THE NUTRITION GENOME REPORT PREVIEW
The Nutrition Genome Report looks at over 200 genes and is organized by the following order:

Your Final Results
Digestion
Methylation
Hormone Health
Neurotransmitters and Mental Health
Inflammation and Antioxidant Protection
Pharmacogenomics and Detoxification
DNA Damage, Protection, and Repair
Cardiovascular and Exercise Health
What to expect in your report...

The introduction of your report will explain how to read your genetic report, as well as a basic overview of your analysis.
The Methylation Cycle Analysis

Here is an example of the methylation section. You are given the gene, the gene function, and your specific variants. The paragraphs are customized based on your unique genotype.

METHYLATION CYCLE

**B12, CALCIUM, LITHIUM, B6 & FOLATE:**
Heart Health, Reproductive Health, Brain Health, Pregnancy

**CHOLINE:**
Liver & Brain Health, Gallbladder, Pregnancy

**ZINC:**
Mental Health, Skin Health, Immune Health

**MAGNESIUM & VITAMIN C:**
Heart Health, Adrenal Health, Mental Health
METHYLATION ANALYSIS

Folate-MTHFR 677

**Improves MTHFR C677T Gene Function:** Riboflavin and methylfolate.

**Decreases Gene Function:** PPI’S, birth control pills, NSAIDs, anticonvulsants, antivirals, antibiotics and acid blockers/antacids.

**Research:** If you have a heterozygous MTHFR 677 (30% reduced function) or homozygous (50% reduced function) gene, your methylfolate requirement is higher. Reduced levels of methylfolate lead to decreased production of neurotransmitters, reduced conversion of homocysteine to methionine, and reduced s-adenosyl-methionine (SAMe) concentrations. Multiple studies have considered riboflavin status and shown that the MTHFR 677 homozygous genotype is associated with high homocysteine when riboflavin (B2) status is low.

Homocysteine is a non-protein amino acid that is created and recycled in the methylation cycle. Sluggish enzymes in the cycle can cause elevated levels in the blood, which can cause inflammation in the blood vessels. High homocysteine has been implicated in amyloid buildup, DNA damage and cancer, mitochondrial dysfunction, cardiovascular disease, and apoptosis of neurons. Targeting the slow enzymes with methylfolate helps bypass it and can maintain normal levels of homocysteine.

It is important to consider riboflavin intake, PEMT, MTR/MTRR, BHMT and CBS activity to assess overall homocysteine metabolism. Too high or too low levels of B12, B6, folate or their co-factors may cause dysregulation of methyl donor activity. The amount of methylfolate used in studies to reduce homocysteine with MTHFR variants has been 400-800mcg, and should be used with B12, B2 and B6.
Strengthening Your Genome...

This section will give you an overall summary of your strengths and weaknesses, and how to strengthen the "chinks" in your armor.

You will be given the following based on your genetic results:

- Your highest vitamin, mineral and compound needs
- You will learn what foods, drinks, toxins and additives to minimize/avoid
- Recommended routine blood work markers
Your genetic report showed an increased need for the following based on the highest amounts of vitamins and minerals. These are based on foods with the highest levels of these nutrients and do not take into account any food allergies beyond gluten and lactose.

<table>
<thead>
<tr>
<th>VITAMINS, MINERALS AND OTHER COMPOUNDS</th>
<th>FOODS TO EMPHASIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>Gerolsteiner mineral water, spinach, kale, almonds, parsley, and grass-fed dairy</td>
</tr>
<tr>
<td>B6</td>
<td>Wild salmon, wild cod, pistachios, avocados, spinach, Yukon gold or red potatoes, cauliflower, Kombucha and unfiltered beer</td>
</tr>
<tr>
<td>Glycine</td>
<td>Bone broth, chicken broth and grass-fed whey protein</td>
</tr>
<tr>
<td>B12</td>
<td>Pastured eggs, grass-fed beef, grass-fed lamb, pastured pork, chicken, turkey and seafood</td>
</tr>
</tbody>
</table>

**STRENGTHS**

- Good protein and fat metabolism
- Good folate absorption
- Optimal hormone function
- Excellent liver detoxification

**WEAKNESSES**

- Higher sensitivity to gluten
- Increased need for B6 for healthy neurotransmitters
- Increased antioxidant support needed
- Increased need for stress relieving strategies for heart health
- Increased support needed for post-workout recovery