6 Reasons To Quit Diet Soda

#1. *ASPARTAME MAKES YOU GAIN WEIGHT*

Aspartame exposure changes the gut microbiome (shifts toward the obesity-associated bacterial community rather than the healthy one), which may explain aspartame's link to insulin resistance, metabolic syndrome, and type 2 diabetes. This is the exact wrong approach to take for someone who is trying to drink diet soda to make their diabetes better- because all it does is worsen their gut bacteria, and therefore, their blood sugar levels! Aspartame also can induce an insulin response because when the body tastes sweet, it expects that sugar is coming in. So it secretes insulin to compensate. Because of this, you will get rebound low blood sugar and then even more sugar cravings. Major vicious cycle!

#2. *ASPARTAME TURNS INTO **FORMALDEHYDE** IN THE GUT!*

Aspartame breaks down into a 3 substances in our gut- phenylalanine, aspartic acid, and free methanol. This breakdown is sped up, especially if you're drinking diet soda on an empty stomach. The methanol that is released when we break down aspartame is free methanol, completely unlike the methanol that is naturally contained in fruit which is bound up with fiber and therefore passes unabsorbed. This free methanol goes through a few more steps and then converts into formaldehyde, a known carcinogen, in the digestive tract.

#3. *ASPARTAME INCREASES RATES OF DEMENTIA & STROKE*

According to an article in the journal Stroke, "… Higher recent and higher cumulative intake of artificially-sweetened soft drinks were associated with an increased risk of ischemic stroke, all-cause dementia, and AD dementia…Sugar-sweetened beverages were not associated with stroke or dementia." (Pase, Himali, Beiser, Aparicio, Satizabal, Vasan, Seshadri, & Jacques, 2017.) Many researchers believe the link between dementia and other nervous system disorders and aspartame **exists due to this buildup of the previously mentioned compounds- methanol, phenylalanine, and aspartic acid.** An excess of methanol, similar to ethanol (the type of "alcohol" we are all most familiar with), can cause depression of the central nervous system (think slowed breathing and decreased heart rate). Excess phenylanine "blocks the transport of important amino acids to the brain contributing to reduced levels of dopamine and serotonin." (Rycerz & Jaworska-Adamu, 2013). This is important because dopamine and serotonin are your feel-good, happy, anti-depressant neurotransmitters (brain chemicals)- see notes on anxiety and depression below. And aspartic acid increases excitability of neurons- think anxiety, headache, twitching, and other effects- even seizures- similar to those experienced by those sensitive to MSG (Rycerz & Jaworska-Adamu, 2013). **Even more incredible? Aspartame has been shown to increase brain cell death and brain damage in mice (A. Onaolapo, O. Onaolapo, & P. Nwoha, 2017).**

#4. *ASPARTAME INCREASES CANCER RISK*

Aspartame even at "moderate" levels of consumption (think 1 can of soda per day) is strongly linked to cancer when consumed over a lifetime. Aspartame can cause up to a 300% increase in

incidence of lymphoma and leukemia, and has also been linked with cancers of liver, breast, prostate, and lung, among others. Exposure in utero has even been shown to impair normal development in mice, including excess growth of mammary (breast) tissue.

5. *ASPARTAME WORSENS MOOD DISORDERS LIKE ANXIETY & DEPRESSION*

This 1993 study had to be stopped early due to the severity of the adverse reactions in people with pre-existing depression. According to the study authors, "we conclude that individuals with mood disorders are particularly sensitive to this artificial sweetener and its use in this population should be discouraged." (Walton, Hudak, & Green-Waite, 1993). This may be due to the phenylalanine or methanol that are released during digestion, as they are actually able to permeate the barrier between our blood and brain. The full mechanism of action is still unclear and will need much more research!

6. *ASPARTAME ADDS FUEL TO THE INFLAMMATION "FIRE"*

This study in mice demonstrated that aspartame dysregulated antioxidant status which leads to oxidative damage and inflammation. In plain English, Aspartame depletes our antioxidants, making us much less able to respond to stress (stress includes anything like diet soda consumption, exercise (positive stress), eating less-than-optimal food choices, etc.) in the body. It also disrupts cell membrane integrity which means your cells are no longer able to regulate what comes in and what comes out of the cell (which is incredibly important!). Why should we care about inflammation? **Because inflammation is the PRIMARY driver of many diseases including diabetes, kidney disease, dementia, and cancer. Not to mention, it affects every aspect of your life- including how you look, feel, and function.**