

Migraines and Aspartame - The 'Unproven' Threat

Aspartame is an artificial sweetener that gained immense popularity as a sugar-replacement, especially for people with diabetes. At the height of its popularity it could be found in approximately 6,000 foods and drinks, even in certain chewing gums and vitamin products.

It is marketed under several different tradenames, including Nutrasweet, Canderel, Equal and Tropicana Slim. In the European Union its E-number (additive code) is E951.

The battle rages on as to whether the artificial sweetener aspartame actually causes migraine headaches. The makers of NutraSweet staunchly deny any such correlation, pointing to a Duke University study they say completely discounts any such possibility(1).

They usually neglect to mention that they funded the study, which consisted of a one day dosage of aspartame or placebo to migraine sufferers. The results showed no statistical difference between the two groups' incidence of headache that day, and the aspartame backers pronounced the idea of aspartame causing headaches to be thus disproved.

The FDA accepted the study as conclusive proof, and has since maintained that there is no evidence to support the theory that aspartame is in any way detrimental to humans.

The tradition of the FDA backing aspartame against all opponents started in 1981 when President Reagan took office. Reagan had close ties with Searle drug company which manufactured the additive, and he fired the FDA commissioner who had been blocking the approval, then appointing Dr. Arthur Hayes to the position.

A Board of Inquiry convened and recommended continuing to deny approval, citing the incidence of seizures and brain tumors in laboratory animals. Hayes approved the additive against the Board's recommendation, and subsequently left the FDA for a position with Searle's public relations firm.

Aspartame accounts for 75% of ALL complaints to the FDA for a food additive - with even MSG running a poor second. Aspartame has been reported in some studies to contain a carcinogen (cancer causing substance) and is suspected by many scientists of causing problems

ranging from brain tumors to epilepsy.

A thirteen-week, double-blind, randomized cross-over study was conducted in 1988 by S.M. Koehler and the results were staggering. Participants were given doses of aspartame or placebo, and the results from the test indicated that at least 50% of the subjects given aspartame had increasing frequency and duration of migraines, while those on placebo had decreased attacks(2).

Several other double blind studies were conducted, and with the exception of the one paid for by NutraSweet, they all indicated that aspartame did indeed cause worsening of migraines. In all studies conducted on aspartame that were funded by NutraSweet, aspartame was found to be completely innocent of causing any adverse effects.

Other privately funded studies showed aspartame to be in fact responsible for headaches and other health problems in over 80% of tests, with the majority of the ones still showing inconclusive results being funded by the FDA, which has been accused of turning a blind eye to the dangers of aspartame since it was approved.

In a very interesting twist, two patients studied by Newman and Lipton experienced worsening of migraine upon administration of rizatriptan, a medication that normally gave them relief. On examination, the medication was actually of a new form in a dissolvable wafer rather than the normal capsule - and the wafer was sweetened with aspartame. Both patients had formerly identified aspartame as a migraine trigger. They had no idea that the rizatriptan medication in the wafer form contained the sweetener, having just been given the samples for ease of dosing in case of migraine onset at work or school(3).

The multiple symptoms of aspartame sensitivity don't stop with migraines, though headaches are one of the top three complaints. Excessive fatigue, dizziness, fainting spells and seizures are common, as well as depression which can reach suicidal proportions.

Opponents of the food additive point to the many studies reporting health problems connected with aspartame, in which the problems disappeared after aspartame was removed from the patient's diet. Thousands more have testified to aspartame's negative influence on their health. On the other hand some well-respected scientists support the FDA view that aspartame is harmless.

Aspartame breaks down into several breakdown products including aspartic acid, phenylalanine, methanol, formaldehyde and formic acid(4). According to Wikipedia there is controversy surrounding the rate of breakdown into these various products and the effects that they have on those that consume aspartame-sweetened foods.

Although phenylalanine is an essential amino acid that occurs naturally, it is a health hazard to those born with phenylketonuria (PKU), a rare inherited disease that prevents phenylalanine from being properly metabolized. Since individuals with PKU need to take account of aspartame as an additional source of phenylalanine, foods containing aspartame must carry warning labels. However, as this is a rare condition, and sufferers know they need to avoid the substance, that isn't the most worrying health concern.

The main suspect breakdown product in aspartame is methanol, which breaks down into formaldehyde, highly toxic and classified as a probable human carcinogen by the U.S. Environmental Protection Agency. Formaldehyde is used in embalming, glue, plywood, plastics, carpets and many other products. Because of toxicity concerns the EU has considered imposing a complete ban on its use even for embalming.

Defenders of aspartame point out that methanol is present in many natural foods at even higher levels than a diet soda, but fail to acknowledge that the naturally occurring methanol is ALWAYS accompanied by ethanol and pectin, natural antidotes to methanol poisoning which cancel out any ill effects. Aspartame of course provides no ethanol, nor do products containing the sweetener.

The controversy is far from over. The number of people who claim aspartame causes or exacerbates their migraines continues to grow, and many doctors now consider aspartame a known trigger. Other symptoms are reported in increasing numbers each year. Yet, at the time of writing, the FDA still claims that aspartame is completely safe, and shows no signs of banning its use in food products.

Could it be that it has been added to so many weight-watchers' foods that the financial and commercial implications of withdrawing it would cost a fortune? Due to tumor concerns some manufacturers are slowly replacing it with sucralose, but as recipes will need reformulating and the products will need to be repackaged and quality controlled this will be a slow process.

In the mean-time consumers may wish to avoid aspartame-containing products to check if they experience improvement of any troublesome symptoms.

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