

Artificial Sweetener

It's in your diet soda –
do you have a headache?

by Kathy Gibbons, Ph.D.

It was an unbelievably hot summer day. Jane had been busy all morning, and the 90 percent humidity and 95 degree heat had made her terribly thirsty. At lunchtime, Jane decided to try one of those sugar-free sodas. Everybody seemed to be drinking them. And she didn't need the extra calories from a sugar-filled drink. What could be wrong with a soda that had no calories, no sugar, and yet tasted as sweet as if it had been sweetened with sugar? It seemed like a great idea. Jane picked up a soda sweetened with NutraSweet™. It tasted just fine. And no calories! The next day she had two sodas. They really tasted good.

Jane had two or three sugar-free sodas each day for a week. The sodas still tasted great, but Jane noticed that she had a slight headache every night at bedtime. After two weeks, Jane was drinking six sodas per day. The more sodas she drank, the more sodas she wanted. Now she had a severe headache every day by dinner time. Meanwhile, other problems appeared. Jane was depressed. Also, her children complained that she was cranky all the time. Her husband said that he couldn't believe how crabby she had been for the last week. Jane saw her primary-care doctor, who found nothing during a routine physical exam. He

reluctantly agreed to schedule a series of tests for her. She was annoyed when he hinted that a visit to a psychiatrist might help. What was going on?

Jane may well be one of the unlucky individuals who are adversely affected by an artificial sweetener called aspartame. Aspartame is usually identified on food and drink labels by the trademarked terms NutraSweet™ or Equal™. Sometimes it is identified with only the term aspartame, which is its proper

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chemical name.

The concept of sweetening without adding calories has obvious advantages, but the use of aspartame to achieve that goal may also cause multiple health problems. In the body, aspartame is broken down into two amino acids and methanol. Amino acids are naturally occurring compounds that are used in the human body to synthesize proteins. Many researchers use the fact that amino acids are "natural" to support their view

that aspartame is safe.

However, the consumption of naturally occurring amino acids can cause poor health when the amino acid balance in the body is upset. The two amino acids in aspartame, phenylalanine and aspartic acid, influence levels of neurotransmitters in the body. Neurotransmitters are molecules in the brain that affect mood and behavior. When neurotransmitters are out of balance, as they can be in a person who consumes large quantities of aspartame, then adverse reactions can occur. Altering the balance of our body chemistry, even with naturally occurring substances, can cause health problems.

Methanol, also known as methyl alcohol or wood alcohol, is widely used as a solvent in such products as windshield washer fluid. Ingestion of two to eight ounces is fatal to adults. Its vapor can cause blindness. It has been speculated that methanol degrades in the human body to formaldehyde, which is a compound that causes adverse reactions in many chemically sensitive people. Thus, the presence of methanol in aspartame creates a potential health problem.

J.H. Roberts, M.D., has emerged as the principal investigator of aspartame-related problems. He has seen many



aspartame-induced medical problems in his own practice. The most frequent symptoms of a reaction to aspartame are a severe headache, blurred vision and dizziness, confusion, memory loss, irritability, and anxiety. Dr. Roberts has speculated that as much as 25 percent of the U.S. population reacts unfavorably to aspartame.

Other physicians have discovered health problems related to aspartame consumption. D. W. Remington, M.D., has identified five characteristics of aspartame usage. First, symptoms often appear gradually, sometimes after weeks or even months of using the sweetener. Second, symptoms tend to worsen gradually. Third, it may take time, perhaps several weeks, for the symptoms to entirely disappear after discontinuing aspartame. Fourth, aspartame is addictive. Users crave it, and increase their consumption with time. In some cases people consume extremely large quantities of food products that contain aspartame. In one case, an individual was consuming 20 sweetener packets, two quarts of soda, and other "diet" products every single day. Aspartame was present in each product. Fifth and finally, many of the symptoms caused by aspartame can also be caused by other diseases. For that reason, some medical professionals describe aspartame's effects by saying that it causes "hidden" health problems.

How can you find out if some of your health problems are related to aspartame? The most direct approach is to eliminate aspartame completely from your diet and, in a few weeks, all aspartame-related symptoms should be gone. If you have doubts and want to confirm the diagnosis, try aspartame again and see if the symptoms reappear. To be sure

you are completely avoiding aspartame you must read labels very carefully. Aspartame is currently approved for use in over 4,200 products. Be especially certain to read labels on beverages of all kinds, including instant tea, sodas, and juices. Of course it is also important to check labels on all "sugar free" or "diet" products. It is even necessary to check labels on breath mints, chewing gum, cereal, laxatives, non-prescription pharmaceuticals, and children's prescription chewable and suspended medicines. Some, but not all, of these products contain aspartame. To be sure you have eliminated all aspartame-containing products, you must check the label on everything you eat or drink.

The difficulty involved in properly diagnosing aspartame-related problems is compounded by the diversity of information available. As mentioned above, some physicians argue that aspartame is safe. However, a significant body of evidence suggests that aspartame can cause health problems. Many people are able to consume aspartame without any overt health problems, whereas others are unable to tolerate aspartame at all. If you are unsure about your own reaction to aspartame, pay close attention to what products that you use contain it, and to whether any of these seem to affect your health.

Kathy Gibbons has a Ph.D. in biochemistry. She lives in Colorado with her husband and two children. Her column on environmental health appears in every issue.

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Health Problems Associated With Aspartame (NutraSweet)

Specific symptoms shown by 496 of Dr. J.H. Roberts' patients who reacted to aspartame. Most patients had more than one symptom

45%	Headaches
39%	Dizziness, unsteadiness, or both
28%	Confusion, memory loss, or both
28%	Convulsions (grand mal epileptic attacks)
25%	Severe depression
24%	Decreased vision, blurring, "bright flashes," tunnel vision
22%	Extreme irritability
17%	Severe anxiety attacks
16%	Severe drowsiness and sleepiness
15%	Marked personality changes
15%	Heart palpitations, tachycardia
14%	"Pins and needles," tingling, or numbness of the limbs
14%	Nausea
13%	Diarrhea
13%	Abdominal pain
13%	Tinnitus (ringing or buzzing in the ears)
13%	Recent severe insomnia
11%	Severe slurring of speech
10%	Excessive thirst
10%	Bloating
10%	Severe joint pains

Resources

Books to read:

Remington, D.W. and Higa, B.W. *The Bitter Sweet about Artificial Sweeteners*. Vitality House International, Inc., Provo, Utah, 1987; 801/373-5100.

Roberts, H.J. *Sweet'ner Dearest—Bittersweet Vignettes About Aspartame (NutraSweet™)*. The Sunshine Sentinel Press, Inc., 1992. Phone: 407/832-2409.

Roberts, H.J. *Aspartame (NutraSweet™): Is It Safe?* The Charles Press, Philadelphia, 1989; 215/925-3995.