown that low levels in plasma indicate an increased need for niacin. Chronic deficiency can cause hypoglycemia, loss of muscle mass, or inability to build muscle.

LEUCINE (E) stimulates insulin production and promotes protein synthesis. Although it is abundant in muscle tissue it cannot substitute for glucose in the fasting state, but is converted into other compounds that serve as an alternate source of energy for the body.

VALINE (E) is abundant in muscle tissue and is vital for protein synthesis. Low levels may indicate a potential muscle loss; high levels may indicate insufficient vitamin B₆.

PHENYLALANINE (E) is a precursor for neurotransmitters, the chemicals that communicate between nerve cells in the brain. It can relieve pain, alleviate depression, and suppress the appetite. Low levels may indicate a stressful lifestyle, leading to memory loss, fatigue, and depression.

HISTIDINE (E) is rapidly used during stress. Low levels are often associated with rheumatoid arthritis and poor dietary protein; high levels may indicate excessive protein intake or insufficient folate.

THREONINE (E) is an immune system stimulant that can promote the growth of the thymus gland and help with depression. It is used in multiple sclerosis treatment.

ARGININE (CE) is found in all proteins and is vital for muscle metabolism and liver function. It can inhibit tumor growth,

promote wound healing, and lower cholesterol and blood pressure. Low levels often reflect poor digestion of protein or increased demands for detoxification.

TAURINE (CE) is an antioxidant that also plays a role in brain chemistry. It can improve symptoms of depression, stimulate insulin release, and enhance cholesterol excretion. Taurine is used to treat heart disease, hypertension, and epilepsy.

GLYCINE (CE) is used in the body as an energy source, to detoxify, and for brain function. High levels may indicate deficits in brain chemistry associated with behavioral or emotional disturbances. Glycine is used in the synthesis of hemoglobin, creatine, DNA and RNA, and is involved in maintaining blood sugar levels. Low levels may produce hypoglycemic-like symptoms.

SERINE (CE) can be used as an energy source. Formed from threonine and phosphoserine (requiring B₆, manganese, and magnesium), serine is necessary for the biosynthesis of acetylcholine, a neurotransmitter used in memory function. Low serine may lead to memory problems and depression.

TYROSINE serves as a precursor for thyroid hormone and neurotransmitters. Low levels of tyrosine have been associated with hypothyroidism, depression and blood pressure disorders. High levels may indicate an inability to utilize tyrosine properly, perhaps because of low levels of enzyme co-factors such as iron, copper, iodine, B₆, and vitamin C.

ASPARAGINE (also found in asparagus) is required for protein synthesis and hormone production. Low levels may indicate a need for magnesium.

ASPARTIC ACID can be used as an energy source and aids in the detoxification of ammonia. Aspartic acid supplementation has been shown to increase stamina. High levels may indicate an energy problem that would respond to B-vitamin supplementation.

CITRULLINE elevation may indicate the potential of the build-up of toxic ammonia in the system. A low protein diet and/or supplementation of magnesium, aspartic acid, and arginine can help control ammonia.

GLUTAMIC ACID functions as an excitatory neurotransmitter in the central nervous system and is important in removing ammonia from the brain. Low glutamic acid levels indicate ammonia toxicity, with symptoms including headache, irritability, and fatigue.

GLUTAMINE is the most abundant amino acid in the blood and is an important source of energy for many tissues in the body. It is derived from the amino acids histidine and glutamic acid. Low levels may reflect insufficient essential amino acid dietary intake.

ORNITHINE can stimulate the release of growth hormone, the hormone necessary for tissue repair and growth. Growth hormone is often low in patients with fibromyalgia. Ornithine elevation may indicate a higher body burden of ammonia. Alpha-ketoglutarate and vitamin B₆ may aid in clearing chronic minor excesses of ammonia.

PHENYLALANINE/TYROSINE RATIO evaluates the body's ability to convert phenylalanine to tyrosine; Conversion enzyme requires tetrahydrobiopterin (BH₄), niacin (B₃), and iron as cofactors.

GLUTAMIC ACID/GLUTAMINE RATIO is used to identify specimen handling issues that cause spontaneous degradation of glutamine to glutamate, and can reveal the origin of difficulty maintaining systemic pH balance.

TRYPTOPHAN/LNAA RATIO governs the amount of serotonin synthesis in the brain. Tryptophan is a large, neutral amino acid (LNAA) that must compete with the other LNAAs including leucine, isoleucine, valine, phenylalanine, and threonine when crossing the blood-brain barrier. Elevations in the tryptophan/LNAA ratio could cause manic tendencies by promoting elevated serotonin production. If the ratio is low, the other LNAAs block the passage of tryptophan across the blood-brain barrier, increasing the change for depressive conditions.

IgG-MEDIATED FOOD SENSITIVITIES

This profile measures antibodies your body produces to certain foods. There are several types of adverse food reactions, but those involving IgG are the most common. Antibody tests provide the clinician and patient useful data to design appropriate diets that exclude and/or rotate the major offending foods.

IgG antibodies, specifically the IgG₁ and IgG₄ sub-classes, are associated with delayed hypersensitivity reactions, which are the most difficult to detect. These delayed or "hidden" food allergies can cause chronic symptoms until the person identifies and eliminates the foods from the diet. There may be no obvious association between food consumption and adverse reactions, because IgG reactions occur several hours or days after the food is eaten. IgG levels rise in response to the presence of the food antigens in the bloodstream, particularly with commonly eaten foods. IgG antibodies combine with specific food antigens to form food-immune complexes, which are considered the active agents in delayed allergic response. The complexes can cause inflammatory reactions at various sites in the body (e.g., small and large intestine, skin, kidney, etc.).



The IgG Food Antibody Profile is useful in screening for potential foods you eat on a regular basis that may be causing adverse physical reactions. Since it measures your immune system's response to food antibodies, if you are already eliminating a food from your diet due to a known reaction, a negative result on this test does not necessarily mean you can eat the food without effects. Reintroduce foods into your diet with caution.

WHEN MANY POSITIVE REACTIONS ARE FOUND on this profile, intestinal hyperpermeability is indicated. Also described as "leaky gut," this phenomenon allows numerous food antigens to permeate through the intestinal lining into the bloodstream, causing the immune system to generate IgG antibodies in response. In general, consuming these foods puts the body under stress. Avoiding them will help but may not completely cure the leaky gut. Improving the integrity of the physical barrier of the intestine with certain nutrients such as glutamine, B₅ or pantothenic acid, and zinc is also important.

When a majority of foods are taken out of the rotation diet because they show significantly elevated IgG levels, there is potential for lower protein and calorie intake. This can have a negative impact on the immune system and may, in turn, make allergic reactions worse. One way to avoid lowered protein status is to use non-antigenic or medical food substitutes such as pure crystalline amino acids. Another approach is to carefully rotate the less reactive foods (+2 and +3) in the diet.

A MODERATE NUMBER OF POSITIVE REACTIONS may also indicate an intestinal permeability problem, and steps of avoidance and gut healing should be taken as indicated above. Total elimination of all of the reactive foods for one month, coupled with nutritional support, can be beneficial. If symptoms return after resuming normal eating patterns, the rotation diet and nutritional support should be reinstated.

EVEN WHEN ONLY A FEW REACTIONS are found, the reactive foods should be eliminated from the diet to see if symptoms improve. Avoiding even the "mild" reactive foods (+1 class) may help avoid the proliferation of IgG-food antigen complexes and improve symptoms. These +1 class foods are normally not highly significant, but elimination of them may be helpful if symptoms persist after elimination of the more reactive foods.

NO REACTIONS usually indicate you do not have a problem with intestinal permeability. Everyone produces a small amount of IgG to foods they eat. Clinically insignificant IgG values are not given a ranking class. However, IgG production to foods may be inhibited for other reasons. For example, steroidal anti-inflammatory drugs are known to suppress the immune response and IgG production. Also, some individuals do not produce significant levels of IgG antibodies to foods. They may compensate for this by producing other antibodies.



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