

# Genetic Lifehacks

Learn. Experiment. Optimize.

Hi everyone,

We are all exposed to low levels of mercury at some point – from a broken CFL bulb to amalgam fillings to air pollution. For most, it isn't something that is on top of the 'worry list'. (I think Monkeypox is what we are supposed to worry about right now :-)

This week's article dives into how the body eliminates mercury, a toxic heavy metal that preferentially builds up in the brain.

Heavy metals and environmental toxins are actually a big problem, depending on where you live. To quantify, a recent [study](#) in *The Lancet* calculated that pollution was responsible for 9 million deaths worldwide in 2019. To put it into context, that is higher than is estimated for worldwide Covid deaths over the past 2+ years.

Should you worry about mercury? Or are pesticides your kryptonite? Everyone is unique in how their body responds to low levels of toxicants, and your genetic data can help you know where it is important to focus -- and what you may be able to ignore.

If you are interested in your genetic risk factors regarding phase I and phase II detoxification, check out the newly updated [Detoxification Summary Report](#).

I've had members ask how to know what is important in the summary reports. Here's a quick sketch of what to look for in the detox summary, which is divided into three sections:

- If you see a variant highlighted in the phase I detoxification genes section (the CYP genes), click the article title, read the article, and note any interactions with medications.
- The phase II detoxification gene variants are a little more common. If you see that you have two or more variants in a section, or one non-functioning variant, then check out the article for suggestions on mitigating the risk.
- The final section of the detoxification summary report is on specific toxicants, such as glyphosate (RoundUp) or medications (e.g. statins). The most important mutations in that section are the BChE variants that can cause delayed breathing recovery from anesthesia and increase Parkinson's risk. Many of the other articles in that section depend on your exposure, and you can skip over them if they aren't relevant. For example, if you don't have arsenic in your well water, you likely don't care about your arsenic-related genes.

Wishing you all well,



## Mercury: Genetic Variants that Impact Detoxification

Mercury exposure has long been known to cause neurological problems. Recently, research shows that mercury accumulates at higher levels in the brain than in other parts of the body.

Mercury (Hg) in all forms is hazardous to all living things. Here I'll explain the physiological effects of mercury and how the body eliminates it. Genetic variants play a role in how quickly you excrete mercury; diet and lifestyle factors are also important. I'll wrap up this article with an overview of the research on different natural supplements that impact mercury detoxification.

[Read the article, view your genes...](#)

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**Genetic Lifehacks**

Beautiful and Green, MT

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