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Does Aspartame Make You Fat?

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“Two-thirds of adult American women fall into the overweight or obese category, according to their BMIs [body mass index].... A report from the Centers for Disease Control found that the prevalence of obesity among U.S. adults doubled between 1980 and 2004 and has since stabilized at an alarmingly high level. Compared to women of a generation ago, we're 24 pounds heavier on average, and there's been an especially alarming increase in those at the upper end of the scale (not just obese, defined as a BMI of 30 or higher, but significantly obese, with a BMI above 35).”¹

—Barbara Kantrowitz and Pat Wingert

During my experiment, a male and female on aspartame became obese as shown in Figure 3-25 on page 37 and Figure 4-21 on page 60. None of the rats from the control group became fat. Ironically, aspartame is sold to help people lose weight. Unfortunately, it also appears to be addictive. See “Is Aspartame Addictive?” on page 75.

Aspartame and the obesity epidemic

Aspartame was introduced to the American public in dry goods starting in July of 1981, and in beverages in 1983.² In 2004, aspartame's meteoric rise in sales started reversing in North America. According to aspartame vendor Merisant's annual report, sales of aspartame in North America were down from \$146,000,000 to \$113,500,000 or 22% in 2005 over 2004, and decreased by 9.3% between 2003 and 2004.³ The overlap in dates between the rise and stabilization of the obesity epidemic among women described in the quote at the beginning of this appendix and the rise and descent of aspartame sales in North America appear to indicate a positive correlation between the two events.

This correlation appears to be confirmed by a study from the Federal Centers of Disease Control and Prevention. A 2008 report from the Associated Press states that *“The percentage of American children who are overweight or obese appears to have leveled off after a 25-year increase, according to new figures that offer a glimmer of hope in an otherwise dismal battle.... Overall, roughly 32 percent of children were overweight but not obese, 16 percent were obese and 11 percent were extremely obese, in a study based on in-person measurements of height and weight in 2005 and 2006. The results are based on 8,165 children ages 2 to 19 who participated in nationally representative government health surveys in 2003-04 and 2005-06.... [The] levels were roughly the same as in 2003-04 after a steady rise since 1980.”⁴*

By adding up the percentages of overweight and obese children in the study, we see that 59% of the children were considered overweight or obese. That appears to correlate loosely with the number of females in the CDC study, which showed that 67% of the women were overweight or obese. That stands to reason, because women probably use more diet products than children. We now need a study on men over the same time period.

Excitotoxins and weight gain

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A recent study shows that each can of diet soda increases the risk of being overweight by an unbelievable 41%!⁵ Neurosurgeon Dr. Blaylock explains the various mechanisms that contribute to weight gain from excitotoxins such as aspartame and MSG:

*“In 1969, neuroscientist Dr. John Olney discovered that feeding newborn rats MSG (monosodium glutamate) caused them to become grossly obese. Each time he repeated the experiment, he saw the same thing. Subsequent studies have shown that this phenomenon occurred in most animal species, indicating that it wasn't something peculiar to the rat. The effects of MSG are now so well established that the substance is routinely used in experimental obesity studies on animals.”*⁶

A study that came out in August 2008 has confirmed that the consumption of MSG causes weight gain in humans. Researchers at the University of North Carolina at Chapel Hill and in China “studied more than 750 Chinese men and women, aged between 40 and 59, in three rural villages in north and south China. The majority of the study participants prepared their meals at home without commercially processed foods. About 82 percent of the participants used MSG in their food. Those users were divided into three groups based on the amount of MSG they used. The third who used the most MSG were nearly three times more likely to be overweight than non-users.”⁷

It's been known for more than 50 years that a tiny injury to the arcuate nucleus—part of the hypothalamus within the brain—causes gross obesity in lab animals. Scientists now know that aspartame, MSG, and other excitotoxins destroy the arcuate nucleus.⁸ Dr. Blaylock has been especially concerned about infant formula. According to Blaylock:

*“An intensive 1995 review of MSG toxicity by the Federation of American Societies for Experimental Biology (FASEB) concluded that infant formula contained a dose of glutamate (the toxic ingredient in MSG) in the form of caseinate (cow's milk protein) that would sufficiently produce the very same brain injury seen in experimental animals. Disturbingly humans are five times more susceptible to MSG toxicity than even the most sensitive lab animal. And babies are four times more sensitive than adults.”*⁹

Exposure to MSG, aspartame, and other excitotoxins in early life leads to gross obesity.¹⁰ What's more, scientists have shown that obese animals have metabolic syndrome, defined as obesity, atherosclerosis, hypertension, and type-2 diabetes. In the U.S., about 50 million adults have metabolic syndrome.¹¹ According to my doctor, I am one of them.

Blaylock sums up his dismay about this situation: *“Unbelievably, dietitians, medical doctors and many public institutions are promoting the use of ‘diet’ soft drinks and other foods sweetened with aspartame (NutraSweet, Equal, etc.) as the answer to the problem of obesity.”*¹²

How excitotoxins make us fat

Excitotoxins aspartame and MSG make us fat in several ways.

Elevation of insulin

Jack Samuels, founder of truthinlabeling.org explains on his website that: *“MSG and aspartame can cause weight gain.... When we eat foods with aspartame and/or MSG, it is now clear that it affects insulin levels, causing people to have the urge to eat more in order to balance the insulin levels. It is apparently the result of an increased level of the hormone glucagon, in the body from the excitotoxins.”*¹³

Note: Jack Samuels maintains a website at <http://www.truthinlabeling.org/hiddensources.html>, that lists the hidden sources of glutamic acid, the neurotoxin in MSG. Here are the ingredients that Samuels claims always have glutamic acid: glutamate, glutamic acid, gelatin, monosodium glutamate, calcium caseinate, textured protein, monopotassium glutamate, sodium caseinate, yeast nutrient, yeast extract, yeast food, autolyzed yeast, and hydrolyzed protein. The page also lists ingredients that may contain glutamic acid or where the acid becomes present during processing, and components that may contain very small amounts of glutamic acid for those who are ultra-sensitive.

Recent studies have shown that glutamate, the excitotoxic part of MSG and other excitotoxins such as aspartic acid from aspartame powerfully stimulate the insulin-producing cells of the pancreas.¹⁴ According to Blaylock:

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*Aspartame stimulates the pancreas to secrete insulin, making you hungry, especially for sweets. The more [diet soda] you drink, the hungrier you get.”*¹⁵

In addition to weight gain, excess insulin causes atherosclerosis, hypertension and type-2 diabetes—the metabolic syndrome—by stimulating chronic inflammation.¹⁶

Loss of appetite control

Leptin is a chemical produced in fat cells. It controls fat accumulation, among other things. For a normal person, when leptin enters the bloodstream, it passes the blood-brain barrier, and then enters the brain, where it acts on the arcuate nucleus to suppress the appetite and accelerate fat burning.¹⁷ According to Blaylock:

“This vital collection of neurons [the arcuate nucleus] is the area of the brain most sensitive to excitotoxins. In experiments, MSG rendered leptin ineffective, causing the animals to become grossly obese. Scientists call this leptin resistance, an occurrence linked to obesity in both children and adults. While

it is soon after birth that a child may first be exposed to foods containing MSG and other excitotoxins [such as aspartame], the effects persist for a lifetime.”¹⁸

Unbridled fat accumulation

Aspartame, MSG, and other excitotoxins also adversely affect fat burning, leading to fat accumulation. According to Blaylock:

“Excitotoxins like MSG [and aspartame] cause more glucose to enter fat cells, preventing it from being burned in muscle cells as it should. As a result, more fat accumulates, especially around organs and within the abdomen. This visceral fat is the root of all the of the metabolic syndrome's bad effects.”¹⁹

My own morbid obesity

Recall the statistic from the beginning of this appendix: “Two-thirds of adult American women fall into the overweight or obese category, according to their BMIs.” While consuming aspartame and MSG, I became *morbidly obese*, also referred to as *clinically severe obesity*, when one weighs more than 100 lb. (45.5 kg) over his or her ideal weight. Figure B-1 shows a slim version of myself in December 1988 at the age of 40.

Here’s a photo of me in December 1988.



FIGURE B-1 Myself in December 1988

At that time I was *vegan*; I ate no animal products. I ate mostly raw fruits and vegetables, a diet similar to the one that brought Demi Moore at 40 into fabulous shape for the movie *Charlie's Angels—Full Throttle*.²⁰ I consumed no aspartame during that time.

Note: For one of the best books on raw foods, see **The Raw Food Factor** by Susan Schenck, available through the **For More Info** link on my website, aspartameexperiment.com.

About a year after this photo was taken I went through a trauma from which it took several years to recover. I lost my discipline to stick to the living foods program and although I was still primarily vegetarian, I was no longer vegan. I started eating dairy products along with foods containing MSG, such as soy burgers, soy chicken patties, soy sausage links, soy bacon, and soy chorizo. I also resumed drinking diet sodas, a habit I had developed as a teenager. Figure B-2 shows a photo of me at 61, taken in December, 2009.

Here's a photo of me
in December 2009.



FIGURE B-2 Myself in December 2009

I have since learned that soy is almost 10% glutamic acid, the excitotoxic component of MSG. See “Soy” on page 108. I stopped drinking diet sodas in 1998, and stopped eating soy in fall of 2004. I have been struggling to lose weight with various degrees of success and failure for many years.

Notes