

ecourbia blogspot

chewing on it

posted by Karen Morton

August 8, 2012

There's something I've been chewing on recently...my growing awareness of the use of chemicals in our food supply, in particular, the prevalence of artificial sweeteners, aspartame in particular, and our limited choices when we try to avoid it in our chewing gum - never mind that there appear to be dozens of options available to us at the checkout counter. Choice is an illusion.

While living in Chicago many years ago I worked for a patent, trademark and copyright law firm whose clients included Coca Cola, Kraft Foods, Wrigley's, Sealy (to name a few). I recall one of the paralegals sourcing foreign language dictionaries that published Kleenex® as a generic term for facial tissues when in fact it's a trademarked brand name. How many of us have referred to facial tissues as such? It's part of our vernacular. Sealy, synonymous with mattresses, and a case that involved a competitor selling mattresses under the name "C. Lee". Wrigley's, famous for their chewing gum, and a file that included the formula for it; the ingredients meant little to me at the time, but I was fascinated by the science behind the creation of this substance. I can also attest to having worked on a trade secret for artificial cheese for a frozen pizza manufacturer, a product that Michael Pollan today calls a "food-like substance." So here I am now, more than two decades later, examining what the ingredients in the gum we buy means, and how the seemingly innocuous activity of chewing gum with aspartame is so much more than that. So why does it matter?

We've been led to believe that it's okay to consume aspartame - that it's safe, less likely to cause weight gain, and when its added to our chewing gum that it can prevent tooth decay, such as the ubiquitous slogans telling us "**dentists recommend chewing sugar free gum**" and that "**sugar free gum has been clinically proven to positively impact oral health.**" Why would we challenge endorsements by the dental associations? One would hope they know what's best for us. But it's not that simple. What flummoxes me is how chewing gum is marketed to us – that it needs to be sugar free in the first place, yet the bubble gums, and some of the breath mint brands are, for the most part, sugar-based. I must concur that sugar, when consumed in excess (as with carbohydrates, fats, and sodium) can have a negative health impact.

If we buy into the argument that we must avoid sugar in our chewing gum to reduce our caloric intake, an alternative to aspartame is chewing gum sweetened with one of the alcohol sugars (such as xylitol, mannitol, sorbitol). Sugar alcohols are *neither sugars nor alcohols* - they are carbohydrates with structures that resemble sugar and alcohol. But are they a good alternative? For diabetics, absolutely. For the rest of us, I'm not so sure. It's well-established that these products be consumed in small quantities due to their known side effects (stomach cramps, nausea, and diarrhea). Xylitol, in particular, is considered to be a "non-fermentable" alcohol sugar, with the U.S. Food and Drug Administration (FDA) allowing the claim that it does 'not promote dental cavities' – but there is a clear distinction between this and product claims that it can have "substantial oral health benefits" or "cavity-fighting elements." Consider that one gram of xylitol contains 2.4 calories as compared to one gram of sugar, which has 3.87, while it's also claimed that xylitol can inhibit bacteria that are significant contributors to tooth decay. Daily doses of xylitol below 3.44 grams are ineffective against bacteria, and doses above 10.32 grams show no added benefit.¹ One piece of Spry® gum, for example, contains 0.72 grams of xylitol.

Aspartame is currently found in over 6,000 products (such as soft drinks, pudding, chewing gum, yogurt, gelatin, vitamins, and cough drops). Products containing aspartame are sold in over 100 countries, and consumed by over 250 million people globally. It's no wonder we're convinced that we're doing the *right thing* by virtue of the fact that it's available in the everyday products we buy. For the most part, we can avoid consuming products with aspartame – healthier choices and options are out there, but **when it comes to our chewing gum, we have limited choices and options.**

Of the mainstream chewing gums, bubble gums and breath mints, a resounding two-thirds of the market is dominated by two of the world's three largest confectionary manufacturers, Kraft Foods and Mars Inc.:

Brand Name	Manufactured By	Which is Owned By	Sweetener
Big Red®	Wrigley's	Mars Inc.	Sugar, Corn Syrup, Aspartame
Bubblicious®	Cadbury Adams	Kraft Foods	Sugar, Corn Syrup, Glucose Syrup, Invert Sugar
Certs®	Cadbury Adams	Kraft Foods	Sorbitol, Aspartame
Chiclets®	Cadbury Adams	Kraft Foods	Sugar, Corn Syrup
Clorets®	Cadbury Adams	Kraft Foods	Aspartame
Dentyne®	Cadbury Adams	Kraft Foods	Sorbitol, Maltitol, Mannitol
Doublemint®	Wrigley's	Mars Inc.	Aspartame
Dubble Bubble®	Concord Confectionary	Concord Confectionary	Dextrose, Corn Syrup
Extra®	Wrigley's	Mars Inc.	Aspartame
Excel®	Wrigley's	Mars Inc.	Aspartame
5®	Wrigley's	Mars Inc.	Aspartame, Sorbitol, Mannitol
Frisk®	Perfetti Van Melle	Perfetti Van Melle	Sorbitol, Aspartame
Hubba Bubba®	Wrigley's	Mars Inc.	Sorbitol, Mannitol, Aspartame
Ice Breakers®	Hershey	Hershey	Sorbitol
Juicy Fruit®	Wrigley's	Mars Inc.	Aspartame
Spry®	Xlear Inc.	Xlear Inc.	Xylitol (Non-GMO*)
Stride®	Cadbury Adams	Kraft Foods	Sorbitol, Mannitol, Xylitol, Aspartame
Tic Tac®	Ferrero	Ferrero	Sugar
Trident®	Cadbury Adams	Kraft Foods	Aspartame

** New to mainstream market, with "non-GMO" label declaration

Accidentally discovered in 1965, aspartame was first approved by the FDA in the 1970s, but that approval was revoked when research showed evidence of neurotoxicity. It was approved for a second time in 1981² after a lengthy campaign by G.D. Searle (worldwide pharmaceutical giant) to achieve FDA approval, and it was only upon political will that it was approved. It is uncommon knowledge that Donald Rumsfeld played a role in achieving the approval of aspartame through the FDA. Back in 1977, Rumsfeld was the chief executive officer of Searle. In 1981, after 15 years of continual FDA disapproval of aspartame, Rumsfeld stated in a Searle sales meeting that he would use "political rather than scientific means" to achieve FDA approval. Aspartame was approved despite resounding objections from the scientific community.³

Research has been accumulating since aspartame was first discovered, concluding that it is a toxic food additive. At its extreme, aspartame has been nicknamed "sweet death." Studies on the negative impact of aspartame on human and animal health are prolific, a snippet of which concludes:

- that aspartame accounts for 75% of adverse reactions to food additives reported to the FDA³;
- artificial sweeteners, precisely because they are sweet, encourage sugar craving and sugar dependence⁴;

- aspartame causes headaches, convulsions, unexplained visual loss, rashes, asthma, gastrointestinal problems, obesity, marked weight loss, hypoglycemia, diabetes, addiction (due to methyl alcohol), hyperthyroidism, and a host of neuropsychiatric features⁵:

Aspartame contains three components: **10% methanol, 50% phenylalanine, 40% aspartic acid**. Each of these poses their own risks, resulting in adverse side effects and health conditions.⁸ Suffice it to say that the counter-arguments on both sides are immense, and I recommend you perform your own due diligence if you'd like to learn more about the impact of this chemical substance on human health, and can withstand the rhetoric that there is no conclusive evidence suggesting **aspartame is neither dangerous nor safe** for human consumption.

Arguments in support of aspartame have been published by the Calorie Control Council's Aspartame Information Center in their "Aspartame Myths" report.⁹ A recently published press release, available on their web site, comes from the American Heart Association (AHA) and American Diabetes Association (ADA) in support of low-calorie, non-nutritive sweeteners as useful substitutes for sugar, and that they have "their place for people with diabetes".¹⁰ Yes, I agree. For diabetics, non-nutritive sweeteners are a means to enjoy chewing gum, breath mints, chocolate, cookies, cakes, ice cream, etc. , but we must also take into account that aspartame is not equivalent to the alcohol sugars even though it tastes sweet and is classed amongst the "non-nutritive sweeteners". This classification is a rousing endorsement for the aspartame industry and associated consumer product producers who sell us on the idea that it's safe to consume. With FDA approval, it's a shield of armour. So far.

Some of the most compelling and damning information comes from The Aspartame Toxicity Information Center on the aspartame industry's influence that includes a response to typical public relations statements from the manufacturers and their consultants who claim there is no problem with the consumption of aspartame. It is well argued that manufacturer-sponsored aspartame studies avoid the possibility of finding adverse affects. An independent 2003 analysis on the safety of aspartame concludes that it is "unlikely that an unbiased review could ever be performed on aspartame...or any other controversial food related subjects."^{6,7}

The fact is that there are polarized forces with special interests at play. The artificial sweetener business is a multi-billion dollar industry. I hasten to argue that it is more profitable to add aspartame to products than sugar (*I purposely use sugar as a generic term here, leaving out the cane sugar vs. genetically modified organism (GMO)-beet sugar and lack of mandatory GMO product labelling argument*).

Chewing gum does not contribute any nutritional value to our diet, it's a past time so-to-speak – we chew it because we like the way it tastes, it may temporarily freshen our breath, and some of us want to believe that it can also whiten our teeth or prevent cavities. Quite frankly, good oral hygiene is the cornerstone of good dental health, and it has nothing to do with chewing sugar free gum. Chewing a piece of sugar-based gum or consuming a sugar-based breath mint is not going to cause cavities or obesity: neglecting our health will. One Chiclet® is five calories; one Tic Tac® accounts for less than two calories, and a single piece of Bubblicious® contains 25 calories. The AHA and ADA readily state that, "strategies for reducing calories and added sugars also involve choosing foods...such as vegetables, fruits, high-fiber whole grains, and non- or low-fat dairy." Precisely.

Aspartame is a chemical that happens to taste sweet. The arguments in support of aspartame have not convinced me that it's a safe substance to consume in food or chewing gum products. I believe it is one to be avoided. It simply makes no sense to put this chemical into our bodies when there are alternatives. I believe a

cautionary principle and approach is necessary, and our health is better served by low-sugar consumption, and not an artificially-derived sugar-free one.

The chewing gum marketplace is dominated by confectionary industry giants with embedded status quo interests. We can't change the systems that approved aspartame as a chemical food additive, nor change the way it is marketed and sold to us, **but if we accept that aspartame is a substance to be avoided, we can empower ourselves with choices and options** by choosing what we won't consume. The tricky part is finding a substitute to artificially sweetened gum or not chewing it at all. The mega conglomerates won't dissipate, but they may respond to where consumers are willing to spend their money. It is not difficult for Kraft Foods or Mars to produce a product under one of their brand names that contains non-GMO sugar. I'd be the first to tout it.

Inform yourself, celebrate the freedom that we have to choose what we chew, and act upon it.

References

1. What is xylitol? http://en.wikipedia.org/wiki/Xylitol#Dental_care
2. How Aspartame Became Legal – The Timeline (Organic Consumers Association), http://www.organicconsumers.org/articles/article_16871.cfm
3. Aspartame Dangers (Organic Health Adviser), <http://organichealthadviser.com/archives/aspartame-dangers>
4. Gain weight by “going diet?” Artificial sweeteners and the neurobiology of sugar cravings (Yale Journal of Biology & Medicine) <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2892765/?tool=pubmed>
5. Aspartame Products As A Potential Danger To Infants, Children & Future Generations (Palm Beach Institute for Medical Research), <http://renew.com/general70/duut.htm>
6. Aspartame Industry Influence (Aspartame Toxicity Information Center, report), <http://www.holisticmed.com/aspartame/scf2002-response.htm>
7. Aspartame and Formaldehyde Poisoning, Part C. Chart of Aspartame Manufacturer Public Relations Statements Related to Methanol and Formaldehyde (Aspartame Toxicity Information Center, report) http://www.holisticmed.com/aspartame/scf2002-response.htm#_Toc32070078
8. What is Aspartame? (Natural News), http://www.naturalnews.com/034320_aspartame_sweetener_side_effects.html#ixzz22uaQ6gD9
9. Aspartame Myths (Aspartame Information Center) http://www.aspartame.org/aspartame_myths.html
10. New AHA and ADA Supporting Statement on Low-Calorie Sweeteners http://aspartame.org/aspartame_pr_2012710.html