



**\$190**



# METHYLGENETIC NUTRITION<sup>®</sup>

## GENETIC TEST

**Take your practice and your patients' health to the next level by incorporating Nutrigenomic testing.**

By knowing a patient's genetic makeup, you can create an actionable plan that can have a positive effect on your patient's current gene expression. This approach ensures that your patients receive the specific vitamins, minerals, and nutrients tailored to their bodies' needs, reducing the risk of deficiencies and improving overall health. Additionally, genetic testing can identify potential genetic predispositions to specific health conditions, allowing you to take a proactive approach to preventative care.

### **BENEFITS OF TESTING:**

-  PHP<sup>®</sup>'s proprietary test features **100** clinically relevant genes/SNPS that are actionable through lifestyle and nutrition interventions
-  Signs and symptoms identified, and recommendations given when further testing may be warranted
-  Strictest data privacy and protection
-  No subscription required
-  Fast turnaround time
-  CLIA Certified

***Discover how PHP<sup>®</sup> and MethylGenetic Nutrition<sup>®</sup> can help your practice evolve to better serve your patients.***

***Please visit our website to order your kit today!***

[www.phpltd.com](http://www.phpltd.com) | 1-800-245-1313



# NUTRIGENOMICS REPORT 2.0

The information contained within this report is intended for educational purposes only and should not be used for self-diagnosis or as a substitute for professional medical advice, diagnosis, or treatment. Before making any changes to your healthcare routine, consult with a licensed healthcare professional. The recommendations and explanations provided are based on genetic testing performed by MaxGen Labs and NSI, as well as current medical research, which may evolve. These results have not been evaluated or approved by the Food and Drug Administration (FDA). MaxGen Labs, NSI, and its staff are not liable for any damages resulting from the use of this test or its recommendations. By using this test, you agree to consult your healthcare provider before making any health-related decisions. If you have health concerns, always seek the advice of a licensed healthcare professional.

## MY NUTRIGENOMICS REPORT

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

## NOTES

Admin Notes:

Lab Notes:

## TABLE OF CONTENTS

<b>04  </b>	<b>HOW TO READ THIS REPORT</b>
<b>05  </b>	<b>WHAT IS GENETICS &amp; NUTRIGENOMICS</b>
<b>06  </b>	<b>ALLERGY AND SENSITIVITY ( HISTAMINE &amp; YOUR GENETICS)</b>
<b>07  </b>	<b>BLOOD SUGAR &amp; CARDIOVASCULAR</b>
<b>08  </b>	<b>ELIMINATION   METHYLATION</b>
<b>09  </b>	<b>ENERGY   METABOLISM</b>
<b>10  </b>	<b>GI &amp; DIGESTION</b>
<b>11  </b>	<b>NEUROLOGICAL &amp; MOOD</b>
<b>12  </b>	<b>OXIDATIVE STRESS &amp; INFLAMMATION</b>
<b>13  </b>	<b>VITAMINS &amp; YOUR GENETICS</b>
<b>14-17  </b>	<b>YOUR GENETIC SUMMARY</b>
<b>18  </b>	<b>SUPPLEMENT RECOMMENDATIONS</b>

## 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.

## 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.

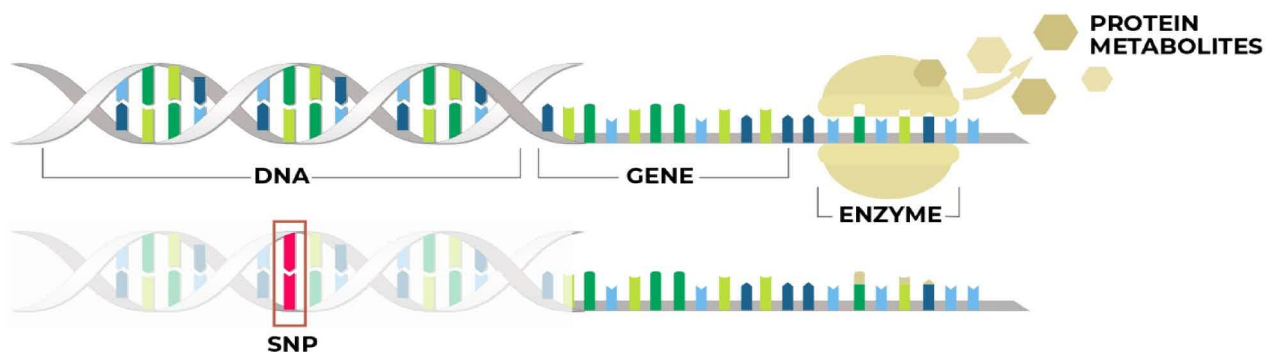
### SINGLE NUCLEOTIDE POLYMORPHISM (SNP)

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.



## 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).

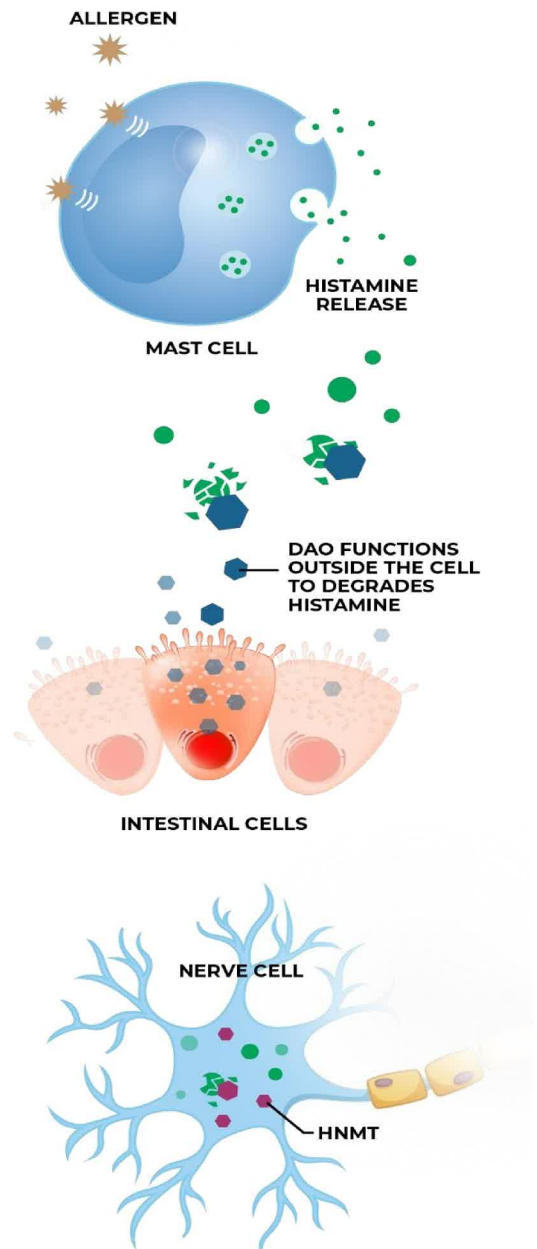
When someone consumes histamine-rich foods, DAO helps degrade histamine to prevent excessive accumulation. In people with histamine intolerance, DAO levels can be reduced, either due to genetic factors, gastrointestinal disorders, or medication side effects. Low DAO levels can lead to an impaired ability 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	Walnuts	Bananas
Citrus Fruits	Cashews	Wheat
Dried Fruits	Peanuts	Strawberries
Soured Foods	Spinach	Beans
Smoked Meats	Eggplant	Chocolate
Aged Cheese	Shellfish	Food Dyes
Tomatoes		Food Additives





Client Name:  
Client DOB:  
Sample ID:  
Account:

## 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, Chromogranin-A, LPS- Binding Protein	ABPI Assist (Hista-Gut), MC Balancer
DAO (AOC1)		GC - Hetero			
DAO (AOC1)		CC - Wild			
DAO (AOC1)		CC - Wild			
Intracellular Histamine				High Histamine, Tryptase, Chromogranin- A, LPS- Binding Protein	Histamine Balancer (Homeo), Histamine Scavenger
HNMT		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		TT - Wild			
HLA-DQ2.5		CC - Wild			

## BLOOD SUGAR & CARDIOVASCULAR

<b>Blood Sugar</b>			Frequent urination, increased thirst, fatigue, slow healing wounds, blurred vision, dizziness	HGB-A1C, Insulin, Glucose	Gluco Beta Stim Plus, NRF2
ADRA2A		AA - Homo			
TCF7L2		CC - Wild			Gluco Beta Stim Plus, Assist
FTO		AA - Homo			
<b>Cardiovascular</b>			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		AA - Wild			
MTHFR C677T		TC - Hetero			
Factor 5		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		GG - Wild			
PAI-1		AG - Hetero			
ACE		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		AG - Hetero			ExcEss
CYP1A1		CC - Homo			
CYP19A1		CC - Wild			
CYP1B1		CG - Hetero			
COMT		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		GG - Wild			Glutathione Accelerator, GSH Assist
CTH		GT - Hetero			
GPX1		GG - Wild			
GSTP1		AA - Wild			
GSTP1		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		CC - Wild			
ABCC2		GG - Wild			
ALDH2		GG - Wild	Alcohol Flushing		Phase 1&2 DTX, DTX Accelerator
CYP2E1 *6		AT - Hetero	Increased NAPQI from Tylenol use	Avoid Tylenol	
SRD5A1		TT - Wild	Family History of Prostate Cancer	Testosterone & DHT	Prostate Complex
PON1		CT - Hetero	Pesticide Sensitivity	Environmental Toxins	PON 1 Assist, Addex (Homeo)



Client Name:  
 Client DOB:  
 Sample ID:  
 Account:

## SYSTEM BASED NUTRITIONAL RECOMENDATIONS

### Allergy & Sensitivity

Extracellular Histamine	<div><div></div></div>	
Intracellular Histamine	<div><div></div></div>	
Gluten Intolerance	<div><div></div></div>	

### Blood Sugar & Cardiovascular

Blood Sugar	<div><div></div></div>	Gluto Beta Stim Plus, Assist
Cardiovascular	<div><div></div></div>	Oligo-Potassium, Kidney Liquesence, Renal Sarcod

### Elimination

Estrogen	<div><div></div></div>	ExcEss
Glutathione	<div><div></div></div>	
Methylation	<div><div></div></div>	
Other	<div><div></div></div>	

### Energy & Metabolism

Energy & Metabolism	<div><div></div></div>	Assist, Carb Assist, Metabolic Enhancer, Weight Off
---------------------	------------------------	---

### GI & Digestion

GI & Digestion	<div><div></div></div>	GI Assist, ImmuNootropic
----------------	------------------------	--------------------------

### Neurological & Mood

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

### Oxidative Stress & Inflammation

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

### Additional Nutrients

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