METHYLGENETIC NUTRITION®

NUTRIGENOMICS REPORT 2.0

METHYLGENETIC NUTRITION®

MY NUTRIGENOMICS REPORT

Client Name:
Client DOB:
Vial Number:
Client Sex:
Referring Account:
Practice:
Sample Received:
Report Date:
MGPTID#:

NOTES

Admin Notes:

Lab Notes:

METHYLGENETIC NUTRITION®

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METHYLGENETIC NUTRITION®

HOW TO READ THIS REPORT

Congratulations, your Methylgenetic Nutrition results have arrived. You're one step closer to taking control of your health through customized recommendations based on your unique genetic signature.

This report was designed to help you understand the roles that your genes, nutrition, and lifestyle play as they work together to shape your overall health.

COLOR-CODING SYSTEM

The color-coding system in your results tells you whether a specific genetic variation you carry warrants further action such as dietary, nutritional, or lifestyle interventions as well as the level of need from Green (no action required) to Yellow (may require action) to Red (action required).

NO ACTION | MAY REQUIRE ACTION | ACTION REQUIRED

Before you review your results, let's go over some key words and their definitions and take a look at how the body's systems react to common genetic variations.

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WHAT IS GENETICS AND NUTRIGENOMICS

Nutrigenomics

Nutrigenomics is the study of how nutrition interacts with an individual's genetic makeup to affect health and disease. Nutrigenomics tests are laboratory tests that analyze specific genetic variations, called single nucleotide polymorphisms (SNPs), to provide personalized nutrition and lifestyle recommendations based on an individual's genetic profile.

GENE

A gene is a segment of DNA that contains the instructions for making specific proteins, which are essential for the structure, function and regulation of the body's cells, tissues and organs. They perform a vast array of functions, such as catalyzing metabolic reactions, replicating DNA, responding to stimuli, and transporting molecules from one location to another. Every gene has a chemical base pair, adenine (A), thymine (T), cytosine (C), guanine (G). The order of sequence determines the information needed to maintain life.

ENZYME

An enzyme is a protein that acts as a catalyst in chemical reactions in the body. Enzymes are involved in many different metabolic pathways and are essential for life.

The relationship between genes and enzymes is that genes provide the blueprint for the synthesis of enzymes, which then perform their roles in various biochemical reactions throughout the body.

SINGLE NUCLEOTIDE POLYMORPHISM (SNP)

A single nucleotide polymorphism (SNP) is a type of genetic variation that occurs when a single base pair in the DNA sequence is different in different individuals. Some SNPs are associated with increased risk of certain diseases, while others may affect how a person responds to certain medications. They can also play a key role in an individual's susceptibility to environmental factors such as diet and lifestyle.

Wild Type - most commonly found pairing in nature; no variation.
Heterozygous - one variant copy from a parent; one non variant copy from a parent.
Homozygous - two variant copies, one from each parent.

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ALLERGY & SENSITIVITY (HISTAMINE AND YOUR GENETICS)

Histamine is a chemical that is involved in many functions in the body, including immune response, digestion, and the regulation of blood flow. It is also a neurotransmitter, meaning it is used by the nervous system to communicate between cells.

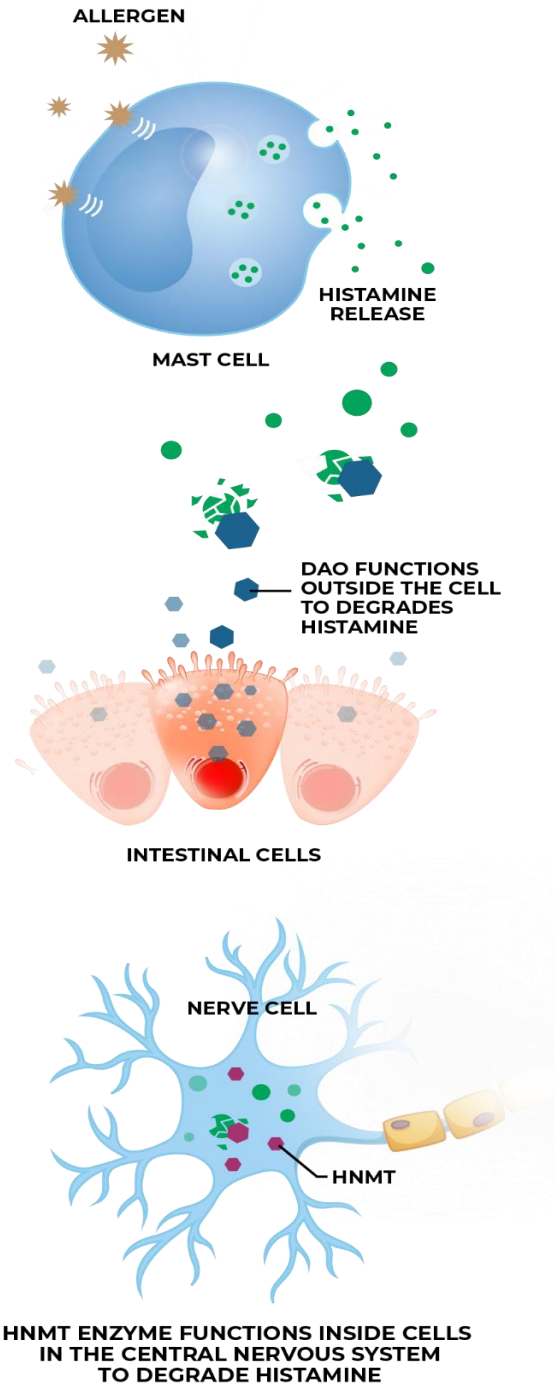
When histamine is present in excess, however, it can cause a wide range of symptoms, including itching, flushing, hives, GI upset, and even anaphylaxis (a severe allergic reaction). This condition is known as histamine intolerance, and it can be caused by a number of factors, including genetics, diet, environmental exposure, and certain medical conditions.

Two key enzymes play a role in the metabolism of histamine: diamine oxidase (DAO) and histamine N-methyltransferase (HNMT).

When someone consumes histamine-rich foods, DAO helps degrade histamine to prevent excessive accumulation. In people with histamine intolerance, DAO levels can be reduced, either due to genetic factors, gastrointestinal disorders, or medication side effects. Low DAO levels can lead to an impaired ability to break down histamine, resulting in increased histamine levels and the onset of intolerance symptoms.

Genetic variations or mutations in the HNMT gene can result in reduced enzyme activity, contributing to histamine intolerance. Moreover, some medications can interfere with HNMT function, exacerbating the problem.

One of the most effective ways to manage histamine intolerance is to identify and avoid foods that are high in histamine, as well as foods that can trigger the release of histamine in the body. This includes fermented foods, aged meats, and certain types of seafood. It is also important to limit the intake of alcohol and to avoid certain medications that can inhibit the action of DAO and HNMT. In addition, some people may find relief from histamine intolerance by taking supplements that are known to support the action of DAO and HNMT.



High Histamine Foods

- Alcohol/Ferments
- Citrus Fruits
- Dried Fruits
- Soured Foods
- Smoked Meats
- Aged Cheese
- Tomatoes
- Walnuts
- Cashews
- Peanuts
- Spinach
- Eggplant
- Shellfish
- Bananas
- Wheat
- Strawberries
- Beans
- Chocolate
- Food Dyes
- Food Additives

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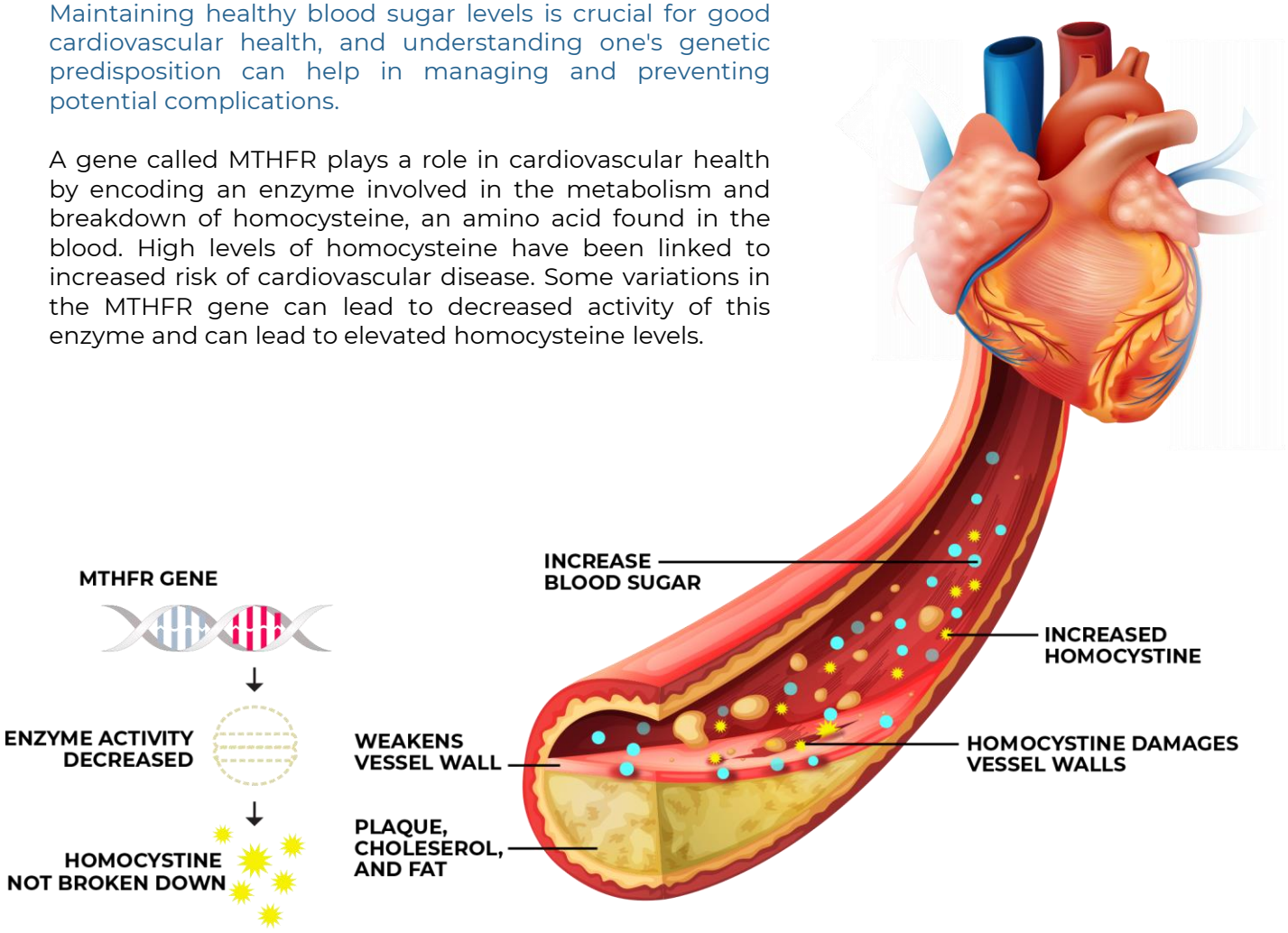
BLOOD SUGAR & CARDIOVASCULAR

A person's genetic makeup can affect their blood sugar levels by influencing how their body processes and uses sugars from food. Some genes can make people more likely to develop insulin resistance, a condition where the body doesn't use the hormone insulin properly, leading to high blood sugar levels.

High blood sugar over time can cause diabetes and damage blood vessels and nerves, increasing the risk of heart disease, stroke, and other cardiovascular problems.

Maintaining healthy blood sugar levels is crucial for good cardiovascular health, and understanding one's genetic predisposition can help in managing and preventing potential complications.

A gene called MTHFR plays a role in cardiovascular health by encoding an enzyme involved in the metabolism and breakdown of homocysteine, an amino acid found in the blood. High levels of homocysteine have been linked to increased risk of cardiovascular disease. Some variations in the MTHFR gene can lead to decreased activity of this enzyme and can lead to elevated homocysteine levels.



ELIMINATION & METHYLATION

Elimination of toxins from the body is a critical process that helps to maintain overall health and prevention of certain diseases. Toxins can come from the environment, food, and even the products we use on our skin.

The body has several systems for eliminating toxins, including the liver, kidneys, lungs, and skin, which work together to break down and remove harmful substances from the body.

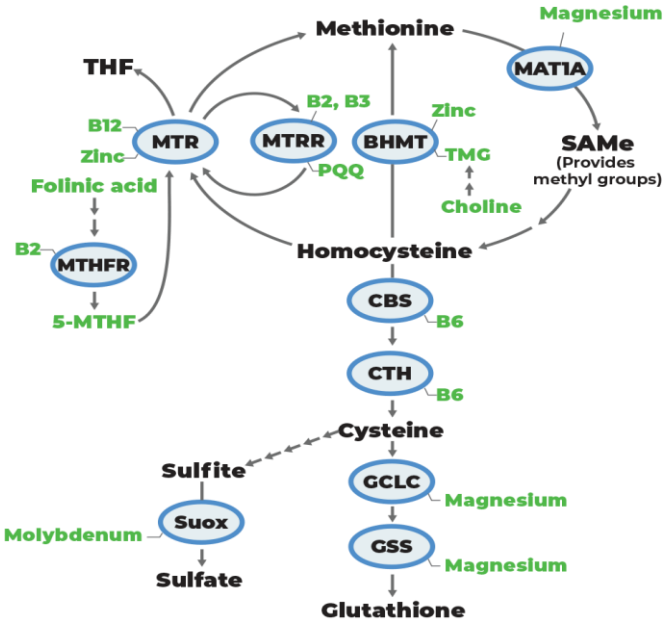
The PON1 gene, short for paraoxonase 1, provides instructions to the liver enzyme PON1 to detoxify harmful substances, such as organophosphate pesticides and oxidized lipids. By breaking down these toxins, the PON1 enzyme helps protect our body from oxidative stress and inflammation which can lead to various diseases.

Mutations in the PON1 gene can affect the activity of the enzyme PON1 reducing its efficiency in breaking down and removing toxins. A build up of toxins can increase a person's risk of type 2 diabetes, cardiovascular, and neuro- degenerative diseases. Studies have also suggested that people with certain variations in the PON1 gene may be at a higher risk of developing certain neurological disorders such as Alzheimer's disease.

Having this genetic variation does not necessarily mean a person will develop diseases, however, individuals should work with their healthcare professional to take steps to reduce their risk by maintaining a healthy lifestyle, and avoiding environmental toxins.

Methylation is important in numerous bio-chemical reactions in the body that control vital processes, such as detoxification and the regulation of gene activation. Methylation is, essentially, the on/off switch of the body – where countless molecules and processes can be activated, or deactivated, to perform a function, or to allow a reaction to occur.

The MTHFR gene involved in methylation provides instructions for making an enzyme that helps our bodies process vitamin B9 (folate), which is important for many vital functions. A mutation in the MTHFR gene could result in defective or insufficient MTHFR enzyme, which may affect methylation. A lack of methylation can cause a wide variety of symptoms, metabolic disorders and poorer levels of health. Mutations in this gene can negatively impact folate metabolism and increase the risk of certain conditions like heart disease, birth defects, and certain types of cancer.



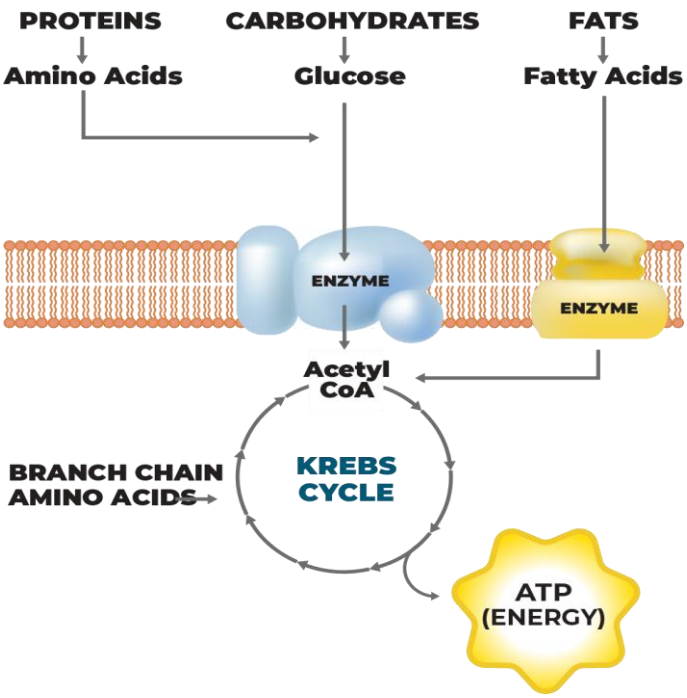
ENERGY & METABOLISM

Energy metabolism is the process by which the body converts food into energy that can be used by cells to carry out their functions. The body's energy needs are met through the metabolism of carbohydrates, fats, and proteins.

Genes play a significant role in energy metabolism. Many genes are involved in the regulation of metabolism, including those that control the rate at which the body burns calories, the way the body stores fat, and the way the body responds to insulin.

Nutrition and physical activity are two key lifestyle factors that can have a significant impact on energy metabolism.

Eating a balanced diet, getting enough physical activity, and maintaining a healthy weight can help to support optimal energy metabolism and reduce the risk of obesity and related diseases.



GASTROINTESTINAL (GI) & DIGESTION

Bile is a digestive fluid produced by the liver and stored in the gallbladder. Healthy bile flow is essential for efficient elimination of waste products and toxins from the body, as it aids in the digestion and absorption of fats and the removal of waste through the digestive system.

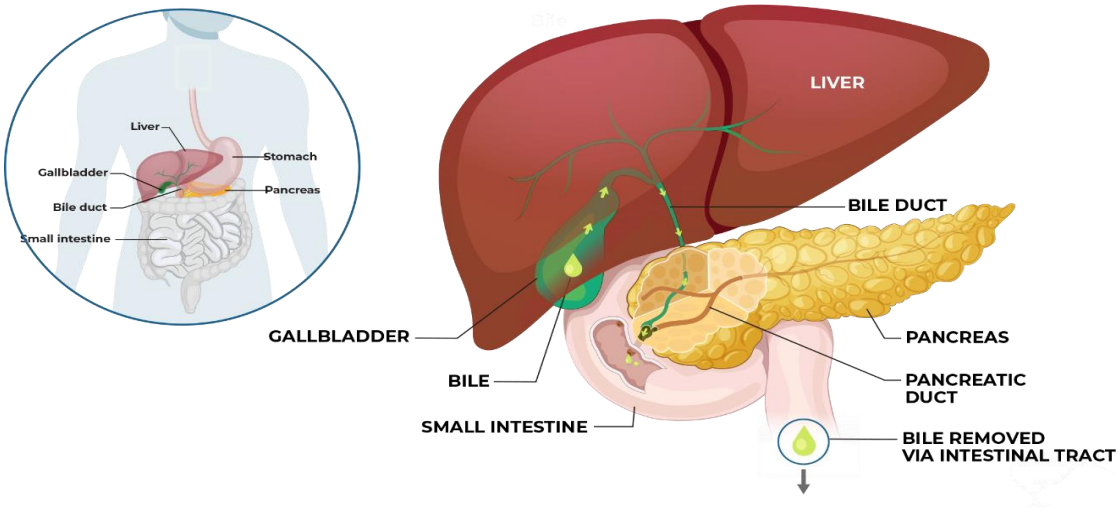
Bile's many functions and biological roles include: toxin-excretion, fat digestion, vitamin absorption, cholesterol metabolism, thyroid physiology, lipid metabolism, and **GI system** & microbial balance. If bile flow is impaired a host of problems can happen including diabetes, constipation, food allergies, HBP, reflux, weight gain, thyroid issues and toxin overload.

Proper bile flow helps maintain overall liver function and digestive health, preventing the buildup of harmful substances. Consequently, maintaining healthy bile flow contributes to the prevention of diseases related to toxin accumulation, liver dysfunction, and impaired digestion.

WHAT MEDICAL CONDITIONS RELATE TO POOR BILE FLOW?

Gallstones, High cholesterol, Gastroesophageal reflux, prescription or OTC antacids overuse, constipation, SIBO, SIFO, “leaky gut”, IBD, intestinal parasites/liver flukes, pregnancy induced gallbladder problems (cholestasis), food allergies, nausea, thyroid issues, autoimmunity, cellulite, yeast overgrowth, depression, hormone imbalances, type 2 diabetes, overweight, obesity, and gallbladder removal.

Genetic mutations affecting the synthesis, transport, or regulation of bile components, such as bile salts or cholesterol, can contribute to abnormal bile flow or composition.



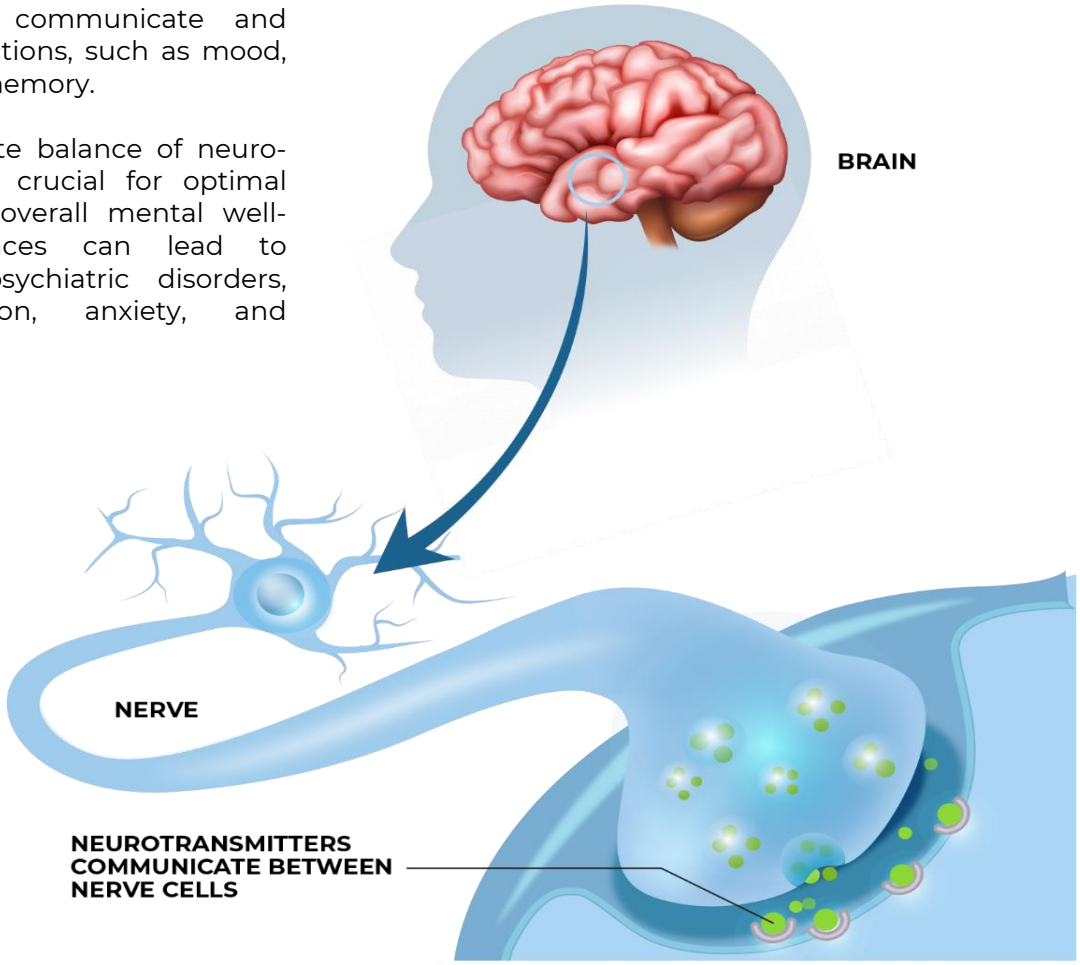
NEUROLOGIC & MOOD

The human brain is a complex organ that plays a crucial role in various functions such as cognition, emotion and behavior. **Neurologic and mood** health are closely linked, and disruptions in the normal functioning of the brain can lead to a variety of neurological and psychiatric disorders.

The metabolism of neurotransmitters in the brain involves their synthesis, release, re-uptake, and degradation, all of which are essential for proper communication between nerve cells (neurons). Neurotransmitters are chemical messengers that transmit signals across synapses, the tiny gaps between neurons, allowing them to communicate and regulate various functions, such as mood, sleep, learning, and memory.

Maintaining a delicate balance of neuro-transmitter levels is crucial for optimal brain function and overall mental well-being, as imbalances can lead to neurological and psychiatric disorders, including depression, anxiety, and Parkinson's disease.

Specific genetic variations can significantly impact an individual's mental health, as they influence the expression of certain genes linked to mental health disorders, such as depression, anxiety, and Alzheimer's disease. These variations may alter the function of neurotransmitters, brain structure, or neural connectivity, affecting an individual's susceptibility to these conditions. It is essential to note that while genetic factors play a role, environmental factors and personal experiences also contribute to the development and progression of mental health disorders.

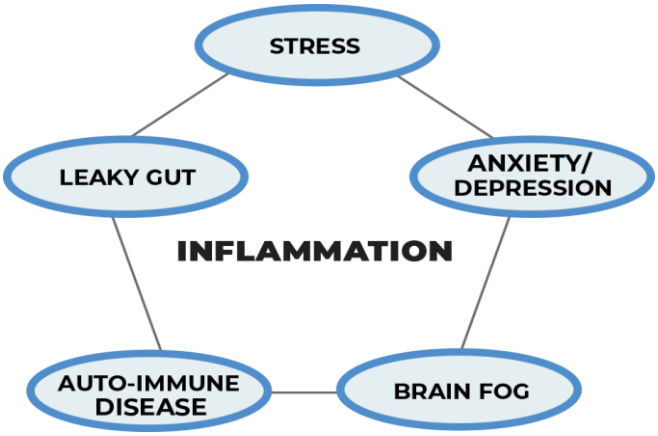


OXIDATIVE STRESS

Oxidative stress is the imbalance between the production of reactive oxygen species (ROS) and the body's ability to neutralize or repair the damage caused by these molecules. ROS are naturally occurring by-products of metabolism and can also be generated by external factors such as pollution, radiation, and infection. When present in excess, ROS can cause damage to lipids, proteins and DNA, contributing to inflammation and various diseases such as cancer, cardiovascular disease, and neurodegenerative disorders. Inflammation is a natural response of the body to injury or infection, and it is characterized by the activation of immune cells, the release of inflammatory mediators, and the recruitment of other cells to the site of injury. Inflammation can be acute or chronic, and while acute inflammation is necessary and beneficial, chronic inflammation can contribute to the development of various diseases.

The superoxide dismutase (SOD) enzyme is an important antioxidant enzyme that plays a crucial role in the body's defense against oxidative stress. Deficiencies or mutations in the genes encoding for SOD can lead to an increased susceptibility to cellular damage from oxidative stress, resulting in a variety of diseases such as Alzheimer's disease, and other neurodegenerative disorders. Therefore, having an adequate amount of SOD and other antioxidant enzymes is important to maintain the balance of the body and prevent the harmful effects of oxidative stress.

To help reduce oxidative stress and inflammation, it is important to maintain a healthy diet that is low in processed foods and high in fruits, vegetables, and healthy fats. Regular physical activity and stress management techniques can also help to reduce inflammation and improve overall health. Additionally, avoiding exposure to environmental toxins, practicing sun protection, and not smoking are also important steps that can help to reduce oxidative stress.



FOUR WAYS TO REDUCE INFLAMMATION

LIMIT PROCESSED FOODS
CHOOSE FRUITS, VEGETABLES, AND HEALTHY FATS
GET REGULAR PHYSICAL ACTIVITY
MANAGE STRESS

VITAMINS & YOUR GENETICS

Your ability to metabolize vitamins plays a critical role in your health. While we like to think we can get all the vitamins we need from our food supply, due to modern agricultural practices this is becoming less likely.

Vitamins are necessary for cellular health, which is the root of all bodily functions. If you want to avoid chronic lifestyle-related diseases, such as heart disease and diabetes, proper micronutrient levels must be monitored.

Genetic variations in individuals can influence their ability to absorb and process different nutrients as they relate to nutrient metabolism, transport, and utilization. These genetic differences can affect the efficiency of specific enzymes or transporters, leading to varying nutrient requirements or responses to dietary interventions among individuals.

Tailoring dietary supplements and vitamins to individual genetic profiles can help optimize nutrient intake and support overall health.

If you have any potential for vitamin or nutrient deficiencies, it is wise to consult with a practitioner about supplementation. Be sure to tell your practitioner about any medications, vitamins, or dietary supplements you are already taking to ensure compatibility and prevent redundancies.

Because specific genetic variations require specific forms of micronutrients and not all brands of dietary supplements contain standardized ingredient quantities or quality, it is important to consult with your health care practitioner to ensure that you're getting products with the appropriate form, purity and potency.

Client Name:
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ALLERGY & SENSITIVITY

Gene	RS#	Result	Signs & Symptoms	Labs	Product/Support
Extracellular Histamine			Migraines, hypotension/hypertension, menstrual cycle irregularities, arrhythmia, urticaria, atopic skin, psoriasis, nasal congestion, asthma, ibs, constipation, satiety issues, vomiting, fibromyalgia, muscle & bone pain.	Low DAO, High Plasma Histamine, Tryptase, Chromograniin-A, LPS- Binding Protein	ABP1 Assist (Hista-Gut), MC Balancer
DAO (AOC1)	rs1049793	GC - Hetero			
DAO (AOC1)	rs10156191	CC - Wild			
DAO (AOC1)	rs1049742	CC - Wild			
Intracellular Histamine				High Histamine, Tryptase, Chromogranin- A, LPS- Binding Protein	Histamine Balancer (Homeo), Histamine Scavenger
HNMT	rs11558538	CC - Wild			
Gluten Sensitivity			Diarrhea, fatigue, weight loss, bloating, gas, abdominal pain, nausea and vomiting, constipation	Food Sensitivity Testing, Celiac panel	Consider Gluten Free Diet
HLA-DQ8	rs7454108	TT - Wild			
HLA-DQ2.5	rs2187668	CC - Wild			

BLOOD SUGAR & CARDIOVASCULAR

Blood Sugar			Frequent urination, increased thirst, fatigue, slow healing wounds, blurred vision, dizziness	HGB-A1C, Insulin, Glucose	Gluco Beta Stim Plus, NRF2
ADRA2A	rs553668	AA - Homo			
TCF7L2	rs7903146	CC - Wild			Gluco Beta Stim Plus, Assist
FTO	rs9939609	AA - Homo			
Cardiovascular			Inflammation, low mood, cardiovascular issues, chronic disease, high toxin-burden	low B12, high MMA(urinary), high homocysteine, low methionine, low SAMe, high CRP	MTHFR & BHMT Assist, or MTHFR/MTR/MTRR & BHMT Assist
MTHFR A1298C	rs1801131	AA - Wild			
MTHFR C677T	rs1801133	TC - Hetero			
Factor 5	rs6025	CC - Wild	Family history of clotting disorders, cold/numbness/pain of extremities, other cardiovascular symptoms.	Prothrombin Time, Fibrinogen, Cardio IQ or Boston Heart.	Circulation Accelerator, Circulation (homeo).
Prothrombin	rs1799963	GG - Wild			
PAI-1	rs1799889	AG - Hetero			
ACE	rs4343	GG - Homo	Hypertension	Sodium / Metabolic Panel	Oligo-Potassium, Kidney Liquesence, Renal Sarcode

ELIMINATION

Estrogen			Inflammation, fatigue, brain fog, headaches, weight issues	Dutch testing/ 4-OH-E1	Addex (Homeo), Phase 2.5, Phase 3
EPHX1	rs2234922	AG - Hetero			
CYP1A1	rs1048943	CC - Homo	Increased 2-OHE1		ExcEss
CYP19A1	rs4646	CC - Wild	Increased E1 (Aromatase)		
CYP1B1	rs1056836	CG - Hetero	Increased 4-OHE1		
COMT	rs4680	AA - Homo	RESULT: (Slow Activity)		
Glutathione			Inflammation, fatigue, brain fog, kidney pain, headaches, weight issues, cellulite, acne, eczema, yellow sclera, red palms, low back pain, hair loss, indigestion, achy joints, right upper quadrant abdominal pain, loose stools, itchy skin	Low RBC GSH, low bilirubin, elevated LFTs, high GGT, high homocysteine, low methionine, low SAMe, high CRP	CBS/BHMT Assist
CBS	rs4920037	GG - Wild			
CTH	rs1021737	GT - Hetero			Glutathione Accelerator, GSH Assist
GPX1	rs1050450	GG - Wild			
GSTP1	rs1695	AA - Wild			
GSTP1	rs1138272	CC - Wild			
Other			Inflammation, fatigue, brain fog, kidney pain, headaches, weight issues, cellulite, acne, eczema, yellow sclera, red palms, hair loss, indigestion, achy joints, right upper quadrant	High CRP, elevated LFTs, cholesterol abnormalities	Phase 2.5, Eco Liver, HLG (Liver & Gallbladder)(Homeo), HGB (Gallbladder)(Homeo)
ABCC2	rs3740066	CC - Wild			
ABCC2	rs717620	GG - Wild			
ALDH2	rs671	GG - Wild	Alcohol Flushing		Phase 1&2 DTX, DTX Accelerator
CYP2E1 *6	rs6413432	AT - Hetero	Increased NAPQI from Tylenol use	Avoid Tylenol	
SRD5A1	rs1691053	TT - Wild	Family History of Prostate Cancer	Testosterone & DHT	Prostate Complex
PON1	rs662	CT - Hetero	Pesticide Sensitivity	Environmental Toxins	PON 1 Assist, Addex (Homeo)

ELIMINATION CONTINUED

Gene	RS#	Result	Signs & Symptoms	Labs	Product/Support
Methylation					
ACAT	rs1044925	CA - Hetero	Fat consumption: diarrhea, fatigue, weight issues, keto diet issues	Lipids	ACAT Assist, Fatty Acid Assist
ACAT	rs3741049	GG - Wild			
BHMT	rs3733890	GA - Hetero	Low mood, anxiety, Inflammation, chronic disease, high toxin-burden	Homocysteine	CBS/BHMT Assist (HomCyst)
BHMT	rs3797546	TT - Wild			
CBS	rs4920037	GG - Wild	(Slows down gene): Hypertension, ulcers, neurological issues.	Elevated Homocysteine & NO	CBS/ BHMT Assist
CBS (699)	rs234706	GG - Wild	(Speeds up gene), halitosis, Sulphur flatulence, hypotension, bowel issues.	High NH4, liver enzymes, Neuro abnormalities, low NO	Ammonia Scavenger, BH4-Assist (Mood Boost)
GAMT	rs17851582	GG - Wild	Low creatine	Creatine	Magna Creatine
MAT1A	rs3851059	GG - Wild	Irritability, depression, anxiety, gut issues, impulsivity, sleep issues	Neurotransmitter/SAMe abnormalities	BH4-Assist (Mood Boost)
MTHFR A1298C	rs1801131	AA - Wild	Low mood, anxiety, Inflammation, chronic disease, high toxin-burden	Low bilirubin, low B12, high (urinary) mma, elevated LFTs, high GGT, high homocysteine, low methionine, low SAMe, high CRP	BH4-Assist (Mood Boost), MTHFR & BHMT Assist, MTHFR/MTR/MTRR & BHMT Assist
MTHFR C677T	rs1801133	TC - Hetero			
MTR	rs1805087	AA - Wild			
MTRR	rs1532268	CC - Wild			
MTRR	rs1801394	AA - Wild			
MTHFD1	rs2236225	AG - Hetero			
SHMT1	rs1979277	GG - Wild			
SLC19A1 (RFC)	rs1051266	CT - Hetero			
PEMT	rs7946	TT - Wild	Brain Fog, Fatty Liver Syndrome	ALT, AST, GGT, Ferritin	Sunflower PC PE PI, Phase 2.5

ENERGY & METABOLISM

PPARG	rs1801282	GC - Hetero	After carbs: bloating, low energy, weight issues, cravings, always hungry.	Low B1, B3, Blood sugar irregularities, high fasting insulin/HgbA1C	Fatty Acid Assist II
ADIPOQ	rs17366568	GA - Hetero			Fasting Diet, Autophagy Assist
FTO	rs1121980	AA - Homo	Obesity		Gluco-Beta Stim+, Phase 2.5, Assist (homeo)
FTO	rs9939609	AA - Homo			
LEPR	rs2025804	GG - Homo	obesity, decreased sense of satiety	Leptin	
MC4R	rs17782313	TT - Wild			Assist (Homeo), Metabolic Enhancer

GI & DIGESTION

DAO (AOC1)	rs1049793	GC - Hetero	Extracellular histamine issues. GI Lining issues	Low DAO, High Histamine, LPS-Binding Protein, Stool Testing	ABP1 Assist, (Hista-Gut)
DAO (AOC1)	rs10156191	CC - Wild			
DAO (AOC1)	rs1049742	CC - Wild			
SPP1	rs2853744	GG - Wild	Oxalate symptoms	Urinary Oxalic Acid (OAT)	Oxalate Balancer/Scavenger
MYO9B	rs2305764	AA - Homo	Leaky Gut, Autoimmune	Zonulin, Gluten Markers	GI Assist, ImmuNootropic
FUT2	rs601338	GA - Hetero	Norovirus immunity And Dysbiosis	AA - Non Secreter	Pro Flora Max+, ImmuNootropic

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NEUROLOGICAL & MOOD

Gene	RS#	Result	Signs & Symptoms	Labs	Product/Support
APOE	rs429358	TT - Wild	RESULT: E3/E3 - Normal	Environmental toxins, Lipid panel, heavy metal analysis.	Neuro Nutrients, Sunflower PC PE PI
APOE	rs7412	CC - Wild			
BDNF	rs6265	CC - Wild	Cognitive Symptoms		Myco Pro 5, Sunflower PC PE PI
COMT	rs4680	AA - Homo	RESULT: (Slow Activity) - Caution with methyl-Bs	OAT/NT testing	Adenosyl-Cobalamin (B12 Assist), BH4 Assist
DAOA	rs2391191	GG - Wild	Behavioral issues, anxiety	Low B6, low or normal histamine, normal or over methylation status.	Glutamate Scavenger/Calming, Glutamate Scavenger(II, or III) Anxiety Formula (Homeo), BH4-Assist (Mood Boost)
GAD1	rs2241165	CC - Homo			
GAD1	rs3749034	AA - Homo			
GCH1	rs841	GA - Hetero	Decreased BH4	NT Testing	BH4 Assist (Mood Boost)
MAO-A	RS6323	GG - Homo	(RESULT: Increased Activity) Anger, Depression	OAT/NT testing	BH4 Assist (Mood Boost)
TPH2	rs4570625	GG - Wild	Behavioral issues, anxiety	OAT/NT testing	SER-GAB Accelerator, 5-HTP
PEMT	rs7946	TT - Wild	Anxiety, Non-Alcoholic Fatty Liver	Micronutrient testing	Sunflower PC PE PI, Phase 2.5

OXIDATIVE STRESS & INFLAMMATION

Oxidative Stress & Inflammation			Fatigue, brain fog, chemical sensitivity, cardiovascular issues.	Oxidative stress markers (8-OH-DG)	Pro S.O.D. Catalase
CAT	rs769214	AA - Homo			
IDH1	rs11554137	GG - Wild	Fatigue, brain fog, early signs of aging, low stamina	Oxidative stress markers (8-OH-DG)	Pro NADH NR (Energy Boost), Cell Health Assist,
IDH2	rs11630814	AG - Hetero			
TALDO1	rs3901233	AT - Hetero			NOS Assist
NFE2L2	rs10183914	CC - Wild	Inflammation,neoplasms, chronic disease, estrogen issues, toxin sensitivity	Low GSH, low bilirubin, elevated LFTs, high GGT, high CRP, environmental toxins	NRF2 Accelerator, ExcEss, Cell Health Assist
NQO1	rs1800566	GG - Wild			
SOD1	rs2070424	AA - Wild	Inflammation, sleep issues, hypertension, fatigue, brain fog, early signs of aging, high toxic-burden	High CRP, low bilirubin, High 8-0h-DG	Pro S.O.D. Catalase, Peroxynitrite Scavenger
SOD1	rs1041740	CC - Wild			
SOD2	rs4880	AA - Wild			
SOD3	rs1799895	CC - Wild			
Inflammation			Inflammation, immune dysregulation	CRP, oxidative stress markers	STOP, CEASE, MC Balancer
IL-6	rs1800795	GG - Homo			
TNF-alpha	rs1799724	TC - Hetero			
TNF-alpha	rs1800629	GG - Wild			
G6PD	rs1050829	TT - Wild	G6PD deficiency	G6PD	Cell Health Assist
Fatty Acids			Inflammation, immune dysregulation, 03/06 ratio issues, decreased O3 in breast milk	Omega 3/6 Panels, Lipid Panel, CRP	Omega 800
FADS	rs174537	TT - Wild			
FADS	rs174548	GC - Hetero			
FADS2	rs1535	GG - Homo			
Autophagy			Age spots/premature aging, chronic disease, history of neoplasms, chronic infections (Lyme), chronic viruses, neurodegenerative diseases, weight issues	Telomere Testing	Autophagy Assist, Cell Health Assist. Fasting Diet
ATG13	rs13448	TC - Hetero			
JAK2	rs12340895	CG - Hetero			
Nitric Oxide			Decreased libido, poor concentration and low memory, fatigue, irritability, anxiety, depression, hypertension, poor sleep, symptoms of heart disease, asthma	Low nitric oxide, (test strips)	NOS Assist (Nit-Ox Boost)
NOS3	rs1799983	GT - Hetero			
NOS3	rs2070744	CT - Hetero			
NOS3	rs891512	GA - Hetero			

ADDITIONAL NUTRIEINTS

Gene	RS#	Result	Signs & Symptoms	Labs	Product/Support
Vitamin A					
BCMO1	rs12934922	AA - Wild	Low retinol conversion	Serum Retinol	Vibrant Youth
BCMO1	rs7501331	CC - Wild			
B12					
CUBN	rs180122	GG - Wild	Decreased B12 Absorption	Serum B12	3B Complex, Adenosyl-Cobalamin B12 Assist
FUT2	rs601338	GA - Hetero	Increases Haptocorin (inert B12)	Potentially false B12 Elevation	
MTRR	rs1532268	CC - Wild	Decreased B12 levels.	B12, MMA (Urinary), B12 sat.	
MTRR	rs1801394	AA - Wild			
TCN2	rs1801198	GC - Hetero	Decreased B12 binding		
Iron (Excess)					
HFE	rs1799945	CC - Wild	Inflammation, early signs of aging (skin), age spots	Abnormalities in iron studies.	HFE Assist
HFE	rs1800562	GG - Wild			
TF	rs1049296	CT - Hetero			
Vitamin D					
CYP2R1	rs10741657	GG - Homo	Decreased Vitamin D levels and receptor activity. Some diabetes associations	Vitamin D 1,25 OH and 25 OH	Vitamin D3 5000 with K2
GC	rs2282679	GT - Hetero			
VDR	rs2228570	GG - Wild			
VDR	rs731236	GA - Hetero			
Vitamin C					
SLC23A1	rs33972313	CC - Wild	(TT) Low Vit C.	Vit. C	AMLA-C
Zinc					
SLC30A8	rs13266634	CC - Protective	Low Zinc	Zinc	Zinc Bisglycinate Chelate
CoQ10					
SLCO1B1	rs4149056	CC - Homo	Low CoQ10 / caution w/statins	CoQ10 / oxidative stress markers	CoQ10 Chewable
Phos-Choline					
PEMT	rs7946	TT - Wild	Anxiety, Non-Alcoholic Fatty Liver	Micronutrient testing	Sunflower PC PE PI, Phase 2.5

Client Name:
Client DOB:
Sample ID:
Account:

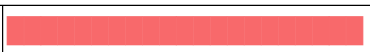
METHYLGENETIC NUTRITION®

SYSTEM BASED NUTRITIONAL RECOMENDATIONS

Allergy & Sensitivity

Extracellular Histamine		
Intracellular Histamine		
Gluten Intolerance		

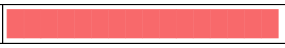
Blood Sugar & Cardiovascular

Blood Sugar		Gluto Beta Stim Plus, Assist
Cardiovascular		Oligo-Potassium, Kidney Liquesence, Renal Sarcode

Elimination

Estrogen		ExcEss
Glutathione		
Methylation		
Other		

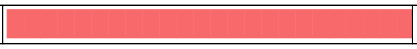
Energy & Metabolism

Energy & Metabolism		Assist, Carb Assist, Metabolic Enhancer, Weight Off

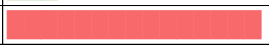
GI & Digestion

GI & Digestion		GI Assist, ImmuNootropic

Neurological & Mood

Neurological & Mood		Glutamate Scavenger, SER-GAB Accelerator, *Caution W/ Methyls

Oxidative Stress & Inflammation

Oxidative Stress		
Inflammation		STOP, CEASE, MC Balancer
Fatty Acids		
Autophagy		
Nitric Oxide		NOS Assist (Nit-Ox Boost)

Additional Nutrients

Vitamin A		
Vitamin D		Vitamin D3 5000 with K2
Vitamin C		
B12		
Iron (Excess)		
Zinc		
CoQ10		CoQ10 Chewable
Phosphatidylcholine