

Genetic Lifehacks

Learn. Experiment. Optimize.

Hi everyone,

I want to start with a huge apology to everyone who ran into problems on [Genetic Lifehacks](#) this past week. I migrated the website to a new server and ended up with a tangled mess of broken links, missing images, and glitches with the member's features.

A couple of members emailed me when they ran into trouble on the website, and I want to say how much I appreciated their bug reports. If you see anything on the site that is wonky, not working, or a likely typo, please let me know. I really do appreciate feedback - both negative and positive!

After going through the whole website to fix links and images, I made several discoveries. First, there are now many articles on my list to update. More importantly, I realized that a number of important articles aren't being read by very many people. I'm going to feature some of these *'important but missed by many'* articles in the next few newsletters.

The featured article below on thiamine was inspired by anecdotal reports that a specific type of thiamine, benfotiamine, is helpful for people suffering from lingering effects after Covid. Mechanistically, it makes sense that thiamine (vitamin B1) insufficiency could cause some of the long covid symptoms, but I didn't find much published research on it. Instead, check out the expanded information on what thiamine does in the cell as well as genetic variants related to thiamine deficiency.

Stay well,

~ Debbie Moon



Latest article

Thiamine: Genetics, cellular energy, and cognitive function

Thiamine (vitamin B1) is a water-soluble vitamin that serves as a cofactor in the metabolism of carbohydrates, branch chain amino acids, and fatty acids. It is *essential*, meaning you have to get it from food. Why is it essential? ATP production, used in every cell for energy, requires thiamine. An insufficient amount of thiamine can cause problems with cellular energy.

This article explains how your body uses thiamine, genetic variants that may impact your need for thiamine, and ways to increase your thiamine intake. Additionally, I'll explain how thiamine is used in the mitochondria for energy production and why it could be important for long Covid.

[Read the full article](#)

What I've Been Reading...

1) [Benfotiamine, magnesium, folate, B12, and Vitamin D for Alzheimer's](#)

This is a recent study using an animal model of Alzheimer's that found that a combo of benfotiamine (bioavailable thiamine), magnesium orotate, folate, B12, and vitamin D restored mitochondrial function and acetylcholine levels in

the brain. While just an animal study, the results here are promising and make sense. Plus, the vitamins used should be safe with few side effects.

2) 23andMe Initiates Phase I Clinical Trial for First Wholly-Owned Immuno-oncology Antibody for Patients with Solid Tumors

This AP article explains that 23andMe is in a phase I clinical trial for a wholly owned immune-oncology drug. I thought it was interesting that a consumer genetic testing company is now making drugs.

3) Fingerprint patterns are linked to limb development genes

From the article: "In the most comprehensive analysis to date, researchers found that the shapes of fingerprints -- whether they are circular, wavy, or winding -- are influenced by the genes responsible for limb development instead of skin patterning. The study, presented January 6 in the journal *Cell*, could help scientists better understand the association between genes and phenotypical traits in humans."

I love to hear from members! If you come across a great article on genetics or biology, please feel free to share it with me :-)

Articles that you may have missed...

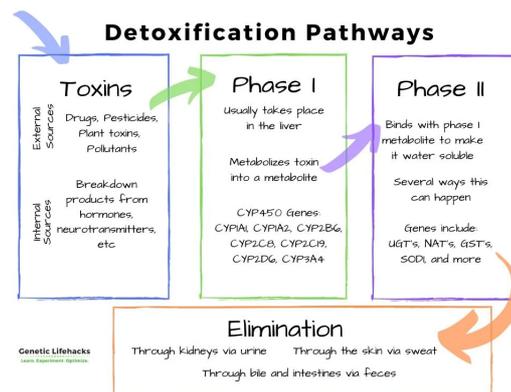
The articles no one is reading, but they should be...



Boring, but important

Fatty Liver: Genetic variants that increase the risk of NAFLD

Non-alcoholic fatty liver disease (NAFLD) is now the leading cause of liver problems worldwide, bypassing alcoholic liver disease. It is estimated that almost half of the population in the US has NAFLD caused by a



Phase I and Phase II Detoxification genes

We are all exposed to toxicants (manufactured toxins) through pesticide residue, air pollution, skin care products, and medications. Plus, our bodies all break down and eliminate substances made and used

combination of genetic susceptibility, diet, and lifestyle factors.

within ourselves as well as natural plant compounds.

Many people have genetic variants that impact the different ways of breaking down and eliminating toxins and medication.

The key here is understanding where you have a genetic susceptibility – and then optimizing to avoid certain toxicants or medications.

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Thank you!

Genetic Lifehacks

Somewhere cold, MT

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