

THE HEALTH NUGGET



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Drrrrrenched

Taking in the last 40 years, cane and beet sugar consumption is at an all time low. The bad news is that during this same time period there has been an overall increase in general sugar consumption. From the ingestion of 119 pounds a person per year in 1970 to 142 pounds per person in 2005, a 19 percent increase in sweet tooth satisfaction took place. While this may initially sound confusing, the discrepancy lies in the dramatic increase of a new kid that appeared on the block—high-fructose corn syrup (HFCS), a substance that has only been around for 40 years.

According to an “analysis of government consumption data, per capita intake of the syrup had increased by more than 1,000 percent from 1970 to 1990, exceeding the changes in the intake of any other food group tracked by the Department of Agriculture [USDA].”¹ Wow! Unfortunately, not only has high-fructose corn syrup partially replaced existing cane sugar use, it has increased availability and intake. Americans consume roughly 60 pounds of the sticky syrup yearly per person, drenching us in another form of sugar.

The USDA suggests most of us limit our intake of added sugar from any source, to about 10 to 12 teaspoons a day. How are we faring? Not so well. In 2000, we ate an average of 31 teaspoons a day, which was more than 15 percent of our caloric intake. It’s not just that the American palate is accustomed to its daily dessert, but sugar, specifically high-fructose corn syrup, can be found in every aisle of the grocery store.

The switch from white crystals to goeey liquid

was not a difficult one for food companies to make for a few reasons:

1) It became a cheaper ingredient. Manufacturers were able to buy the sweetener at prices roughly 50 percent less than those of sugar. “In a 1983 article in Fortune magazine, one beverage analyst estimated that by switching to high-fructose corn syrup, Coca-Cola gained a cost advantage over Pepsi and its bottlers of \$70 million a year.”² Pepsi, not to be left behind, soon licked up the new sweetener. During the following 20-year period when soda intake rose 40 percent, “the inflation-adjusted price of soda declined by about one-third, according to Bureau of Labor Statistics data.”³

2) It was made from our very own home-grown corn.

3) Because high-fructose corn syrup is similar to Styrofoam, in that it can undergo varying temperatures, humidity, etc. and seemingly never go bad, it virtually had no expiration date. Cookies, crackers, breads, drinks, sauces and the list goes on, now could live on the shelf for a long time. Additionally, it prevented freezer burn, and caused bread to brown nicely and to remain soft.

4) As a liquid, it mixed easily to create sweet drinks. After beverage companies began using high-fructose corn syrup, soft drink consumption soared like a tidal wave. A single 12-ounce can of soda has as much as 13 teaspoons of high-fructose corn syrup. Since 1970 our soda guzzling has doubled to about 56 gallons per person a year, obviously increasing the amount of high-fructose corn syrup we take in. In

the 1980s, the drenching of America was furthered with the birth of the Big Gulp.

Japanese researchers gave birth to high-fructose corn syrup in a lab. Because of how it is made there are those, like Michael F. Jacobson, director of the Center for Science in the Public Interest, who do not see it as a “natural” food. He says, “unlike sugar molecules, which reside in the stalks of sugar cane or the beets that are used to make sugar, high-fructose corn syrup is artificial because it is not found anywhere in corn. You’re causing a change in the molecular structure, and that shouldn’t be considered natural.”⁴ The production may start with corn kernels and cornstarch but after a dozen different mechanical processes and chemical reactions and the introduction of three different enzymes to incite molecular rearrangements it is no longer an identifiable corn product.

One argument against the use of HFCS is its direct contribution to America’s unprecedented surge in obesity. The controversy as to how high-fructose corn syrup has contributed to this can be like wading through contending undercurrents. Does the fructose in all that syrup specifically alter our metabolism or the way metabolic-regulating hormones function? Is it processed differently and cause the liver to kick fat out into the bloodstream, elevating triglycerides? Or is the only issue simply our obsession with empty calories?

Chi-Hang Ho, Ph.D., professor of food science at Rutgers University, conducted chemical tests on 11 different soft drinks containing HFCS. “He found ‘astonishingly high’ levels of reactive carbonyls in those beverages.”⁵ Reactive carbonyls have the potential of triggering cell and tissue damage, which has been associated with the development of type-2 diabetes. It has been found elevated in the blood of diabetics and is linked to its complications. “These undesirable and highly-reactive compounds associated with ‘unbound’ fructose and

glucose molecules are believed to cause tissue damage.”⁶ By contrast, cane sugar has no reactive carbonyls. “Based on the study data, Ho estimates that a single can of soda contains about five times the concentration of reactive carbonyls than the concentration found in the blood of an adult person with diabetes.”⁷

When it comes to HFCS, the goodness of the original corn has been erased. Nature has been so altered that what is left is a man-made substance. The same has taken place with the precious truths of God’s word. Man’s tampering has taken parts, not the whole, and so altered the part that it is no longer recognizable when compared with the original. “The earth is also defiled under its inhabitants, because they have transgressed the laws, changed the ordinance, broken the everlasting covenant” (Isaiah 24:5).

The man-made version of truth will ultimately “drown men in destruction and perdition” (1 Timothy 6:9).

The only way out of the deluge will be by clinging to the Scriptures. In the end, the counterfeit will “So closely... resemble the true that it will be impossible to distinguish between them except by the Holy Scriptures.”⁸ But God will ever be the protector of His truth and those who cling to it. “When the enemy shall come in like a flood, the Spirit of the Lord shall lift up a standard against him” (Isaiah 59:19).

¹ Warner, Melanie. “A Sweetener with a Bad Rap.” *Nytimes.com*. 2 July 2006. May 15, 2008. <http://www.nytimes.com/2006/07/02/business/yourmoney/02syrup.html?_r=1&pagewanted=2&oref=slogin>.

² *ibid.*

³ *ibid.*

⁴ *ibid.*

⁵ “Soft Drink Sweetener Linked to Diabetes in Kids.” *Consumeraffairs.com*. 24 August 2007. May 15, 2008. <http://www.consumeraffairs.com/news04/2007/08/corn_syrup.html>.

⁶ *ibid.*

⁷ *ibid.*

⁸ White, Ellen G. *The Great Controversy*, p. 593.

