2025 Addendum for Supplementation—What's Natural About Being Synthetic?

Section II

In the next few paragraphs, I want to update a few things published in Section II of my book in 2017 to bring them up-to-date as of 2025. You can find supporting information and references on the website, AngiesOptionGRM.org. Click on the Blog or the Wellness Support Group Webinar headings.

Fluoride in Water. *The Epoch Times* reported in September 2024, "Judge Edward Chen of the U.S. District Court of the Northern District of California wrote a long-awaited decision in a landmark lawsuit brought against the Environmental Protection Agency (EPA). He ruled that **fluoridation at current U.S. levels (0.7 milligrams per liter) posed an "unreasonable risk" of reduced IQ in children**. 200 million Americans drink water treated with fluoride. Judge Chen ruled that scientific evidence demonstrated irrefutably that fluoride treatments at that level could damage human health, especially that of pregnant mothers and young children. The lawsuit took seven years as the CDC, EPA, the American Dental Association (ADA), and the National Institutes of Health (NIH) raised technical challenges resisting all the scientific studies showing harm. The EPA's legal defense rested on their belief that determining the exact level at which fluoridation is harmful is too unclear for the agency to decide whether the chemical presents an unreasonable risk. Judge Chen ruled that their argument was "not persuasive." The EPA requires a margin of error by a factor of at least 10 to exist between the hazard level for a toxin and the acceptable human exposure level. Judge Chen determined that a preponderance of scientific data shows that 0.7 mg/L definitely exceeds the safe range."

In April 2025, U.S. Health Secretary Robert F. Kennedy Jr. told the Centers for Disease Control and Prevention to stop recommending fluoridation in communities nationwide. Kennedy said he was assembling a task force of health experts to study the issue and make new recommendations. In addition, the U.S. Environmental Protection Agency announced it is reviewing "new scientific information" on potential health risks of fluoride in drinking water. The EPA sets the maximum level allowed in public water systems. Secretary Kennedy cannot order communities to stop fluoridation, but he can direct the CDC to stop recommending it and work with the EPA to change the allowed amount.

Utah became the first state to ban fluoride in public drinking water, pushing past opposition from dentists and national health organizations who warned the move would disproportionately hurt low-income residents who can't afford regular dentist visits. The governor signed legislation barring cities and communities from deciding whether to add fluoride to their drinking water. Water systems across the state stopped fluoridation on May 7, 2025.

Heavy Metals. Dr. Renee Joy Dufault is a former Public Health Service (PHS) officer at the Food and Drug Administration (FDA) and Environmental Protection Agency (EPA).

In 2000, she investigated why 12 chlor-alkali plants in operation reported to the EPA that they were missing 65 tons of mercury. Before there was an EPA, hazardous waste had been poured down laboratory drains and mercury ended up settling in sink traps and sumps. It was eventually discovered that mercury residue was likely showing up in all chemical products produced by the manufacturing process but no one was keeping track of it. Her question was: Were any of these products being consumed by children?

Mercury-grade sodium hydroxide and hydrochloric acid were chemicals used by the food color, citric acid, and high fructose corn syrup (HFCS) industries. In 2004, Americans were consuming 36 pounds of HFCS per person. Trace amounts of mercury were found in all HFCS products tested by National Institute of Standards and Technology (NIST).

Dr. Dufault reported her findings to FDA Center for Food Safety and Applied Nutrition (CFSAN), but after the meeting she was ordered by senior FDA management to cease and desist the investigation. She took early retirement to continue investigation and formed a nonprofit *Food Ingredient and Health Research Institute* (FIHRI). Numerous food additives and ingredients recognized as safe by the FDA are in our food supply. Research indicates they are significant factors in the development of autism, ADHD, and chronic diseases like obesity and diabetes. She wrote her book *Unsafe at Any Meal* in 2017 as a compilation of her findings.

“Any food products, such as bleached flour, that are processed or made with the mercury cell chlor-alkali chemicals, you are at risk of inorganic mercury exposure.”

“Chlor-alkali chemicals always contain mercury residues. Caustic soda (sodium hydroxide or lye) and hydrogen chloride (hydrochloric acid) are used routinely to regulate the acidity, or pH, of food products during manufacturing processes” (to preserve food and prevent spoilage, but the public is never informed). Quotes from her book:

“These chemicals, used extensively to manufacture food ingredients, …include chlorine, hydrogen chloride, and sodium hydroxide. You will not see them on the food ingredient label, but they are there nonetheless, lurking inside the product.”

“When you eat the processed foods found in the Western diet, you are being exposed to chlorpyrifos, other organophosphate (OP) pesticide compounds, and various heavy metals all at the same time. For example, a bowl of cereal containing flours made from wheat and corn and the food colors Yellow 5, Red 40, Annatto, Blue 1, and Blue 2 expose you to the heavy metals lead, mercury, and arsenic at the same time you are being exposed to OP pesticide residues.”

“There is no official risk assessment that can determine how all of the co-exposures to toxic substances in our diet interact with our genes to promote the development of disease conditions.”

“Seed oils (canola, soybean, corn, sunflower, palm, grapeseed) are often processed with mercury cell chlor-alkali chemicals and therefore may contain trace amounts of mercury…caustic soda is added to the older, degraded vegetable oils to remove free fatty acids…to enhance the value and taste of the oils, otherwise they would be bitter or rancid.”

“Consumption of vegetable oils has increased by over 250% and is likely a [huge] source of dietary inorganic mercury exposure.”

Corn syrup, especially HFCS, is made from corn starch and “during the process that turns it into a sweetener, a mercury compound called mercuric chloride is added to prevent starch-degrading enzymes from occurring. Corn sweeteners (corn syrup, dextrose, HFCS, maltodextrin, and modified corn starch) along with the food products they contain are all at risk of potential mercury contamination. They are used in candy, ketchup, lunch meat, syrups, assorted cookies and crackers, cereal, hot dogs, pancake mix, sausage, TV dinners, canned spaghetti, soups, pork and beans, salad dressings, soft drinks, cake mix, etc.”

“Heavy metals such as arsenic, lead, and mercury…are able to displace zinc from the metal carrier protein metallothionein (MT), and this can lead to zinc losses from the body. Zinc losses adversely impact health be creating inflammation and stress. Heavy metal exposures and zinc loss are associated with Alzheimer’s disease, autism, type 2 diabetes, and heart disease.”

In addition, zinc is crucial in fighting viruses like COVID-19 by disrupting their ability to replicate within the cell. I will discuss this further in the Section 4 Addendum. Dr. Dufault continues,

“Methylation is the most common type of epigenomic modification and involves the transfer of a methyl molecule, or ‘methyl group,’ to a gene. A methyl group is made up of the elements carbon and hydrogen (one carbon and 3 hydrogen atoms). When a methyl group is added to a gene, the gene may be turned ‘on’ or ‘off.’ Once a gene is silenced, no protein can be produced from that gene. Hypomethylation occurs in children who have autism and also, Alzheimer’s disease, cardiovascular disease, hypertension, and type 2 diabetes. Bioaccumulation of heavy metals (like mercury) accompanies a number of Western diseases and neurodevelopmental disorders.”