

How Sweet It Isn't

An old saying admonishes one to believe nothing that you hear and only half of what you read. Hyperbole is not always the best means to educate or live, but frequently is effective in making a point. As dentists, we should constantly question that which is anecdotal and not supported by scientific evidence; but we have an advantage in that we are taught to do so.

Unfortunately, the public is not as aware of the need to consider what is put before them as we are. Billions of dollars are spent in marketing and advertising to the masses to get them to purchase a product or service. Not always is the advertising scientifically valid or even factual. The undiscerning public has to make choices based on what they hear on the radio or see on television and in newspapers and magazines.

There is an escalating battle going on, at first in the press, and more recently in the courts between the sugar trade association and the manufacturers of artificial sweeteners or sugar substitutes, particularly McNeil Nutritionals who produce Splenda. The complaint of Big Sugar is that Splenda is misleading the public by using the tag line "made from sugar, so it tastes like sugar." Not surprisingly, this charge is levied at the same time the association is seeing a decline in sales. In 2003, sales were down 1.8 percent and in 2004, 4.3 percent.¹ At the same time, Splenda sales went from \$65 million in 2001 to a 50 percent market share with \$346 million in 2004. Considering that in 2004, the sugar market was \$911 million

and the artificial sweetener market was \$343 million, it is obvious there are serious dollars at stake.²

Sugar has consistently maintained a strong lobby and manages to minimize or eliminate foreign competition. Twenty-two million dollars in contributions to campaigns in the past 15 years have been documented. Government price controls, trade agreements and loan guarantees have allowed the cost of sugar in this country to be 2½ times the world price. That amounts to \$2.5 billion in additional cost for products to manufacturers and the consumer.³ This is big business.

Artificial sweeteners or sugar substitutes have been on the market for more than 50 years. Products such as Sweet'N Low (based on saccharin) that were developed in the 1950s, as well as Equal and NutraSweet (both aspartame derivatives) introduced in the 1970s, were created to help diabetics and obese patients. Given our penchant for thinness, they caught on and became major players in the sweetener market. In the 1980s, the sugar association began to realize there was a problem with its diminishing market share.²

Splenda, generically known as sucralose, is an artificially manufactured sweetener. It is derived from sucrose and chemically altered to replace some hydroxyl radicals with chlorine and was approved by the Food and Drug Administration in 1998. The body does not recognize it as a



Unfortunately, the public is not as aware of the need to consider what is put before them as we are. Billions of dollars are spent in marketing and advertising to the masses to get them to purchase a product or service.

The use of artificial sweeteners appears to have a positive health effect with no documented significant drawbacks.

sugar and does not metabolize it as such. The taste, while subjective, has been shown to be acceptable given the rapidly increasing sales.

The FDA announced in May 2005 that sucralose does not promote tooth decay.⁴ Other studies have confirmed this.⁵ We can be comfortable in advocating the use of this and similar products in our patients. There have been numerous websites — and we all understand the reliability of an unmonitored or unfiltered website — that have promoted the nonuse of sucralose as a result of laboratory studies that showed harmful effects. Compare this with the scares of many years ago with saccharin and cyclamates killing lab rats.

The use of artificial sweeteners appears to have a positive health effect with no documented significant drawbacks. The sugar market is diminishing on a regular basis; and by the end of the 20th century, the use of high-fructose corn syrup, saccharin, aspartame and sucralose had taken over 70 percent of what was the sugar market in past years.

As professionals, we are aware of the harmful effects of sugar, locally in the promotion of dental caries or systemically in many ways. We have advocated sugar intake reduction in children and adults throughout our careers. To our patients' benefit, there have been numerous sugar substitutes available for consumption directly and in the manufacture of sugar-containing products.

Big Sugar is trying to scare consumers out of buying products made with sucralose. This is not science and should not be the rationale for any purchases. It is easy to understand how large trade associations are motivated toward profits and not public safety or efficacy of their product.

Is sucralose the answer to all sugar-related disorders? Probably not, but as dentists we can be comfortable that from a dental caries standpoint it is much sweeter to consider than sugar.

Think about it ... the whole fuss is over a campaign slogan. We see the product is safe given the millions of uses without incident. We know that it reduces or minimizes dental diseases. The consumers are telling us that the taste is better than other artificial sweeteners by increasing consumption. Related industries (e.g., baking, soft drink) are putting the sucralose in their product; and the sugar industry, which can do nothing to change their product, is hurting.

It remains to be seen who will prevail in the courts. But isn't the publicity of this matter worth millions in advertising to the Splenda company? As health professionals, we should be in favor of Splenda, not as a specific product, but for the direct and indirect health benefits. It remains to be seen if levelheaded science prevails or if the political and financial clout of an industry (whose time may be over) will triumph. If Big Sugar is successful in its lawsuits, the Splenda company will have to change its advertising slogan. That will have marginal effects on the sales of the product that is enjoying ever-increasing popularity so it will be a bittersweet victory for the sugar people. **CDA**

- References** / 1. Bandow D, A Sweet Deal for the Sugar Industry. *San Diego Union-Tribune*, Feb. 6, 2005.
2. Cohen R, The Plot Against Sugar. *Vanity Fair*, pages 270-83, December 2005.
3. Moore S, Kerpen P, Sweet Deal, Bad Taste. *National Review*, April 15, 2005.
4. Federal Register, May 13, 2005.
5. Mandel ID, Grotz VL, Dental Considerations in Sucralose. *J Clin Dent* 13(3): 116-8, 2002.

Comments, letters, and questions can be addressed to the editor at alan.felsenfeld@cda.org.