



Aspartame Research: Questions Remain

Aspartame, an artificial sweetener, has been in the news, and the reports have been conflicting. This isn't so surprising because differing conclusions are often reached when research is done on food additives. If researchers want their studies to show no harmful effects, they can use healthy subjects and a limited dosing of the substance then stop the project before adverse effects occur. When highly sensitive people — such as children, the chemically sensitive, and the elderly — are subjected to larger quantities, however, the results can be very damaging. These are the typical users, but they are not the typical test subjects.

Such bias is common in the testing of food-like chemicals. Funders have a great deal to gain with positive tests and so much to lose that they may manipulate outcomes to their liking. Typically in these studies, animals are used to ascertain an LD₅₀ (lethal dose). These animals may or may not be appropriate surrogates for human subjects; however, when subsequent human testing is conducted, biochemical individuality plays a significant role. Again, the people at greatest risk of an adverse reaction to any food, chemical, or drug are the very young, the chronically ill, those on medication, and the elderly. Research on aspartame did not look at its effect on this set of people. In the case of aspartame, the favorable studies utilized small numbers of subjects and did not control for their diet, lifestyle, age, or health status. Consequently, while manufacturers and distributors hailed the FDA approval of aspartame as a sign of its safety, several thousand complaints per year are reported from aspartame ingestion.

Are these problems due to the compound itself, the user, or the amount ingested? We believe the answer is “all of the above.” Simple common sense should steer us toward natural compounds and away from synthetics that are foreign to nature and our bodies. Our advice,

then, is that little to no exposure to aspartame, a potentially addictive and stimulating compound, is best.

Recent aspartame (Equal®, NutraSweet®) studies had equivocal findings (Lau, Graham, Williams, and Vyvyan Howard, 2006):

Aspartame caused cancer in laboratory rats and, therefore, may cause cancer in humans; yet

Analysis of long-term aspartame use (1981–present) has shown no increases in cancer

A review of the scientific literature paints a far more complex picture, as aspartame is one of the most studied food additives ever. It is true that most of these studies show that it is safe to use in moderate doses for most people. However, most of these studies were done using very few subjects over very short periods of time. We simply don't know what consequences will occur with regular use over time. What is certain is that we have shown ourselves to be willing guinea pigs and are even willing to pay for that dubious privilege every time we purchase an aspartame-sweetened product.

The controversy over aspartame's cancer-causing ability may only be serving to deflect attention from the main problem. Aspartame has been shown to be a neurotoxin — meaning that it changes brain chemicals. One study found that high aspartame levels affect cellular enzyme activity, interfering with antioxidant activity and cellular energy. And while most studies have focused on aspartame alone, one that tested aspartame with non-nutritive additives (like commonly used food-coloring agents) in concentrations consistent with daily intake found a cumulative effect that increased cellular toxicity to significant levels (Lau, et al., 2006).

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No chemicals in our bodies are isolated. Compounds such as aspartame will interact with food, alcohol, medicines, and environmental toxins in unique and unpredictable ways. In

the interest of minimizing volatile chemical reactions in our bodies, we should seriously consider avoiding aspartame.

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