Genetic Lifehacks

Learn. Experiment. Optimize.

Hi there,

Your genetic variants impact how your body absorbs, transports, and utilizes different nutrients. Understanding your genes can help you pinpoint which vitamins you may need a little more of - and which nutrients you may not need to worry about.

I've featured several updated articles below on different vitamins and minerals that are impacted by genetics. I encourage you to use the information as a starting point for optimizing your diet or supplements.

Coming soon:
Over the past couple of weeks, I've been doing a deep dive into all the new research on the resolution of inflammation. It turns out that inflammatory cytokines don't just fade away. Instead, there is a complex, active process involving specialized pro-resolving mediators that brings inflammatory processes to an end and returns the body to normal. Most chronic diseases (heart disease, neurodegenerative conditions, some autoimmune diseases, metabolic syndrome, etc) have low-level, chronic inflammation as one root cause. And the resolution of inflammation seems to be at the heart of preventing and curing diseases that have chronic inflammation at their core. Thus, the topic of the 'resolution of inflammation' has turned out to be a huge one. Hopefully, I'll have the article wrapped up, edited, and published by next week.

Gratefully yours,

Debbie

Important Mineral

Zinc genes: The healing power of zinc

Important for immune health, zinc is a mineral making headlines these days. Learn why zinc is important for your immune system and so much more. Find out how your genes impact your need for zinc and discover ways of boosting your zinc status.

Read the full article

Vitamins and Genetics

Vitamin D, Genes, and Your Immune System

Vitamin C: Do you need more?

Vitamin D is more than just a 'vitamin'. It is actually a hormone that is essential to so many processes in your body - including your immune system.

A Spanish randomized control trial recently showed that giving hospitalized COVID-19 patients vitamin D reduced the risk of an ICU stay by 98%![ref] This article explains how vitamin D interacts with the immune system and how to check your genetic data for vitamin D-related genes. We will wrap up with ways to increase your vitamin D levels.

Vitamin C is often the first supplement most of us reach for when getting sick. Whether upping the OJ or going with a supplement, vitamin C is known for its ability to boost the immune system. It turns out, though, that vitamin C is important for more than just 'cold and flu season', and higher levels of vitamin C intake may protect against cardiovascular disease, gastric cancer, and neurodegenerative disorders.

Like most nutrients, our genes play a role in how vitamin C is absorbed, transported, and used by the body. This can influence your risk for certain diseases, and it can make a difference in the minimum amount of vitamin C you need to consume each day.

Impacts overall health

Folate: Check your MTHFR gene

MTHFR is a central gene in the methylation cycle and is a **limiting factor** for producing methyl groups from folate. Common genetic variants in the coding of this gene affect more than half the population.

Specifically, the MTHFR (methylenetetrahydrofolate reductase) gene codes for an enzyme that turns folate into the active form, 5-methyltetrahydrofolate, that your body uses. This, along with the active form of vitamin B-12 (methylcobalamin), drives an important portion of the methylation cycle.

Read the full article

What I've Been Reading...

1) Scientists discover a genetic marker carried by Robert the Bruce (King of Scotland)

From the article: "A distinct genetic marker, carried by descendants of Robert the Bruce's close relatives, has been identified by researchers at the University of Strathclyde.

The genealogy researchers have found the marker in male line descendants of the Bruces of Clackmannan, who were related to Robert the Bruce, King of Scots from 1306 to 1329."

2) Cannabidiol inhibits SARS-CoV-2 replication through induction of the host ER stress and innate immune responses

This study in Science details yet another early treatment option for COVID-19. From the study: "CBD acts after viral entry, inhibiting viral gene expression and reversing many effects of SARS-CoV-2 on host gene transcription. CBD inhibits SARS-CoV-2 replication in part by up-regulating the host IRE1α RNase endoplasmic reticulum (ER) stress response and interferon signaling pathways. In matched groups of human patients from the National COVID Cohort Collaborative, CBD (100 mg/ml oral solution per medical records) had a significant negative association with positive SARS-CoV-2 tests. This study highlights CBD as a potential preventative agent for early-stage SARS-CoV-2 infection and merits future clinical trials."
