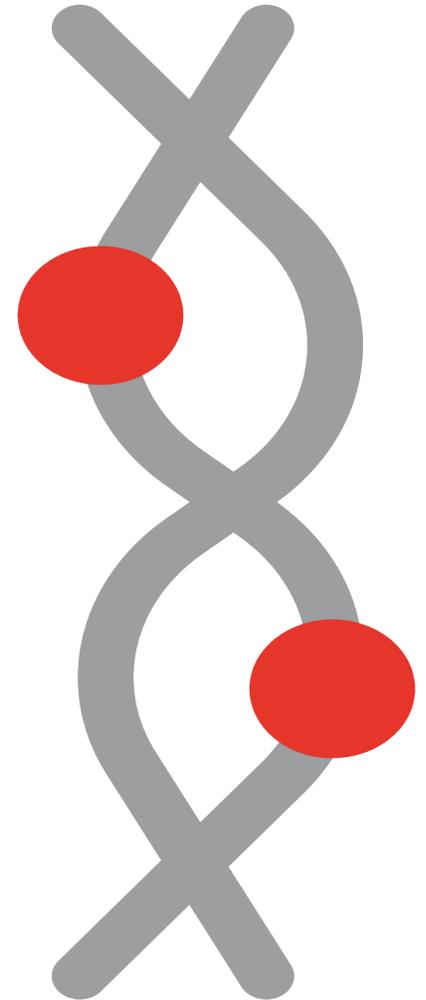




Fagron

genomics



Gene Comprehensive Nutrigenomic Report

Accession Number: #####

Specimen Collected: ##/##/####

Specimen Received: ##/##/####

Report Generated: November 30, 2022

Specimen Type: Buccal Swab

Provider: #####

Patient Name: #####

Patient DOB: ##/##/####

Patient Gender: Male

Do not make any decisions about your health solely based on the information contained in this report. Always consult with a licensed and experienced health practitioner when you receive this report.

– 47 – Male

(-/-) No clinical abnormality

(+/-) Heterozygous result

(+/+) Homozygous result

rsID	Gene	Genetic Result	Therapeutics Associated With Positive Result	Highly Recommended Therapeutics	Provider Discretion: As Needed Formula Recommendations	Lifestyle Recommendations	Laboratory Recommendations
Immune Auto Immune Inflammatory							
Inflammation Cellular							
rs10402876	C3	+/+	Anti-Inflammatory Therapy: Curcumin, Omega 3s, Resveratrol, Quercetin, Low Dose Naltrexone (LDN), CBD Oil	CBD Oil PEA Soothe Support™ Prescription Low Dose Naltrexone (LDN)	Ultra Omega 550™	Consider Low Inflammatory Diet	Consider Pregnenolone, Cortisol, Progesterone, Testosterone Consider Food Allergy Panel if Intestinal Inflammation Present Consider T cell Profile
rs2569191	CD14	+/+					
rs2069762	IL2	-/-					
rs2243250	IL4	-/-					
rs2069812	IL5	+/+					
rs1800795	IL6	+/+					
rs1800925	IL13	-/-					
rs10181656	STAT4	+/-					
rs1800629	TNF	-/-					
rs3761847	TRAF 1	-/-					
rs11209026	IL23R	-/-					
rs12722489	IL2RA	-/-					
rs243324	SOCS 1	+/-					
rs231775	CTLA4	+/+					
rs9657182	IDO1	+/+					
rs1076560	DRD2	+/-	Increased Efficacy of Naltrexone			High Reponse Rate of Inflammation Control with Low Dose Naltrexone (LDN)	

– 47 – Male

(-/-) No clinical abnormality

(+/-) Heterozygous result

(+/+) Homozygous result

rsID	Gene	Genetic Result	Therapeutics Associated With Positive Result	Highly Recommended Therapeutics	Provider Discretion: As Needed Formula Recommendations	Lifestyle Recommendations	Laboratory Recommendations
Immune Auto Immune Inflammatory							
Autophagy Consideration							
rs510432	ATG5	-/-	Curcumin, Lithium Orotate, D-Chiro-Inositol, Catechins, Resveratrol, 12-15 Hour Fasting	DCI 500mg twice daily N.A.S. Enhancer™		12-15 Hour Fasting	Routine Blood Sugar, Insulin and Hb A1c
rs26538	ATG12	+/+					
rs10210302	ATG16L1	+/-					
rs2241880	ATG16L1	+/-					
Detoxification							
rs819147	AHCY	-/-	N-Acetyl Cysteine (NAC)				
rs1021737	CTH	+/-					
rs1695	GSTP1 1105V	-/-	Glutathione NRF2 Enhancers				
rs1056806	GSTM1	-/-					

– 47 – Male

(-/-) No clinical abnormality

(+/-) Heterozygous result

(+/+) Homozygous result

rsID	Gene	Genetic Result	Therapeutics Associated With Positive Result	Highly Recommended Therapeutics	Provider Discretion: As Needed Formula Recommendations	Lifestyle Recommendations	Laboratory Recommendations
Immune Auto Immune Inflammatory							
Inflammation Environmental							
rs10156191	AOC1	+/-	Poor Ability To Break Down External Histamine				
rs11558538	HNMT	-/-					
rs12995000	HNMT	-/-					
rs492602	FUT2	+/+	Prebiotics and Probiotics Needed	Biotic Blend Pro™			
rs2248814	NOS2	-/-	Anti-Infectives, Beta Glucans, Butyric Acid				
rs2187668	HLA DQA1	-/-	High Risk of Gluten Based Issues				
rs2858331	HLA DQA2	+/-					
rs660895	HLA DRB1	-/-	High Reactivity To Mold / Fungi			Highly Recommend Avoiding Mold / Fungal / Yeast Exposure	
rs9275224	HLA DRB2	+/-					

Summary for Inflammatory / Auto-Immune

Highly Recommended Therapeutics

- CBD Oil
- PEA Soothe Support™
- Prescription Low Dose Naltrexone (LDN)
- DCI 500mg twice daily
- N.A.S. Enhancer™
- Biotic Blend Pro™

Provider Discretion: As Needed Formula Recommendations

- Ultra Omega 550™

Lifestyle Recommendations

- Consider Low Inflammatory Diet
- High Reponse Rate of Inflammation Control with Low Dose Naltrexone (LDN)
- 12-15 Hour Fasting
- Highly Recommend Avoiding Mold / Fungal / Yeast Exposure

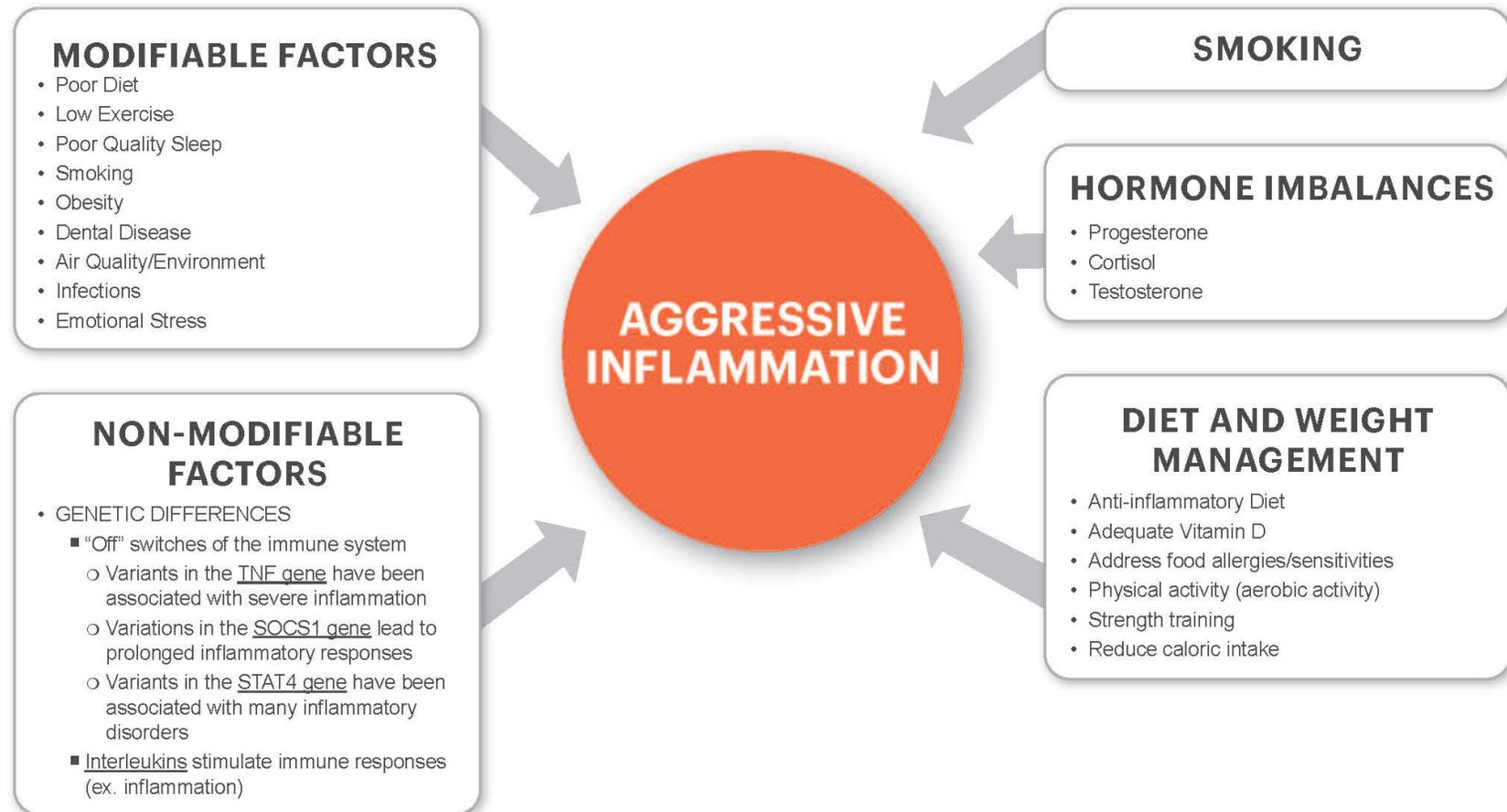
Laboratory Recommendations

- Consider Pregnenolone
- Cortisol
- Progesterone
- Testosterone
- Consider Food Allergy Panel if Intestinal Inflammation Present
- Consider T cell Profile
- Routine Blood Sugar
- Insulin and Hb A1c

ANTI-INFLAMMATORY

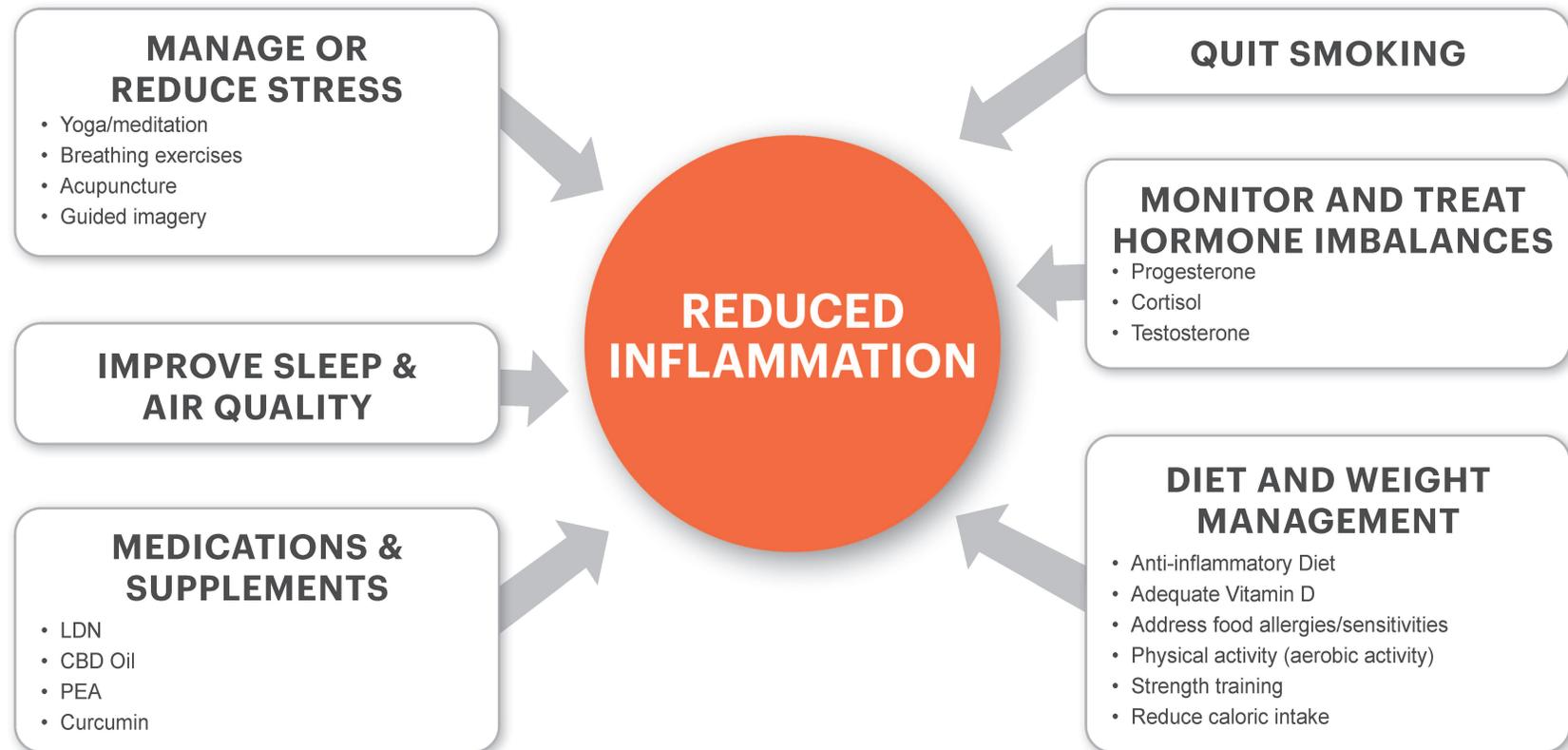
AN IMMUNE SYSTEM RESPONSE TRIGGERED BY HARMFUL STIMULI
(EX. PATHOGENS, DAMAGED CELLS, TOXIC COMPOUNDS, IRRADIATION)

DRIVERS OF INFLAMMATION



ANTI-INFLAMMATORY

WAYS TO REDUCE INFLAMMATION

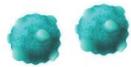


THE IMMUNE SYSTEM & AUTOIMMUNITY

WHAT DOES THE IMMUNE SYSTEM DO?

Prevent or limit infections by distinguishing between healthy and unhealthy cells

KEY PLAYERS & RELEVANT GENES



CYTOKINES

(ex. IL family, TNF- α)

- Helps with immune cell growth, activation, and function
- Interleukins (IL2, IL4, IL5, IL6, IL13, IL23R, IL2RA) stimulate the immune response
- SOCS1 & TNF are involved in cytokine signaling for the inflammatory response



LYMPHOCYTES

(ex. B, T & Natural Killer cells)

- Identify & kill infected cells
- Produces antibodies to fight future infections
- IDO1, CTLA4 & CD14 are involved in the suppression of T-cells
- C3, STAT4 & TRAF1 activate, form and/or differentiate T-cells

IMMUNE AGGRESSION

The immune system begins to attack healthy tissue

COMMON SYMPTOMS



Fatigue



Hair loss



Achy muscles



Inflammation



Skin rashes



Pain



Low-grade fever



Numbness and tingling in hands and feet



Trouble concentrating

MALFUNCTIONS LEAD TO

- Chronic inflammation
- Allergic reactions
- Immune aggressive diseases (Inflammatory bowel disease, skin & neurological disorders)

LOW-INFLAMMATORY

FOODS TO EAT



Fruits: strawberries, blueberries, cherries, oranges



Fatty fish: salmon, mackerel, tuna, sardines



Spices - turmeric, ginger



Green leafy vegetables & tomatoes



Dark chocolate



Olive oil



LOW-INFLAMMATORY DIET

FOODS TO AVOID



Soda & other sugar-sweetened drinks



Dairy products



Fried foods



Red & Processed meats (hotdogs, sausage)



Refined carbohydrates: white bread, pastries



Margarine, shortening, lard

BENEFITS



Reduces inflammation



Reduces risk for cardiovascular disease & Type II diabetes

DETOXIFICATION

GLUTATHIONE IN DETOXIFICATION

Relevant genes for production are AHCY, CTH, GSTP1, GSTM1, GSTM3, GSR, MTRR & MTR

WHY IS IT IMPORTANT?



Maintains health by protecting the body from toxins



Regulates cell production and programmed cell death



Critical role in chemical detoxification



Vital for proper mitochondrial function



WAYS TO INCREASE GLUTATHIONE

- Limit alcohol intake
- N-acetyl-cysteine (NAC)
- Glutathione therapies
- (ie. IV Glutathione, Glutathione suppository, Liposomal Glutathione)
- Include whey in diet, unless allergic or intolerant
- Methylation Support - if necessary

SUPEROXIDES & ANTIOXIDANTS

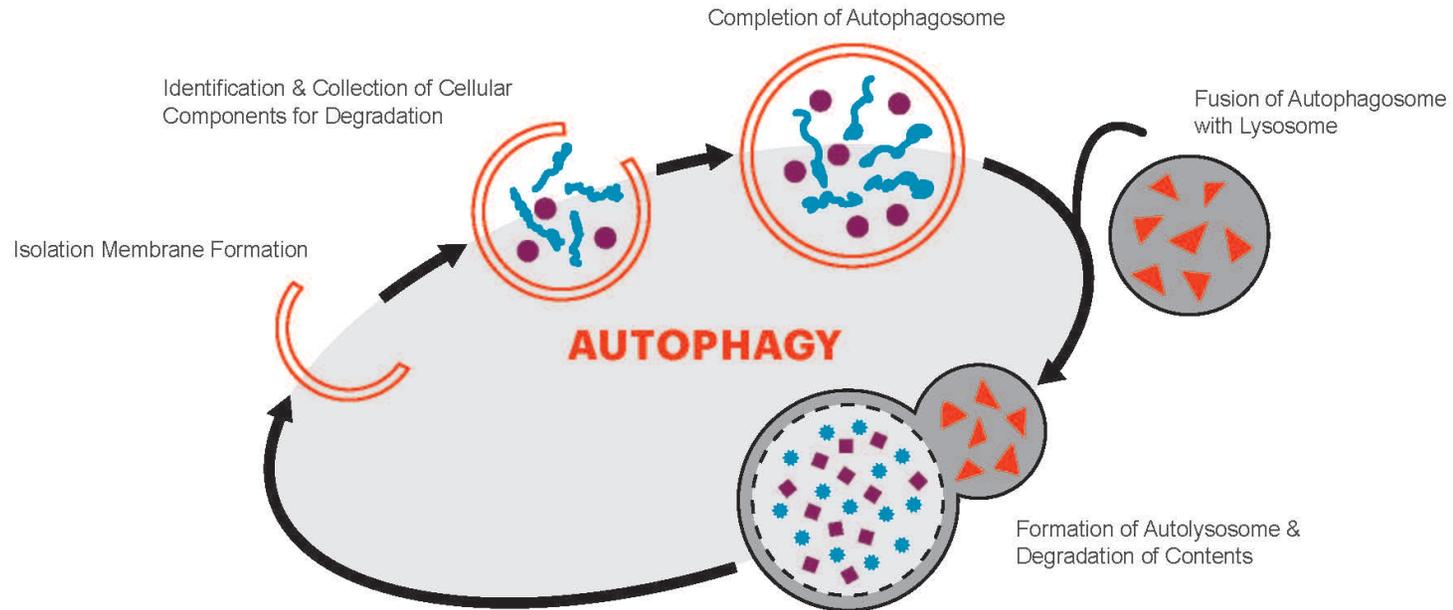
- SOD1, SOD2, SOD3 genes are important to transform superoxides to protect against mitochondrial damage
- Reactive Oxygen Species (ROS) can damage mitochondria and cause cell death.
- Antioxidants such as Vitamin A, Vitamin C and Vitamin E act as a defense against ROS

DEFICIENCY CAUSES

- Auto-immune diseases
- Cardiovascular diseases
- Neurodegenerative diseases
- Cell death
- Poor mitochondrial function

AUTOPHAGY

VARIANTS IN THE ATG GENES HAVE BEEN ASSOCIATED WITH CELLULAR BLOCKAGE



DEFECTS LEAD TO:

- Neurodegenerative Diseases
- Aging
- Heart Disease
- Developmental Disorders
- Type II Diabetes
- Insulin Resistance
- Fatty Liver
- Cancers



Intermittent fasting
or low-calorie diet



Routine Exercise



Ketogenic diets
(high fat, low carbs)



Medications & Supplements
D-Chiro Inositol (B8)
Metformin

WAYS TO INCREASE

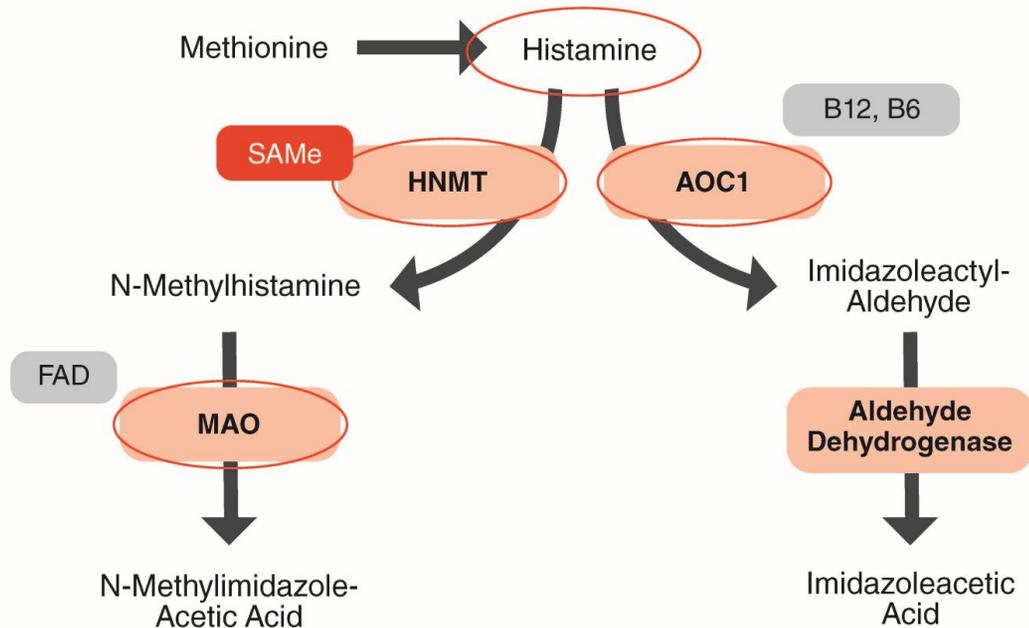
HISTAMINE

HISTAMINE

- Natural substance found in various foods

IMPLICATIONS

- Metabolic Enzymes: amine oxidases (ex. AOC1, MAO, DAO) & HNMT
- High histamine & low amine oxidase activity is associated with:
 - Diarrhea
 - Headaches
 - Nose congestion
 - Asthma
 - Hypotension
 - Arrhythmia
 - Flushing
 - Urticaria (hives)
 - Pruritus (itchy skin)
- Dietary histamine can be rapidly detoxified by amine oxidases, whereas persons with low amine oxidase activity are at risk of histamine toxicity



AOCI & HNMT POLYMORPHISM HISTAMINE

LOW HISTAMINE LEVEL FOODS



Meats & Fish
fresh meat (ex. chicken, turkey, pork and red meat), fresh fish (ex. hake, trout, plaice)



Milk substitutes
(Coconut milk, rice milk)



Cream cheese, butter



Egg yolk



Fresh fruits
(with the exception of strawberries)



Most cooking oils



Most leafy herbs



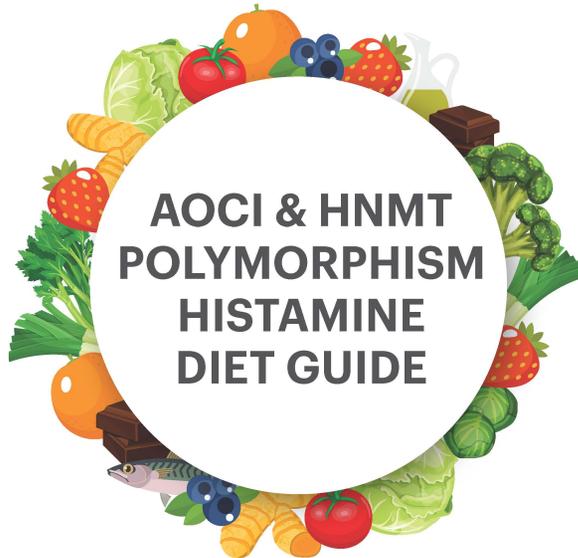
Fresh vegetables



Beverages
(non-citric fruit juices, herbal teas)



Grains



AOCI & HNMT POLYMORPHISM HISTAMINE DIET GUIDE

HIGH HISTAMINE LEVEL FOODS



Egg whites



Processed, cured, smoked and fermented meats/fish (lunch meat, bacon, sausage, pepperoni, canned tuna)



Leftover meat
(After meat is cooked, the histamine levels increase due to microbial action as the meat sits)



Dairy products: All fermented milk products (ex. aged cheeses, yogurt, buttermilk, kefir)



Beverages (Black Tea, alcohol)



Chocolate, cocoa



Fruits (oranges, grapefruit, lemons, lime, berries, dried fruit)



Vegetables (spinach, tomatoes, eggplant)



Artificial food colors and preservatives



Fermented & vinegar-containing foods (sauerkraut, kombucha, pickles, relishes, ketchup, prepared mustard)



Spices (cinnamon, chili powder, cloves, nutmeg, curry powder, cayenne)

Gene Information Key

rsID	Gene	"-" variant	"+" variant
rs819147	AHCY	T	C
rs10156191	AOC1	C	T
rs26538	ATG12	T	C
rs10210302	ATG16L1	C	T
rs2241880	ATG16L1	A	G
rs510432	ATG5	C	T
rs10402876	C3	G	C
rs2569191	CD14	T	C
rs1021737	CTH	G	T
rs231775	CTLA4	A	G
rs1076560	DRD2	C	A
rs492602	FUT2	A	G
rs1056806	GSTM1	C	T
rs1695	GSTP1:1105V	A	G
rs2187668	HLA-DQA1	C	T
rs2858331	HLA-DQA2	A	G
rs660895	HLA-DRB1	A	G
rs9275224	HLA-DRB2	G	A

rsID	Gene	"-" variant	"+" variant
rs11558538	HNMT	C	T
rs12995000	HNMT	C	T
rs9657182	IDO1	C	T
rs1800925	IL13	C	T
rs2069762	IL2	A	C
rs11209026	IL23R	G	A
rs12722489	IL2RA	C	T
rs2243250	IL4	C	T
rs2069812	IL5	A	G
rs1800795	IL6	G	C
rs2248814	NOS2	G	A
rs243324	SOCS-1	G	A
rs10181656	STAT4	C	G
rs1800629	TNF	G	A
rs3761847	TRAF-1	A	G

Definitions

DETOXIFICATION	Detoxification enzymes are responsible for clearing environmental chemicals and metabolites from our body. Accumulation of these chemicals and by-products can damage intracellular biochemical functions. Alterations in these systems can have a significant negative effect on the nervous system and immune systems functions. These polymorphisms can result in decreased "quality of life" and even decreased "life-span".
AHCY	Adenosylhomocysteinase (AHCY) is an enzyme that breaks down S-adenosylhomocysteine (SAH) to homocysteine and adenosine. Polymorphisms in this gene will lead to lower levels of homocysteine and glutathione.
CTH	Glutathione production is dependent on the function of the enzyme cystathionine gamma-lyase (CTH). CTH converts cystathionine to cysteine. Individuals with mutations in the CTH gene are predicted to have decreased glutathione-mediated detoxification.
GSTM1	Glutathione S-transferase M1 (GSTM1) is an important enzyme in the body's detoxification pathway. GSTM1 conjugates glutathione to molecules (drugs, environmental toxins, carcinogens etc.) bound for excretion. GSTM1 is mainly responsible for binding toxins in joints and for binding carcinogens.
GSTP1	Glutathione S-transferases (GSTs) are a family of enzymes that play an important role in detoxification. The glutathione S-transferase pi gene (GSTP1) functions in chemical clearance and anti-inflammatory properties. High concentration of GST-p are found in the skin, lungs, sinuses, bladder and the intestinal tract. Polymorphisms of this enzyme allow for increased inflammatory activity in these areas that include eczema, asthma, chronic sinusitis, IBS, "leaky" gut and interstitial cystitis.
DEVELOPMENTAL	The SNPs in this category have been identified as potential areas of weakness in the recovery of developmental disorders.
ATG12	Autophagy-related 12 protein is part of the core autophagy machinery inside the cell. Autophagy, a form of cellular "recycling" is necessary for many cell functions. ATG12 is specifically involved in turning off the innate immune response. Mutations in the ATG12 gene are predicted to lead to increased activity of the innate immune response, and overall inflammation.
INFLAMMATORY	This Enzyme category has significant effects on the inflammatory state of a person's body. Polymorphisms in these specific enzymes will significantly increase the levels of inflammation in the body. By supplementing these enzyme deficiencies, the patient will effectively reduce inflammatory damage to the body.
AOC1	The SNP rs10156191 encodes a weaker form of the histamine degradation enzyme Amine Oxidase, Copper Containing 1 (AOC1). This mutation, Thr16Met, is predicted to produce an enzyme with less catalytic activity and associated higher levels of pro-inflammatory amines like histamine and putrescine.
ATG16L1 rs10210302	The ATG16L1 gene encodes a protein that is a vital component of a protein complex necessary for the cellular phenomena known as autophagy. Autophagy is the process of degrading and cleaning of inert debris of the cell. Weakness in autophagy leads to abnormal accumulation of cellular "garbage" that will eventually affect the cellular function and lead to autophagy-related disease states in including many neurological and immunological diseases, DM Type 2 and fatty liver disease.
ATG5	Autophagy-related 5 protein (ATG5) is an important intracellular mediator of the autophagy response. ATG5 is involved in a wide range of "quality control" features inside the cell: autophagy vesicle formation, innate immune system signaling, consumption of damaged mitochondria, and apoptosis. Mutations in the ATG5 gene are associated with numerous neurological, immunological and endocrine syndromes.
C3	Essential for the immune response, C3 is a protein involved in initiation of the complement system. C3 polymorphisms are associated with susceptibility to asthma and other inflammatory disorders.
CD14	The CD14 protein is a macrophage cell surface receptor that binds bacterial cell wall components. As one of the initiators of the innate immune response, fully functional CD14 is necessary for normal response to potential pathogens. Mutations in the CD14 gene are associated with susceptibility to asthma and other allergen-mediated inflammatory processes.
CTLA4	Cytotoxic T-lymphocyte Associated protein 4 (CTLA4) is an important inhibitor of T-cell activity: CTLA4 is part of the signaling cascade that turns off overactive T cells. Mutations in the gene that encodes CTLA4 are associated with a host of diseases characterized by a heightened immune state.
DRD2	Dopamine receptor D2 is an important component of the neuroinflammation process. Activation of DRD2 signaling is thought to decrease TNFalpha release from inflammatory mast cells. Polymorphisms associated with decreased DRD2 signaling activity are predicted to lead to pro-inflammatory phenotypes.
FUT2	Fucosyltransferase 2 (FUT2) is responsible for producing specific sugar groups that are secreted by the intestinal cells into the bowel to attract "good bacteria" . Polymorphisms in this gene produce "poor secrete" status. Lack of these sugars allows for gut dysbiosis and a higher risk of inflammatory bowel disease.
HLA-DQA1	Major histocompatibility complex, DQ alpha 1 (HLA-DQA1) is a human gene responsible for a cell surface receptor essential to the function of the immune system. Patients with a polymorphism in this gene are at higher risk for auto-immune based inflammatory disease including Celiac disease, Crohn's, Ulcerative Colitis, and gluten sensitivity.
HLA-DQA2	Major histocompatibility complex, DQ alpha 2 (HLA-DQA2) is a human gene responsible for a cell surface receptor essential to the function of the immune system. Patients with a polymorphism in this gene are at higher risk for auto-immune based inflammatory disease including Celiac disease, Crohn's, Ulcerative Colitis, and gluten sensitivity.

HLA-DRB1	Human leukocyte antigen DRB1 (HLA-DRB1) is an important mediator of the adaptive immune system. HLA-DRB1 protein "presents" antigens from invading pathogens to other cells in the immune system. Mutations in this gene are associated with higher risk of auto-immunity and other chronic inflammatory diseases.
HLA-DRB2	Human leukocyte antigen DRB2 (HLA-DRB2) is a cell surface receptor involved in mediating the adaptive immune response. Mutations in HLA-DRB2 are associated with susceptibility to chronic inflammation and decreased ability to recover from toxic mold exposure.
HNMT rs12995000	The HNMT gene encodes the histamine degradative enzyme, histamine N-methyltransferase. HNMT, in contrast to AOC1, requires the methyl donor S-adenosylmethionine and a complete methylation pathway for normal function. Polymorphisms in HNMT gene expression or protein-coding are predicted to prolong the pro-inflammatory effects of histamine signaling.
HNMT Thr105Ile	The HNMT gene encodes the histamine degradative enzyme, histamine N-methyltransferase. HNMT, in contrast to AOC1, requires the methyl donor S-adenosylmethionine and a complete methylation pathway for normal function. Polymorphisms in HNMT gene expression or protein coding are predicted to prolong the pro-inflammatory effects of histamine signaling.
IL13	IL13 (Interleukin 13) is a member of the interleukin family of chemical messengers of the immune system. Polymorphisms in this gene are associated with changes in IL13 gene expression and increase the risk of more severe inflammatory responses to allergens.
IL2	IL2 (Interleukin 2) codes for a secreted cytokine that is important for the proliferation of T and B lymphocytes. The receptor of this cytokine by interleukin 4 (IL4). Overall, the polymorphism of IL4 produces a robust inflammatory response to allergic stimuli which can be associated with severe allergic symptoms, immune cancer risk and bowel inflammation.
IL23R	A/A and A/G genotypes at rs11209026, a polymorphism in the Interleukin 23 Receptor gene (IL23R), provide a protective effects against Crohn's disease.
IL2RA	Polymorphisms in a non-protein coding region of the Interleukin 2 Receptor subtype A (IL2RA) are associated with increased risk of multiple sclerosis in some populations.
IL4	IL4 (Interleukin 4) codes for a pleiotropic cytokine produced by activated T cells. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. The STAT system, a signal transducer and activator of transcription, has been shown to play a central role in mediating the immune regulatory signal of this cytokine. Overall, the polymorphism of IL4 produces a robust inflammatory response to allergic stimuli which can be associated with severe asthma, allergies, chronic sinusitis, as well as, migraines and bowel inflammation.
IL5	The protein product of the Interleukin 5 gene (IL5) is important for normal development of B lymphocytes and eosinophils (a pro-inflammatory white blood cell). Inactivating mutations in the IL5 gene are associated with susceptibility to certain viral infections and increased aggression of inflammatory response. These polymorphisms are also associated with increased aggression of allergies, asthma and eosinophilia.
IL6	Interleukin 6, IL6, is an important pro-inflammatory cytokine. Polymorphisms in this gene leads to a more aggressive inflammatory response. Patients with IL-6 mutations require assistance with inflammatory control.
NOS2	Nitric Oxide Synthase 2 (NOS2) is responsible for producing nitric oxide, a biologic mediator used by the nervous system, immune system and in blood vessel function. Polymorphisms in this enzyme can cause reduced immune system function, exercise intolerance and fatigue.
SOCS1	Suppressor of Cytokine Signaling 1 is an intracellular protein that is a member of the STAT (Signal Transducer and Activator of Transcription) family that is necessary to curb pro-inflammatory cytokine signaling. Mutations in SOCS1 are predicted to prolong inflammatory responses, thereby requiring assistance with inflammatory control.
STAT4	The Signal Transducer and Activator of Transcription 4 (STAT4) gene encodes a transcription factor that responds to extracellular growth factors and cytokines. Mutations in the STAT4 gene are associated with inflammatory disorders like lupus and rheumatoid arthritis.
TNF	Tumor necrosis factor, TNF, is an important pro-inflammatory signaling molecule. Polymorphisms in the protein coding part of this gene are associated with more severe pro-inflammatory responses and require supplementation for inflammatory control.
TRAF-1	TRAF1 (TNF Receptor Activation Factor 1) is produced by T cells and functions as an "off switch" for Toll like receptors and Janus Kinase. Polymorphisms of this gene are associated with chronic inflammation and can be associated with chronic Epstein Barr infections.
NEUROTRANSMITTER	Neurotransmitters are chemicals that are used to produce specific effects in the nervous system. These specific neurotransmitter genomics assess a person's risk for anxiety, depression and dysphoria.
IDO1	IOD1 (indolamine 2,3 dioxygenase 1) codes for a heme enzyme that catalyzes the first and rate-limiting step in tryptophan catabolism to N-formyl-kynurenine. This enzyme acts on multiple tryptophan substrates including D-tryptophan, L-tryptophan, 5-hydroxy-tryptophan, tryptamine, and serotonin. This enzyme is thought to play a role in a variety of pathophysiological processes such as neuropathology and immunoregulation. Buildup of tryptophan can cause apoptosis of T cells and a decrease in T regulatory cell numbers.

Disclaimers

TESTING:

Testing Performed By: TY

METHODOLOGY AND LIMITATIONS:

Testing for genetic variation/mutation on listed genes was performed using ProFlex PCR and Real-Time PCR with TaqMan® allele-specific probes on the QuantStudio 12K Flex. All genetic testing is performed by GX Sciences, 4150 Freidrich Lane, Ste H, Austin, TX. 78744. This test will not detect all the known alleles that result in altered or inactive tested genes. This test does not account for all individual variations in the individual tested. Test results do not rule out the possibility that this individual could be a carrier of other mutations/variations not detected by this gene mutation/variation panel. Rare mutations surrounding these alleles may also affect our detection of genetic variations. Thus, the interpretation is given as a probability. Therefore, this genetic information shall be interpreted in conjunction with other clinical findings and familial history for the administration of specific nutrients. Patients should receive appropriate genetic counseling to explain the implications of these test results. Details of assay performance and algorithms leading to clinical recommendations are available upon request. The analytical and performance characteristics of this laboratory developed test (LDT) were determined by GX Sciences' laboratory pursuant to Clinical Laboratory Improvement Amendments (CLIA) requirements.

CLIA #: 45D2144988 Laboratory Director: James Jacobson, PhD

DISCLAIMER:

This test was developed and its performance characteristics determined by GX Sciences. It has not been cleared or approved by the FDA. The laboratory is regulated under CLIA and qualified to perform high-complexity testing. This test is used for clinical purposes. It should not be regarded as investigational or for research. rsIDs for the alleles being tested were obtained from the dbSNP database (Build 142).

DISCLAIMER:

UND Result: If you have received the result Variant undetermined (UND) this indicates that we were not able to determine your carrier status based on your raw data. Please refer to the GX Sciences genetic knowledge database for more information: https://www.gxsciences.com/kb_results.asp

DISCLAIMER:

Report contents and report recommendations are created and approved by GX Sciences. Sole responsibility for the proper use of the information on the GX Sciences report rests with the user, or those professionals with whom the user may consult. Nutrigenomic Testing and Dietary Supplements are not "Designated Health Services" covered by Medicare or Medicaid and may not be reimbursed under any state or Federal health care program.

DISCLAIMER:

These products are not approved by the Food and Drug Administration and are not intended to diagnose, treat, cure or prevent disease. These recommendations are for report purposes only and an individual is not required to use such products. These are recommendations only and do not replace the advisement of your own healthcare practitioner.

GX Sciences SNP References

DETOXIFICATION SNP References

AHCY

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CTH

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GSTM1

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