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Diet Drinks: America's Passion for Poison

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There is a great controversy raging between good and evil at the soda fountain or pop machine but the general public does not seem to be aware of it. The consequences of the dietary changes that have occurred since the introduction of artificial sweeteners into our lives since the early 1980's has likely increased dramatically but in many cases, silently. However, there is a coterie of medical doctors and research scientists that are aware of the effects and have published volumes. Unfortunately, their voices are largely drowned out by the industry.

As in politics and other endeavors where mind-control plays a prominent role, advertising and propaganda are the most effective tools of those who are pitching a program or a product. The reasons for large infusions of cash could be to cover corporate wrongdoing, agency corruption, incompetency or just to hide plain carelessness but usually, profit motive is the driving force.

Ethical business practices should promote periodic reviews but it appears that the only aspartame reviews have been on the annual reports. Of course, there are reports of side effects but why would that not have triggered an ongoing review by the agency responsible for approval in the first place? The FDA says that they monitor scientific literature for indication of potential health issues but they are not aware of credible evidence at this time to reverse the approval of aspartame. Perhaps they have not heard of Dr. Morando Soffritti?

On April 23, 2007, Morando Soffritti, MD was honored with the Collegium Ramazzini's third Irving J. Selikoff Award at the Mount Sinai School of Medicine in New York, USA. Dr. Soffritti was recognized for his "outstanding contributions to the identification of environmental and industrial carcinogens and his promotion of independent scientific research."

The attitude of the FDA and industry would present the case that the only credible scientific evidence comes from government agencies or from corporate sources. Danger signs anyone? Could it be that we are so taken in by the all-encompassing custodial nature of total government that we have lost the ability to think and act on matters that concern our most vital possession, our health?

On a personal level there is no in-between on diet drinks, either you like them or you hate them. No matter what the Food and Drug Administration (FDA) says or what any critical medical study shows, people are fiercely loyal to their diet drinks. There are also unimaginable numbers of other products that contain aspartame besides diet drinks but these products do not generate the intense loyalty as the fizzy cola thirst-quenchers. Included in these unnecessarily altered products are medicines, toothpaste, yogurt, baked goods and other specialty drinks.

Commercialism forges ahead of good science and another man-made substance of questionable value has been added to the food chain. The detractors don't buy it but those addicted purchase it with an irrational compulsion. Like those with a narcotic habit, they don't seem to mind paying to satisfy the craving. And pay they do, to the tune of billions of dollars a year.

Just what is this magical potion, aspartame? It is a combination of methanol and two amino acids, phenylalanine and aspartic acid. In 1965, James Schlattler, a chemist working at G.D. Searle discovered the substance quite by accident while working on a drug for another medical purpose. It was found to be many, many times sweeter than sugar but without the calories.

The chemistry of aspartame as it breaks down in the human body is well documented but acceptance of the science depends on one's alliance with the industry or with the skeptic side. Regardless of one's position on the subject, metabolism of aspartame in the human body and the side-effects, or lack thereof, continues to be a intensely controversial subject.

National Institutes of Health (NIH) describes a metabolite as any substance produced during metabolism (digestion or other bodily chemical processes). In medical terms, a metabolite usually refers to the product that remains after the drug is broken down (metabolized) by the body.

Virtually all industry funded studies discount any adverse effects of aspartame metabolites. Typical "friendly" clinical reviews of aspartame toxicity will most likely find the authors are closely related to the producers of aspartame. Conversely, and almost without fail, independent studies claim serious and deleterious consequences as result of aspartame consumption.

A similar parallel could be drawn from the life-cycle of a popular non-food product. The Model 35 Beech Bonanza airplane was fast, comfortable, sexy and was immediately recognizable with its unique v-tail. Together, these attributes made it an easy sell to eager post-war consumers. It quickly became the darling of those who could afford the luxury and prestige of traveling in their own Rolls-Royce with wings. It was also very deadly.

From its initial debut in 1947, to its end of production in 1982, the plane had suffered about 250, in-flight structural failures which resulted in hundreds of deaths of its pilots and innocent passengers.

An engineering ethics study done at the University of Texas found that depending on year model, either the wings separated or the v-tail assembly failed. In 1952, the Federal Aviation Administration (FAA) conducted a 12-year study and found out what they already knew; the airplane had an unusually high incidence of in-flight structural failures. No further action was taken and the study was terminated.

As compared to the aspartame controversy a similar triumvirate of players were involved; the designer/manufacturer, the government agency that certified the design and the consumer. In the aviation example, Beech presented their design to the FAA; the FAA did their certification which assured the public that the product was airworthy and the aviation community quickly made it one of the most successful private airplanes ever produced. Never mind it also produced an inordinate number of fatalities.

Concerning the lethal attributes of this airplane, the manufacturer could say the design was approved by the FAA so it was certified safe, therefore any crash must have been due to pilot error. The FAA said that it followed routine design certification procedures so they could find no reason to ground the airplane. Someone has to be culpable so it was necessary to shift the blame to the last one holding the controls. And so it was for about 35 years.

After the introduction of the Model 33 and later, the Model 36 (same airframe except both of these models had the more conventional straight tails), it was found that the v-tails had 24 times the number of in-flight structural failures. So much for the engineering ethics and invincibility of manufacturers and government agencies. Admitting mistakes and correcting deficiencies comes hard for these two groups. Now, back to the controversial aspartame story.

The diet food and drink industry is a multibillion dollar industry and the ravenous consumption by the thirsty public defies comprehension. As in the airplane example, success and profit motives are not necessarily bad things but any industry can be its own worst enemy if its ethics are less than scrupulous.The story of aspartame, its evolution and time-line from its discovery to FDA approval is replete with political maneuvering, suspected malfeasance and intrigue. It is rather difficult not to suspect wrong-doing when all the parts of the puzzle are laid on the table.

The U.S. Food and Drug Administration (FDA), as the final authority to control the introduction of certain additives into the food chain should have exercised the most extreme caution in blessing this product which could conceivably effect the lives and health of millions of people. Many of these people are children and other trusting or unsuspecting individuals incapable of exercising caution. However, in all fairness, this is indeed exactly what they did from the mid-sixties until 1983, when greed, ego and politics triumphed over sound judgment, good science and ethics.

As we have seen before, sometimes as little as five thousand dollars worth of potential personal gain can trigger an unethical act, especially if it is thought that no one is watching. When potential profits range in the neighborhood of hundreds of millions of dollars the temptation for concealing critical information about one’s products might become too much to resist.

When greed, gain and other human frailties are considered, a cynical person could suspect therein exists a possible root-cause for wrongdoing. A colossal industry is at stake and it is only natural for those companies that manufacture it or those that use it in their products to protect their industry and cash flow, even when their products have the potential to harm untold numbers, including children.

Early testing was conducted in the fall of 1967 when Dr. Harold Waisman, a biochemist at the University of Wisconsin, led aspartame safety tests on infant monkeys on behalf of the Searle Company. Of the seven monkeys that were being fed aspartame mixed with milk, one died and five others had grand mal seizures. The entire file can be found online at dorway dot com/raoreport.pdf.

On January 21, 1981, the day after Ronald Reagan’s inauguration, Searle re-applied to the FDA for approval to use aspartame in food sweeteners, and Reagan’s new FDA

commissioner, Arthur Hayes Hull, Jr., appointed a 5-person Scientific Commission to review the board of inquiry's decision. It soon became clear that the panel would uphold the ban by a 3-2 decision, but Hull then installed a sixth member on the commission, and the vote became deadlocked. He then personally broke the tie in aspartame's favor. Hull later left the FDA under allegations of impropriety, served briefly as Provost at New York Medical College, and then took a position with Burston-Marsteller, the chief public relations firm for both Monsanto and G.D. Searle. Since that time he has never spoken publicly about aspartame.

The preceding three paragraphs were reported by the National Institute of Science, Law, and Public Policy, Washington, D.C.

While the components of the additive are well known, the team that pushed the approval process were perhaps not quite as well known. Donald H. Rumsfeld was Chief Executive Officer at G.D. Searle from 1977 to 1985 which was during the aspartame approval process. As a hard-driving business executive at Searle he was awarded the "Outstanding Chief Executive Officer" in 1980 and 1981 for his efforts to reshape the company. He may have helped reshape America too with the help of the FDA and the diet food and drink industry. Cronyism scored a direct hit.

Since 1983, when the FDA approved aspartame for human use in diet drinks, the public has taken the bait for an easy fix to get rid of a flabby gut and extra pounds. Why not drink yourself out of obesity? It would seem, at the onset, a completely rational thing to do; watch the pounds float away by drinking a sugar-free can or bottle of pop, many times a day.

Ka-ching, ka-ching, the profits roll in on a mix of carbonated water, caramel flavoring and coloring, sweetened with a white crystalline powder called aspartame. The FDA says it's safe so every day millions of people drink, eat and brush their teeth with concoctions laden with aspartame. As noted earlier, many medications even contain the substance. A Massachusetts pharmacist created a list of about 150 aspartame-containing drug products of which many are targeted for children (not including generics).

The retailers wrap the package with usual advertising gimmickry and the campaign rolls on with insidious get-thin quick implications. It even goes to war; we supply our troops with a refreshing drink of home, never mind that it has been reported to trigger aggressive behavior and anger. On the other hand, maybe a little bottled road-rage on the battlefield is desirable? Not to worry, any long-term medical consequences to our best and brightest can be shoved over to the Veterans Administration where the budget is already strained to the breaking point.

It is unfortunate that studies like the following have to be done after and not before the genie gets out of the bottle. Studies such as those done by the Ramazzini-Soffritti group in Italy and by P. Humphries, E. Pretorius and H. Naudé at the University of Pretoria, South Africa, show that aspartame is a potent neurotoxin and endocrine disruptor. The latter study was published in European Journal of Clinical Nutrition in 2008. A neurotoxin is like rattlesnake venom or poison from a black widow spider. Endocrine glands include the thyroid, adrenal and pituitary glands.

On the pro-aspartame side, company scientists report that certain fruits contain more methanol than does aspartame. While this fact may be true, what they don't say is that ethyl alcohol is also found in natural fruits which is the antidote for methanol. On the left

side, independent medical doctors, scientists and chemists say that is an essential and critical difference. When consumed alone, methanol (wood alcohol) is extremely dangerous and can cause blindness and even death.

According to the U. S. Environmental Protection Agency (EPA), animal data and human historical epidemiological information show that methanol may produce acute toxicity. Casarett and Doull's Toxicology (Klaassen et al 1986) points out that whenever access to ethanol had been restricted (e.g., during Prohibition in the 1920s), the incidence of methanol poisoning has increased. "The characteristic results of an epidemic are that a third of those exposed to methanol recover with no residues, a third have severe visual loss or blindness, and a third die. Thus in sufficiently high doses methanol has profound systemic effects."

The General Foods study by Roak-Foltz and Leveille, found that the average adult will ingest approximately 87 mg of methanol on a daily basis when substituting artificial sweeteners in their food. Since this date was gathered in 1977-1978, it is likely the amounts have increased substantially.

Both the U.S. Air Force magazine "Flying Safety" and the U.S. Navy magazine, "Navy Physiology" published articles warning about the many dangers of aspartame including the cumulative deleterious effects of methanol and other reactions. The articles note that the ingestion of aspartame may make pilots more susceptible to seizures and vertigo (U.S. Air Force 1992). Many pilots appear to be particularly susceptible to the effects of aspartame ingestion, probably because of trying to stay hydrated in a low-humidity atmosphere. They have reported numerous serious toxicity effects including grand mal seizures in the cockpit. A grand mal seizure is caused by abnormal electrical activity throughout the brain. If it is not a good idea to see a pilot at the controls experience a grand mal seizure one would assume it would be equally disturbing to see a passenger at 30,000 feet undergo the same physical incapacitation.

The National Center for Biotechnology Information (NCBI) published a study done by the Department of Experimental Physiology, Medical School, University of Athens, Greece, on the the effect of aspartame metabolites on human erythrocyte membrane acetylcholinesterase (AChE) activity. It is concluded that low concentrations of ASP (aspartame) metabolites had no effect on the membrane enzyme activity, whereas high or toxic concentrations partially or remarkably decreased the membrane AChE activity, respectively. Additionally, neurological symptoms, including learning and memory processes, may be related to the high or toxic concentrations of the sweetener metabolites.This was a short-term study done on healthy adults. It is therefore not difficult to predict the same or even more dramatic effects when infants and children consume diet products throughout their formative years.

The same information was published by the EPA at their Health & Environmental Research Online (HERO) website. Their stated purpose is to provide an easy way to view the scientific literature behind EPA science assessments. HERO is an EVERGREEN database which means that scientists can keep abreast of new research. There are more than 300,000 scientific articles from peer-reviewed literature and new studies are continuously added. HERO is part of the open government directive to conduct business with transparency, participation and collaboration. Through HERO, the public can participate in the decision-making process. One would assume that the FDA and the EPA would share or coordinate scientific studies.

Need we go further? The academic and medical community apparently thought yes, the safety of aspartame must be fully explored since it is being offered in a wide variety of food and drink products which are consumed by the general public and heavily used by children.

An aspartame study by C. Trocho et al, was conducted by the staff of the Biology Department at the University of Barcelona. It clearly shows that aspartame which was labeled with carbon 14 isotope was transformed into formaldehyde in the bodies of the living specimens and that when they were examined later, the radioactive tagged formaldehyde was found throughout the vital organs of their bodies.

This conclusively proves that aspartame does indeed convert to formaldehyde in the bodies of aspartame consumers, and that many of the symptoms reported by victims of aspartame toxicity are indeed those associated with the poisonous and cumulative effects of formaldehyde.

Merriam-Webster describes formaldehyde as a colorless, toxic, potentially carcinogenic, water-soluble gas, CH 2 O, having a suffocating odor, usually derived from methyl alcohol by oxidation: used chiefly in aqueous solution, as a disinfectant and preservative, and in the manufacture of various resins and plastics. What would renowned French Chef Julia Child have had to say about this metabolite of aspartame? You can be assured it would not have been “bon appétit”. Beyond Ms. Child, the International Agency for Research on Cancer, an intergovernmental agency part of the United Nations World Health Organization classifies formaldehyde as a Group 1 carcinogen.

In a study at the Cesare Maltoni Cancer Research Center of the European Ramazzini Foundation it was demonstrated for the first time that aspartame is a multipotent carcinogenic agent when various doses are administered with feed to Sprague-Dawley rats from 8 weeks of age throughout the life span. In the second Ramazzini-Soffritti study it was concluded that the results reinforced the first study and when life-span exposure to aspartame begins at fetal life, its carcinogenic effects are increased.

When considering what should have been done to protect the public there is little doubt in many minds that the ethics of the FDA and its safety net for the general public were severely compromised at best, non-existent at worst.

Some of the adverse symptoms that have been reported include the following: impotence, reduced female response, numbness, tingling nerves, aggressive behavior, spontaneous anger, anxiety, aggravation of phobias, depression, grand mal seizures and a combination of symptoms that mimic a heart attack. Since another aspartame constituent (phenylalanine) tends to inhibit serotonin process in the human body, it might be important to examine another phenylalanine/serotonin imbalance. That imbalance shows cause for concern.

Professor Michele Ernandes and colleagues at the University of Palermo offer an explanation of the relationship of reduced brain serotonin synthesis and behavioral consequences. In their studies the reduced brain serotonin synthesis was brought on by a specific dietary imbalance. Could it be that a similar dietary imbalance occurs when large amounts of aspartame are introduced into the diet? Ernandes states that serotonin deficiency involves several behavioral consequences such as tendency towards aggressive behavior, increase of intraspecific competition, increase of magic thought or religious fanaticism. The professor focuses on cereals utilized for human feeding. His target is maize which has a very low “trp/LNAAs” value (tryptophan/Large Neutral Amino Acids ratio).

Maize was firstly and largely utilized by Native American peoples and this is particularly interesting in the study of the Aztec human sacrifice/cannibalism complex. Historical data reveal that cannibalism occurred in period of the year when maize dependence was greater, supporting the hypothesis of Ernandes and his associates that serotonin deficiency among the Aztecs might have accentuated their religious and aggressive behavior patterns on the one hand, and on the other it might have led them unconsciously, towards anthropophagy in order to attenuate it (rising "trp/LNAAs" value by means of human proteins) when it became too strong.

It would seem that the study by the Ernandes group would have a correlation with many of other studies that show adverse behavioral consequences of aspartame consumption.

There are also numerous other neurological symptoms that have been reported. If any of these conditions are present, would it not be beneficial to eliminate consumption of any product that contains aspartame? It will take some label-reading but it is a cost-free endeavor. After a few months of abstention from all products that contain aspartame you may feel like a new person or perhaps your mate will feel like you're a new person. If not, you've possibly lost nothing but a few pounds. Could it be that the low pH of soft drinks (around 3.0) causes the body to retain fluids trying to re-balance the body's natural pH balance of 6.5 or so?

The Harvard School of Public Health reports that a eight-year study conducted by Department of Medicine, Division of Clinical Epidemiology, The University of Texas Health Science Center at San Antonio, Texas, found that of nearly 3,700 residents of San Antonio, Texas, those who averaged three or more artificially sweetened beverages a day were more likely to have gained weight over an eight-year period than those who didn't drink artificially sweetened beverages. Although this finding is suggestive, keep in mind that it doesn't prove that artificially sweetened soft drinks caused the weight gain.

The San Antonio study group went on to say that their findings raise the question whether AS (artificial sweeteners) use might be fueling–rather than fighting–our escalating obesity epidemic.

If you are a regular or long-time consumer of artificially sweetened products and have not yet experienced any side effects of aspartame and its metabolites, perhaps you are just lucky or have a natural immunity to carcinogens and/or neurotoxins. If however, you don't like the odds or have doubts about natural immunity or about the controversial science, there might be an easy way to protect yourself.

For fundamentalists there is a long-term, pragmatic approach; simply drink water. God created it to be used for human consumption about the same time he created man, some 6,000 years ago. For those who believe in the Big-Bang theory of evolution, water has a phenomenal record of satiating the thirst of man, beast and fowl for millions of years.

For the person climbing the corporate ladder or for an individual on the fast-track to the top of the class, there are some sheik, expensive and exotic waters from many parts of the world that will make a statement on fashion or status while at the same time quenching one's thirst.

By choosing clear, uncontaminated natural waters as your favorite thirst-quencher you just might be rewarded with serene composure, vitality, good mental and physical health,

strength and stamina, a steady hand and freedom of pain.

Stay thirsty my friends! But remember, “caveat emptor” is the catch-phrase when reading the labels on products that you intend to introduce into your body.

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