

The following is a lecture I gave in the 1980's on Aspartame. Although it is in outline form, you should will not miss the salient points. PBMD.

ASPARTAME IS A SYNTHESIZED PRODUCT:

i.e. Synthetic and not at all natural

NutraSweet (food additive) : found in over 4,000 products!

Equal (sugar substitute) , the "BLUE PACKAGE"

and there are now other "natural" things made into unnatural things, like Splenda, etc.

COMPONENTS OF SYNTHESIZED ASPARTAME:

METHANOL - 10% PHENYLALANINE - 50% ASPARTIC ACID - 40%

BREAKDOWN PRODUCTS OF ASPARTAME:

Formaldehyde	Dopamine
Formic Acid	Norepinephrine
Wood alcohol	Epinephrine
Beta aspartame	Phenylethylamine
Aspartylphenylalanine	Phenylpyruvate
Aspartylphenylalanine amide	Phenylactic acid
Tyrosine	Phenylacetic acid
L-Dopa	Diketopiperazine (DKP)

Implicated in brain tumor.

DISCUSSION OF THE VARIOUS BREAKDOWN PRODUCTS

I. METHANOL (WOOD ALCOHOL)

- IS** poisonous to man when it stands alone.
- As a constituent of other foods in nature, it is in combination with ethyl alcohol, which counteracts/neutralizes the methanol as it is metabolized.
- There is no ethyl alcohol (ETOH) in aspartame.
- Methanol is not in "free form," unless Aspartame is heated over 80° F. (warehouse)
- 10% of the weight of Aspartame will be absorbed into the bloodstream as methanol within hours of consumption.
- Methanol metabolizes into formaldehyde and formic acid in 12-18 hours after consumption.
- Formaldehyde is known to cause cancer, accumulating slowly without detection in the body.
- Methanol when heated above 85° F in food, liquid or in the body (98.6° F) is quickly absorbed into the bloodstream. (2 teaspoons is a lethal dose in humans!)
- NutraSweet releases one molecule of Methanol for each molecule of Aspartame consumed.

SIGNS OF METHANOL POISONING INCLUDE:

Cerebral Edema

severe headache
impaired articulation
fainting
lethargy
visual loss *, sudden
confusion
parathesias (Numbing, prickling, and shooting pain.)

Pulmonary Edema (fluid in the lungs)

labored breathing
back pain

Abdominal Pain (Pancreatic inflammation)

Leg cramps
Enlargement of heart muscle

* Visual signs are always associated with *acute* toxicity and not chronic

REPORTED SYMPTOMS OF ASPARTAME POISONING:

for slightly more complete list, see the first page

Neurological

Headaches
Nausea
Vertigo
Insomnia
Numbness of extremities
Blurred vision
Blindness and other eye problems
Memory loss
Slurred speech
Mild to suicidal depression
Personality changes
Subtle mood changes
Hyperactivity in adults and children
Seizures (including grand mal)
Anxiety attacks

Other body Symptoms

Numbness
Hearing loss and ear ringing (tinnitus)
Loss or change of taste
Death
Skin lesions
Rashes
Muscle cramping and joint pain
Loss of energy
PMS (premenstrual syndrome)
Menstrual cramps
Irregularity or loss of menstrual cycle
Symptoms mimicking heart attacks
Tachycardia (fast heart rate)
Arrhythmia (usu. Irregular or too fast heart rate)
Edema (swelling)
Gastrointestinal disorders

The FDA and Searle's RESPONSE TO THE ABOVE:

"Methanol occurs *naturally* in fruit juices and vegetables."

They neglect to state it is in *bound* form in nature.

The human body does not have the digestive enzymes that break down the pectin of fruit to release the methanol into the bloodstream.

In addition, natural methanol is always accompanied by ethanol in higher concentrations which acts to protect the body against methanol damage.

FACT: The methanol in Aspartame is in "*free form*" and is *readily absorbed*.

II. PHENYLALANINE

Consumption of phenylalanine when a **natural constituent** of protein **does not** elevate brain phenylalanine levels ;

The protein also elevates plasma levels of other balancing neutral amino acids.

Seizure potentiation is blocked by the amino acid, Valine.

but in pure form

Is neurotoxic and facilitates seizures .

Has deleterious effects of toxicity that do not show up during a short term test.

Metabolism of pregnant women is dramatically altered

phenylalanine may rise to three times the preconception level causing severe retardation of the baby.

(I.Q.s as low as 20) and other birth defects in offspring.

The effect on *rodents* is to raise tyrosine levels which is often the antidote to phenylalanine's damaging effects on the brain.

When humans consume any dose, brain phenylalanine rises *higher than* tyrosine, {which is why rodents are not appropriate test animals}

Serotonin depletion due to the phenylalanine content of Aspartame (see below).

PHENYLALANINE ACTION IN PKU INDIVIDUALS:

- ◆ Mental Retardation. (20 million carriers of this gene are also at risk and do not know it) their gene for controlling phenylalanine hydroxylase is defective.
- ◆ Epilepsy
- ◆ Abnormal EEG
- ◆ Behavior abnormalities:
 - Restlessness
 - Fearfulness
 - Destructiveness and noisiness
 - Night Terrors (nightmares)
 - Uncontrollable Temper
 - Hyperactivity
 - Irritability
- ◆ Hyperactive Tendon Reflexes
- ◆ Hyperkinesis (writhing, rocking, fidgeting)
- ◆ Tremors (the shakes)

GENETICS OF PKU:

Researcher, Dr. Jervis, indicated that PKU was most common in Northern European, or Scandinavian countries and populations derived from this Caucasian stock.

He found NO PKU patients from among 1,000 mentally defective Jews. Neither is it found in blacks, but it is found in people who had one parent Negro-Indian and Negro-White. It is extremely rare in Japanese populations, but not unknown.

BIOCHEMICAL EFFECTS:

Toxic effects are cumulative - does not show up in short-term testing

Lowers or blocks production of Serotonin, thus causing:

- Increased Craving for Carbohydrates
- Mood Swings
- PMS (pre menstrual syndrome)
- Severe Depression
- Insomnia

III. ASPARTIC ACID:

- ◆ Is a neuroexciter (affects the central nervous system), causes cell death by calcium accumulation in the neurons
- ◆ Is neurotoxic in high concentrations.
- ◆ Hazardous to fetus and young children. (Brain tumor)
- ◆ Penetrates the blood brain barrier.
- ◆ Causes death of brain cells (dry abscesses.) --- "holes" in the brains of lab animals. "Silent Lesion", caused genetic damage in mice. ("*en utero* stroke")
- ◆ Under conditions of excess, causes endocrine (hormone) disorders.
 - A. Marked elevation of plasma levels of luteinizing hormone & testosterone in rats.
 - B. Release of gonadotropins and prolactin in rhesus monkeys.
 - C. Luteinizing hormone in the blood is a major determinant of the menstrual cycling in the human female.

ASPARTAME IS OFTEN THE UNIDENTIFIED *environmental trigger* FOR:

◆ Epstein Barr (i.e. EB) virus	◆ Chronic Fatigue Syndrome
◆ Post Polio Syndrome (encephalitis)	◆ Lyme Disease
◆ Carpal Tunnel Syndrome	◆ Miniere's Syndrome (middle ear)
◆ Alzheimer's (pre senile dementia)	◆ ALS (Lou Gehrig's Disease)
◆ Epilepsy	◆ Anxiety/Phobia Disorders
◆ PMS (peri-menstrual syndrome)	◆ Multiple Sclerosis (MS)
◆ EMS (Eosinophilia Myalgia Synd.)	◆ Grave's Disease (Hyperthyroidism)

It is a deadly neurotoxic drug masquerading as an additive.

It interacts with all antidepressants, with L-dopa, Coumadin, hormones, insulin, all cardiac medication, and many others.

It also is a chemical hyper sensitization drug so that it interacts with vaccines, other toxins, other unsafe sweeteners like Splenda which has a chlorinated base like DDT and can cause auto immune disease.

It has a **synergistic and additive effect with MSG.**

Both being excitotoxins, the aspartic acid in aspartame, and MSG, the glutamate people were found using aspartame as the placebo for MSG studies, even before it was approved.

The FDA has known this for a quarter of a century and done nothing even though its against the law.

Searle went on to build a NutraSweet factory and had \$9 million worth of inventory.

ASPARTAME HISTORY

for more complete details read the Time Line Article which follows

- ◆ Discovered by G.D. Searle & Co as a drug for peptic ulcers.
- ◆ Searle & the NutraSweet Co. are both wholly owned subsidiaries of Monsanto Chemical Co. of St. Louis Mo.
- ◆ Ajinomoto Co., Inc. is the Japanese licensee of the Aspartame patent, is reported to ship the main chemical ingredients of aspartame to Searle for manufacturing.

NOTE: All amino acids are manufactured in Japan under their patents, by genetically engineered E. coli bacteria.

HOW ASPARTAME BECAME LEGAL -- THE SHORT STORY

From Rich Murray at rmforall@att.net on 12-24-2002

From Norfolk Genetic Information Network

*(Taken from *Welcome to the Spin Machine* by Michael Manville <http://www.freezerbox.com/archive/2001/04/biotech/>
<http://www.freezerbox.com/>)*

In 1985 Monsanto purchased G.D. Searle, the chemical company that held the patent to aspartame, the active ingredient in NutraSweet. Monsanto was apparently untroubled by aspartame's clouded past, including a 1980 FDA Board of Inquiry, comprised of three independent scientists, which confirmed that it "might induce brain tumors." {Dr. B.: *Note: it did cause such tumors in the original research on mice and Rhesus monkeys.*}

The FDA had actually banned aspartame based on this finding, only to have Searle Chairman Donald Rumsfeld (the Secretary of Defense in 2002 era) vow to "*call in his markers,*" to get it approved.

On January 21, 1981, the day after Ronald Reagan's inauguration, Searle re-applied to the FDA for approval to use aspartame in food sweetener, and Reagan's new FDA commissioner, Arthur Hayes Hull, Jr., appointed a 5-person Scientific Commission to review the board of inquiry's decision.

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

THE TIME LINE

taken from <http://www.swankin-turner.com/aspartame.html> <http://www.swankin-turner.com/hist.html>

ASPARTAME / NUTRASWEET: THE HISTORY OF THE ASPARTAME CONTROVERSY

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December 1965 -- While working on an ulcer drug, James Schlatter, a chemist at G.D. Searle, accidentally discovers aspartame - a substance that is 180 times sweeter than sugar yet has no calories.

Spring 1967 -- Searle begins the safety tests on aspartame that are necessary for applying for FDA approval of food additives.

Fall 1967 -- Dr. Harold Waisman, a biochemist at the University of Wisconsin, conducts aspartame safety tests on infant monkeys on behalf of the Searle Company. Of the seven monkeys¹ that were being fed aspartame mixed with milk, one dies and five others have grand mal seizures.

November 1970 -- Cyclamate, the reigning low-calorie artificial sweetener -- is pulled off the market after some scientists associate it with cancer. Questions are also raised about safety of saccharin, the only other artificial sweetener on the market, leaving the field wide open for aspartame.

December 18, 1970 -- Searle Company executives lay out a "*Food and Drug Sweetener Strategy*" that they feel will put the FDA into a positive frame of mind about aspartame. An internal policy memo describes psychological tactics the company should use to bring the FDA into a "*subconscious spirit of participation*" with them on aspartame and get FDA regulators into the "*habit of saying, 'Yes'.*"

Spring 1971 -- Neuroscientist Dr. John Olney (whose pioneering work with monosodium glutamate was responsible for having it removed from baby foods) informs Searle that his studies show that aspartic acid (one of the ingredients of aspartame) caused holes in the brains of infant mice. One of Searle's own researchers confirmed Dr. Olney's findings in a similar study.²

February 1973 -- After spending tens of millions of dollars conducting safety tests, the G.D. Searle Company applies for FDA approval and submits over 100 studies they claim support aspartame's safety.

March 5, 1973 -- One of the first FDA scientists to review the aspartame safety data states that "*the information provided (by Searle) is inadequate to permit an evaluation of the potential toxicity of aspartame*". She says in her report that in order to be certain that aspartame is safe, further clinical tests are needed.

May 1974 -- Attorney, Jim Turner (consumer advocate who was instrumental in getting cyclamate taken off the market) meets with Searle representatives to discuss Dr. Olney's 1971 study which showed that aspartic acid caused holes in the brains of infant mice.

July 26, 1974 -- The FDA grants aspartame its first approval for restricted use in dry foods. (why....)

August 1974 -- Jim Turner and Dr. John Olney file the first objections against aspartame's approval.

March 24, 1976 -- Turner and Olney's petition triggers an FDA investigation of the laboratory practices of aspartame's manufacturer, G.D. Searle. The investigation finds Searle's testing procedures shoddy, full of inaccuracies and "*manipulated*" test data. The investigators report they "*had never seen anything as bad as Searle's testing.*"

January 10, 1977 -- The FDA formally requests the U.S. Attorney's office to begin grand jury proceedings to investigate whether indictments should be filed against Searle for knowingly misrepresenting findings and "*concealing material facts and making false statements*" in aspartame safety tests. This is the first time in the FDA's history that they request a criminal investigation of a manufacturer.

January 26, 1977 -- While the grand jury probe is underway, Sidley & Austin, the law firm representing Searle, begins job negotiations with the U.S. Attorney in charge of the investigation, Samuel Skinner. (see below July 1, 1977)

March 8, 1977 -- G. D. Searle hires prominent Washington insider Donald Rumsfeld as the new CEO to try to turn the beleaguered company around. A former Member of Congress and Secretary of Defense in the Ford Administration, Rumsfeld brings in several of his Washington cronies as top management.

¹ Expensive test animals.

² Soon the infant monkeys were born with holes in their brains as well.

July 1, 1977 -- Samuel Skinner leaves the U.S. Attorney's office and takes a job with Searle's law firm. (see Jan. 26th)

August 1, 1977 -- The Bressler Report, compiled by FDA investigators and headed by Jerome Bressler, is released. The report finds that 98 of the 196 animals died during one of Searle's studies and weren't autopsied until later dates, in some cases *over one year after death*. Many other errors and inconsistencies are noted. For example, a rat was reported alive, then dead, then alive, then dead again; a mass, a uterine polyp, and ovarian neoplasms were found in animals but not reported or diagnosed in Searle's reports. (same for brain tumors; they cut them out and put the animal back in the study and didn't report the tumors as a side effect of the drug.)

December 8, 1977 -- U.S. Attorney Skinner's withdrawal and resignation stalls the Searle grand jury investigation for so long that the statute of limitations on the aspartame charges runs out. The grand jury investigation is dropped.

June 1, 1979 -- The FDA established a Public Board of Inquiry (PBOI) to rule on safety issues surrounding NutraSweet.

September 30, 1980 -- The Public Board of Inquiry concludes NutraSweet should not be approved pending further investigations of brain tumors in animals. The board states it "*has not been presented with proof of reasonable certainty that aspartame is safe for use as a food additive.*"

January 1981 -- Donald Rumsfeld, CEO of Searle, states in a sales meeting that he is going to make a big push to get aspartame approved within the year. Rumsfeld says he will use his political pull in Washington, rather than scientific means, to make sure it gets approved.

January 21, 1981 -- Ronald Reagan is sworn in as President of the United States. Reagan's transition team, which includes Donald Rumsfeld, CEO of G. D. Searle, hand picks Dr. Arthur Hull Hayes Jr. to be the new FDA Commissioner.

March, 1981 -- An FDA commissioner's panel is established to review issues raised by the Public Board of Inquiry.

May 19, 1981 -- Three of six in-house FDA scientists who were responsible for reviewing the brain tumor issues, Dr. Robert Condon, Dr. Satya Dubey, and Dr. Douglas Park, advise against approval of NutraSweet, stating on the record that the Searle tests are unreliable and not adequate to determine the safety of aspartame.

July 15, 1981 -- In one of his first official acts, Dr. Arthur Hayes Jr., the new FDA commissioner, *overrules the Public Board of Inquiry*, ignores the recommendations of his own internal FDA team and approves NutraSweet for dry products. Hayes says that aspartame has been shown to be safe for its' proposed uses and says few compounds *have withstood*³ such detailed testing and repeated close scrutiny.

October 15, 1982 -- The FDA announces that Searle has filed a petition that aspartame be approved as a sweetener in carbonated beverages and other liquids.

July 1, 1983 -- The National Soft Drink Association (NSDA) urges the FDA to delay approval of aspartame for carbonated beverages pending further testing because *aspartame is very unstable in liquid form*. When liquid aspartame is stored in temperatures above 85 degrees Fahrenheit, it breaks down into DKP and formaldehyde, both of which are known toxins.

July 8, 1983 -- The National Soft Drink Association drafts an objection to the final ruling which permits the use of aspartame in carbonated beverages and syrup bases and requests a hearing on the objections. The association says that Searle has not provided responsible certainty that aspartame and its' degradation products are safe for use in soft drinks.

³ Should have said undergone. It did not withstand...

August 8, 1983 -- Consumer Attorney, Jim Turner of the Community Nutrition Institute and Dr. Woodrow Monte, Arizona State University's Director of Food Science and Nutritional Laboratories, file suit with the FDA objecting to aspartame approval based on unresolved safety issues.

September, 1983 -- FDA Commissioner Hayes resigns under a cloud of controversy about his taking unauthorized rides aboard a General Foods jet. (General foods is a major customer of NutraSweet) Burson-Marsteller, Searle's public relation firm (which also represented several of NutraSweet's major users), immediately hires Hayes as senior scientific consultant.

Fall 1983 -- The first carbonated beverages containing aspartame are sold for public consumption.

November 1984 -- Center for Disease Control (CDC) *"Evaluation of consumer complaints related to aspartame use."*
(summary by B. Mullarkey)

November 3, 1987

U.S. HEARING, "NUTRASWEET: HEALTH AND SAFETY CONCERNS,"

Committee on Labor and Human Resources, Senator Howard Metzenbaum, chairman.

<http://groups.yahoo.com/group/aspartameNM/message/857> RTM: www.dorway.com: original documents and long reviews of flaws in aspartame toxicity research 7.31.2 rmforall <http://www.dorway.com/upipart1.txt> UPI reporter Gregory Gordon: 96K
3-part expose Oct '87

"Survey of aspartame studies: correlation of outcome and funding sources," 1998, unpublished:
<http://www.dorway.com/peerrev.html>

Walton found 166 separate published studies in the peer reviewed medical literature, which had relevance for questions of human safety. The 74 studies funded by industry all (100%) attested to aspartame's safety, whereas of the 92 non-industry funded studies, 84 (91%) identified a problem. Six of the seven non-industry funded studies that were favorable to aspartame safety were from the FDA, which has a public record that shows a strong pro-industry bias.

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See also the Markle - Martini paper