

Sweet Talk and Cutting Through the Hype IV

Editor's Note: In several of my previous SJ columns, we have looked at sugar and especially at artificial sweeteners. Beginning in June's column, I will highlight some of the information published in Dr. Joseph Mercola's 2006 book "Sweet Deception." Dr. Mercola is an osteopathic physician and surgeon who is board-certified by the American College of Osteopathic General Practitioners in family medicine. In the June SJ column, we listed the seven artificial sweeteners and in the July's column, we begin to look more closely at the individual artificial sweeteners beginning with Aspartame (Equal or NutraSweet). In last month's August column, we examined information on Splenda, currently the nation's number one selling artificial sweetener. Now I will attempt to summarize some of the factual findings and their implications to our diets.

After examining the claims and advertising hype for any of the artificial sweeteners, I believe that the following question should be asked: do you really believe you were designed to eat any artificial sweetener hundreds to thousands of times sweeter than sugar and not have any health consequences? Now if we consider the FDA as the infallible source of information, consider the relatively short time or the limited number of studies conducted before approval of these artificial sweeteners for public release. Perhaps even more compelling, as illustrated by Dr. Mercola is that practically all studies on artificial sweeteners are conducted by the manufacturers. In his view, there is clearly a case of obvious bias and a 'potential for profoundly serious conflict of interest.' He further maintains that there are strong incentives to only report the positive studies. In his opinion, a far better system, which could drastically reduce the influence of potential conflicts of interest, would be for manufacturers to pay a fee to the FDA, which could hire out testing by an anonymous independent lab and use that unbiased data for approval.

In spite of concerns about saccharin and cyclamate, the growing diet food industry fueled and ever-increasing demand for artificial sweeteners over the decades that followed. World consumption of artificial sweeteners now stands at 7.5 million metric tons per year. Considering only diet sodas, over four billion gallons per year are now being sold, and they account for an ever-increasing share of the large soft-drink market. As noncaloric sweetening has become a progressively larger business, funds have been directed to find and develop new varieties of usable chemicals.

Sweetener Blends-With the variety of artificial sweeteners now available, many are now combined in sweetener blends. The mixing of multiple sweeteners together was first seen in Sweet'N Low. Blends combine sweeteners such as sucralose, aspartame, acesulfame-K, sorbitol, xylitol, high-fructose corn syrup, and even cyclamate (in Canada and Europe). Acesulfame-

K and Splenda are now the two top artificial sweeteners used in blends.

Sweetener blends are now the norm in the diet industry because of their three key advantages:

- **Cost savings**-The combination of artificial sweeteners can be sweeter than either sweetener alone, requiring smaller amounts of each chemical. For example, acesulfame-K is even sweeter when used in combination with aspartame, the combination used in the one-calorie drink Pepsi ONE. Blending a more expensive sweetener with a less expensive one also saves money.

- **Taste**-A blend can disguise an individual sweeteners unappealing flavor (like that of aspartame), such is the case of C2 Coke, which uses a blend of aspartame and HFCS to produce a drink that tastes much like the original beverage but which has half the calories.

- **Flexibility**-Blending sweeteners allows for more options for new products. Consumers can choose between the no-calorie products or the reduced-calorie products containing a blend of HFCS with artificial sweeteners.

Many soft-drink companies are currently marketing "mid-calorie" sodas that have 50% HFCS and 50% sweetener blends. This type of soda is targeting consumers who dislike the chemical taste in diet sodas but still feel guilty about the sugar in regular sodas. C2 Coke is a prime example of these types of sodas and is advertised as having half the carbs, half the calories and half the sugar of regular Coca-Cola.

Artificial Sweetener Mixing-People now commonly are mixing artificial sweeteners on a daily basis. Splenda may be used in coffee in the morning and Sweet'N Low in the afternoon followed by gum or Diet soda containing a third chemical sweetener. This combination of artificial sweeteners may present an array of potential problems. We have a long history of monitoring drug use that has allowed us to appreciate that an exponential increase in side effects is directly proportional to the number of drugs taken. Similar potential harm from the interactions of artificial sweetener combinations in the body may occur. This potential prompts several questions:

- How will the interaction of the chemical affect your body?
- How will the interaction of the breakdown products affect your body?
- Can the combination have a synergistic effect and result in a more toxic compound than either one alone?

Currently, Splenda is the blockbuster new artificial sweetener, with millions of users. However, people are still wary from the disconcerting history of previous artificial sweeteners, and thousands of people every day are searching Google to determine if it is safe as the manufacturer claims it is. But because there are no long-term studies on Splenda, we will have to wait to see the results of people using it over an extended period of time.