Independent Analysis of the
"Opinion of the European Commission, Scientific Committee on Food:
Update on the Safety of Aspartame / E951" (SCF 2002)

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Introduction

In 2001, the United Kingdom Food Standards Agency requested that the European Commission Scientific Committee on Food conduct an updated review of the artificial sweetener, aspartame / E951 (FSA 2001a). The Scientific Committee on Food was asked to look at more than 500 scientific papers published between 1988 and 2000 and any other new scientific research not examined previously by the Committee (FSA 2001b). On December 10, 2002, the Scientific Committee on Food published its final report (SCF 2002).

This response will demonstrate that:

1. Members of the European Commission Scientific Committee on Food have ethical and financial conflicts of interest with the food industry that should have disqualified them from participation on the Committee.

2. Members of the Scientific Committee on Food did not read some or most of the research papers they cited.

3. The report ignored independent research related to aspartame and instead relied heavily on and frequently cited articles in books and reviews put together by employees or consultants of the aspartame manufacturers (Monsanto and Ajinomoto).

4. Persons ingesting aspartame are being exposed to significant amounts of formaldehyde that has been shown by independent research to accumulate throughout the body.

5. Aspartame manufacturer-sponsored studies are designed in a way as to avoid the possibility of finding adverse effects, yet the Committee accepted these studies without any question. In contrast, nearly all independent research on aspartame in humans and animals has found that it can cause problems.

6. Human studies and clinical reports published in the medical literature linking aspartame use to fibromyalgia, seizures, panic attacks, mania, brain cancer, migraines / headaches, vertigo, symptoms related to depression, memory loss, hives, irregular heart beats, and numerous other symptoms were largely ignored by the Committee.

In addition to the analysis of the Scientific Committee on Food report, there will be numerous sample aspartame poisoning case reports within the text to give the reader an idea of the clinical effects being reported. The reports will be taken from the medical literature and from the Aspartame Toxicity Information Center listing of cases (ATIC 1997, 1998).

References for this analysis appear at the end of the report.
January 27, 1995

Dear Dr. Roberts:

The purpose of this letter is to thank you for saving me from the clutches of aspartame. I admire your courage in standing up to the F.D.A. and other organizations and individuals who make the public believe this substance is safe.

For several years I had been hearing about your book, papers, and public appearances regarding the dangers of aspartame, but, like so many others, thought I could trust that the F.D.A. wouldn't approve anything for human consumption which wasn't safe. I had to be brought to my knees before I finally purchased and read your book last month. It was out of desperation, as over a period of 8 years I have had one ailment after another, most of which the doctors and specialists could not diagnose or treat. I have been to all of them mentioned in your book and had all the tests as well.

I have had most all of the symptoms as those you surveyed: petit mal seizures, headaches (felt like my brain was going to come out of my heat), loss of vision, dry eyes, dry mouth, dry skin, disorientation, dizziness, sleeplessness, diarrhea, sensitivity to noise and bright light, stomach bloat and gas, inability to lose weight on what had previously been a successful diet and might have gained weight, shortness of breath, chest pains, irregular heart beat. I always had the feeling I was seeing the world through a clouded lens.

I took myself off aspartame about a month ago. The above symptoms are either gone or are greatly reduced at this point. Thank you, thank you.

I do have a question - you mention rheumatic disorders in your book - I was diagnosed as having Polymyalgia Rheumatica about 8 years ago and was treated for almost 3 years with prednisone. I had gone from perfect health to almost being crippled at age 53 for no apparent reason. Could that have also been brought on by the consumption of aspartame? That would have been about the time that substance was first appearing on the market.

Another purpose of this letter is to let you know I am an activist type and am willing to fight for causes I believe in. If I can help you in any way, please let me know. I'll write letters. I'll speak. It would be good therapy for me. Right now I have a mountain of resentment about the years of pain and suffering needlessly caused by ingesting something harmful into my boy without even being warned. When you consider that I drive a lot, it could have cost me my life.

Sincerely, Gwenne Allen (ATIC 1997)

Date: Sun, 04 Feb 96 21:27:15 0600

Subject: Aspartame

Sir I am reading the postings on the internet about aspartame with great intrest and anger.

I had been drinking Diet Coke for the past 12 years. This was the only form of liquid I consumed, with the very odd glass of water or even less often a glass of milk. The quantity of consumption varied between 2 and 5 litres a day. Every day for almost 12 years.

In March of 1995 I saw part of a TV program that was about aspartame. The interviewer was talking to a representative from the company that makes aspartame. The representative said that the company had received 6,000 written complaints about the product, everything from strokes to liver and kidney failure to joint problems. He sat there and said that their doctors and scientists could not confirm even one of the complaints. My understanding of the American ratio of actual complaints to written complaints is in the neighbourhood of 5,000 to 1 and may be as high as 10,000 to 1. This would mean that between 30,000,000 and 60,000,000 million people were having problems with this product. I quit drinking diet coke immediately.
Problems that I had attributed to stress of running my own business included high blood pressure, gout, kidney stones, joint problems had been with me for several years. Other problems that were present, but masked included; burn out and depression, confusion in decision making, general lack of drive and loss of feeling in my hands. The withdrawal process was not easy, but I have been off aspartame for approximately 10 months now and many of my problems are going away. I understand that it make take a long time to purge the body of the residual toxins, but it is happening. (ATIC 1998)

Aspartame Industry Influence and the Scientific Committee on Food

A. Food Industry Conflict of Interest and Corruption - United States

"Science is losing credibility. Conflicts of interest, biased studies, and secrecy are undermining science’s reputation and its truth-seeking objective.

"Scientist-consultants who are paid by industries but who serve as faculty professors frequently testify before Congress and federal regulatory agencies without pausing to reveal their industry connections. Science departments in public universities enter into multi-million-dollar contracts with private corporations, yet few details are revealed about the nature of such agreements. Medical and other science journals all too frequently publish articles without adequately disclosing even major conflicts of interest." [Collins (2000) - Director of the Integrity in Science Project at the Center for Science in the Public Interest].

In the United States, corruption of governmental and scientific committees by the food industry was disclosed in the late 1960’s and early 1970’s. In an article in the journal Science (1972), it was revealed that the National Academy of Sciences (NAS) Food Protection Committee was being funded by the food, chemical and packaging industries. The U.S. Food and Drug Administration (FDA) was relying on the NAS Committee for "independent" information. The Chairman of the NAS Subcommittee investigating monosodium glutamate (MSG) had recently taken part in research partially funded by the MSG manufacturer. Another member of the Subcommittee became a spokesperson for the MSG industry. (Science 1972). Other members of the Subcommittee had ties to the MSG industry. Since that time numerous governmental committees have been corrupted by the placement of food industry-funded consultants on these committees (Samuels 1999, Collins 2000).

B. Food Industry Conflict of Interest and Corruption - Worldwide

On January 9, 2003, The Guardian reported that they obtained a confidential report relating to the food industry experts "infiltrating" the World Health Organization (WHO) Food and Agricultural Organization (FAO) committees (Guardian 2003). The report found that:

- Food companies attempted to place scientists favourable to their views on WHO and Food and Agricultural Organisation (FAO) committees.

- They financially supported non-governmental organisations which were invited to formal discussions on key issues with the United Nations (UN) agencies.

- They financed research and policy groups that supported their views.

- They financed individuals who would promote "anti-regulation ideology" to the public, for instance in
"One industry-led organization, International Life Sciences Institute (ILSI), has positioned its experts and expertise across the whole spectrum of food and tobacco policies: at conferences, on FAO/WHO food policy committees and within WHO, and with monographs, journals and technical briefs." (Guardian 2003)

The International Life Sciences Institute (ILSI) is an industry group founded in 1978 by Coca-Cola, Pepsi-Cola, Heinz Foundation, General Foods, Kraft Foods (owned by Philip Morris), and Proctor & Gamble. Manufacturers of aspartame, Monsanto and Ajinomoto, have branches in various parts of the world that have separate memberships in the ILSI. Holland Sweetener Company, another company that sells aspartame, is a member of ILSI (ILSI 2003, Guardian 2003). The ILSI funds research on aspartame and other industry concerns. The ILSI Aspartame Committee is made up of the NutraSweet Company, Ajinomoto Co., Coca Cola Co., Pepsico, Inc., Royal Crown Co., Seven-Up, Inc., and other manufacturers of aspartame-containing products [Gordon 1987]. The manufacturer of aspartame threatened to have the ILSI research funding vetoed for one scientist who said negative things about aspartame in public (Wurtman 1987).

Governmental committees are often corrupted by companies and industry trade organizations that are able to get paid consultants or other biased persons on the committee. Monsanto and Ajinomoto of Japan marketed aspartame in Europe in the 1980’s and 1990’s. A confidential memo obtained by GeneWatch demonstrates that Monsanto tries to influence who is put on scientific committees with "scientific outreach":

"Scientific outreach and Ag Regulatory was instrumental in assuring that key internationally recognized scientific experts were nominated to the FAO/WHO expert consultation on food safety which was held in Geneva this past month. The consultation and final report were very supportive of plant biotechnology, including support for the critical role of substantial equivalence in food safety assessments, antibiotic resistance markers used in these products, and the reservation of animal feeding studies to address specific questions rather than for routine safety" (Monsanto 2000)

Ajinomoto of Japan has benefited tremendously by having key committees corrupted by biased, industry-paid consultants (Samuels 1999)

C. Conflict of Interest on the Scientific Committee on Food

Members of the European Commission Scientific Committee on Food have admitted to a conflict of interest:

According to Baby Milk Action, the UK partner of the International Baby Food Action Network, four members of the committee -- Professor Aibert Flynn (Ireland), Professor Ronald Walker (United Kingdom), Wim HM Saris (the Netherlands), and Professor Anna Ferro Luzzi (Italy) -- have declared "economic or ethical interests which might be considered prejudicial" to their independence. (BMJ 2000)

One member of the European Commission Scientific Committee on Food, Ronald Walker, spent seven (7) years as the ILSI’s Chairman of their Scientific Committee on Toxicology/Food Safety in Europe (Walker 2001). Another member of the Committee, W.H.M. Saris, is the chairman of the ILSI Scientific Committee on Nutrition (NUTRIM 2000). At least half of the Committee members have been involved in ILSI projects and/or participated in ILSI workshops (ILSI 1999).

The Scientific Committee on Food (SCF) documents are presented without any information as to the past or current financial ties between the Committee members and the food industry. Despite the efforts by independent organizations, the members of the Scientific Committee on Food do not provide a detailed accounting of their
food industry ties even after such ties are discovered (BMA 1997)

April 16, 1995

I had used Equal/NutraSweet/aspartame for 4 or 5 years with no idea that it's poisonous, as I assumed that FDA approval means it's perfectly safe for us. I Used about 12 paks of Equal in hot coffee each day.

The first symptoms were depression and vertigo, but I didn't connect them with Equal. My legs cramp constantly and pained at night, and I had insomnia and terrible nightmares and memory loss. My vision deteriorated until I expected to go blind, but my eye doctor couldn't explain why. My life became a nightmare, and I turned to prayer.

It worked! I received a NUTRASWEET IS A NEUROTOXIN flyer listing all my symptoms, so I abandoned aspartame in any form. My vision returned, the cramps disappeared, and I could sleep without nightmares. The depression and vertigo vanished. It was a miracle because I had thought I was dying and had Multiple Sclerosis.

If you have a serious problem, it's natural to investigate it. Often the Experts are publicity mills funded by the pirates that make the stuff. It's like asking the Mafia about the crime rate. Both the American Dietetics and American Diabetic Associations get big bucks from NutraSweet. Such organizations propagandize physicians on how safe it is, so doctors are often [not] aware of the danger.

Much research confirms aspartame toxicity as do 80% of complaints the FDA has received on food additives. Heated aspartame is the most hazardous. My 12 packs/day in coffee almost cost my health, sanity and life. Now FDA has approved its use in baked goods, 350 degrees! Before Equal I used saccharin without a problem. It looks like we have no protector, so we must warn each other. In this spirit I attest to the nightmare Equal made of my life. I urge you to take the no aspartame test and discover if your health problems are the results of continuous daily poisoning.

Mrs. Gloria Collins (ATIC 1997)

D. Scientific Committee on Food and Obvious Bias

Almost all aspartame studies conducted and funded independently of the aspartame manufacturer (and related trade groups) have linked aspartame to adverse effects or adverse biochemical changes. This includes numerous human studies (e.g., clinical, double-blind) and animal studies (Walton 1996). As discussed throughout this document, the Scientific Committee on Food either ignored many of these independent studies or had negative things to say about almost all of the independent studies that they did mention. An enormous number of reports of serious adverse effects from aspartame are being sent to governmental agencies, scientists, clinicians, and independent organizations (DHHS 1993, Roberts 1988a, Food 1986, Walton 1988, ATIC 1998, ATIC 1997, ACSN 1997, AVSG 2003, NM 2003).

On the other hand, the Committee accepted almost all of the aspartame industry-funded studies without any negative comment. In fact, the Committee relied heavily on and repeatedly cited parts of books and reviews written and compiled by employees of the aspartame manufacturer (e.g., Stegink 1984, Tschanz 1996, Butchko 1994, Butchko 2001).

In contrast, the Scientific Committee on Food succeeded in banning the sale of the natural sweetener, stevia throughout parts of Europe (SCF 1999). Stevia has been used for centuries in South America and for many decades in Japan and South Korea (AHPA 1991). No adverse reactions have been reported from stevia use (in contrast to an endless flow of adverse reactions from aspartame use). Since stevia is low calorie and diabetic-
safe, it would be competition to the manufacturers of aspartame and other artificial sweeteners. A large number of animal studies have been conducted adding to the clinical evidence that demonstrates that stevia is safe (AHPA, 1991, Stevia 2003, HRF 1993, Kinghorn 1988, Kinghorn 1992). Despite the contrast in independent research and clinical reports between stevia and aspartame, the Committee focused on a tiny subset of the stevia animal studies where adverse effects were seen at tremendously-large doses and made a decision that banned the sale of stevia in parts of Europe.

E. Scientific Committee on Food -- Solutions to the Bias

Some medical journals require authors to submit conflict of interest statements and some of those journals will print the relevant conflicts of interest along with the journal article (Krimsky 2001). Scientists who read the article and see a conflict of interest can read it very carefully to see if there are flaws in the experimental design, compare the results with independent research, or even choose to ignore such articles. The Scientific Committee of Food appears to avoid admitting to conflict of interest even after it is discovered (BMA 1997).

Appropriate immediate changes would be as follows:

1. Require that members of the Scientific Committee on Food submit (and keep updated) a detailed conflict of interest statement detailing:
   - Whether the individual members or their laboratories have received money from food companies manufacturing or selling aspartame or other products/ingredients they are reviewing.
   - Whether the individual members or their laboratories have received money from food industry trade groups such as ILSI or the International Glutamate Technical Committee (IGTC).
   - Whether the members have had a professional relationship with relevant companies or trade groups such as working on their committees, testifying as an expert witness, etc.

2. Appropriate conflict of interest statements should be placed on the Internet and attached to each report published by the Scientific Committee on Food. Press releases related to report findings should have attached conflict of interest statements.

The immediate changes will not solve the main problem, however, as the Committee reports can still be heavily tainted with food industry bias. The second-step in fixing the problem would be to replace all of the Committee members with scientists who have proven independence, a proven track record of standing up to food industry pressure, and a willingness to thoroughly investigate the matters being studied.

Date: Mon, 28 Jul 1997 13:13:35 -0400 (EDT)
Subject: Welcome Back To Life, Aspartame Free

I wanted to write to let you know that I have now been completely off of aspartame for one month and I can feel the results!

First, for two years I have had fibromyalgia-like symptoms. I hurt all over. Shoulders, legs, back, neck ankles,
all were painful most of the time. I had chronic insomnia and could hardly sleep at night. My vision was getting worse all of the time. In the single month that I eliminated aspartame, I feel 100% better. I don't hurt. The carpal tunnel in my wrist and shoulder has finally subsided. My memory seems to be improving. I have more energy and I don't get as hungry.

I found that I was drinking 3-4 diet Cokes everyday. Fortunately, I did not use Equal in my tea or coffee. I use either sugar or sweet n low. I don't know much about saccharin testing but I cannot believe that it is as bad as aspartame. I am going to get some stevia and try that.

I have made copies of some of the articles and sent them to a number of people who have also "sworn off" of aspartame.

Obviously the FDA does not care one bit about product safety. If a company is as big as Monsanto, they can market any kind of poison they please without a whimper from the FDA. And, it appears that Congress is powerless to stop them. Or, that Congress is too busy with their "in-fighting" to do anything for the people who voted them into office. (ATIC 1998)

Scientific Committee on Food Does Not Read the Research

Throughout the Committee’s report on aspartame, there is evidence that the Committee members do not read some or most of the research that they cite. One example will be given in this section.

The Committee cites as evidence that aspartame does not cause seizures two aspartame industry-funded human studies (Rowan 1995, Shaywitz 1994). Had they read these studies, the Committee would know that nearly 100% of the subjects in these studies were taking anti-seizure medication while the studies were being conducted! Obviously, anti-seizure medication will reduce or eliminate seizures during the study. But the Committee report presented these aspartame industry-funded studies as if they provided legitimate evidence about aspartame use and seizures in the general population. The Committee did not have a negative word to say about these two studies!

There are three possible reasons that the Committee cited these two studies and had nothing negative to say about them:

1. The Committee did not read the studies.

2. The Committee is so biased that they will cite any aspartame industry-funded study no matter how irrelevant or absurd it is.

3. The Committee actually believes that anti-seizure medication doesn’t reduce or prevent seizures, has no effect on the studies, and therefore the studies apply to the general population not taking anti-seizure medication.

It is unlikely that the Committee is completely ignorant about anti-seizure medication. Even though members of the Committee have a conflict of interest, it is hoped that their bias is not so extreme that they would know about the use of anti-seizure medication and still cite these studies as evidence. It is more likely that some or all of the
Committee members did not read these studies. There are numerous instances in the report where it becomes clear that the Committee members did not read the research they were reviewing and have only marginal familiarity with aspartame research in general.

Date: Thu, 25 Jan 1996 00:50:00 GMT
Subject: Not getting Your Mail

LA>Date: Mon, 22 Jan 1996 23:06:08 GMT
LA>Subject: Request (help) LA>Organization: The Source BBS

LA panic-attacks Lancet article: Aspartame triggers panic

I am very eager to get all the info you have, but for now do not have WEB access and only have an Internet E-Mail drop. I have personally experienced temporary blindness, panic attacks, and many other unpleasant side effects from Aspartame. I have given literature to all my family members and many of my friends, and ALL that I have given the info to have eliminated aspartame from their diet. Is there some way that I can get all your help files by downloading them somehow?

[continued information]

Date: Tue, 27 Feb 1996 20:52:00 GMT
Subject: Re: Not getting Your Mail

My last bout with NutraSweet was over a year ago now, thank goodness! I live in fear that it will sneak into food or a drink and I check labels very carefully. The near-blindness episode combined with a panic attack and heart arrhythmia and a frightening drop in blood pressure were all triggered by *a single stick* of Trident sugarless gum! Maybe if we started suing the companies that use aspartame in their products they’ll show a little more moral responsibility than the greed-driven Monsanto moguls.

Aspartame and Formaldehyde Poisoning

"These are indeed extremely high levels for adducts of formaldehyde, a substance responsible for chronic deleterious effects that has also been considered carcinogenic.

....

"It is concluded that aspartame consumption may constitute a hazard because of its contribution to the formation of formaldehyde adducts." (Trocho 1998)

A. Aspartame & Formaldehyde Research Ignored by the Scientific Committee on Food

The Scientific Committee on Food appears to be completely unfamiliar with the current research and reviews related to aspartame, formaldehyde, and methanol. The Committee cited and relied solely on a commentary by
an aspartame industry researcher (Tephly 1999) and an article in a book put together by aspartame industry researchers (Stegink 1984a) as evidence of safety. In fact, the Committee appears to shy away from the use of the term "formaldehyde" in the report, mentioning it only once when they quote another review (AFSSA 2002). Since the Committee largely ignored the formaldehyde issue, some of the relevant research will be summarized below.

B. Aspartame & Formaldehyde Summary of Research

Methanol is quickly absorbed from aspartame ingestion (Davoli 1986). Methanol is converted into formaldehyde in the body (Kavet 1990). Some of the formaldehyde is converted into formic acid and eliminated by the body (Kavet 1990). However, Trocho (1998) demonstrated that aspartame ingestion at low levels by rodents: 20 mg/kg body weight (acute dose) or 200 mg/kg body weight (chronic dose), lead to formaldehyde accumulation in the liver, brain, kidneys and other parts of the body. The formaldehyde was bound as "adducts" to proteins and DNA. Research in humans demonstrates that adduct formation can occur from formaldehyde exposure (Carraro 1997, 1999).

Setting aside the very serious issue of formaldehyde accumulation from aspartame ingestion and just considering the proven formaldehyde exposure from aspartame, one can see numerous human studies where adverse effects have been reported from chronic, low-level formaldehyde exposure:

- Irreversible genetic damage from long-term, low-level exposure (Shaham 1996)
- Headaches, fatigue, chest tightness (Main 1983)
- Sleeping problems, burning skin, fatigue, chest pain, dizziness (Liu 1991)
- Headaches, fatigue, IgE-mediated sensitization (Wantke 1996)
- Musculoskeletal, gastrointestinal, and cardiovascular symptoms (Srivastava 1992)
- Headaches, tiredness (Olsen 1982)
- Headaches, dizziness, nausea, lack of concentration ability (Burdach 1980)
- Cytogenic effects of blood lymphocytes (Suruda 1993)
- Fertility (adverse effects) (Taskinen 1999)
- Cognitive adverse effects (Kilburn 2000)
- Seizures and neurobehavioral impairment (Kilburn 1994)
- Headaches, skin problems (Proietti 2002)
- Low birth weight (Maroziene 2002)
- Neurobehavioral symptoms (Kilburn 1985)
- Memory problems, equilibrium and dexterity impairment (Kilburn 1987)

Formaldehyde exposure estimates have been calculated previously by this author based on the intake of aspartame, percentage of methanol derived from aspartame, and the molecular weights of formaldehyde and
methanol (ATIC 2000).

C. Public Relations, Aspartame, Methanol, and Formaldehyde

Before we discuss what little the Committee did say related to aspartame and formaldehyde, it is important to answer all of the typical public relations statements from the manufacturer and their consultants who claim there is no problem with aspartame and formaldehyde. The answers provided below will be brief. Much more detailed and referenced answers can be found at ATIC (2001) on the Internet at: [http://www.holisticmed.com/aspartame/abuse/methanol.html].

Chart of Aspartame Manufacturer Public Relations Statements
Related to Methanol and Formaldehyde

<table>
<thead>
<tr>
<th>Manufacturer Claim</th>
<th>Independent Response</th>
</tr>
</thead>
</table>
| Methanol is found in fruits and alcoholic beverages at higher levels than in aspartame products. | - Alcoholic beverages contain large amounts of ethanol (a protective factor) which allows methanol to be excreted before much of it is converted into formaldehyde (Leaf 1952, Liesivuori 1991, Roe 1982).

- Fruit juices have protective factors as well that prevent formaldehyde poisoning. Fruit juices produce enough methanol to "qualify as significantly methanol-contaminated liquor" (Lindinger 1997) -- more methanol than what causes chronic health problems in occupational exposure (Kazeniac 1970, Kavet 1990, Frederick 1984, Kingsley 1954-55). Since we do not see chronic poisoning from fruit juices, they must contain protective factors as well. Fruit juices have ethanol as well as other possible protective factors. |
| Blood methanol levels do not increase when aspartame is ingested. | - In every study cited by the aspartame manufacturer, they used a very old methanol measuring method (Baker 1969) that is incapable of registering increases that are less than ~500%. Appropriate methanol testing techniques show as much as a doubling of blood methanol levels when ingesting relatively small quantities of aspartame (Davoli 1986). |
| The level of methanol ingested from aspartame is not enough to cause poisoning. | - The manufacturer is referring to levels of methanol that cause death or near-death in one |
Aspartame Industry Influence and the Scientific Committee on Food

dose. It is the formaldehyde and formic acid (metabolites of methanol) that cause the poisoning from low-level, chronic exposure as described earlier.

- The manufacturer sometimes cites Reynolds (1984) where monkeys were given the equivalent of 300 mg/kg of methanol per day for nine months without adverse effects. Methanol and its metabolites are much more toxic in humans than in other animals (Roe 1982). One dose of 300 mg/kg of methanol is potentially lethal in humans (Kavet 1990).

<table>
<thead>
<tr>
<th>Formaldehyde and methanol is found in the body.</th>
<th>- The levels of formaldehyde and methanol in the body are very tightly controlled so that even very small exposures cause adverse health effects. Exposure to formaldehyde at levels of only ~0.75 mg/day caused adverse health effects (Wantke 1996)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant levels of formate (methanol metabolite) are not seen in the blood and urine of persons ingesting moderate doses of aspartame.</td>
<td>- For chronic formaldehyde poisoning &quot;formic acid in urine is not an appropriate parameter for biological-monitoring of low level exposure to formaldehyde.&quot; (Heinzow 1992). Blood formate measurements are not appropriate for chronic, low-level formaldehyde exposure (Osterloh 1996, d’Alessandro 1994)</td>
</tr>
<tr>
<td>Higher levels of formaldehyde can be found in some foods.</td>
<td>- Formaldehyde is produced in the body after the methanol from aspartame is absorbed. However, unlike methanol, formaldehyde in foods is not well absorbed: &quot;Ingestion represents a minor route of formaldehyde exposure because the dilution factor and the binding to the macromolecules present in food reduce substantially the [formaldehyde] concentration that enters into contact with the gastrointestinal mucos.&quot; (Restani 1991)</td>
</tr>
</tbody>
</table>

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Aspartame Consumer Safety Questionnaire

Age: 39 Sex: Male

British Columbia, Canada

I have had many medical problems as the result of Aspartame (Sweet Death).

Q. Why do you believe aspartame caused these problems?

A. The problems presented themselves after only a few months of consuming food products with
Q. Did the symptoms go away when you stopped using the products?
A. Yes, but it took some time for the symptoms to subside.

Q. Did you see a Doctor?
A. Yes.

Q. Did the Doctor think it related to aspartame?
A. No, he related it to stress, caffeine, etc. Aspartame never entered the picture.

Q. Did you report problems to FDA?
A. No. I only reported the problem to my Doctor. He displayed a lot of interest in my findings and wanted to know where he could find more information.

Q. What specific products were you consuming?
A. Gum (One pack per day) and diet drinks (about one per day).

Q. How long have you been consuming these products?
A. About 5-6 months. As time marched on, I consumed more products.

MY SYMPTOMS:
1. Dizziness
2. Severe headaches
3. Confusion
4. Numbness and tingling of extremities
5. Chronic fatigue
6. Irritability
7. Rapid heart beat, Tachycardia
8. Nausea
9. Diarrhea
10. Burning urination
11. Burning of eyes

I hope this gives you an idea of what this stuff does to the poor consumer... (ATIC 1998)

D. Scientific Committee on Food and Formaldehyde Poisoning

The Committee made two comments related to methanol and formaldehyde poisoning in their report:

1. Referring to the methanol absorbed from aspartame, the Committee stated:
"Methanol is also rapidly metabolised and blood levels are usually not detectable unless large bolus doses of aspartame (>50 mg/kg bw) are administered."

They cite Stegink (1984a) as evidence. The second item listed in the chart above details how the manufacturer funded numerous studies using an outdated methanol measuring test (Baker 1969) that was incapable of registering increases that were less than ~ 500%. Why is the Committee relying on an aspartame industry public relations book (Stegink 1984a) when millions of people are getting accurate information from independent sources in the medical literature or on the Internet?

2. Referring to Trocho (1998) where formaldehyde adducts were found to accumulate in the liver, brain, kidneys and other parts of the body after aspartame ingestion, the Committee stated:

"...radiolabelled methanol will be split off and enter the body's one-carbon pool, with the potential to appear anywhere there is methylation. The Committee therefore agrees with the analysis of Tephly (1999) that formation of DNA adducts has not been demonstrated."

Formaldehyde is difficult to measure directly. What Trocho (1998) did was radiolabel the methanol portion of aspartame so that it could be tracked in the body. As methanol travels through the body, it is converted into formaldehyde and then at least some of it is converted into formic acid (formate). Trocho (1998) demonstrated with the data that the buildup of radiolabelled material in the brain, liver, kidneys of could not be methanol or formic acid or any other metabolite of methanol -- other than formaldehyde bound to protein.

Trocho (1998) gave a relatively small dose of aspartame to rodents and discovered that formaldehyde from aspartame was binding to protein and DNA (as "adducts") and accumulating in the brain, liver and other organs and tissues.

"... The "alternative" point expressed by Tephly [(1999)], suggesting that aspartame methanol-label goes all the way into formic acid and the C1 pathway was thoroughly refuted by us, using experimental data. There was no labelled methionine nor thymine in protein and DNA respectively in the rat protein we recovered from rats treated with aspartame. This means--unequivocally-- that the label present in DNA and protein adducts was NOT incorporated into amino acids or nucleic acid bases. The only explanation for our data was that the label was in the form of formaldehyde adducts. ....." (Alemany 2002)

If we assume that the Committee read the Trocho (1998) study and actually believes (without any alternate explanation) that it was not formaldehyde accumulating from aspartame ingestion, then the following questions are raised:

a. Why did the Committee choose not focus on formaldehyde exposure issues if it was unsure about formaldehyde accumulating from aspartame use? After all, a large number of studies of formaldehyde exposure in humans have shown it causes adverse effects.

b. Why did the Committee show absolutely no concern about what was accumulating in the body from aspartame ingestion in the Trocho (1998) experiment even if they were not sure it was formaldehyde?

c. Why didn’t the Committee bring in the researchers from the Trocho (1998) experiment or independent experts on chronic formaldehyde and methanol poisoning to advise them on this issue?
Date: Wed, 17 Jun 1998 06:07:05 GMT

Subject: Aspartame

My story? I was drinking a lot of Ribena light (a reduced sugar blackcurrant drink) and using a lot of low sugar chewing gum in January this year. I started getting severe heart rhythm abnormalities (known as "ectopic" beats) which have stopped since I removed all Aspartame products from my diet.

I feel I have a duty to let more people know about this poison. Do you have an info pack you can send? Is Monsanto likely to take legal action (or have they done so) against people campaigning against Aspartame? I'd be interested to take this one to court...

E. Formaldehyde and Excitotoxins: Synergistic Poisoning

The Committee discounted health issues relating to the free-form (unbound to protein) excitotoxic amino acid obtained from aspartame by relying on and citing old and inaccurate information from an aspartame industry book (Stegink 1984a). Because they relied on aspartame industry research (Stegink 1984a) (or perhaps MSG industry research (Walker 2000)) for information about food-based excitotoxins, the Committee was unaware of the need to discuss potential synergistic adverse effects from exposure to formaldehyde and a free-form excitotoxic amino acid.

It is not the goal of this report to provide details about the effects of food-based excitotoxins. Excellent information about both acute and chronic effects from food-based excitotoxins can be obtained from Samuels (1999, 2002), Blaylock (1994), Olney (1984, 1988, 1990, 1994), Science (1972). Samuels (1999) (which is available on the Internet) is a particularly important paper for information about the manipulation of research by the food industry.

After aspartame is ingested, approximately 40% of it breaks down into a free-form excitotoxic amino acid which is quickly-absorbed (as long as it is not given in slow-dissolving capsules) (Stegink 1987a). The sudden absorption can cause a dramatic spike in blood plasma levels of this excitotoxin (Stegink 1987a). It is well known that free-form excitotoxin exposure can cause irreversible damage to brain cells (in areas such as the retina, hypothalamus, etc.) in rodents and primates (Olney 1980, 1994). In order to remove excess, cell-destroying excitotoxic amino acids from extracellular space, glial cells surround the neurons and supply them with energy (Blaylock 1994, page 39, Izumi 2002). This takes large amounts of ATP. However, formate, a formaldehyde metabolite, is an ATP inhibitor (Liesivuori 1991).

It appears that methanol is converted to formate in the eye (Eells 1996, Garner 1995, Kini 1961). Eells (1996) showed that chronic, low-level methanol exposure in rats led to formate accumulation in the retina of the eye. Gonzalez-Quevedo (2002) demonstrated that chronic administration of methanol to rodents increased levels of excitotoxic amino acid levels (e.g., aspartic acid) in the retina. Excitotoxic amino acids are believed to be a cause of retinal damage (Romano 1998, Calzada 2002, Kapin 1999, Izumi 2002).

Roberts (1988a) reported that 25% of the aspartame reactors he examined had decreased vision or other eye problems (blurring, "bright flashes," tunnel vision), 9% had pain in one or both eyes, 8% had decreased tearing, and 3% had blindness. Dr. Morgan Raiford, Ophthalmologist and methanol poisoning expert testified before U.S. Congress regarding aspartame and damage to the eye:
This product has some highly toxic reactions in the human visual pathway, and we are beginning to observe the tragic damage to the optic nerve, such as blindness, partial to total optic nerve atrophy. Once this destructive process has developed there is no return of visual restoration. We are beginning to see and observe another toxic reaction which affects the central nervous system which is related to phenylalanine levels in the central nervous system. These observations are more vague, however, it stimulates the damaging to the brain and the central nervous system, having the manifestations as PKU Neuro Damage. Over 3,000 cases have been reported, and the FDA to date has ignored this existence.

Human Visual Pathway Damage

The human visual pathway admits ninety percent of our intellectual input to the brain and central nervous system. All of the learning processes are centered during ones life time. The mechanism of this tragic damage to the human visual system from this product is and has been known for over a decade that visual loss takes place. When this drug enters the digestive tract, largely the upper portion, this aspartame molecule spins off a by product known as methanol or methyl-alcohol. This product enters the bloodstream and when these portions reach the highly metabolic region of the optic nerve and retina, partial atrophy can and does take place. The vision can not do without oxygen and nutrition for more than ninety seconds without revealing some damage. Total loss of vision is present and there is no return. In the very early stages in which is referred to as the "wet stage", treatment can be given and will reserve the destructive pathology to the optic nerve and retina. This must be in the mind of the physician and he must understand the chemical ongoing process. The writer has seen many cases where the patient was allowed to go to the degrees of blindness, as this diagnosis of optic neuritis was rendered, as the term idiopathic neuritis of optic nerve was given, usually steroids until systemic gross body and facial moon developed. This therapy has demonstrated the total lack of understanding of the basic lack of biochemical physiology at the molecular level.

The variability or onset of the optic nerve atrophy is of a type that one must first think of this pathology, and it requires a certain amount of listening to the patient. The quantity of symptoms vary with each patient.

Over the past year the writer has observed the fact that any portion of the central nervous system can and is affected. Since the chemical phenylalanine is mixed up with some metabolic mess, we have seen symptoms of varying hue in the extremities, sensations of dullness of the intellect, visual shadows, evidence of word structure reversing and some hearing impairment is noted by the individual. This can and will in time cause problems in learning. The medical community must alert itself that we have a problem that has surfaced due to the factor of the drug industry. Parents must be alerted to the side reactions of this toxic product and its reactions. (Raiford 1987)

Date: Fri, 16 May 1997 10:49:00 -0400

Last friday, 5/10/97, I discovered what caused a peripheral vision loss that was diagnosed in 1994. Aspartame. I couldn't believe it when I found out this crap has methyl alcohol in it. Everyone knows wood alcohol makes you blind, and here I have been drinking it since 91. I have also had headaches, memory loss, confusion, anger and who know's what else. In just 6 days without Diet Coke I have come to feel a heck of a lot better. I am writing to thank you for your efforts at educating the public (me) on the dangers of Aspartame. Keep up the fight. (ATIC 1998)

Aspartame and Migraines / Headaches

Date: Sat, 1 Mar 97 23:39:26 PST
From the United Kingdom

Subject: Aspartame

Found you via web search for aspartame to show a friend who had purchased a 'health' product containing aspartame and acesulfame-K. The product is 'Redoxon' vitamin-C, from, wait for it, Roche Consumer Health. Acesulfame-K is unknown to me and will remain so. My experiences (2) with aspartame were involuntary and only identified after I nearly died both times. The headaches caused were of such severity that 2 grams aspirin were required each time to alleviate them. The tension in the muscles of my neck would otherwise have broken it! This stuff is seriously bad. I cannot understand the continued marketing of it. The people who make and manufacture are seriously insane. Please notify my report to any interested parties. Please do not worry about hiding my identity - I don't care who knows what I think of this kind of misbehaviour by the Megagreedies of this world. May they die in agony!

Regards and Good Luck (ATIC 1998)

A. Scientific Committee on Food – Ignoring Part of the Evidence and Discounting the Rest

To the credit of the Committee, their report cited two independent, double-blind studies demonstrating that aspartame could cause migraines and headaches (Koehler 1988, Van Den Eeden 1994). Like almost all independent studies listed, the Committee quickly discounted these studies as flawed. The report also listed a questionnaire-based study (Lipton 1989) that linked aspartame to headaches. The report did not mention:

- 1558 headaches reported to the U.S. Food and Drug Administration (FDA) in the first 10 years after aspartame was approved for use in carbonated beverages (DHHS 1993). Reactions reported to the FDA represent less than 1% of adverse reactions experienced according to a former FDA Commissioner (Kessler 1993)

- Dr. H.J. Roberts reported on 249 cases of aspartame-induced headaches in a questionnaire-based study (Roberts 1988a).

- Other case reports of aspartame-induced headache or migraines have appeared in the scientific literature (Johns 1986, Blumenthal 1997, Strong 2000, Watts 1991)

- Formaldehyde that is obtained from aspartame is known to cause headaches (Main 1983, Wantke 1996, Olsen 1982, Burdach 1980, Proietti 2002)

- Excitotoxic amino acids such as monosodium glutamate (MSG), similar to the excitotoxin obtained from aspartame is known to cause migraines and headaches (Kenney 1972, Ghadimi 1971, Schaumburg 1969, Scopp 1991, Ratner 1984). Note: industry-funded MSG experiments did not find increased headaches because:

  1) In MSG manufacturer-funded experiments conducted since 1978, aspartame was hidden in the drink mix given to the control groups (Ebert 1991, Samuels 1999);

  2) The MSG was sometimes combined with a large amount of sugar to completely change the way it is absorbed (e.g., Yang 1997);

  3) MSG was given in slow-dissolving capsules to reduce typical blood plasma changes (Stegink 1987a, Olney 1994); and
4) Numerous other experimental design or statistical tricks were employed to avoiding finding adverse effects as discussed by Samuels (1999)).

- Chronic headaches (such as those reported from aspartame use) cause impairment of function often worse than that associated with chronic medical conditions such as arthritis and diabetes (Solomon 1993).

In summary, all of the scientific and clinical evidence points to aspartame causing migraines and headaches except for one badly flawed, aspartame manufacturer-sponsored study discussed below.

Newsgroups: alt.support.dissociation

Subject: Re: education on drugs...

Date: 27 Oct 1995 17:54:21 GMT

It seems that aspartame has been implicated in aggravating both MPD and attention deficit disorder, among others. I experienced my first uncontrolled switching when I was doing a lot of aspartame. I was also getting severe migraines and visual disorders including tunnel vision, moving shadows, and color dropouts (I would lose the green/blue range). All of these are known side effects of aspartame, it seems. In some people, aspartame is known to inhibit serotonin production. Swell.

But what was scariest was the shaking fits (like I was having an epileptic seizure) and hypoglycemic problems so severe I was known to pass out. (Sugar revived me.) This last is why I stopped doing Nutrasweet. I'm borderline hypoglycemic.

When I stopped Nutrasweet, the uncontrolled switching stopped, too. It took a while for the migraines and visual disorders to work out, but they were gone within a few months, as was the switching. (The switching was severe enough that friends thought I was "drunk" because I was acting so strange, but alcohol was not involved!)

Subject: Re: aspartame and depression

Date: 10 Nov 1995 00:31:10 GMT

Well, in my personal case, I was at a party a few months back, and consumed quite a bit of punch. Within 8 hours, I started getting a migraine headache, color dropouts in my vision, and loss of my night vision. Realizing that these previously-experienced symptoms (for which I spent several years and doctors trying to find causes) seemed to be linked to aspartame, I checked back and asked about artificial sweeteners. Yup, Nutrasweet in the punch. (ATIC 1998).

B. Scientific Committee on Food — Industry Studies Accepted Without Question

The Committee based its whole argument on aspartame not causing headaches on a single, one-day, double-blind study that was partially funded by the manufacturer of aspartame (Schiffman 1987).

The study was partially funded by Monsanto/NutraSweet and conducted at the Searle Center at Duke University. (G.D. Searle was owned by Monsanto.) Susan Schiffman performed her research at the Searle Center at Duke University. The Searle Center was under the guidance of William Anlyan, a former G.D. Searle director. Schiffman is a former General Foods and G.D. Searle consultant (Gordon 1987, Shapiro 1987).

The Committee report neglected to mention numerous problems with the study including:
- The aspartame test was only one day long. In fact almost all manufacturer-sponsored aspartame studies on susceptible population groups are less than 7 days long. The independent double-blind studies that found that aspartame could cause headaches were four weeks (Koehler 1988) or 14 days (Van Den Eeden 1994) long. A one-day study combined with other major flaws listed below guaranteed that the researchers could report that there were no "statistically significant" adverse effects.

- The aspartame was given in a way that even aspartame industry consultants admit is not "bioequivalent" (the same) as aspartame taken in real-world products (Stegink 1987a). The aspartame was given in slow-dissolving capsules. Giving aspartame in slow-dissolving capsules tremendously-reduces the biochemical changes that normally occur from real-world aspartame ingestion. The methanol absorption is slowed tremendously, allowing the body to eliminate more of it before it is transformed into formaldehyde. The absorption of the excitotoxic amino acid is slowed so that the liver can prevent the sudden spike in plasma levels of this amino acid normally seen when aspartame is ingested in liquids (Stegink 1987a, 1987b).

- 77.5% of the subjects taking the placebo experienced adverse reactions during the one-day period! 45% of the subjects taking the placebo experienced headaches. This is a ridiculously high percentage of subjects reporting adverse reactions to "placebo" in a single day. The number of participants used in this study was "sufficient to ensure that a difference of 33% in the incidence rates of headache" between the aspartame and placebo control groups would be seen as statistically significant. This means that if less than 78% (45% + 33%) of the persons taking aspartame reported headache reactions, it would not be considered statistically significant.

- Numerous changes for the subjects. What could cause 77.5% of the subjects taking placebo to experience adverse reactions in a single day? What could cause 45% of the subjects taking placebo to experience headaches? None of the subject had any major medical condition. Unlike the independent double-blind studies on aspartame and headache (Koehler 1988, Van Den Eeden 1994), the following changes were made:

The diet of the subjects was changed from their normal diet to food prepared at the Medical Center. Apparently, the researchers made no attempt to ascertain whether the new diet contained monosodium glutamate (MSG), hidden forms of MSG (e.g., hydrolyzed proteins), or substances that might cause an intolerance reaction. Many of the subjects took off time from their jobs (data processing managers, statistician, CPA, sales director, executive assistants, etc.) and flew in from out of state to stay at the Medical Center for at least 5 days. They were put through numerous laboratory tests during their stay. Diet change reactions, travel stress, taking vacation time from work, laboratory tests, or the combination of all of these things may have led to such a ridiculously-high placebo reaction rate.

No baseline measurements taken. The researchers did not carefully measure the subjects’ normal frequency of headaches while they were on their normal diet and in their normal environment (i.e., baseline measurement). One reason that this is very important is so they would know if the design in the experiment caused an unusual and unintended change in the frequency of headaches reported in both the placebo and aspartame groups. Even though these researchers did not conduct baseline measurements, we can be sure that there was something wrong with the experiment that caused a large number of adverse reactions for the large majority of subjects because: 1) 77.5% of the placebo control group subjects experienced adverse reactions, and 2) the subjects had no major medical conditions that would cause such a high
percentage symptoms in a one-day period. Both independent double-blind studies on aspartame and headaches had baseline measurements (Koehler 1988, Van Den Eeden 1994).

While the Committee briefly alluded to (and quickly discounted) a commentary on and a critique of the Schiffman (1987) research by the Editor of the journal, Headache (Edmeads, 1988), the members of the Committee seem unaware of published criticism of the Schiffman (1987) study by independent researchers:

"Unfortunately, their experimental design was flawed in such a way that their negative results in no way support their conclusion that ‘aspartame is no more likely to produce headache than placebo.'" (Elsas 1988)

"We believe that the study of Schiffman et al had some serious flaws and did not reflect the realities of migraine due to dietary factors." .... "Persons susceptible to migraine and other vascular headaches should continue to be warned of the possible aggravating role of aspartame." (Steinmetzer 1988)

Re: aspartame

Date Sat, 20 Jul 1996 14:29:51 GMT

Newsgroups alt.med.allergy

I began having migraines in the late 1980's, some so severe I wound up in the emergency room. I have sought the cause for years.

I had read about the possible relation to food allergies, but I had never tested it. My headaches grew worse, for the last 2 years I've had daily headaches.

About 3 months ago I decided to try the elimination test. When I eliminated Aspartame from my diet, the severe migraines began to disappear. I am mostly migraine-free now, with headaches attacking only about 1-2 times per month. I believe aspartame is the cause.

I used Aspartame almost religiously once it became available in my town. I've used large quantities of it, replacing every bit of sugar I could with it.

I just hope that my system has a chance to recover completely. (ATIC 1998)

C. Scientific Committee on Food – Discounting All Independent Studies

Finally, the Committee criticized the Koehler (1988) and Van Den Eeden (1994) studies that found that aspartame can cause migraines and headaches. The Committee stated that these studies did not control the diet during the study itself. That is accurate. The researchers decided to allow the subjects to live their lives in a normal setting and ingest their normal diet. Because both studies performed baseline measurements of the frequency of headaches of their subjects, they could see that only one change that was introduced for part of the experiment, aspartame ingestion (but not placebo), increased the average number of headaches significantly, especially in the longer study by Koehler (1988).

The Committee also criticized the Koehler (1988) study for a high dropout rate. In other words, a number of subjects dropped out of the study. The total study length was 13 weeks (4 weeks for baseline testing, 4 weeks for aspartame testing, 4 weeks for placebo testing, 1 week between the aspartame and placebo testing). The subjects were required to keep a diary of their headaches and dietary intake. It is to be expected that after 13 weeks, many subjects will drop out or will not have done an adequate job keeping their headache and dietary diaries. However, there were still enough subjects left in the Koehler (1988) study to see a rather large and statistically significant increase in headaches in the aspartame group. In addition, there were more subjects left in
the Koehler (1988) study than in some aspartame industry studies cited in the Committee report without any mention of the small number of subjects (e.g., Shaywitz 1994, Stegink 1984a). Of course, it would be preferable to conduct a larger independent study with similar subject inclusion / exclusion criteria and similar (or longer) lengths of time on and off aspartame. But at this time, all of the reasonably designed double-blind studies, all of the clinical evidence, and all of the evidence related to aspartame metabolites point to it causing migraines and headaches.

Date: Tue, 16 Apr 96 16:28:50 MDT

Subject: Re: Another NutraSweet Horror - TO EMBALM...OR NOT TO EMBALM (fwd)

I'm a little too busy to write up my "60 days without aspartame" experience fully right now, but I'll do it soon. In summary, after getting & reading your info on Feb 14, I cut aspartame out completely (I'd been taking it in coffee, diet drinks, etc. for years). The results were startling. Normally, in the past 60 days I'd have expected to suffer 2 or 3 severe, incapacitating migraine headaches, and 12 to 15 days with other low-grade, persistent headaches. (Each one could last 1-2 days, being generally unresponsive to analgesics. Over the years, I'd just got used to getting on with my life despite these annoying headaches.) In fact, I had ONE minor headache in the 60 days, due, I'm sure, to a specific food I ate! Just ONE! I haven't had 2 months like this for about 17 years! As a scientist (a former pharmaceutical chemist -- yes, I SHOULD have known better, but I guess I was looking for headache causes in other directions!), I realize one has to consider ALL possible explanations for a phenomenon like this; but the difference here was so striking, and the timing coincided so perfectly, that I cannot attribute this relief to anything else in my lifestyle other than giving up aspartame. I'm eating, exercising, worrying & working just as before. Your information has made a major change in my life. Thanks SO MUCH! (ATIC 1998)

Newsgroups: sci.med.nutrition

Subject: Re: Aspartame/Nutrasweet

Date: Thu May 16 13:43:33 1996

I'm a medical research scientist with doctorate credential from polytechic university, etc, and 25 years of experience. We were able to cure 75% of people in the migraine clinic at mount sinai medical center in nyc by simply taking them off aspartame. Of course nutrition is far more than just staying away from aspartame. (ATIC 1998)

Aspartame and Seizures

A 65-year-old man experienced his first grand mal seizure while reading in bed. Preceding the seizure, there had been a six-month history of episodic involuntary smacking of the lips, chewing movements, and twitching of the right thumb. The patient calculated that he had been consuming an average of 210 mg of aspartame per day in the form of "Crystal Light" iced tea mix. After discontinuing all aspartame-containing products, there have been no further involuntary movements or seizures. (Walton 1988).

A. Evidence Listed and Not Listed by the Committee
The Committee should be credited with mentioning in the report an independent, double-blind study, Camfield (1992), that "demonstrated that aspartame could increase the duration of certain types of epileptic seizure in children." However, that study was only one day long. A longer independent study may have found additional effects related to seizures. The Committee pointed out that Walton (1986) reported one case of seven seizures and mania after high intake of aspartame. Finally, the Committee did cite three independent animal studies demonstrating a connection between aspartame and seizures (Guiso 1988, Maher 1987, Pinto 1988).

The following information was not available in the Committee report:

- Between 481 and 700 cases of seizures reported to the U.S. Food and Drug Administration (FDA) in the first 10 years after aspartame was approved for use in carbonated beverages (DHHS 1993). (Note: The way the FDA categorizes neurological reactions makes it difficult to determine the exact number of seizures reported.) Reactions reported to the FDA represent less than 1% of adverse reactions experienced according to a former FDA Commissioner (Kessler 1993)

- Walton (1988) described eight additional cases of seizures linked to aspartame use.

- Dr. Richard Wurtman received 80 cases of seizures linked to aspartame use (Food 1986) and three of those seizure cases were described in a medical journal by Wurtman (1985).

- Eshel (1992) reported two cases of seizure linked to aspartame use.

- In a questionnaire-based study, Roberts (1988a) reported 80 cases of convulsions and seizures linked to aspartame use.

- Seizures have been reported in humans from chronic formaldehyde exposure (Kilburn 1994).

- The Committee did not cite all of the other independent animal studies linking aspartame to seizures (or lowering seizure threshold levels) (Diomede 1991, Garrattini 1988, Kim 1988, Pinto 1986, Helali 1996). Nor did they cite the discussion by Wurtman (1988) as to one of many reasons a higher dose in rodents must be used to simulate the biochemical changes from aspartame in humans.


Date: Sun, 19 Oct 1997 22:54:11 -0400

Subject: Guestbook

I have been plagued with unknown health problems for 3 years. Been to several doctors, had all kinds of tests run, and after the tests confirmed I had nothing wrong, and I was still having seizures, I begin to eliminate foods from my diet, I still had all kinds of problems, such as fatigue, heart palpitations, hypertension, abdominal pain, hair loss, memory loss, vision loss, to name a few, but the seizures were the worst. When I eliminated Equal from my diet 6 weeks ago, I have not had another seizure, and all other ailments except the irregular heart beats have improved. I wish I knew the long range damage of Equal to my body, and I might have a better outlook on life. Do you know a lawyer working on this for the people with damage to their health from Nutrasweet, and where can I contact them. (ATIC 1998)
Case 1

A 19-y-old female experienced grand mal seizures for the first time while consuming aspartame soft drinks. When this relationship was suspected, she stopped using aspartame-containing products, and remained seizure-free for 11 months. Repetitive grand mal convulsions then occurred minutes after she inadvertently chewed a piece of "sugar-free" gum handed her at a ball game. (Roberts 1988a)

B. Overwhelming the Reader with an Long List of References

The Committee quoted the following from the AFSSA (2002) report:

"This causal relationship between aspartame and epileptic seizures has been refuted by a large number of scientists who base their opinions on numerous experimental studies conducted on laboratory animals or on clinical or tolerance studies in humans (Anderson et al., 1996; Gaull, 1985; Rowan et al., 1995; Shaywitz et al., 1994; Tollefson et al., 1992, 1993; Daily et al., 1991; Zhi et al., 1989; Sze, 1989; Tilson et al., 1989)."

At first glance, that seems like a very impressive list of 10 studies.

There are only two studies in the list that involve giving aspartame to human subjects (Rowan 1995, Shaywitz 1994):

1. Nearly all of the subjects in these aspartame industry-sponsored studies were taking anti-seizure medication during the study! Clearly anyone who cites these two studies as safety evidence has not read the scientific literature.

2. The Rowan (1995) study administered aspartame for only one day to 18 subjects (16 were taking anti-seizure medication). The Shaywitz (1994) study administered aspartame for only two weeks to 10 children (nine were taking anti-seizure medication). Roberts (1988a) looked at 551 cases and reported that reactions to aspartame appeared anywhere from immediately to more than one (1) year after initial use began. Keeping the studies short helped guarantee that there would be few, if any, adverse reactions.

3. The aspartame was given in a way that even aspartame industry consultants admit is not "bioequivalent" (the same) as aspartame taken in real-world products (Stegink 1987a). The aspartame was given in slow-dissolving capsules. Giving aspartame in slow-dissolving capsules tremendously reduces the biochemical changes that normally occur from real-world aspartame ingestion. The methanol absorption is slowed tremendously, allowing the body to eliminate more of it before it is transformed into formaldehyde. The absorption of the excitotoxic amino acid is slowed so that the liver can prevent the sudden spike in plasma levels of this amino acid normally seen when aspartame is ingested in liquids (Stegink 1987a, 1987b).

Please note that the Rowan (1995) study used a susceptible population group -- persons who had reported seizures from aspartame use. But by having almost all of the subjects taking anti-seizure medication, administering aspartame for only one day, and administering it in a way that reduces the toxicity, there was little chance that adverse reactions would appear. In addition, the small number of subjects in both studies meant that if there were reactions to aspartame, it would be unlikely that the number of reactions would be considered "statistically significant."
By the way, I quit drinking Diet Coke on September 2nd this year after suffering a "Status Epilepticus" (as in "dead") and immediately my seizure, disorientation spells, chronic fatigue, migraines, sore muscles and joints all went away completely!

This was the only change in my diet and prior to that time I had been experiencing seizures, disorientation every 2-3 weeks at a minimum. Also, my "woman-friend" is an RN and has witnessed my condition, seizures etc. for the past 1 and 1/2 years. She also was the one who administered CPR after my September 2nd incident. She has also kept a very detailed log during this time (as I find out) which has come in very handy at this point. (ATIC 1998)

Continuing with the studies the Committee listed relating to aspartame and seizures,

Anderson (1996) is simply a review related to aspartame and seizures in an aspartame industry-compiled public relations book. Gaull (1985) is a Letter to the Editor by a NutraSweet Company physician in response to a Letter to the Editor summarizing several case reports of aspartame-induced seizures (Wurtman 1985). There is nothing wrong with Letters to the Editor, but Gaull’s opinion does not represent a new experimental study as implied by the Committee. Sze (1989) is a review of early animal research related to aspartame and seizures. The review is useful (like most reviews), but it does not contain any original research. Tollefson (1993) is a review of clinical research related to Multiple Chemical Sensitivity and summarizes the same information about aspartame in Tollefson (1992) that the Committee also cited above.

The following three studies cited by the Committee are animal studies related to aspartame and seizures Dailey 1991, Tilson 1989, Zhi 1989). These studies contrast with the many independent animal studies cited above that link aspartame to seizure susceptibility in animals.

This leaves us with one study cited by the Committee that looked at case reports to the U.S. Food and Drug Administration (FDA) related to aspartame and seizures (Tollefson 1992). The author reported that the FDA had received 251 case reports of seizures linked to aspartame. The truth is that the FDA separates "Seizures" from "Grand Mal Seizures," "Petit Mal Seizures," "Complex Partial Seizures" and possibly "Other Neurological" (DHHS 1993). The Tollefson (1992) report focused only on the 251 seizures listed in the "Seizures" category.

Tollefson (1992) then inappropriately classified 13 cases as "highly unlikely to be associated with aspartame" because medical records were not available. A more appropriate category would have been "Unconfirmed Cause." Another 111 cases was also classified as "highly unlikely to be associated with aspartame" if there was any another possible cause of the seizures or the physician did not agree with the patient that aspartame caused the seizures. Again, a more appropriate category would be "Unconfirmed Cause." Of the remaining 127 cases, in 32% of the cases the symptoms (seizures) recurred each time the person consumed different products containing aspartame. In 28% of the cases the symptoms (seizures) recurred each time the person consumed the same product containing aspartame. Despite the unusual way that Tollefson (1992) classified patients, there were still a large number of patients who had clinically-reproducible seizures from aspartame. The full text of this study does not support the Committee’s contention that aspartame does not cause seizures.

In summary, the Committee ignored much of the independent evidence linking aspartame to seizures. They relied primarily on industry reviews, a manufacturer employee letter, manufacturer-sponsored animal studies, two very
short double-blind studies on subjects taking anti-seizure medication, and an analysis that demonstrates that some subjects do have reproducible seizures after ingesting aspartame from the same or different products.

January 19, 1995

TO WHOM IT MAY CONCERN:

I am a diabetic and have been using insulin for 18 years. My doctor advised me to use sugar substitutes in my diet. He also said I could drink as much diet soft drinks as I wanted. This I did. I used Equal in my coffee. I used a lot of diet soft drinks and used NutraSweet in many other foods I ate.

I started having headaches all the time, as they got worse, I started having seizures. I would get a severe pain in my left eye, and then I would have seizures that would make the left side of my body shake. In time I was no longer able to tell when these were going to start, they would just come on all of a sudden and I would have up to eight seizures one right after the other. The seizures were not the only symptoms I had, I couldn’t sleep, my mouth was dry all the time. I had sores on my tongue, I started having trouble with my memory. My eating habits changed, foods that I liked no longer tasted good to me. The smell of some foods I just couldn’t stand. My stomach bothered me a lot, I had to use Anusol all the time because of the burning I had after a bowel movement. This was very painful. I had muscle spasms in my legs almost every night which caused my legs to be sore all day long, and my back was sore from the seizures.

I was so sick that I thought I was dying, and so depressed that I was losing the will to live.

My doctor requested a cat scan, and other tests which were inconclusive. I was scared, I didn’t know what to do.

Fortunately a relative of my son-in-law informed me that my problems may be due to the use of NutraSweet. I thought anything is worth a try, so I quit using NutraSweet on a Sunday, and by Tuesday the seizures stopped. I haven’t had any seizures since, and all of the other symptoms have stopped except the change in my eating habits...

I feel very strongly that I may have died if I had continued to use NutraSweet. This poison should be taken off the market. How many others are suffering because of it?

Sincerely, William Reed (ATIC 1997)

Aspartame and Brain Cancer

A. Evidence Related to Aspartame and Brain Tumors

In 1996, a group of researchers led by Olney (1996) analyzed brain tumor incidence rates in the United States and other research related to aspartame and brain tumors. They came to the following conclusions:

1. Within several years after aspartame approval, the incidence of specific types of deadly brain tumors (glioblastomas and anaplastic astrocytomas) increased tremendously in vulnerable population groups (middle aged and elderly). During the same period of time, the incidence of less deadly astrocytoma tumors decreased tremendously. Olney (1996) showed that while the overall brain tumor incidence rate remained somewhat constant, there was a shift in malignancy
from the less deadly to more deadly types of brain tumors shortly after aspartame came on the market.

What is very important to understand is that Olney (1996) was not looking at the overall brain tumor rates in the general population. He looked at the conversion of less deadly to more deadly brain tumors (i.e., a "conversion of [existing] astrocytic tumors from a lower to higher grade of malignancy") in a vulnerable population group (middle age and elderly). This conversion to a higher and more deadly grade of malignancy was seen as a tremendous increase in incidence of glioblastomas and anaplastic astrocytomas shortly after aspartame came on the market and a nearly equal decrease in astrocytomas during the same period of time.

Brain tumors in adults tend to develop over a long period of time before they are diagnosed. If aspartame causes the growth of brain tumors it might take 20 or 30 years (or more) before one would be able to see the increase in the overall brain tumor rates when examining the brain cancer incidence statistics from all age groups of the general population. But Olney (1996) was able to prove that there was a very large change (worsening) of existing malignancies in a vulnerable population group shortly after aspartame came on the market. By itself, the large increase in deadly tumors, shortly after aspartame approval, does not prove that aspartame causes brain cancer or effects existing tumors. But along with evidence in items #2 and #3 below, there is enough evidence to warn people about the possibility.

2. Animals in aspartame pre-approval studies showed an increased rate of the same types of brain tumors.

3. Aspartame has mutagenic potential in vitro.

It is not surprising that the Committee, being somewhat unfamiliar with aspartame research, neglected to mention that Hardell (2000) looked at various risk factors for brain cancer. A significant association was found between subjects with higher ingestion of diet drinks and malignant brain tumors. The mean age of the subjects was 50 years old. While the number of subject was very small, it is the only study conducted that looked at an older (vulnerable) population group and aspartame intake.

B. The Committee is Not Familiar with Aspartame and Brain Cancer Research

Any intelligent discussion of the Olney (1996) study and brain cancer data must look at incidence rates of glioblastomas and anaplastic astrocytomas in middle age and elderly population groups. A discussion of overall brain tumor rates is meaningless because Olney (1996) showed that the overall brain cancer rates remain stable due to the drop in less deadly astrocytoma incidence rates.

It becomes clear that the Committee has no familiarity with the Olney (1996) study because they make the following criticisms of Olney (1996) in the report:

1. The rates of brain cancer was looked at in France and remained relatively stable between 1980 and 1997 (Menegoz 2001). The Committee apparently has no idea that they must look at specific types of brain tumors in vulnerable population groups to see if aspartame may be having an effect on existing
malignancies. Had they read Olney (1996), they would not be focusing on overall brain cancer rates.

2. Gurney (1997) found no link between aspartame and brain cancer in 56 children. Had the Committee read Olney (1996) they would know that the brain cancer increases would be expected to be seen first in vulnerable population groups -- middle-aged and elderly for specific types of brain cancer (e.g., glioblastomas and anaplastic astrocytomas). The Gurney (1997) study is not relevant because it combined all types of brain tumors in a relatively small number of children. But the Olney (1996) analysis demonstrated that the large shift to higher-grade brain tumor malignancies was seen first in the middle-aged and elderly population groups (not in children).

3. The Committee claimed that the incident rates increased due to better diagnostic methods (Modan, 1992). In the early and mid-1980’s magnetic resonance imaging (MRI) was introduced as a method of detecting brain cancer earlier. However, the types of brain cancer that Olney (1996) showed an increase for in vulnerable population groups was large and easily-detectable without the use of MRI equipment. In fact, the incidence rate of the smaller astrocytomas in the vulnerable population groups went down despite the introduction of MRI technology. One would expect MRI technology to increase the discovery and incidence of smaller, harder-to-detect astrocytomas. Instead, the astrocytoma rate in the vulnerable population group went down. This means that some other factor or factors were a major influence on the changes in brain tumor rates in vulnerable population groups.

4. The Committee cited several letters and papers that claim the Olney (1996) methodology was flawed (Levy 1996, Linet 1999, Ross 1998, Seife 1999, Smith 1998). Before looking at these references, it is important to know that the scientific journal, The Lancet (1996) reported that the Editor of the journal publishing Olney’s (1996) study was pressured by the NutraSweet Company to publish a rebuttal in the same issue as Olney’s study. The Editor refused, but as soon as he agreed to NutraSweet’s request to publish followup correspondence, he received "a blitz of letters."


Surprisingly, the Committee did not mention a criticism of the Olney (1996) study that can be found in aspartame industry literature (e.g., Butchko 2002). It is sometimes claimed that changes in diagnostic criteria during the mid-1980’s were the cause of the changes in incidence rate for specific brain tumors seen by Olney (1996). As Olney (1996) points out:

"If the shift were artefactual (i.e., assignment of glioblastoma diagnosis to tumors which in the prior era would have been considered astrocytomas), it should cause the <2 year death rate for glioblastomas to drop substantially, especially in younger age groups in which the characteristic <2 year death rate is much lower for astrocytomas than for glioblastomas. We found that the <2 year death rate did not change appreciably from the early period to later period for either astrocytomas or glioblastomas in any of the four age groups. Thus, tumors diagnosed as astrocytomas in either time period behaved as astrocytomas and those diagnosed as glioblastomas behaved as glioblastomas. These results favor the interpretation that the shift reflects a real increase in the rate of conversion of astrocytic tumors from a lower to higher grade of malignancy rather than a mere change in diagnostic assignment practices."

The Committee referred to pre-approval animal studies that they claim showed that aspartame did not produce
brain cancer in rodents. The information they used came from articles written by manufacturer employees and consultants in an aspartame industry public relations book (Koestner 1984, Cornell 1984), and from an FDA Commissioner (FDA FR, 1981-1984). This FDA Commissioner ignored the unanimous vote against aspartame by the independent Public Board of Inquiry (Brannigan 1983) and ignored his own scientists who considered the brain tumor data so worrisome that they could not recommend approval of aspartame (Gordon 1987). This FDA Commissioner left office shortly after he approved the use of aspartame in carbonated beverages and became a high-paid consultant for the aspartame manufacturer’s public relations firm (Gordon 1987 and GAO 1986).

The Committee did not even cite the testimony of Olney (1987) where he addresses the issues surrounding brain cancer seen in pre-approval studies. Dr. Olney is an independent scientist and experienced Neuropathologist. The Public Board of Inquiry (PBOI) that looked at the aspartame and brain tumor issue and other issues convened in 1981 (Brannigan 1983). The only member on the PBOI who was qualified in the area of brain tumors was Peter Lampert, a Neuropathologist and the President of the American Association of Neuropathologists. Dr. Lampert told Dr. Olney that:

"...[he] had been surprised at the large size of the brain tumors in the Nutrasweet-fed rats. This reinforced his impression that they had been caused by some tumorigenic agent since spontaneous brain tumors are not only rare in laboratory rats but when they do occur they are usually not so large." (Olney 1987)

The Committee also did not consider the testimony of Dr. Adrian Gross (1985, 1987a, 1987b), the FDA Toxicologists and Investigator who looked carefully at the many of the aspartame pre-approval studies. The Committee simply accepted studies from laboratories where FDA Investigators showed that many of the animals died and mysteriously came back to life several times (Schmidt 1976):

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<th>J24HM</th>
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According to Dr. Adrian Gross (FDA Toxicologist and Investigator):

"They [manufacturer] lied and they didn't submit the real nature of their observations because had they done that it is more than likely that a great number of these studies would have been rejected simply for adequacy. What [the manufacturer] did, they took great pains to camouflage these shortcomings of the study. As I say filter and just present to the FDA what they wished the FDA to know and they did other terrible things for instance animals would develop tumors while they were under study. Well they would remove these tumors from the animals" [FDA Toxicologist and Task Force member, Dr. Adrian Gross (Wilson 1985)]

Apparently the Committee is unaware of the chaos in the manufacturer laboratories for aspartame pre-approval research as detailed in ATIC (1996).

**Date:** Sat, 28 Mar 1998 18:50:41 -0800

**Subject:** Recent diagnosis of MS

*Hi. Thank you for being here. I have used Aspartame since it came out. I would use at least 10 packs per day! ACHHHHH! Well, I started tripping and falling 2 and 1/2 yrs ago; before that, I was told that I was an early [30y.old menopause]! Well I called the tripping part "peripheral Neuropathy". Finally, a brain scan was requested-probable MS. Then 3 wks ago, I learned that ASPARTAME mimmicks MS! I quit anf PRAYED really hard. A spinal tap was done , and there are 4 or 5 bands in my CSF. .... Oh, and ASpartmae DID make me"
crave sweets, and I did NOT lose any weight!

[continued]

Date: Thu, 14 May 1998 13:10:07 -0700

I had been OFF aspartame 3mos and was feeling pretty well; THEN I had a snowball. The tingling started in my legs and feet, I lost my balance, had a headache that persisted for 6hrs, couldn't sleep and had the bathroom urges. Aspartame DID IT!!!!!!!! All that money and detoxers have been wasted because there was aspartame in the syrup! No MORE snowballs!!!!!!!! If I don't prepare it, if it doesn't come from a health dood store, AVOID IT!!!!!!!!

[continued]

Date: Tue, 26 May 1998 11:41:35 -0400

Subject: aspartame case

Hi. ...I have been OFF aspartame for three months! I couldn't FEEL my hands and toes and would trip and fall!! Now I can feel them!!!! Chewing the sugarless gum or anyting with aspartame is really bad since it works through the amalgams and GETS into your BRAIN!!!! Then , the "doctors" will identify lesions and diagnose MS, when actually they are aspartame lesions. It is a deadly neurotoxin, and we need to get it OFF the market! EVERYONE has a side effect. Lord, help us!

[continued]

Subject: GOOD NEWS!!!!!NO MS!!!!!!! Date: Wed, 27 May 1998 15:13:55 -0700 Well, I have been detoxing from aspartame since Feb 1998, and TODAY, the #1 MS Dr. in N.O. told me that I presented as NORMAL with NO MS symptomology!!!!! (ATIC 1998)

Aspartame and Reproductive Effects

Based on the review of summarized pre-approval study data by a World Health Organization committee (JECFA 1980) and the earlier review by the Scientific Committee on Food (SCF 1985), the Scientific Committee on Food stated that:

"...no additional studies were identified which would impact on the no-observed-adverse-effect level (NOAEL) [for aspartame]."

Aside from the chaos that was seen in the manufacturer’s pre-approval studies that led to the criminal investigation of the manufacturer (Merrill 1977), there are several items that the Committee neglected to mention:

1. The manufacturer employee responsible for reviewing most of the reproduction studies had only one year of prior experience, working on population dynamics of cotton tail rabbits while employed by Illinois Wildlife Service. In order to prepare him for this title of 'Senior Research Assistant in Teratology' (fetal damage) the manufacturer bought him books to read on the subject and also sent him to a meeting of the Teratology Society. They claimed that this qualified him to submit 18 of the initial tests to the FDA, in addition to training an assistant and 2 technicians. He certainly must have kept them busy because the
manufacturer claimed that 329 teratology examinations were conducted in just 2 days. (Stoddard 1995, Graves 1984)

2. The manufacturer’s own consultant, Dr. Gregory Palmer, commented on the poor quality of the pre-approval reproduction studies (Gross 1985):

   "Even following the track you did, it seems to me you have only confounded the issue by a series of studies most of which have severe design deficiencies or obvious lack of expertise in animal management. Because of these twin factors, all the careful and detailed examination of fetuses, all the writing, summarization and resummarization is of little avail because of the shaky foundation."

3. The Committee did not mention that Dow-Edwards (1989) demonstrated that aspartame administration after conception disrupted "odor-associative learning in newborn guinea pigs. The aspartame dose used was far below the no-observed-adverse-effect level (NOAEL) mentioned in the JECFA (1980) review. Obviously, this study by itself would impact the NOAEL.

4. As mentioned earlier, The Guardian summarized parts of a confidential report compiled for the World Health Organization which stated that Expert Committees have been infiltrated by food industry consultants (Guardian 2003).

5. The Committee did not discuss a fairly large body of research related to the reproductive adverse effects of formaldehyde exposure (Thrasher 2001), including a recent paper on low birth weight and formaldehyde exposure in humans (Maroziene 2002)

6. The Committee made no mention of any reviews or studies related to damage to offspring from ingestion of excitotoxins obtained from aspartame and other chemical sources (e.g., monosodium glutamate) (Olney 1988, Olney 1994, Gao 1994, Fisher 1991, Toth 1987, Frieder 1984). Excitotoxins may be many time more toxic in humans than in rodents and monkeys due to the potential spike in plasma levels after administration (Olney 1994). A discussion of the combined effects of formaldehyde and excitotoxin exposure would have been relevant.

Subj: Fwd: Re: Recall of aspertame !!!

Date: 97-10-03 01:44:19 EDT

To: mfriedman@oc.fda.gov (head of the fda)

It is an emergency that you find the strength as a man to recall such a deadly substance as aspertame.. I always thought that I would first get my message through to FDA to remove sodium benzoate from food and drugs..WE BLEED SEVERELY WITH THIS PRESERVATIVE...NOT TO MENTION THE HEADACHES THAT MY SON ALWAYS HAD PRIOR TO A BAD HEMORRHAGE...However; the fact that I haven't had success in being heard for sodium benzoate, perhaps you will consider the severe reactions we have had to Nutrasweet...headaches, blurred vision, dull ache in head days following severe headache and poor focus with eyesight during the days following...nausea, etc. The MOST IMPORTANT THING I WANT YOU TO KNOW IS THE TERRIBLE THINGS MY BROTHER HAS BEEN THROUGH SINCE THE 80'S WITH A DIET COKE ADDICTION...I FIRST COMPLAINED TO FDA IN '85 AND '86, only to be told there was only information about short-term memory loss related to aspertame...nothing about addiction, depression..vision problems..personality changes..or anything else...I was told that FDA would need at least 10 years to study the effects of aspartame.... Following the refusal of FDA to listen to my complaints for both my brother and my family..I knew I had to get someone to listen to me since my brother displayed such Diet Coke addiction that I
Aspartame and Behavior, Cognition, Mood

Date: Tue, 04 Nov 1997 11:07:52 -0500

Subject: Aspartame

Let me first commend you and your "partners in crime" for the work that you do in reference to aspartame and it's ill effects on the human body. As a sufferer of aspartame poisoning, I feel quite strongly that you and your people may have gone as far as saving my life. At the least, you people are responsible for improving my quality of life by an exponential amount.

I was diagnosed with type II diabetes a little over 3 years ago. Like a scared little diabetic, I was concerned for my health enough to make several changes in my lifestyle, to improve my overall health and to try to keep my diabetes under control.

I began using Equal in my coffee, (4 cups/day) and I began drinking diet Pepsi, about 4 per day. I tried to use as many products with aspartame as possible. During the next 2 years, I lost 55 lbs, much to the delight of myself, my family, and my doctor. But during these 2 years, my health began to suffer, and I started experiencing many problems that no one, including my doctor, associated with aspartame useage. As a matter of fact, everyone, including myself, thought that most of my problems were my "advancing age" (46 now). The problems I had were as follows; indigestion (used Rolaid's like candy), headaches, almost every morning, (used Advil almost everyday), severe mood swings, memory loss (mostly short term), my vision deteriorated, insomnia, and finally vertigo. When I began the dizziness associated with vertigo, I again went to the doctor...
thinking maybe I had a clogged artery to my brain. My doctor could find absolutely nothing wrong with me. He scheduled me for a "fasting" blood test the next morning. The next morning I took a thermos of coffee sweetened with aspartame in the truck, to drink on the way to work after the blood test. That morning, I felt great...no dizziness and no indigestion. When I got to work, bam...I had a dizzy spell. I thought for a minute as to "what did I do from the time I left the lab, until now?"...it hit me like a ton of bricks....an almost forgotten memory of the controversy over the approval of aspartame. I searched the Web and ended up at your site. The rest is sort of history. I stopped using aspartame products, and all the symptoms went away, almost immediately, except...I fear my eyes are permanently damaged, and my short term memory has improved, but is a long ways from what a man my age should be experiencing. I am now on a "one man" crusade in work, to educate my fellow workers and friends to the dangers of aspartame. I have been successful with 4 individuals, who are now on the mend, and who also NEVER associated their medical problems with their use of aspartame. (ATIC 1998)

A. "Long-Term" Research

For long-term research, the Committee relied on two aspartame industry-sponsored studies when they stated:

"A number of longer term studies with double-blind design involving multiple dosing in healthy individuals also failed to highlight any treatment-related adverse effects on behavior (Spiers 1998, Leon 1989)"

I suspect that the Committee did not even read the Leon (1989) study because it is not a study on aspartame and behavior. Both studies will be looked at in this report, but a few very important preliminary details must be looked at.

It is important to understand that when the aspartame industry funds studies, the studies are designed in such a way as to make it virtually impossible to find adverse effects. One of many methods that are used is that longer studies will only be conducted only on perfectly healthy subjects. Subjects who have reported adverse effects from real-world aspartame products will be placed in very short studies with other major flaws. For example, Rowan (1995) looked at persons who had experienced seizures from aspartame, but the study was only one day long, almost all of the subjects were on anti-seizure medication, and the aspartame was given in a way as to make it less toxic. Schiffman (1988) looked at persons who reported headaches from aspartame, but the study was only one day long, the aspartame was given in a way as to make it less toxic, and design flaws of the study caused over 75% of the persons on placebo to have adverse effects in a single day. Karstaedt (1993) tested aspartame on Parkinson’s Disease patients, but the study was only one day long and the subjects were given aspartame in a way as to make it less toxic. Hertelendy (1993) studied aspartame in patients with liver disease, but the study only lasted one day.

Sometimes aspartame industry studies on subjects with medical conditions will be longer than one day. Shaywitz (1994) studied epilepsy patients (but not patients who had reported seizures from aspartame) for two weeks, but the subjects were taking anti-seizure medication during the study.

But the longer studies like Leon (1989) and Spiers (1998) will use perfectly healthy subjects who are the least susceptible to reactions from several months of aspartame exposure (but still susceptible to long-term aspartame poisoning from years of use). Even these long studies do not take into account the fact that a large number of persons reporting serious health problems from aspartame use are able to ingest it without clinically-obvious adverse effects for many months or years (Roberts 1988a). Slow poisoning from the formaldehyde exposure in conjunction with the synergistic effects of a free-form excitotoxic amino acid would account for the delays in clinically obvious reactions.
Leon (1989) gave aspartame or placebo to healthy subject for 24 weeks. The aspartame was given in slow-dissolving capsules that reduce its toxicity (as discussed earlier). Even with the use of healthy subjects and a reduced toxicity form of aspartame, there was a >50% increase in adverse reactions in the aspartame group. However, the researchers split the reactions into 14 small subcategories. They could then claim that within each tiny subcategory, there was no "statistically significant" increase in aspartame reactions. Since Leon (1989) split the reactions into 14 small subcategories, at least 20 times more subjects should have been enrolled in the study to have any hope of seeing statistically significant differences within the tiny subcategories.

Phase 3 drug trials are used in the U.S. to help determine what adverse effects might be associated with a drug. Enough subjects are enrolled to be able to extrapolate the results to the general population. Several hundred to several thousand patients are enrolled in Phase 3 trials (Nibeuhr 2000, FDA 2001). Patients in clinical trials tend to be more prone to adverse reactions. The Leon (1989) study used healthy patients, less prone to adverse effects from substances and therefore that study should have enrolled even more subjects than typically enrolled in Phase 3 clinical trials.

Leon (1989) had only 50 subjects take aspartame for 24 weeks and 51 subjects take placebo for 24 weeks. With the small number of perfectly healthy subjects and the reactions split into 14 subcategories and a less toxic form of aspartame used, it was inevitable that the researchers could claim no "statistically significant" increase in adverse reactions within each subcategory (even though aspartame caused a >50% increase in adverse reactions overall).

"A 27-y-old female television producer drank 3 cans of aspartame-containing soft drinks a 1 glass of presweetened iced tea daily for 2 y[ears]. She suffered pain in both eyes, severe headaches, tingling of the extremities, heart palpitations, nausea, and marked frequency of urination. She also had difficulty wearing contact lenses. A CT scan of her brain and various eye tests proved normal. Her complaints improved shortly after she stopped using aspartame. The remission had persisted many mo[nths] when she completed the questionnaire." (Roberts 1988a)

The Spiers (1998) NutraSweet-funded study is a lesson in how a study can be designed so that there is virtually no chance of seeing "statistically significant" numbers of adverse reactions.

1. The aspartame was given for only 20 days to perfectly healthy subjects who had a history of aspartame use without reported complaints.

It is important to understand that many people can use aspartame for months or several years without any clinically obvious symptoms appearing. However, the chronic poisoning from aspartame use eventually catches up with most, if not all users. Here is a case described by an a person who had ingested aspartame for approximately 6-8 months before symptoms had begun to appear (ATIC 1998):

Date: Mon, 20 Apr 1998 15:52:36 -0400

Subject: Re: Aspartame Victim

I would like to tell you about my personal experiences with aspartame and what I feel that it has done to me......

In the last two years I have become a *heavy* Diet Pepsi drinker (approximately 2 two liters a day, plus NutraSweet in my cofee, and many so called "diet" products once my weight gain began.... and I the more NutraSweet I consumed the more weight I put on....) hearing things about how NutraSweet was bad for you, but never really knowing the facts. I don't know exactly how long after starting to drink that much of the soda my symptoms started to appear, but I would say that it was about six to eight months. For a little over a year
now I have had to deal with *tremendous* weight gain. I always had a little bit of extra meat on my body, but I was always active enough to keep it level. I never changed weight much, but in the last year I have put on approximately 70 pounds, all in my thighs and hips. (This may or may not be all from aspartame, obviously, but I don't know....)

*In addition to the weight gain, I have had AWFUL mood problems. I have been diagnosed as manic depressive, and have started to have anxiety attacks. I don't know how much of my other physical ailments were caused by aspartame, but before I list them let me say that previous to my drinking the soda all the time, I didn't have any of the symptoms. I was an average, mostly healthy 19 year old girl. I have always had very very minor arthritis (since I was a child) and very light asthma (never "attacks", but it made normal colds worse)..... the rest of these things, I never had ever had wrong with me until I started drinking the soda all the time.*

anxiety attacks/panic attacks

bloating

breathing difficulties/chronic cough

burning urination

*VERY CHRONIC FATIGUE*

depression (Very Badly)

*EXTREMELY EXCESSIVE THIRST AND HUNGER*

face flushing

thinning/losing hair

*xtreme loss of sexual feelings (has caused huge problems with my fiancee and I)*

inability to concentrate

insomnia (Severe)

irratibility

itching

joint pains

*VERY marked personality changes*

memory loss/poor memory/not as good as it used to be

*EXTREMELY MESSED UP menstrual cycles*

numbless/tingling of extremities

*EXTREME WEIGHT GAIN*

I am now 21 years old, and I honestly feel like I'm an 85 year old. (No offense to anyone older, but I think you get what I mean...) I just don't feel young and full of life the way I used to. I thought these things were all wrong with me because of my "manic depression" that the doctor said I had. I thought that all of it was in my head.... I have spent time actively thinking that I am an awful human being, fat and lazy and worthless. Tracing these emotions backwards, I realize that they all started after my HEAVY consumption of Diet Pepsi started. I used to be vibrant, full of confidence and able to spend a day being physically active with the best of them.
Now I can't do any of those things.

[update] Date: Wed, 10 Jun 1998

Subject: Re: My 60 days is over!!

I am just writing to update my personal aspartame story. ;) Sometime a little over 60 days ago I wrote to you with my horror story about aspartame. I am the 21 year old who felt as though I were 95. I had a list of symptoms as long as my arm, and was convinced that my entire life was on a downward spiral into destruction.

But now!!

60 days later and I swear to God I feel like a new person. My personality has just changed so much!! I feel like I did years ago, before I started putting that poison into my body. The panic/anxiety and depression and nastiness has just faded away. My sleeping patterns have returned to normal. I eat and drink like a normal person now, without the excessive consumption. I can move like I used to, without the pains and aches.... Just so many things about me have returned to how they should be. I'm 21 again and just so happy I could scream!! (ATIC 1998)

Under normal conditions, even some healthy subjects would experience immediate reactions to aspartame within a week after first use of the product -- probably due to an acute sensitivity to formaldehyde or an excitotoxic amino acid. Roberts (1988a) looked at 551 cases and reported that reactions to aspartame appeared anywhere from immediately to over one (1) year after initial use began. Many of the subjects in the Roberts (1988a) survey repeatedly tested aspartame and found it to cause adverse effects. Some of them (120 subjects) eliminated aspartame and then inadvertently ingested and reacted to a product that they did not know contained aspartame until after they had adverse effects.

The full publication of Spiers (1998) had no information about previous aspartame use of the subjects. But we learn from the original publication of the study in abstract form (Spiers 1993) that the subjects had a "history of aspartame use without reported complaints". It would be very unlikely, therefore, to see very many adverse reactions with 20 days of additional use. These are the types of subjects who, like the case described above, would be more likely to have chronic health problems develop from aspartame after many months or years of aspartame use. In the Spiers' own words:

"In summary, we made a conscious effort to preselect individuals who we felt would be unlikely to experience any effect from chronic aspartame exposure" (Spiers 1988)

Not only was the study performed on healthy individuals for only 20 days (a "long" study by aspartame industry standards), but also it was performed on individuals who had not yet experienced clinically obvious adverse effects from aspartame use!

2. Most of the aspartame was given in slow-dissolving capsules that reduce toxicity.

As noted numerous times above, even aspartame industry consultants agree that providing aspartame in slow-dissolving capsules is not "bioequivalent" (the same) as real-world aspartame. The biochemical changes from greatly slowing down absorption are reduced significantly.

3. The combination of the small number of subjects and splitting the reactions into several categories meant seeing a statistically significant change was virtually impossible (especially when combined with the above-mentioned flaws).
Take a look at the most commonly reported adverse effect from aspartame - headaches and migraines (DHHS 1993). Let us assume for the moment that 8 percent of the subjects in the study would begin experiencing aspartame-induced headaches after 20 days of aspartame use. As pointed out above, it would be highly unlikely that even 8 percent of these subjects would report one particular type of adverse effect due to aspartame after only 20 days (especially since that had not yet reported clinically obvious effects from a history of aspartame use). But let us see what would happen if 8 percent of the study population did report aspartame-induced headaches from aspartame use within 20 days.

In fact, there was an 8 percent increase in headaches reported in the aspartame group. However, this increase was not "statistically significant." When you take a small number of healthy patients and split the reactions into several categories, it is inevitable that within most, if not all of the categories, the reactions will be deemed "not statistically significant." Combining this problem with the short, 20-day study using a reduced-toxicity administration of aspartame and using subjects who had no chance of reporting immediate effects from first-time use of aspartame, the claimed results of no statistically significant effects was inevitable.

Date: Wed, 19 Nov 1997

Subject: Aspartame

I wrote you in August. I got off of aspartame on August 22nd. It just sent FDA a message, I hope it got to the right place. I couldn't find what I wanted. It had a comment page that I sent but I think it was for comments for Internet page. Here is what I sent to them: I am sending you notification that I think that aspartame is a very dangerous substance. It is what caused me to have slurred speech, lost most of my reflexes, dizziness, hives, balance and coordination, my heart would pound hard when I would be sitting, I had trouble sleeping, nightmares, I had to have help tying my shoes. I was having a terrible time concentrating. I had to have my daughter do my bills at work. I was tested for all kinds of things. I was checked for stroke, heart trouble, Lupis, Multiple Sclerosis. I had a Cat Scan, and a MRI. I had about $5000 dollars worth of tests, and the Doctors couldn't figure out what was the cause. I have fibromyalgia, and aspartame made it much worse. I have been in terrible pain for years. It took me about 70 days to get aspartame out of my system and now I am in less pain than I have been in for years. All of my symptoms left except one, I am still having difficulty concentrating. Please consider taking this hazard off the market. Since I have been free of aspartame, my husband and many other people have noticed that I am able to do many things that I haven't been able to do in YEARS! I had drank aspartame in diet drinks evetry since it came out. I had no idea that aspartame was what was causing most of my problems until I started doing research on what could cause slurred speech. I don't want anyone to go through what I have been through. I thank God that I found out before it was TOO LATE! (ATIC 1998)

B. ADD/ADHD and Behavior Research: Aspartame and Children

The Committee cited numerous aspartame industry-sponsored studies on aspartame and behavior, mood, and learning in children (Shaywitz 1994, Saravis 1990, Wolraich 1994). The first questions the Committee should have asked are: "What is being seen clinically in relation to food and behavior/learning issues in children"? What is working in research and in clinical settings related to food and behavior/learning issues"? Without knowledge of independent studies and clinical aspects related to food and behavior, the Committee is susceptible to accepting any aspartame industry-sponsored study, no matter how irrelevant or poorly designed.

Summarizing the independent research related to food and behavior in children:
Kaplan (1989) reported a > 50% improvement in behavioral measurement and some non-behavioral measurements in a 10-week, blinded crossover study in preschool-age, hyperactive boys. The experimental diet removed monosodium glutamate (MSG), preservatives, caffeine, substances reported by the family to cause reactions. The diet was low in simple sugars and eliminated dairy if the family reported a history of problems with cow’s milk.

Boris (1994) conducted a study where reactive foods, dyes, and artificial colors were removed from the diets of children with ADHD. In addition, a double-blind, placebo-controlled challenge was conducted. 73% of the children responded favorably to the diet change.

Carter (1993) designed an elimination diet (removing reactive foods/substances) for 78 children with hyperactive behavior. 59 children improved during the trial period. For 19 of the children, it was possible to disguise certain foods or additives and reliably provoke behavioral problems in a placebo-controlled, double-blind challenge.

Egger (1985, 1992) found that an elimination diet significantly improved behavior and reduced or eliminated bed-wetting in hyperactive children. Artificial colorants and preservatives were the most common provoking substance, but all of the children reacted to more than just colorants and preservatives.

Dengate (2002) treated 27 children with a diet that excludes food additives, natural salicylates, amines and glutamates. Their behavior improved significantly. The subjects were then tested by introducing one food additive. A significantly higher percentage of the subjects who took the additive had worsening behavior as compared to when they were ingesting the placebo.

Schmidt (1997) tested an "oligoantigenic diet" (a non-allergenic, simple foods diet) on 49 hyperactive children in a placebo-controlled, double-blind study. In this experiment, only 24% of the children had significant behavioral improvement (relative to the control diet conditions), but the amount of positive changes in behavior was about the same as those who received Ritilan.

Swanson (1980) gave 20 hyperactive and 20 non-hyperactive children a diet free of artificial food dyes and other additives for 5 days. Large oral doses of food dyes and placebo were then given to the children. The hyperactive children had impaired learning tests compared to the placebo group.

Conners (1976) conducted a double-blind crossover trial eliminating artificial flavors, colors, and natural salicylates as recommended by the Feingold Association. Fifteen hyperactive children were tested. The teachers noted a highly significant reduction of symptoms on the Feingold diet. Both parents and teachers reported fewer symptoms on the Feingold diet.

Brenner (1977) tested 59 children diagnosed with hyperactivity and minimal brain dysfunction syndrome. 32 children stayed on the diet. Of those 32 children, 11 improved markedly. While there was no control group or placebo in this study, the researchers stated that "startling changes seen in patients who had been followed for years with other forms of therapy suggest strongly that this improvement was genuine."

Salzman (1976) tested 15 hyperactive children with the Feingold K-P diet. "93% responded with improved behavior in areas of overactivity, distractability, impulsiveness and excitability. Sleep and enuresis problems were resolved partially or completely."

Rose (1978) tested artificial food colors on two girls who had been on the Feingold K-P diet for 11 months. There was a significant increase in hyperactive behaviors with ingestion of artificial food colors as compared to the placebo.

In a study conducted by the David Hide Asthma and Allergy Research Centre in the UK, 277 children were given a mixture of artificial food colorings or placebo (Foodcomm 2002). While the standardized behavioral tests showed no differences, the parents of the children noticed significant behavioral differences while the children were in their natural environment.

Well-known Pediatrician and ADD Expert, Dr. Doris Rapp reports that customized changes to diet, including the removal of various reactions foods and chemicals improves approximately 80% of her patients (Rapp 2002).
Central Alternative High School in Appleton, Wisconsin reported a large improvement in behavioral problems after removing vending machines (that contain junk food, aspartame- and sugar-containing beverages, etc.) (Appleton 2002).

It is obvious from independent research and clinical experience that it is the removal multiple offending items (additives, preservatives, colorings, certain sweeteners, monosodium glutamate, foods that cause allergic or intolerance reactions, etc.) that successfully and significantly reduces behavioral problems and even some non-behavioral problems in children.

The aspartame industry designs research on a relatively small number of children who may have behavioral, learning, and mood reactions to a variety of additives, foods, sweeteners (including aspartame) and rather than eliminating all of the offending substances (as seen to work in the independent research and clinical settings), they just manipulate one ingredient (aspartame or sugar). For behavioral issues in children, the manipulation of one ingredient (that the child may or may not have behavioral reactions to after short-term use) will only prove successful in a very small percentage of cases. For the aspartame industry, the small number of children in their tests, the fact that they split adverse effects into multiple categories and use average values on the behavioral and cognitive tests makes it nearly impossible to find any "statistically significant" link between aspartame and behavioral problems.

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Date: 2 Dec 1996 11:20:34 -0600

Subject: Re: How Are you?

Yes, I'm doing much better since I swore off NutraSweet! Most people I know can't believe I quit drinking diet coke. They've always known me to carry a can or bottle of it around with me. That was part of my image: long blond hair, Ray-bans, and a can of Diet Coke.

I have been waking up feeling rested. I'm not as achy. I'm not as tired. I don't crave sweets anymore. I haven't lost any weight, but that's probably because I drink a lot of Coke Classic now. I don't NEED a coke first thing every morning now like I did a Diet coke. I used to get headaches if I didn't have my Diet Coke within an hour or two after waking up. Now I can go all day without a coke and not have any problems. I kept telling myself it was caffeine withdrawals, but if it's not happening now, that can't be the case. I drink as much caffeine now as before, only now my caffeine is Nutra-Sweet free!

My son's behavior problems are improving now that he's off NutraSweet and mostly off artificial colors. He's working better in school, and he's doing really well at learning to read and to add and subtract. He seems to be sleeping better now, too. Now when he climbs up onto my lap it's not painful like it used to be. Uncomfortable, yes, since he's 50-something pounds! But not painful.

My vision is improving and so is my memory. .... (ATIC 1998)

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**Aspartame and Other Effects**

At least half a dozen of my patients have reported back with positive feedback after discontinuing Aspartame. To give a few examples—
1.) A 60 year old, non-diabetic, obese lady was on Equal (regularly in her tea & coffee) for the last 1-2 years to lose weight. She had c/o breathlessness and chronic fatigue. Within 2 weeks of discontinuing Equal, above symptoms disappeared and in her own words, she feels quite fit now.

2.) A 54 year old diabetic male with cataracts & severe proliferative diabetic retinopathy was on daily Equal for about a year. He had c/o of severe fatigue, mood swings with irritability & short temper (according to his wife). His retinopathy has been worsening fairly rapidly. I just saw him again 5 days back after he had discontinued Equal for about a month. Except for his visual problems he feels well. His fatigue has gone & he has become 'calm like before' according to his wife.

3.) A 34 year old lady was on Equal for the last 3-4 years to keep slim. Her daily consumption was limited to about 2 pills with 2 cups of tea. Since 2 months, as she was preparing for some exams, her consumption of tea had gone up to 5-6 cups per day with corresponding rise in Equal intake. She is related to me & I immediately got her off it about 10 days ago. She rang me up last Sunday to thank me because she felt well. Moreover she noticed that the hunger she felt in between meals was gone. (Barua 1996)

The Committee neglected to report on relief of fibromyalgia symptoms after elimination of aspartame and other dietary excitotoxins (Smith 2001). They did not mention an independent study related to aspartame and dizziness in humans (Gulya 1992). They neglected to mention independent research related to aspartame and memory loss (Orange 1998, Konen 2000). Brief mention was made of the study by Dr. Ralph Walton showing a significant increase in adverse symptoms from aspartame ingestion in patients with depression (Walton 1993). But like all independent studies it was discounted by the Committee for 1) having too few subjects (even though there were more subjects than many of the studies the Committee accepted) and 2) looking at an overall increase in adverse reaction rate rather than splitting the reactions into the 26 separate categories that were recorded.

Case 2

A 37-year-old white woman, the sister of the patient described above, had multiple medical problems including fibromyalgia syndrome affecting all 18 tender points, allergic rhinitis, irritable bowel syndrome, dysuria, stress reaction, depressive disorder, temperomandibular joint (TMJ) disorder, facial pain, carpal tunnel syndrome anxiety, mitral valve prolapse, and dyslexia. She underwent a total hysterectomy in 1991 and surgery to open her left nasal passage. This woman was in a basically nonfunctional condition, much worse than her sister. She reported pains she had experienced since she was 15 years old. She did not recall a traumatic or emotional event prior to the onset of the pain.

The pains progressively worsened, especially after the birth of her first child...., and never completely resolved. She underwent several tender point injections with bupivacaine, with temporary relief. The patient then began a corn-free diet and was able to decrease her amitriptyline dose from 100 to 25 mg/d and discontinue sertraline and lorazepam. After several months of using a diet free of aspartame and MSG, she had no pain in any of the tender points, no further abdominal or facial pain, no carpal tunnel syndrome, and no further depression or anxiety: a reevaluation also showed no sign of dyslexia. The woman also reported improvement in her memory. Symptoms of fibromyalgia recur when she unknowingly eats foods that contain MSG or aspartame. At times, she experiences an episode for 24-48 hours, and then researches if anything in her foods could have caused it. She often calls a food manufacturer to learn more details about the ingredients. Both the number of medications and number of office visits were markedly reduced after elimination of aspartame and MSG. On reevaluation, she had no further findings consistent with fibromyalgia, allergic rhinitis, irritable bowel syndrome, dysuria, stress reaction, chronic depressive disorder, TMJ disorder, or chronic fatigue issues. (Smith 2001)

The Committee also neglected to report on some of the other symptoms reported in the medical literature such as panic attacks (Drake 1986), Lobular Panniculitis (McCauliffe 1991), Granulomatous Panniculitis (Novick 1995), diabetic complications (Roberts 1988b), joint pain (Roberts 1991), vision loss (Roberts 1988a, Raiford 1987), and many other serious adverse symptoms reported from aspartame use in documents written by independent clinicians (Dorway 2003, NM 2003)

Subject: Re: Warning Flyer

I suffered from panic/anxiety attacks, insomnia, heart palpitations, tachycardia, shaking, numbness and tingling in toes and hands and arm, nausea, dizziness, memory loss, muscle spasms, breathing problems, depression, slurred speech, and a constant feeling of uneasiness. Somewhere around December of 1995 I quit drinking diet drinks. Two weeks later I noticed I was feeling somewhat better. About two months later I was feeling and doing so much better I decided to start drinking diet 7Up. Even though I had stopped using caffeine several times in the past without noticing any change I thought maybe that was what had made the difference this time. Within two days of starting back drinking the diet 7Up I started having symptoms again. That's when I decided to take a good look at the ingredients in diet drinks. I had never heard anything negative about NutraSweet but I decided to try to find out what it was. I went to a public library and found something that said it could cause several different symptoms including panic attacks. I didn't have very much time so I wasn't able to read the whole thing. So, I wasn't aware until June of 1996, when we bought a new computer and started using the internet, what the real scoop was on aspartame. I now tell almost everyone I see, and it is unbelievable how many people have or either know someone that's had bad reactions to aspartame. I can't believe I lived five years of my life frightened and constantly feeling bad because of a diet drink. I'M FURIOUS! (ATIC 1998)

The Committee reported that two short aspartame industry-funded studies related to allergic-like effects of aspartame showed no statistically significant effects (Garriga 1991, Geha 1993). The Committee neglected to mention that Kulczycki (1995) declined to take part in the Geha (1993) study due to significant flaws in the study design that "probably tended to discourage the participation of the subjects who were likely to be allergic to aspartame." Kulczycki (1995) was able to easily find subjects reporting allergic-like effects from aspartame and conducted his own double-blind testing. He found that aspartame caused problems in four of the six subjects he tested with double-blind methodology. There were several other flaws in the Geha (1993) study that were discussed by Kulczycki (1995).

Case 11

A mother described the multiple reactions to aspartame of her 2-y-old daughter in the survey form. She first developed a "violent rash" after drinking an aspartame-sweetened soda at Bible school. It recurred after class on the 2nd day, along with marked swelling of the face; both features subsided by the following morning. Someone then gave her daughter a stick of gum. "She immediately broke out and began swelling. We later found out that the gum had aspartame ... but at the time we still hadn't made the connection."

Friends who visited the next weekend brought an aspartame-containing beverage. The rash and swelling recurred as soon as the girl took 1 swallow. The mother wrote: "Looking at the bottle, I noticed the aspartame symbol, and it clicked!" (Roberts 1988a)

Date: Thu, 14 Aug 1997 12:21:51 PDT

Subject: Aspartame Consumer Safety Network Questionnaire

Age: 29 Sex: Female

Medical problems that you believe are caused from using aspartame:

Migraines, memory loss, weight gain, rash all over body.

Why do you believe aspartame caused these problems?

Because whenever I would eat or drink something with Nutrasweet in them within 30 minutes I would get a horrible migraine and my skin would turn red. I also felt really "strange", almost like I was drugged.
Did the symptoms go away when you stopped using the products?

Yes! Completely. I have not had anything with aspartame in it for 5 years now. I avoid it like the plague. (ATIC 1998)

The Committee report mentioned that there were a number of studies focusing on the effects of aspartame on hunger and food intake (e.g., Rolls 1996, Kanders 1996). The Committee mentioned aspartame industry-sponsored studies that claimed no potential negative hunger or food intake consequences, but they did not mention that Lavin (1997) found that females with eating restraint had a higher Calorie intake subsequent to aspartame intake as opposed to sugar or water intake.

Date: Sun, 26 Oct 1997 21:44:53 -0500
Subject: Re: [FIT-L] Aspartame and appetite
To: FIT-L@MAELSTROM.STJOHNS.EDU

I too wrote a couple of postings to this list regarding the same subject. I am an active male, age 50, non-drinker, physical fitness devotee. I quit drinking four to six (average) diet soft drinks per day. I lost ten pounds!

Date: Sun, 5 Oct 1997 15:48:54 EDT
Subject: [FIT-L] Aspartame
To: FIT-L@MAELSTROM.STJOHNS.EDU

I used to guzzle diet soft drinks (I've since eliminated them completely from my diet.) with aspartame and I noticed when I drank them I'd start gobbling food also. Anytime I drank/ate something with aspartame in it, I wanted more and more to eat. I thought it was just me but since then I've heard from many people that aspartame supposedly triggers your appetite. (ATIC 1998)

**Conclusion**

Persons ingesting aspartame are being exposure to significant amounts of formaldehyde that has been shown by independent research to accumulate throughout the body. Chronic, low-level exposure to formaldehyde (even without accumulation) has been shown in human research to cause irreversible genetic damage, headaches, seizures, neurobehavioral problems, gastrointestinal and cardiovascular problems, fatigue, chest pains, dizziness, etc. Exposure to a free-form excitotoxic amino acid from aspartame would be expected to worsen the adverse effects from chronic formaldehyde poisoning.

Aspartame manufacturer-sponsored studies are designed in a way as to avoid the possibility of finding adverse effects, yet the Committee accepted these studies without any question. In contrast, nearly all independent research on aspartame in animals or humans has found that aspartame can cause problems.

Human studies and clinical reports published in the medical literature linking aspartame use to fibromyalgia, seizures, panic attacks, mania, brain cancer, migraines / headaches, vertigo, symptoms related to depression, memory loss, hives, irregular heart beats, vision loss, and numerous of symptoms were largely ignored by the Committee.
It appears that the Committee obtained most of its information from aspartame industry public relations books that they repeatedly cited (Stegink 1984, Tschanz 1996), published reviews by manufacturer employees (Butchko 1994, Butchko 2001), a report from the French Food Agency (AFSSA 2002) written by some unknown individual(s), and perhaps the occasional published study, primarily manufacturer-sponsored studies. A significant amount of independent research was ignored, and when independent studies were mentioned, they were quickly labeled as flawed. There is evidence that the Committee did not read some or most of the research they cited and is only familiar with aspartame-related research from the aspartame manufacturer’s perspective.

It appears that there is far too much food industry influence on the Scientific Committee on Food. In fact, it would be unlikely that an unbiased review could be performed on aspartame, stevia or any other controversial food related subjects without refilling the Committee positions from scratch. New Committee members should meet the following criteria:

1. No food industry ties. Disclosure of past and current ties to the food industry.

2. History of ability to stand up to food industry interests when necessary.

3. Expertise in various specialties (e.g., neuroscience, toxicology, immunology, etc.).

4. Willingness to read all of the relevant research and hear both independent and food industry testimony.

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MY PAINFUL EXPERIENCE WITH ASPARTAME AND ARTHRITIS

(From "The Preventive Diet" by Richard J. Sabates, M.D.)

"There is no better reading than the book of your own life." A terrible pain woke me up in the middle of the night. My right big toe was on fire, even the sheets rubbing against it caused excruciating pain. I could not remember any recent trauma to my foot, but the pain continued, persisting day after day.

My first wrong diagnosis, and as it turned out, not the last, was gout. This is a type of arthritis characterized by pain and swelling in the joints. I had blood drawn in my own office to confirm the diagnosis, which should have shown high levels of uric acid. While awaiting the results, I took large dosages of the anti-inflammatory medication Indocin, plus Colchicine. These two drugs are normally effective first line drugs in the treatment of an acute gouty flair up.

Days later I still had the pain and had begun to walk with a noticeable limp. The test results came back negative, to my great surprise and showed no uric acid reaction. The blood test also showed no other type of infection, it registered totally normal.

This was just the beginning of a long odyssey of self diagnosis and treatments. I experimented with physical therapy, hot soaks, ultrasound, and massages. I restricted my physical activity and elevated my foot on top of my desk between patients. After x-rays were taken, I argued with the radiologist, insisting that he find something wrong, even though I knew perfectly well that the x-rays were negative. A few weeks later, the throbbing pain stopped in my foot and literally moved to my right hip. The limp was even worse. I could not even enter my car properly. I had to dive backward into the seat like I often had seen my father do after his hip replacement surgery.

I repeated every possible blood test. I checked rheumatoid factors, lupus, syphilis, parasites and even had an HIV test. All this time, I continued limping, popping pain pills and denying the obvious - that a doctor had no idea what was wrong with himself.

I stubbornly continued to think that I could decipher this illness myself. I dusted off my old textbooks and
I voraciously read all the latest arthritis journals. I remembered that high dosages of vitamin A may cause a similar arthritic syndrome, so I stopped taking all my vitamin A supplements.

Being a preventive physician, I started taking natural anti-inflammatory agents such as Bromelaine, Chondroitin Sulfate, and the oils GLA and EPA, as well as large dosages of vitamin C. All of these natural substances I had used for years in my medical practice, with good results. Finally I broke down and asked for help. First I consulted a long time friend of mine, Dr. Herbert Pardell. After a thorough examination and review of my extensive lab tests and x-rays, he diagnosed septic arthritis. He speculated that my ailment may have had an infectious origin, so I embarked on a fruitless regimen of anti-bacterial agents. Under the guide of Dr. Pardell I took strong antibiotics such as Tetracycline, Ampicillin and Flagyl for several months, without any results.

From the right hip, the pain migrated to my right shoulder. I could not even comb my hair. Dr. Pardell injected me with an anti-inflammatory substance named Sarapin, an excellent natural product for the treatment of bursitis. But after the anesthesia wore off, the pain returned.

I then consulted a well known orthopedic specialist, who recommended another stronger antibiotic (Cipro). He diagnosed atypical rheumatoid arthritis, though he was uncertain exactly what my ailment was.

Several weeks later I went to a chiropractor. The good doctor examined me. He assured me that my ailment was due to a problem in my neck and my back. He then adjusted me and I thanked him and left his office with the same pain with which I had come.

During my studies, it occurred to me that I may have contracted Lyme Disease. This rare illness is transmitted by an insect bite. I live on a ranch outside of Miami and have several horses. Perhaps I had been bitten some sort of insect. I had more blood drawn looking specifically for Lyme Disease - came back negative.

Two months later something happened that scared me even more. I noticed loss of vision in my left eye. It was cloudy, as if I had cataracts. I quickly consulted an ophthalmologist an optometrist in my immediate family. Both, after carefully examining me declared that I had perfect vision. They found nothing wrong with me. Interestingly, both were surprised that at my age pushing fifty, I did not need eye glasses. The lens of the eye usually hardens with age and the majority of people need glasses after age 40. I reminded them that the use of certain vitamins and antioxidants retards the aging process and that I would probably never need to use glasses. They laughed and said: "We will see you back in a couple of years to fit you for glasses."

The pain continued to plague me. From my right shoulder, the pain shifted to my left shoulder. Again, I had more x-rays, this time chest x-rays. I had more blood drawn, and again, all tests proved negative. I resigned myself to the possibility that I had some sort of hidden cancer. I remember being depressed and not being able to concentrate on my work. I had general fatigue and my hands would fall asleep, especially after waking up. I had to clap my hands in the morning just to get the feeling back. At that time, I thought my symptoms of depression were caused by my inability to cope with this terrible affliction. I had no idea that all my symptoms may have been the result of the same illness.

Eight months had passed since the start of my arthritis. My research uncovered an article in a publication called The Townsend Letter, written in May, 1991. This small publication is dedicated to discussing medical conditions and how they relate to nutrition and unorthodox therapies. Frequently, preventive physicians contribute interesting articles. Numerous articles in The Townsend Letter have been previously turned down by the most prestigious medical journals because they advocate the use of vitamins, minerals and alternative treatments not yet proven to the satisfaction of mainstream medicine.

I read an article titled "Joint Pains Associated with the use of Aspartame," written by Dr. H. J. Roberts, M.D., of West Palm Beach, Florida. In his introduction, he referred to the fact that the article had been turned down for publication in the Journal of the American Medical Association. With much interest but very little hope, I read Dr. Roberts describe 58 cases of multi-articular arthritis associated with the use of Aspartame (NutraSweet). All symptoms subsided after the patients discontinued using the artificial sweetener. The pain returned when he reintroduced aspartame.

Could it be that this product approved by the FDA and used by millions of people could be responsible for my arthritis? Could it be something so simple? I doubted it.
At that time I consumed large quantities of Aspartame, and like many people across the country, had a running battle with my weight. When hurricane Andrew ripped through South Florida, I used my two week vacation to help out in the community. I opened a small clinic in a partially damaged church where there was no water or electricity. We slept on the floor and all we had to eat were canned foods, colas and ham and cheese sandwiches. During this time, I gained more than 10 pounds. When I returned home I started a crash diet, including Aspartame products. My diet consisted of two to four yogurts a day, "lite" of course. I would add Aspartame to my Cuban coffee, as well as occasionally drink protein shakes sweetened with Aspartame. I reread Dr. Roberts article and started to believe that maybe Aspartame could be the cause of my arthritis.

Dr. Roberts article narrated the story of a 62 year old patient that had pain in all his joints. The man regularly used eight packets of Aspartame a day among the coffee, hot chocolate and gelatins in his diet. This patient also complained of loss of vision in one eye, headaches, hand cramps, irritability and a feeling of sleepiness during the day. Interestingly enough, he had gained 30 pounds instead of losing weight. When he stopped using Aspartame, all his symptoms disappeared in just a few weeks.

I nearly fell off my chair when I read this. This must be it. Full of renewed hope, I stopped my daily yogurt and called Dr. Roberts in West Palm Beach. The doctor spoke to me at length and told me his frustrating story of trying to alert the community of the Aspartame problem he uncovered. He had tried to publish his article not only in JAMA, but also in three other publications. Each turned him down. He suggested that the principle cause of this denial was money. The manufacturers of these drugs spend million of dollars in advertising and promotion to position their products in the medical community. Sometimes they are even able to exert editorial control and block unfavorable articles concerning their products. Dr. Roberts also told me that he had published a book titled "Sweetener Dearest" in an effort to alert the general population of the problems associated with this artificial sweetener.

My improvement was a lot slower than I wished, but little by little the pains became less intense and I began to engage in all my previously normal physical activities. Small tasks such as combing my hair and raising and lowering the glass of my car window to throw a coin in the Turnpike toll became very significant milestones in my life.

Two months after I began treatment, all my pains had disappeared though I was still troubled by my left eye. As a doctor, I knew that I had not proven that my particular arthritis was caused by aspartame. It may be a coincidence that my pains had disappeared. So I decided to be a scientist with all the risks this carried. First of all, I risked suffering the terrible pains again just to attain some sort of causal proof. And second, if the pains did not return, I would again worry about my mysterious illness. I started my Aspartame loaded diet as a test, consuming colas, yogurts, gelatins and ice creams.

It was with a mixture of happiness and sadness that I woke up the very next day with the familiar throbbing pain, this time in my shoulder.

These events took place several years ago. My vision has returned to around 100% normal. The pains are all gone, yet I know that my joints have suffered permanent damage. All damaged joints, through accidents, sports or arthritic processes, attract calcium and fibrin to the tissues that in the long run may cause permanent arthritic changes. All arthritic process liberates the so-called free radicals, toxic substances that erode the tissue. The only protection against them are antioxidants, especially ones that form SOD. I now take extra dosages of antioxidants and try to apply the lessons that I learned with my arthritis experience.

CONCLUSIONS:

1. I learned that sugar, even when used excessively (sometimes causing terrible health problems) is after all, a natural substance that our immune system recognizes. Never again will I touch artificial sweeteners and I will try to educate my patients as to the very important reasons why.

2. In an effort to substitute nature through chemistry, all adulterated foods have a great possibility (sooner or later) of eventually producing toxic or allergic reactions in certain groups of people.

3. The FDA is intimately related to the pharmaceutical industry. It is important to let the consumers know that many retired FDA officials go to work as special counselors to the pharmaceutical industry. FDA Commissioner Dr. Charles C. Edwards has said "It is not our purpose to endanger the financial
interest of the pharmaceutical companies."

4. FDA ex-commissioner Dr. Robert Liz put it more directly. "What bothers me most is that people believe that the FDA is protecting them....

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