Detox and Methylation Mutation Report for Customer: ea654799-d454-4cd3-9848-752836dbf54b

Instructions:

This FREE NutraHacker report contains detox and methylation mutations (single nucleotide polymorphisms) in this uploaded genome. Genes not reported in this report are either normal, not actionable, available only in the paid service offered by NutraHacker, or are not currently detected by NutraHacker. The expected allele is the one seen in a normally functioning gene. The high risk alleles reported are the ones measured from the uploaded genome. NutraHacker reports the effects of these mutations as discovered by published empirical data and suggests nutritional supplements that can mitigate potential issues caused by these mutations.

This report is meant to serve as a guide for nutritional supplementation for the owner of the genome and is not applicable to any other individual. Supplement quantities and dosages are not included as they are indicated on the purchased product. Multiple recommendations for the same supplement does not mean that the dosage should be multiplied. In the case of a conflict (such as a particular vitamin being both encouraged and discouraged), the owner of the genome should assess his/her own personal biology to decide whether to include or discard that particular supplement.

NOTICE:

State law allows any person to provide nutritional advice or give advice concerning proper nutrition--which is the giving of advice as to the role of food and food ingredients, including dietary supplements. This state law does NOT confer authority to practice medicine or to undertake the diagnosis, prevention, treatment, or cure of any disease, pain, deformity, injury, or physical or mental condition and specifically does not authorize any person other than one who is a licensed health practitioner to state that any product might cure any disease, disorder, or condition.

NutraHacker reports are for scientific, educational and nutritional information only and are not intended to diagnose, cure, treat or prevent any disease, disorder or condition.

Thank you for using NutraHacker. To your health!

Gender of customer: Male

A total of 12 mutations were detected at this time for your genome out of the 58 polymorphisms assessed.

There were 4 homozygous mutations.

There were 8 heterozygous mutations.

Please continue to the next page to begin your discovery process.

Category	RSID	Gene	Expected	Genotype: Risk	Genotype Freq	Gene Function	Consequences	Encourage	Avoid
Detoxification	rs762551	CYP1A2	A	AC: 1/2	46.8902%	Hydroxylation or dealkylation of xenobiotics, Phase I, metabolize E2 to 2-hydroxyestradiol	Slow to metabolize caffeine, Main liver pathway	Induce with broccoli, Cabbage, Diindolylmethane, Glucarate, NAC, Cardamom, Sulforaphane	Curcumin, Cumin, Grapefruit
Detoxification	rs1695	GSTP1	G	AG: 1/2	42.4696%	Conjugation toxins to glutathione	Persons having the alleles AA or AG had an increase in inflammatory interleukin-6 (IL-6) upon supplementing alpha-tocopherol (the most common form of Vitamin E in a North American diet) while those with GG saw a decrease.	NAC, Whey	Vitamin E
Detoxification	rs1208	NAT2	A	GG: 2/2	14.6514%	This gene encodes an enzyme that functions to both activate and deactivate arylamine and hydrazine drugs and carcinogens.	Fast metabolizer	NAC, Vitamin B2, Vitamin B3, Vitamin B5, Molybdenum	
Detoxification	rs1801280	NAT2	T	CC: 2/2	13.1072%	This gene encodes an enzyme that functions to both activate and deactivate arylamine and hydrazine drugs and carcinogens.	Decreased activity	NAC, Vitamin B2, Vitamin B3, Vitamin B5, Molybdenum	
Neurotransmitter Levels	rs4633	COMT	C	TC: 1/2	48.7173%	Degrades catecholamines, Phase II, inactivates hydroxy-estrogens	Same amino acid sequence, lower expression of gene, less breakdown of catecholamines	Hydroxy B12 (hydroxycobalamin)	Methyl B12, Methyl donors
Neurotransmitter Levels	rs4680	COMT	G	AG: 1/2	48.2074%	Degrades catecholamines, Phase II, inactivates hydroxy-estrogens	Slower breakdown dopamine, oestrogen, worrier, prone to anxiety, more sensitive to green tea	Hydroxy B12 (hydroxycobalamin)	Methyl B12, Methyl donors, Cannabis
Folate One-Carbon Metabolism / Methylation (FOCM)	rs1801181	CBS	G	AA: 2/2	6.95200%	Adds l-serine to homocysteine to produce l-cystathionine	Upregulation, high taurine, high ammonia, high sulfates, decrease in glutatione synthesis	Ornithine/Arginine, Manganese, Molybdenum, Zinc, SAMe inhibits, CoQ10	Methyl donors, Vitamin B6 (P-5-P form ok), Taurine, Sulfates, BCAA

Category	RSID	Gene	Expected	Genotype: Risk	Genotype Freq	Gene Function	Consequences	Encourage	Avoid
Folate One-Carbon Metabolism / Methylation (FOCM)	rs1801131	MTHFR	A	TG: 1/2	0.06720%	Converts folic acid to 5-methyltetrahydrofolate	Low BH4, excess ammonia, low nitric oxide, does NOT lead to high homocysteine, however high superoxide	L-methylfolate, Vitamin B3, Potassium, Ornithine, Vitamin B6, Vitamin B12, Vitamin C, Rooibos, Manganese	Folinic acid, Folate
Folate One-Carbon Metabolism / Methylation (FOCM)	rs1801133	MTHFR	C	AG: 1/2	39.5976%	Converts folic acid to 5-methyltetrahydrofolate	When homozygous it's functioning at about 30% of normal, leads to high homocysteine, folate concentrations lower.	L-methylfolate, Vitamin B12, Riboflavin for high blood pressure, Ribo-5-phosphate	Folinic acid, Folate
Folate One-Carbon Metabolism / Methylation (FOCM)	rs2066470	MTHFR	C	AG: 1/2	16.4288%	Converts folic acid to 5-methyltetrahydrofolate	Possible decreased expression, high homocysteine, low concentrations folate.	L-methylfolate, Vitamin B12, Riboflavin for high blood pressure, Ribo-5-phosphate	Folinic acid, Folate
Folate One-Carbon Metabolism / Methylation (FOCM)	rs1802059	MTRR	G	AG: 1/2	42.7445%	Methylates, recycles vitamin b12	Less active enzyme	Methyl B12	
Energy / Oxidation	rs4880	SOD2	A	GG: 2/2	18.1693%	Mitochondrial Superoxide Dismutase 2	Decreased gene function. Noise induced hearing loss, rs10370 'TT', rs4880 'GG' diplo-genotype (diplotype) was associated with more gray matter shrinkage in 76 individuals who report chronic high levels of alcohol consumption.	Manganese, Vitamin E in tocotrienol form	Alcohol, Noise (greater chance for hearing loss)