



**Artificial  
Sweeteners:  
More Sour Than  
You Ever Imagined**

Dr. Joseph Mercola

# The Aspartame Scandal: Going on 50 Years and Counting

If you still believe that artificial sweeteners like Equal® and NutraSweet® are safe, you'll want to pay very close attention to this new special report.

You're probably aware of the dangers of consuming too much sugar, and that sugar is not healthy for you.

As a result, you might have been led to believe that artificial sweeteners—now known as “high intensity” sweeteners—like aspartame are safe, natural replacements for sugar, and that they are healthier for you and your family because they're less likely to cause you to gain weight.

Well, neither of those beliefs is true.

The truth is, artificial sweeteners may be even worse for you than sugar! That may not be the message you're hearing in diet-product advertisements or on the news, but if you're counting on industry or government regulations and bureaucrats to protect you from aspartame's dangers by telling the whole truth about this chemical, think again.



You can thank slick marketing campaigns by manufacturers and those with financial interests in the sweetener business for successfully convincing you and millions of other consumers that the chemicals in artificially sweetened products are healthy and safe. The arguments marketers use to do this will be addressed later in this report, but for now, just keep in mind that the reason you feel artificial sweeteners are safe is a direct result of *deliberate deception* on the part of big business and government.

It's not pleasant to learn that corporations, government-sponsored regulatory agencies, and politicians are more interested in lining their pockets than protecting citizens' health. But, unfortunately, these are serious issues that you *must* consider for your and your family's safety.

If you already avoid aspartame, the information you're about to read will confirm the wise choice you've made, and cement your resolve to stay away from any product that contains this potential toxin.

But whether this information is new to you or not, always remember:

*If you're consuming a food or beverage created in a lab instead of in nature, you can be assured your body doesn't recognize it. This opens the door to short-term and long-lasting health problems for you and your family.*

# An Accident Waiting to Happen: The Birth of Aspartame

Like an omen, aspartame was discovered in 1965 entirely by mistake. That's right... *by mistake*.

G.D. Searle chemist James M. Schlatter was at work in his laboratory, developing a drug to treat peptic ulcer disease, when he absentmindedly licked his finger to turn a page of his notebook. He noticed that his finger tasted sweet, and determined that the mixture of two proteins he'd been working with—*aspartic acid* and *phenylalanine*—were the source of this surprising sweetness.

This inauspicious beginning heralded the birth of what has become one of the most potentially dangerous and controversial food additives in human history was born.<sup>1, 2</sup>

## A Quick History

G.D. Searle first submitted aspartame for approval as a food additive in 1973. The FDA gave a preliminary positive nod to the request a little over a year later, for use in dry substances only—and with a warning label stating that it contained *phenylalanine*, which poses a risk to persons with a genetic disorder called *phenylketonuria* (PKU). However, final approval and marketing of the product was delayed until 1981 while the FDA addressed a series of suits alleging the new product was not safe for human consumption, and countersuits claiming it was.<sup>3</sup>

It's from this contentious start that aspartame's approval process came to be riddled with controversy, accusations of sloppy clinical trials on Searle's part, and questionable—if not scandalous—maneuvers that eventually led to aspartame becoming a multi-billion-dollar-a-year product.

Some of the most detailed summaries of aspartame's rocky road to market are in the FDA's own archives. Meticulously chronicling the tug-of-rope between cautionary safety advocates and Searle, these documents show that there were—and still are—genuine concerns about aspartame's approval.<sup>4</sup>

## Timing Is Everything, or How Aspartame Got to Market in Spite of Itself

The ultimate story of how aspartame got to market despite initial FDA concerns and evidence of its neurotoxicity is a study in good timing, heavy financial investment, and the impact of political clout. It's a story so shocking that it reads like a crime mystery. Except it's all true. Earlier on, news agencies like *The New York Times* reportedly regularly on aspartame safety concerns.<sup>5</sup> But sadly, the history and details of the real story behind aspartame have either been forgotten or ignored by the mainstream press as years go by.

The story begins with the rise of aspartame studies just after *cyclamate* was banned and pulled from the U.S. market.<sup>6</sup> *Saccharin* was under serious scrutiny, and the disappearance of *cyclamate* had left a void it appeared *saccharin* might not be poised to fill. The "diet" market at the time was a \$1 billion-

per-year business in the U.S.,<sup>7</sup> and manufacturers of diet products were in a mad scramble to find a substitute that would ensure they left not a dollar of that billion on the table.

Aspartame seemed like the magic bullet to fill the bill. But first Searle had to get it through the FDA.

Initially, the FDA strongly denied the approval of aspartame products. In his book, “*Excitotoxins: The Taste that Kills*,” board-certified neurosurgeon Dr. Russell Blaylock discusses the disturbing facts about aspartame that concerned the FDA.<sup>8</sup> In short, the reasons the FDA review board gave for ruling against aspartame were sound and included:

- Flawed data
- Brain tumor findings in animal studies
- Lack of studies on humans to determine longer-term effects

So, at the time, it appeared this was not going to be the sugar substitute the market wanted. But industry was not about to take no for an answer.

## FDA Commissioner Overrules the Board’s Concerns—and Goes to Work Promoting Searle

The Institute of Medicine (IOM) admitted in 1999 that “the agency experienced special difficulties in reviewing the artificial sweetener,” and predicted that the FDA would continue to have these difficulties in the future, as more food-use substances are created. Summarizing these so-called “difficulties” at a forum on how the FDA makes its decisions, the IOM explained that the three member Public Board of Inquiry had voted *against* aspartame because of “unresolved questions about brain tumors found during (Searle’s) rodent studies.” But FDA Commissioner Arthur H. Hayes overruled the board’s objections and granted aspartame its ticket to market in spite of their concerns.<sup>9</sup>

Two years later, Hayes left the FDA, and while serving as dean of New York Medical College, was hired by Searle’s public relations firm, Burston Marsteller, as a paid consultant making \$1,000 a day.<sup>10</sup>

### Pouring Good Money Into Bad Studies

By 1976, G.D. Searle had spent \$29 million conducting approval tests on aspartame.<sup>11</sup>

Not surprisingly, studies funded by Searle and other groups with a financial interest in aspartame found no adverse health effects. However, *independent* studies such as those done by Dr. John Olney, a neuroscientist who was instrumental in getting monosodium glutamate removed from baby foods, delivered evidence that aspartame consumption did indeed create health problems in test subjects. Most concerning was the report that rats fed aspartame in even small amounts not only suffered brain damage, but developed brain tumors.<sup>12</sup> This was exactly why the initial FDA review board denied Searle’s request to put aspartame on the market.

Undaunted, Searle forged ahead with a new plan to ramrod the product through anyway.

## Flexing Political Muscle

In addition to its enormous financial investment in favorable study results, Searle developed what can be fairly described as a diabolical political strategy to ensure the FDA would end up with a positive view of aspartame. As reported in internal G.D. Searle memos that are reprinted in FDA documents, the company's strategy was to "create an affirmative atmosphere" that would induce FDA reviewers to say yes to aspartame.<sup>13</sup>

Other moves included Searle threatening lawsuits against the FDA and putting pressure on the FDA commissioner to hurry up the process. The company's coup d'état, however, was to highlight the urgency of the matter by pointing out that the FDA's ban on cyclamates and a potential ban on saccharin had left dieters and diabetics without a sugar substitute.<sup>14</sup>

## Deceptive Safety Studies

G. D. Searle provided the FDA with over 100 aspartame studies in early 1973. Later that same year, the FDA asked for additional studies. Searle complied and in June 1974, the FDA granted preliminary approval for the restricted use of aspartame.

The study findings submitted by Searle were immediately challenged by Dr. Olney and Jim Turner, an attorney and consumer advocate.<sup>15</sup>

In August 1974, Olney and Turner filed the first formal objections to the approval of aspartame. Their petition prompted the FDA to initiate investigations into Searle's lab practices, and in late 1976, the FDA called for a grand jury investigation of Searle, and a study by an independent group of pathologists.<sup>16</sup>

The investigations ultimately led to concerns within the FDA about the validity of the studies submitted by Searle. Investigators uncovered substandard testing procedures and manipulated test data. In fact, what investigators found at Searle was an unprecedented incidence of bad testing procedures and inaccurate results. Final approval of aspartame was delayed.

Based on the results of these findings, in January 1977, for the first time in history, the FDA requested a criminal investigation into a food manufacturer for willfully misrepresenting results in their safety tests of a product. The FDA asked the U.S. Attorney's office to examine Searle's handling of aspartame testing.<sup>17</sup>

In August 1977, the FDA published a report by Jerome Bressler, who pointed to specific issues with Searle's aspartame safety studies.<sup>18</sup>

The Bressler Report revealed stunning examples of very bad research. A few examples included:

- Deceased lab animals were not immediately autopsied, some not for an entire year after death. Decomposition rendered any data from them inaccurate.



- Tumors found in lab animals were reportedly cut out and thrown away.
- Animals from which tumors were removed were labeled “normal,” and obvious tumors were deemed to be “normal swelling.”

In 1979, the FDA established a Public Board of Inquiry (PBOI) to rule on safety issues with aspartame, with the result that NutraSweet would not receive final approval, pending further investigation into its link to brain tumors in animals.

## Political and Regulatory Dirty Tricks

During the 1977 criminal investigation initiated by the FDA, the law firm representing G.D. Searle *arranged to hire away the U.S. Attorney leading the investigation, Samuel Skinner*, who then went to work for Searle.

Skinner’s resignation from the U.S. Attorney’s office stalled the investigation into Searle’s aspartame studies until the statute of limitations expired. The investigation was subsequently abandoned.

In March 1977, Donald Rumsfeld was hired as the CEO of Searle—yes, the same Rumsfeld that was the Secretary of Defense in the Bush administration. He brought with him additional political clout by appointing several of his Washington D.C. associates to top management positions.



In January 1981, Rumsfeld proclaimed he would get aspartame approved within one year. Worthy of note is the fact Rumsfeld was part of newly-elected President Ronald Reagan’s transition team—a team which had carefully selected Dr. Arthur Hull Hayes Jr. as the new FDA Commissioner.<sup>19</sup>

Two months later, Dr. Hayes appointed an internal panel to review the 1979 decision by the Public Board of Inquiry that ruled thumbs down on final approval of NutraSweet®.

When three of the five members of Dr. Hayes’ panel still advised against approval of aspartame—citing on the record that Searle’s safety study tests were flawed—Hayes appointed a sixth member to the panel who tied the vote three-three. Dr. Hayes then cast the deciding vote in favor of approval.

And this is how Hayes, an official with no background on the subject of food additives, but with enormous political obligations to those who’d gotten him his job, decided for the FDA that aspartame was safe for proposed use, and had undergone adequate testing and scientific scrutiny. Shortly after approving this drug, Hayes resigned from the FDA panel and slipped into a new job working for Searle’s public relations agency, where he reportedly earned several hundred thousand dollars per year.<sup>20</sup>

So, despite all the game playing and countless unresolved safety issues, aspartame was approved for use in soft drinks in the fall of 1983. A year later, Searle, which held the exclusive U.S. patent for

aspartame, reported that it had already sold \$600 million worth of aspartame under the registered trademarks of Equal® as a table top sweetener, and NutraSweet® as a food additive. And the FDA had recorded nearly 600 consumer complaints of headaches, dizziness, and other health-related reactions from aspartame consumption.<sup>21</sup>

The unprecedented number of complaints caused the FDA to call in the CDC (Centers for Disease Control and Prevention). The reported complaints included neurological/behavioral symptoms, headaches, dizziness, mood alterations, gastrointestinal symptoms, and hyperactivity. After interviewing many of the complainants and analyzing the reports, the CDC acknowledged that adverse reactions to aspartame were occurring in “unusually sensitive” individuals, but even so, the agency concluded there was not enough evidence to prove existence of wide-spread health problems attributable to its consumption.<sup>22</sup>

And this is the true story of how aspartame came to be an ingredient in more than 6000 foods and beverages.

## How Aspartame Acts Inside Your Body

Aspartame was one of five non-nutritive sweeteners approved by the FDA in a 20-year timeframe,<sup>23</sup> and in the U.S. goes by the brand names NutraSweet® and Equal®. It is 220 times sweeter than sucrose, the chief component of cane or beet sugar.<sup>24</sup>

The scientific name for aspartame is L-aspartyl-L-phenylalanine, 1-methyl ester.<sup>25</sup> It has three components:

1. Phenylalanine, which makes up 50 percent of the chemical by weight
2. Aspartic acid – 40 percent
3. Methanol (wood alcohol) – 10 percent



Today, aspartame is a chemical component found in over 6,000 products including:

Carbonated soft drinks	Puddings and fillings
Powdered soft drinks	Frozen desserts and ice cream
Chewing gum & breath mints	Yogurt
Confections	Tabletop sweeteners
Gelatins	Chewable vitamins
Dessert mixes	Sugar-free cough drops
Prescription and over-the-counter drugs	Cereals and nutrition bars

And that's just a short list!<sup>26, 27</sup> Products containing aspartame are sold in over 100 countries and are consumed by over 200 million people worldwide.

## What Is Aspartame, Exactly?

Probably the best way to explain how aspartame works in your body is to hear it from a toxicology expert, and Dr. Woody Monte, professor emeritus in food and chemistry at Arizona State University, is an expert who knows what he's talking about. Holder of 22 patents and author of the book, "*While Science Sleeps: A Sweetener Kills*," Dr. Monte is a well-known world expert on the toxicities of methanol as it relates to aspartame. He's appeared on hundreds of television programs and his work has been featured in countless newspaper articles. Not long ago, he interviewed with me for an article on aspartame and explained why studies have trouble narrowing down hazards related to aspartame.<sup>28</sup>

Ironically, he was asked by the soft drink industry to study aspartame more than 30 years ago. And despite what industry wants you to believe, Dr. Monte found that aspartame is a toxic, poisonous substance that is a matter of life and death.<sup>29</sup>

Dr. Monte's book explains in excruciating detail why industry's simplistic accounts of how aspartame works in the body just don't tell the truth. And in this case, what you don't know CAN hurt you.

The two primary components of aspartame, phenylalanine and aspartic acid, are amino acids combined in an ester bond. You normally consume these two amino acids in the foods you eat, and they are harmless when consumed as part of natural unprocessed foods. However, when they are chemically manipulated and consumed out of the normal ratios to other amino acids, they can cause problems.

Your body initially breaks down the ester link between the two amino acids to turn them into free amino acids. The neurotoxic effects of these chemicals in their "free form" can result in immediate health consequences such as headaches, mental confusion, dizziness, and seizures.

Your body does require small amounts of these amino acids to function properly. However, the high concentration of these chemicals in the form of aspartame floods your central nervous system and can cause excessive firing of brain neurons. Cell death is also possible.

This is a condition called *excitotoxicity*, a term coined by Dr. Russell Blaylock, a neurosurgeon.<sup>30</sup>

Your body doesn't recognize phenylalanine and aspartic acid in their free form, but your system will try to manage them through metabolism—and whenever your body tries to process an unrecognizable substance, the stage is set for health problems.

The chemicals in aspartame will be absorbed by your intestinal cells, where they will be broken down into other amino acids and byproducts. A large percentage of the absorbed chemicals will be used immediately in your small intestine.

## A Formaldehyde Cocktail

Ultimately, aspartame will be fully absorbed into your body. Ten percent of what is absorbed is the breakdown product methanol (wood alcohol). The EPA defines safe consumption of this toxin as 7.8 milligrams a day, which is the amount found in about half a can of diet soda.

It's not the amino acids themselves or the methanol that are toxic to your system, though. It's the breakdown products they turn into along the way—either during transport, on the store shelf, or during the metabolization process.

Stored at warm temperatures or for a prolonged period of time, phenylalanine turns into diketopiperazine, a known carcinogen. You'll find numerous references on the Internet calling this phenomenon a hoax. But in addition to Dr. Monte, other scientists like H. J. Roberts, a determined physician who believes that the public deserves to know the truth, have written about this. Early on in aspartame's history, Roberts actually compiled dozens of studies that all point to the dangers of aspartame, including what happens to it after it's been in warm temperatures for a long time.<sup>31, 32</sup>

Methanol can spontaneously break down to formaldehyde, also a toxin, which can accumulate in your cells and result in severe health consequences. And according to Dr. Monte, it is this process—the breakdown into formaldehyde—that is the real problem with aspartame.<sup>33</sup>

Methanol is found naturally in some of the foods you eat. However, it is never bound to amino acids in nature, as it is as an ingredient in aspartame. In nature, for example, methanol is bound to pectin. Pectin is a fiber which allows the methanol to pass through your body without being metabolized and converted to formaldehyde.

Since methanol in aspartame has no natural binder, nearly all of it turns into formaldehyde in your body. Formaldehyde (which is used in, among other things, paint remover and embalming fluid) is a poison several thousand times more potent than ethyl alcohol.

The EPA has determined formaldehyde causes cancer in humans. Specifically, it is known to increase your risk of breast or prostate cancer.

Incidents of both types of cancer have been on the rise at a pace closely associated with the expanding use of aspartame throughout the world.<sup>34</sup>

The EPA has also concluded there is no known "safe" level of formaldehyde in your body—risk depends on the amount and duration of your exposure.

The end waste product of formaldehyde is formate. An accumulation of formate in your body can cause metabolic acidosis, which is excessive acidity in your blood. Metabolic acidosis can cause methanol poisoning and can result in blindness, fatal kidney damage, multiple organ system failure, and death.<sup>35</sup>

## The Major Element of Aspartame—Phenylalanine

Your body converts the amino acid phenylalanine to neurotransmitters that regulate your brain chemistry. These important neurotransmitters are:

- L-dopa
- Norepinephrine
- Epinephrine

However, if your system is flooded with phenylalanine as a result of an aspartame overdose, the resulting increased levels of neurotransmitters can cause problems in the physiology of your brain—problems which have been linked to a variety of psychiatric disorders. You can also be prone to anxiety attacks, depression, headaches, seizures, and tremors.

If you consume too much aspartame in a short period of time, you might also experience immediate reactions including nervousness, sweating, feelings of fear, and heart palpitations.

In pregnancy, the concentrating effects of the placenta can magnify phenylalanine levels in a baby's blood by as much as four to six-fold, and can reach levels so high that cell death results—a fact that Dr. Monte reveals the FDA has known for decades.<sup>36, 37</sup> It's not much of a stretch to be concerned that consumption of high doses of this chemical during pregnancy could result in birth defects.

The genetic disease Phenylketonuria (PKU) is a condition in which your body is unable to use phenylalanine at all. If a toxic buildup occurs, it can result in mental retardation. People with PKU must avoid all sources of phenylalanine, including aspartame.

## Aspartic Acid and Cell Death

The second largest component of aspartame is aspartic acid.

Aspartic acid functions as a major excitatory neurotransmitter in your brain. People who suffer from depression or have brain atrophy have been found to have low levels of aspartic acid in their bodies.

As you might expect, the chemical is found in abnormally high levels in people who suffer from seizures and strokes. In very high doses, aspartic acid can cause brain damage.

The term *excitotoxicity* describes the ability of certain amino acids like monosodium glutamate (MSG) and aspartic acid to literally excite cells to death.<sup>38</sup>

The scientific community has shown widespread acceptance of Dr. Olney's concept of excitotoxins and its link to neurodegenerative diseases like Parkinson's and Alzheimer's.

Unfortunately, the FDA refuses to acknowledge the connection between free-form amino acids and excitotoxicity. Consequently, no demands have been made of food manufacturers to eliminate chemicals like MSG and aspartic acid from the food supply.

Excitotoxins can also encourage the production of free radicals. Free radicals can damage tissues and organs throughout your body and may accelerate diseases like arthritis, atherosclerosis, cancer, and coronary artery disease.<sup>39, 40</sup>

Your blood brain barrier (BBB) is a system of capillary structures that prevent toxins from entering your brain.

If you have diabetes, hypertension, or are a smoker, your BBB may be compromised and you might experience a heightened reaction to aspartame.

Unborn children and infants up to one year of age have incomplete and not well-insulated BBBs. Excitotoxins enter their nervous systems easily and quickly.

Babies under a year are four times more sensitive to excitotoxins than adults.

During the first year of life, irreversible brain damage can result from chemicals in breast milk that have crossed the unborn child's blood brain barrier. And yet—few if any pregnant and breastfeeding women are warned of the dangers of consuming artificial sweeteners.

## Are Your Health Problems Related to Aspartame Consumption?

You might not realize you're having a reaction to aspartame. In fact, most people don't make the connection, and a tremendous amount of time and money is spent by aspartame "reactors" (people sensitive to the chemical) trying to find out why they are sick.

To determine if you're a reactor, take the following steps:

1. Eliminate **all** artificial sweeteners from your diet for one to two weeks.

(Note: If you typically consume aspartame in caffeinated drinks, you'll want to gradually reduce your intake in order to avoid caffeine withdrawal symptoms.)

2. After one to two weeks of being artificial sweetener-free, reintroduce aspartame or other artificial sweetener in a significant quantity (at least three servings daily) and avoid other artificial sweeteners during this period.
3. Do this for one to three days and notice how you feel, especially as compared to when you were consuming no artificial sweeteners.
4. If you don't notice a difference in how you feel after reintroducing aspartame, it's a safe bet you're able to tolerate aspartame *acutely*, meaning your body doesn't have an immediate, adverse response. However, this doesn't mean your health won't be damaged in the long run by this chemical and its breakdown products.



Keep in mind aspartame is completely metabolized by the human body, and its byproducts can create a serious risk to your health. Neurological damage can occur from long-term aspartame use.

# Adverse Reactions to Aspartame

The chaos in industry-funded “safety” studies is highlighted in a letter from Mark D. Gold to the European Food Safety Authority in 2011.<sup>41</sup> There have been more reports to the FDA for aspartame reactions than for all other food additives combined, but nailing down that number is hard to do because of the mish-mash way the reactions have been recorded—and waylaid—through the years. In one instance, according to FDA documents on Congressional Hearings on aspartame, consumer complaints about aspartame were being transferred to an AIDS hotline!<sup>42, 43, 44</sup>

There are hundreds of published studies—many of them within the past few years—on the health hazards of aspartame. You can find them in the National Library Medicine Index online with keyword searches, or through the search site for journal articles, scholar.google.com.

There are also some 10,000 documented reports of adverse reactions to aspartame, including death.<sup>45</sup> Since it is estimated only about one percent of people who experience a reaction report it, it is safe to assume at least 1 million people have had a reaction to this chemical. Even scientists who advocate for the safety of aspartame have admitted finding that some people can have serious adverse reactions to aspartame in commonly-consumed amounts.<sup>46</sup>

You may ask: if all of this is true, then why isn't this being reported in the news? Well, finally, it is. But the bad news is all the adverse reports have not induced the FDA to change its mind, mainly because it relies only on industry studies to make its decisions.

And of course, industry studies claim that aspartame is completely safe, and that no real adverse events are connected to it. However, INDEPENDENT studies—those that are not funded by an organization interested in the financial outcome of the trials—have found that aspartame can, and does, harm susceptible individuals.<sup>47, 48</sup>

Most recently in the news you've probably heard that aspartame can cause heart attacks and strokes;<sup>49</sup> as well as depression, and mood and memory changes.<sup>50</sup> But the most stunning report to come out, in late 2013, was that consumption of high-intensity sweeteners like aspartame can actually CAUSE weight gain!<sup>51, 52, 53</sup> You read that right. It turns out that, contrary to what you're trying to achieve by consuming this dangerous product, you just might GAIN weight, rather than lose it. While the mainstream media has been lax about reporting aspartame's dangers, it might just be that what they have reported has caused the diet soda business to fall 12 percent in the last six years.<sup>54</sup>

If you were to list all the adverse effects aspartame can cause, migraines<sup>55</sup> are by far the most frequently reported reaction. However, some of the other more common symptoms<sup>56, 57</sup> that have one or more scientific studies backing them include:

Headache <sup>58</sup>	Change in mood <sup>59</sup>
Change in vision <sup>60</sup>	Convulsions <sup>61</sup> and seizures <sup>62</sup>
Sleep problems/insomnia <sup>63</sup>	Change in heart rate
Hallucination and mental disorders <sup>64</sup>	Abdominal cramps/pain

Memory loss <sup>65</sup>	Rash
Nausea and vomiting	Fatigue and weakness
Dizziness/poor equilibrium	Diarrhea
Hives <sup>66</sup>	Joint pain <sup>67</sup>

## Debilitating, Life-Threatening Conditions Linked to Aspartame

As noted previously, aspartame has been implicated in a number of diseases, and there is special concern among doctors and scientists regarding the role aspartame plays in migraine headaches, epilepsy, and neuropsychiatric disorders.

In summarizing the chart above, aspartame has been identified as a causative factor in the following serious health concerns:

### Migraine Headaches

Aspartame has been shown to trigger migraines, and to cause more frequent, severe headaches in regular sufferers. This is especially true with long-term exposure to the chemical.

### Seizures

In 1988, an unofficial hotline created by a group concerned about aspartame consumer safety<sup>68</sup> was established specifically for pilots to report acute adverse reactions to aspartame. Reportedly, the hotline<sup>69</sup> received several hundred calls from pilots complaining about reactions to the chemical, including many who suffered grand mal seizures while in the cockpit.

Federal Aviation Administration guidelines have encouraged pilots to use aspartame products as part of their “Best of the Best Foods” list for pilots since 2002.<sup>70</sup> But according to FDA documents,<sup>71</sup> concerns about pilots’ consumption of aspartame go back almost to its introduction on the market. For example, FDA records show that in 1992, the United States Air Force reportedly issued a warning to pilots to avoid products containing aspartame because it has been linked to seizures and vertigo, dizziness, sudden memory loss, and gradual loss of vision.

Seizures are a primary side effect of aspartame consumption. As if that weren’t disturbing enough, they occur in people who’ve never had a seizure before, and disappear just as quickly when aspartame consumption is stopped.

MIT conducted a survey of 80 seizure sufferers. Survey results showed the role aspartame played in those seizures met FDA criteria for an imminent hazard to the public’s health.<sup>72</sup> This measure is what the FDA normally relies upon to pull unsafe products from the market. Products other than aspartame, apparently.

## Depression

A study begun at Northeastern Ohio University to determine whether aspartame was linked to depression had to be halted. Can you guess why?

Nearly a third of the test subjects in the depressive group dropped out due to the severity of their reactions to aspartame consumption. Two others left the study due to serious eye problems—one developed a detached retina that ultimately led to blindness, and the other experienced a bleeding conjunctiva of the eye.

## Visual Changes

The individual ingredients in aspartame as well as their breakdown products can do serious harm to your retina and optic nerves. Aspartame has been linked to blurred vision, eye pain, visual hallucinations, and blindness.

Formaldehyde is known to cause retinal damage, and methanol poisoning can lead to changes in your vision and ultimately, blindness.

According to Dr. H.J. Roberts, an expert on aspartame who has treated hundreds of patients with sensitivity to the chemical, the visual problems seen in frequent aspartame users are identical to those found in people who developed methanol poisoning from wood alcohol during the era of prohibition.



## Brain Cancer

The subject of aspartame and cancer continues to be controversial. However, there is sufficient evidence of a link to warn off anyone who is concerned about maintaining good health. On the heels of its approval for use in diet soda in 1983, over a million pounds of aspartame was consumed. Less than a year later, in January 1984, the incidence of brain cancer took off at a rate far higher than any other type of cancer.<sup>73</sup>

According to the National Cancer Institute, there was a 10 percent increase in malignant brain cancer in 1985—just two years after aspartame flooded the market in diet beverages.

Young women who drink large quantities of aspartame-laced diet drinks are especially susceptible to developing three specific types of brain cancer:

- Glioblastoma
- Astrocytoma
- Primary lymphoma

Equally alarming is evidence women of childbearing age who consumed aspartame during pregnancy were delivering babies with an increased risk of brain and spinal cord cancer.<sup>74, 75</sup>

## Aspartame and Weight Gain

Would it surprise you to learn aspartame may cause you to gain weight? It's true—as mentioned earlier, products marketed as “reduced calorie,” “sugar-free,” and “diet” can actually sabotage your weight control efforts.<sup>76</sup>

This is because the two main ingredients of aspartame, phenylalanine and aspartic acid, stimulate the release of insulin and leptin—hormones which instruct your body to store fat.

In addition, a large intake of phenylalanine can drive down your serotonin levels. Serotonin is the neurotransmitter that tells you when you're full. A low level of serotonin can bring on food cravings which can lead to weight gain.<sup>77</sup>

### Watch Out for Industry-Sponsored ‘Health’ Information Websites

While this report is lengthy, it's just a drop in the bucket compared to all the information out there on aspartame's serious adverse effects. Some of you may even want to do your own research on aspartame, which I encourage you to do. But as you search, beware of slickly-designed websites that lead you to believe they are nonbiased when nothing could be further from the truth.

For example, The Beverage Institute for Health & Wellness has a site that targets health professionals' questions about aspartame. But the site is owned and operated by Coca-Cola—definitely not unbiased when it comes to selling artificially-sweetened products.

Another site to be leery of is the Aspartame Information Service, where Dr. Bernadene Magnuson answers all the questions you ever wanted to ask about aspartame. Magnuson also happens to be one of the consultants for the Coca-Cola site. At Aspartame Information Service, she's speaking as the adviser for Ajinomoto—which supplies aspartame to the world's leading food and drink makers.

Another “information” site to be leery of is the Grocery Manufacturers Association (GMA), which has provided a 14-page report on the safety of aspartame on its website. Be aware, however, that the GMA, which represents major food and beverage companies that sell aspartame-laden products, is definitely not unbiased.

If you'd like to see a short but detailed history of aspartame from a group that “follows the money” behind all kinds of consumer issues, you may want to visit [Sourcewatch.org](http://Sourcewatch.org), which has an excellent compendium on aspartame.<sup>78</sup> This site has done an excellent job of following both the money and the political influence on this topic, including references to the fact that industry-funded aspartame studies are 100 percent safe—while 92 percent of INDEPENDENT studies identified one or more problems with its safety.