

# Genetic Lifehacks

Learn. Experiment. Optimize.

Hi everyone,

Most people interested in health have likely read somewhere that low-level inflammation is the root cause of most chronic diseases.

Reading and writing about genetics research for the past six years has driven home that point for me. Nearly every chronic disease has a genetic link to a variant related to higher levels of inflammation. For example, the variant included most often in Genetic Lifehacks articles is in TNF-alpha (inflammatory cytokine); it is included in 13 different article topics, from depression to sinus infections to chronic fatigue.

But in all my writing about inflammation, I totally missed the boat on a whole new field of research spanning the past decade.

It turns out that the resolution of inflammation is an active process.

Doctors and researchers used to think that when the need for inflammation was over, the inflammatory cytokines and immune cells just went away. Instead, there is a complex, active process that goes on at the same time as inflammation, acting to halt the pro-inflammatory pathways and actively restore homeostasis to the tissue or organ. In most cases, the cause of chronic inflammation is the lack of resolution.

Why is this important? Our current methods of tackling chronic diseases usually include medications that act as anti-inflammatories, such as pain medications or TNF inhibitors. This may be the wrong half of the equation to focus on. Instead, promoting the resolution of inflammation not only halts the inflammation but also returns the tissue to normal health.

My article on this (below) is just the beginning. I realized as I wrote it that I now need to go back and update the lifehacks sections of many previous articles. Plus, the research on the mediators that resolve inflammation is still new, with discoveries coming out all the time. There will be much more to come on this topic -- especially with clinical trials underway to produce synthetic drugs that target this pathway.

Be well,

Debbie

Genetic Lifehacks runs entirely on member support.

Thank you for being a member!!



Deep dive into new research

## Specialized Pro-resolving Mediators: Getting Rid of Chronic Inflammation

In the US, 60% of adults are diagnosed with a chronic disease, and 40% have two or more conditions.[\[ref\]](#) Let that sink in for a second. For all of our advances in medicine, technology, and modern advantages, overall as a population, we really aren't healthy.

What if I told you that most modern medicine has it all wrong when it comes to chronic disease? Some of you are likely nodding in agreement, and others are raising a skeptical eyebrow right now.

Recent research has created a paradigm shift in understanding the root cause of most chronic diseases. And mainstream medicine hasn't made the shift – yet.

This article applies to almost everyone with a chronic disease: heart disease, diabetes, gum disease, neurodegeneration, neuropathy, arthritis, chronic pancreatitis, etc. Healthy and young? This article holds the keys to staying that way.

*Content warning:* This turned out to be really long article. I think it is an important topic and encourage you to keep reading to the end.

[Read the full article](#)

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## What I've Been Reading...

### 1) [Ancestral genomic contributions to complex traits in contemporary Europeans](#)

If you find genetics and ancient ancestry interesting, this new study in Cell looks at the influences of hunter-gatherer tribes mixed with Neolithic farmers and Steppe pastoralists. And if you don't want to wade through the academic language, the Daily Mail has a [well-written overview](#) of it (with pictures).

### 2) [Circulating polyunsaturated fatty acids and COVID-19: a prospective cohort study and Mendelian randomization analysis](#)

This pre-print looked at omega-3 fatty acid levels in a huge control group as well as in COVID-19 patients. The researchers found that a high omega-6:omega-3 ratio increased susceptibility to COVID as well as severity. The researchers also did a genetics-based test (Mendelian randomization) and found that higher DPA and AA are likely causally associated with decreased risk of severe COVID. (Yes, this study totally backs-up the research on the pro-resolving mediators being essential in the resolution of inflammation.)

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## Genetic Lifehacks

Snowy and cold, MT

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