5 Other Adverse Results

"[Aspartame is] associated with neurodegenerative diseases... diabetes 1 and 2, gross obesity...cancer ...immune [system] dysfunction, retinal disorder, arterial sclerosis, multiple sclerosis, lupis... GI disorders and sudden cardiac death."

"Let's just have a quick review of what MSG and the excitotoxins [such as aspartame] *do. Well, they are associated with neurodegenerative diseases, they are associated with neurodevelopmental abnormalities, nervous system injury...endocrine disorders, diabetes Types 1 and 2, Syndrome X, gross obesity, enhanced cancer growth and spread, immune dysfunction, retinal disorder, arterial sclerosis, multiple sclerosis, lupis and other auto-immune disorders, GI disorders and sudden cardiac death."*[1]

—Dr. Russell Blaylock, neurosurgeon

The above quote exposes the wide range of adverse effects that may be associated with aspartame. The following sections show my rats on aspartame experiencing these health issues:

Neurological disorders within the aspartame group

Does aspartame cause neurological disorders? In the Index of *Aspartame Disease, an Ignored Epidemic*, Dr. Roberts lists the following "neurologic complications" that he observed in his patients as possibly being associated with aspartame consumption:

"Alzheimer's, amyotrophic lateral sclerosis (ALS), attention-deficit disorder and hyperactivity, carpal tunnel syndrome, cataplexy, confusion, dizziness, dopa-responsive dystonia, facial pain, hypnagogic hallucinations, intellectual deterioration, memory loss, motor neuron disease, muscle weakness, myasthenia gravis, neuralgia, Parkinson's disease, peripheral neuropathy, pseudotumor cerebri, restless legs syndrome, Sjogren's syndrome, sleep apnea, sleep paralysis, slurring of speech, multiple sclerosis, Tourette syndrome, tremors, unexplained blackouts, unexplained pain, unsteadiness."[2]

The following subsections show images of aspartame rats that appeared to have various types of neurological disorders.

Paralysis

"I have been seeing doctors for over three years now trying to find out why I am being turned into a cripple. I have severe weakness in upper legs and upper arms, they have tested me for everything under the sun and keep telling me I do not have anything they recognize... I started to notice that my bad cycles coincided with how much diet soft drink I was using at the time."[3]

During my experiment, the hind legs of the male on aspartame in Figure 5-1 became paralyzed.

The hind legs of this male became paralyzed.

FIGURE 5-1: The hind legs of this male on aspartame became paralyzed

ALS, also known as Lou Gehrig's disease, can lead to paralysis. According to Dr. Blaylock, *"There is growing evidence that excitotoxins* [such as aspartame] *play a major role in a whole group of degenerative brain diseases in adults—especially the elderly. These diseases include Parkinson's disease, Alzheimer's disease, Huntington's disease...ALS, as well as several more rare disorders of the nervous system."*[4]

Spasmodic torticollis

Figure 5-2 shows a female on aspartame who continually twisted her head to her left, similar to the human disease, idiopathic spasmodic torticollis[5] (IST). eMedicine states that: "*Torticollis is a condition that causes the neck to involuntarily twist to one side secondary to contraction of the neck muscles. The ear is tilted toward the contracted muscle and the chin is facing the opposite direction.*" It is interesting to note that eMedicine states that torticollis may be chemically-induced.[6]

This female's neck was continually twisted to the left.

In humans, this is a symptom of the neurological disorder spasmodic torticollis, also referred to as dystonia.

FIGURE 5-2: This female on aspartame appeared to have torticollis

In *Aspartame Disease, an Ignored Epidemic*, H.J. Roberts, MD, discusses dopa-responsive dystonia being adversely affected by the ingestion of aspartame because of its breakdown component phenylalanine: "*Hereditary progressive dystonia is another neurologic disorder that usually affects children...Patients with this condition (at times misdiagnosed as cerebral palsy) can be adversely affected by ingesting phenylalanine because of decreased hepatic phenylalanine hydroxylase activity."*[7]

Cerebral palsy

"During my pregnancy with my nine year old, I consumed sugar-free frozen yogurt (I craved it!) and he was born four months early, weighed one pound, nine ounces and now suffers from cerebral palsy and mental retardation. Until now, we all assumed that these were both due solely to premature birth. Now I wonder if he was born prematurely because I consumed aspartame and if so, did the aspartame cause all of this?"[8]

I was unable to capture it on camera, but one of my females continually moved her head from side to side. I was told by a doctor that such movement could be a symptom of cerebral palsy.

According to aspartame investigator Jim Bowen, MD, and former FDA investigator Arthur Evangelista, "*During maternal aspartame consumption, development of the fetal nervous system is damaged or impaired via excitotoxic-saturated placental blood flow that can cause or contribute to cerebral palsy and pervasive developmental disorders...*

"*This is due to an incompetent blood brain barrier and neuronal (brain) damage produced by excitotoxins circulating in the fetal brain areas. This is especially true for those areas adjacent to the brain's ventricular system. There is no doubt that destruction or damage of the hypothalamus and cor-*

responding neuro-endocrine organs leads to potential developmental complications (physical and mental)."[9]

Dr. Louis Elsas, then director of Emory University School of Medicine, Department of Pediatrics, Division of Medical Genetics, testified before Congress on November 3, 1987, that he had spent 25 years *"trying to prevent mental retardation and birth defects caused by excess phenylalanine. And herein lies my basic concern, that aspartame is in fact a well known neurotoxin and teratogen which, in some as yet undefined dose, will both reversibly in the adult and irreversibly in the developing child or fetal brain, produce adverse effects."*[10]

"Many studies of both acute and chronic ingestion of 34 mg aspartame/kg/day have demonstrated a two- to five-fold increase in semi-fasting blood phenylalanine concentrations (from approximately 50 to 250 μM) without concomitant increases in tyrosine or other amino acids. The degree of increase by normal humans depends on several variables including the efficiency of gut transport, liver utilization and growth rates. It was thought by many scientists that this degree of blood phenylalanine increase would not affect brain function. However, currently available information indicates that this is not true.

"In the developing fetus such a rise in maternal blood phenylalanine could be magnified four to six fold by the concentrative efforts of the placenta and fetal blood brain barrier. Thus, a maternal phenylalanine of 150 μM could reach 900 μM in the developing fetal brain cell and this concentration kills such cells in tissue culture. The effect of such an increased fetal brain concentration in vivo would probably be much more subtle and expressed as mental retardation, microcephaly, or potentially certain birth defects.

"In the rapidly growing post-natal brain (children of 0-12 months) irreversible brain damage could occur by the same mechanism.

"In the adult, we have found that changes in blood phenylalanine in these concentration ranges are associated with slowing of the electroencephalogram, and prolongation of cognitive function tests. Fortunately, these effects on the mature brain are reversible but provide clear evidence for a negative effect on sensitive parameters of brain function."[11]

Difficulty walking

"The top of my feet have become numb and my walking gait has changed... The only aspartame that I consume is from sugarless gum. I had been chewing up to 24 pieces per day. Is that enough to cause problems?"

"I am a 68 year old male. I have been a runner and then a walker for the last 26 years, until I developed a problem with my feet. The top of my feet have become numb and my walking gait has changed. I went to the doc, he did a brain and back scan. The results came back OK. I would walk 10 to 12 miles per day at a 14 minute pace, 6 days a week... Since my walking gait has changed, my pace has slowed and I am not as steady as I had been... On the web, I found a connection with walking gait change, foot drop and MS [multiple sclerosis]. *The only aspartame that I consume is*

from sugarless gum. I had been chewing up to 24 pieces per day. Is that enough to cause problems?"[12]

Note: According to the website aspartamekills.com, "In the May 1992 edition of their journal, Flying Safety, the United States Air Force warned all pilots to stay off aspartame, stating: 'Some people have suffered aspartame related disorders with doses as small as that carried in a single stick of chewing gum."[13]

According to Jim Bowen, MD, "Aspartame in chewing gum is absorbed directly though the buccal mucosa of the tongue, mouth, and gums, making it a far worse poisoning than even if it were given intravenously. The nerves serving this area and their vascular supply derive directly from the brain, so the aspartame absorbed through them goes directly into the brain, by-passing the spinal cord and blood brain barrier."[14]

The male shown in Figure 5-3 had trouble walking and frequently fell over. His body leaned toward the left. He also appeared to have mild symptoms of torticollis. See "Spasmodic torticollis" on page 45.

While walking, this male's body continually leaned toward the left.

FIGURE 5-3: Male on aspartame with difficulty walking and mild symptoms of torticollis

The female shown in Figure 5-4 also had trouble walking.

This female also leaned toward the left as she walked.

Her leaning is so extreme in this photo, it looks as if she is falling.

.

FIGURE 5-4: Female on aspartame with difficulty walking

Eye disorders within the aspartame group

"For many years I had consumed four to five diet sodas daily. I am a jogger and very active with a pretty good diet...In 2002 I had an eye infection and had to see an opthalmologist who told me I had a fairly advanced cataract in one eye and the beginnings in the other. My father had them so I assumed that this was genetics. In August, 2004 I went back for a check-up and the opthalmologist said that he felt that I should consider surgery on the left eye. I put it off. Then I received some of the material about aspartame from a friend...As I read this stuff I could not believe how many of the symptoms they described fit me. After quitting aspartame for approximately two months I had my most recent eye exam in Aug. 05. The quote: 'Your eyes look fantastic...no surgery needed.'"[15]

This section shows rats on aspartame with eye infections, bleeding, and protruding eyes.

Eye infections

According to Dr. Janet Starr Hull, when consuming aspartame you are more likely to have an "increased susceptibility to infection."[16] Dr. Roberts also reports possible correlations between aspartame consumption and infection, including that associated with acquired immune deficiency syndrome, chronic Epstein-Barr infection, rheumatic fever, and yeast infection.[17] Regarding the possible mechanisms involved, Dr. Roberts states that:

"Increased phenylalanine [a breakdown component of aspartame] *appears to alter cell-mediated immunity. This is evidenced by the enhanced immunity*

noted in both animals and humans placed on phenylalanine restriction.[18] *In turn, elevation of the serum phenylalanine by infection can contribute to a vicious cycle. The phenylalanine/large neutral amino acid ratio increases in acute infection by as much as 50 percent."*

In my study, I observed two males and a female with eye infections, as shown in Figure 5-5 through Figure 5-7. The male in Figure 5-5 developed an infection in his right eye.

This male and the female below developed eye infections.

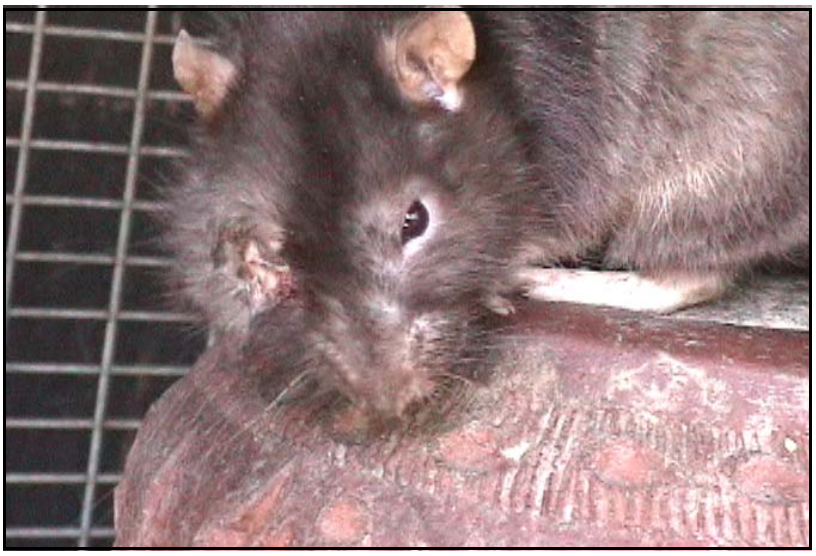

FIGURE 5-5: Male on aspartame with an infection in his right eye

The eyes of the female in Figure 5-6 also became infected.

Note the eye puffiness and pool of blood under her left eye.

Mutant tooth

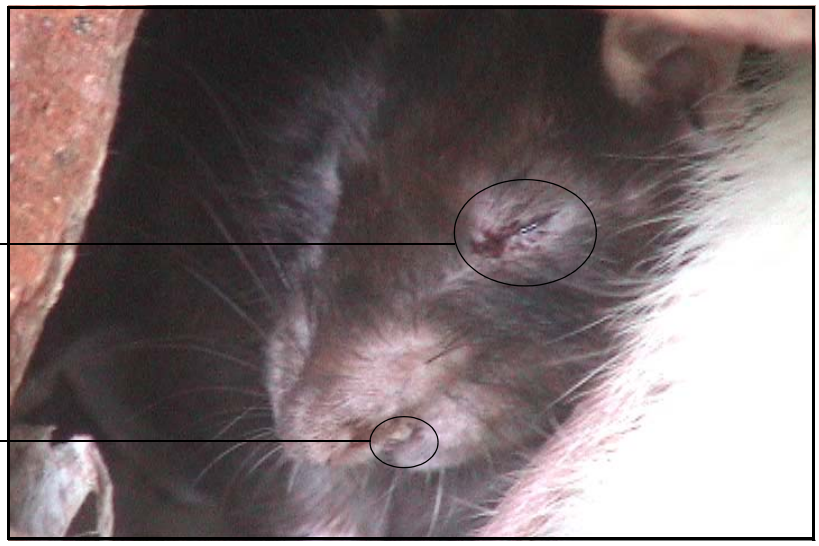

FIGURE 5-6: Female on aspartame with infected eyes

The female in Figure 5-6 also developed a mutant tooth (see Figure 5-21 for an earlier, healthier photo) that resulted in an infection around her mouth

that almost hides the tooth in this photo. Look closely, and you'll see blood pooled below her left eye. Also see "Bleeding eyes" on page 52.

The male in Figure 5-7 developed an eye infection after a fight.

FIGURE 5-7: This male on aspartame also had an eye infection

The rats on aspartame seemed significantly more aggressive than the controls.

Speaking of fighting, the rats on aspartame seemed significantly more aggressive than the controls. I once saw two males on aspartame on their hind legs fighting violently. The controls were relatively passive.

According to the *National PKU News*, a high blood level of phenylalanine, the majority breakdown (50%) component of aspartame, may induce aggressive behavior. According to the Q&A section of the *National PKU News* website, *"one gram* [of] *aspartame would contain approximately 500 milligrams of phenylalanine...people with PKU on the diet should try to avoid eating foods and consuming medicines that contain aspartame."*

The Q&A section of the website continues:

"Q. My daughter is three years old and I was wondering: if her levels are high for a short period of time (between blood tests) can that cause intermittent episodes of behavior problems or is she just being a three-year-old?

"A. Based on reports I have heard from families, I do think it is possible that intermittent higher levels can cause behavior changes. It seems that some children are more sensitive to higher phe [phenylalanine] *levels than others... The important thing is to try to control her diet very consistently.*

"Q. Is there a relationship between PKU and aggressive tendencies? I am a teen who has a problem with becoming extremely angry and aggressive, almost violent at times. Is this common, or is it just me?

"A. This behavior suggests to me that you are either off the diet, or if you are on the diet that your blood phe levels are too high. PKU patients who are off diet or whose levels are too high are often aggressive and less stable."[20]

Bleeding eyes

In addition to bleeding in the eyes of the female in Figure 5-6, the eyes of the male in Figure 5-8 were visibly bleeding.

FIGURE 5-8: This male on aspartame had bleeding eyes

The eyes in the female on aspartame shown in Figure 5-9 also appear to have been bleeding. This female also had a mammary or lymph gland tumor as shown in Figure 4-8.

FIGURE 5-9: This female on aspartame appeared to have bleeding eyes

This adverse effect of aspartame has also been found to occur in humans. According to psychiatrist Ralph Walton, MD, "*In our double-blind study here at this hospital, we had really a tragic situation which occurred, which*

I attributed directly to the aspartame. We needed volunteers. We looked at both patients, that is people who had a history of a mood disorder. And we needed some controls, that is, people without a history of mood disorder.

"Several days into the study he had sudden bleeding in his eye and a detachment of his retina."

One of the people that I used in the study was the administrator for our psychiatric staff with a PhD in psychology. Several days into the study he had sudden bleeding in his eye and a detachment of his retina, and had to be rushed to Cleveland for emergency surgery. His eye could not be saved. He lost the vision in one eye. At the same time, we had another participant in this study—a nurse—who also had bleeding in her eye. So we had two people who during the course of the study had eye emergencies.[21] Dr. Walton subsequently discontinued the study.

Protruding eyes

The female in Figure 5-10 appeared to have protruding eyes—a symptom of the thyroid disorder called Grave's disease in humans.[22] This is a more subjective evaluation than my other observations, and I admit I may be wrong about it. However it did seem like the eyes of some rats were protruding more than others. If you look through the photos, you may see what I mean. Since Grave's disease is a reported effect of aspartame, it merits discussion.

According to Dr. Janet Starr Hull, "*In 1991, I was diagnosed with an 'incurable' case of Grave's Disease, a fatal thyroid disorder. I never really had Grave's Disease but my doctors were convinced I did. I had aspartame poisoning with symptoms of 'textbook' Grave's Disease caused by aspartame saturating my foods*."[23]

FIGURE 5-10: This female on aspartame had protruding eyes

One of the symptoms of Grave's Disease is protruding eyes. Aspartame survivor and anti-aspartame activist Dr. Janet Hull wrote the following about her experience with aspartame-induced Grave's Disease to Carol Guilford:

"I had protruding eyes, cystic acne, and my hair was falling out in clumps. I had gained 30 pounds, too."

"*Yes, I had protruding eyes, cystic acne, and my hair was falling out in clumps. I had gained 30 pounds, too. ALL that went away within a year from stopping all aspartame. I even had holes in my retina from the methanol, and those have closed up now. All backed up by my eye surgeon.*"[24]

The females in Figure 5-11 and Figure 5-12 also had protruding eyes.

Protruding eyes are a symptom of the thyroid disorder called Grave's Disease

FIGURE 5-11: Females on aspartame with protruding eyes

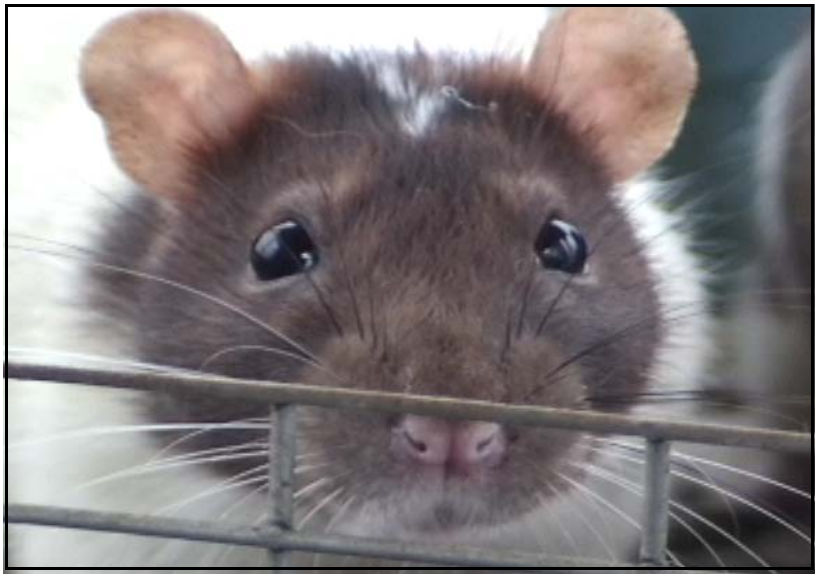

FIGURE 5-12: Female on aspartame with protruding eyes

Blindness

"Several years ago I used to consume about one roll of aspartame-containing mints per day. After having an eye exam where the doctor performed the 'air jet' test, I developed obliterative vasculitis. The tiny veins in my eyes were breaking and bleeding, which nearly blinded my left eye."

"Several years ago I used to consume about one roll of aspartame-containing mints per day. After having an eye exam where the doctor performed the 'air jet' test, I developed obliterative vasculitis. The tiny veins in my eyes were breaking and bleeding, which nearly blinded my left eye. (I quit those mints MANY years ago but should have done so sooner). I then went to another eye doctor who performed laser eye surgery and completely healed my right eye. The left eye was mostly healed, but now I suffer from macular degeneration or warping in that eye. It is like having a movable black zone or blind spot, but fortunately my right eye has been able to compensate. The vision tester at the DMV thought I was completely blind in that eye."[25]

I was unable to get video, and it probably would have been difficult to see in a photo, but one of my females on aspartame moved as if she were blind. Blindness has also been reported as one of the adverse effects of methanol, a breakdown component of aspartame.

Skin disorders within the aspartame group

By 1987 the FDA had already received over 3,600 consumer complaints about aspartame.[26] The Aspartame Consumer Safety Network reported in 1996 that they had filed over 10,000 consumer complaints with the FDA.[27] The adverse effects attributed to aspartame in complaints submitted to the FDA were published in April 1995 by the FDA's parent organization, the Department of Health and Human Services (HHS). The data was obtained by a Freedom of Information Act (FOIA) request by reporter Barbara Mullarkey.[28] It included a list of 92 symptoms reportedly resulting from aspartame[29] that shows 114 people reporting skin problems.

The male on aspartame in Figure 5-13 had an open ulcer above its right hind leg that never healed.

This male developed an open ulcer on his left side.

FIGURE 5-13: Male on aspartame with an open ulcer that never healed

These males on aspartame developed skin lesions.

The males on aspartame in Figure 5-14 through Figure 5-17 had skin lesions.

FIGURE 5-14: Male on aspartame with a skin lesion

FIGURE 5-15: Another male on aspartame with a skin lesion

These males on aspartame also developed skin lesions.

FIGURE 5-16: Another male on aspartame with a skin lesion

FIGURE 5-17: Male on aspartame with a skin problem

The male in Figure 5-17 had a skin problem and thinning fur. Also see "Thinning fur" on page 58.

About one-third of the skin on the back of the aspartame female shown in Figure 5-18 became separated from her body about a week before she died.

The skin of this female started coming off the week before she died.

FIGURE 5-18: Female on aspartame with a severe skin problem

Thinning & yellowing fur within the aspartame group

The following subsections describe rats with thinning and yellowing fur.

Thinning fur

"I was buying 12 packs of Diet Coke...I would grab a 12 pack every other day... On March 11th, 1999... I was feeling very sick. I hadn't felt good for a few years now. I was always tired. Full of aches and pains. Felt like I was ready to have my 90th birthday. That is when I realized how much Diet Coke had taken over my life. So what symptoms did I have...Thirst - Weight gain (50 lb.) - Tired all the time - Aches in my joints - Throbbing headaches - Hair loss - Blurred vision - Mood swings - Depression - Couldn't think straight - Lived in a haze - Cramps - Rashes - Numbness in my legs & arms - Confusion...

"My mother...was worried about my consumption of Diet Coke...Mother had heard about...how aspartame was bad for you and caused brain cancer. Well... I shrugged it off.

"By the time I figured out what was causing it. I had lost about half my hair volume."

"The hair loss caused me great pain. As a teenager I had the thickest most beautiful hair. I would comb my hair and have a sink full of it. Just running my hands through my hair would produce a hand full. It fell out all over the place...By the time I figured out what was causing it. I had lost about half my hair volume.

"On March 11th, 1999... I was talking to my boyfriend and for some reason I picked up my Diet Coke can. The word ASPARTAME stuck out at me...So I typed in aspartame into Excite and I found www.aspartamekills.com...I dumped my Diet Coke out and I have not touched it since.

"All those symptoms above I listed. They are all gone. Every one of them. My hair is even growing back. I can comb my hair without a ton of hair on my brush instead of my head. My hair stopped falling out within a week. It is amazing how I feel."

"All those symptoms above I listed. They are all gone. Every one of them. My hair is even growing back. I can comb my hair without a ton of hair on my brush instead of my head. My hair stopped falling out within a week. It is amazing how I feel."[30]

The males on aspartame shown in Figure 5-19 and Figure 5-20 had thinning fur.

FIGURE 5-19: Aspartame males started losing their fur.

FIGURE 5-20: Aspartame male losing his fur.

A few of the rats in the control group also developed thinning fur, so I thought it may be part of the normal aging process. However, some suspect that aspartame is the cause of their hair loss. Recall that Dr. Janet Hull com-

plained of "*hair falling out in clumps*" in the quote on page 54, and here's another person's experience:

"I am a 40 year old woman...Until six months ago I had glorious, thick auburn hair. Now, I have the horseshoe patterns with tufts of hair on top, as is frequently seen in balding men.

"I have always consumed 3 to 6 diet sodas per day, and have never noticed any problems with my hair until recently...About a year ago I decided to make a conscious effort to eliminate all refined sugar and high fructose corn syrup from my diet. This eliminated not just any candy, cookies, ice cream, etc., but also most fruit juices (read the labels!) and also, fruit flavored yogurt and fruit preserves/jams/jellies. I replaced these items in my diet with 'Lite' versions, which contain NutraSweet (aspartame)...

"[My] *hair started falling out in clumps and within the passing of two months, I had lost more than half of the hair on my head!"*

"For a few months, I noticed that my scalp felt 'tight'...Then, the hair started falling out in clumps and within the passing of two months, I had lost more than half of the hair on my head! My scalp is now clearly visible over the top and sides of my head, and the hair in the back of my head is noticeably (to me) thinner.

Any time I touch my head, my hand comes away with 10 or more hairs, which are very thin at the scalp end (the recent growth of 1/4 inch is less than half the thickness of the rest of the strand) and the root is still attached when the hair falls out. Does anyone else suspect their alopecia is due to use of NutraSweet?!?!?!?[31]

Yellowing fur

According to the book *The Rat*,[32] yellowing fur can be an effect of the natural aging process. The World Health Organization, however, reports that yellowing fur can be a symptom of formaldehyde exposure,[33] and formaldehyde is a breakdown component of the methyl-alcohol factor of aspartame. Formaldehyde has been shown to collect and persist in vital organs after the consumption of aspartame. According to the Trocho study:

"The chronic treatment of a series of rats with 200 mg/kg of non-labelled [non-radioactive] *aspartame during 10 days resulted in the accumulation of even more label* [radioactive formaldehyde] *when given the radioactive bolus* [a very large amount of radioactive aspartame administered at a single time]*, suggesting that the amount of formaldehyde adducts* [a formaldehyde adduct is the accumulation of formaldehyde bound to proteins] *coming from aspartame in tissue proteins and nucleic acids may be cumulative. It is concluded that aspartame consumption may constitute a hazard because of its contribution to the formation of formaldehyde adducts."*[34]

Note: My understanding of this quote is that when the body is still metabolizing non-radioactive formaldehyde that has accumulated from previous dosages of non-radioactive aspartame and is given a large amount of radioactive aspartame at a single time (a bolus), then more of the radioactive formaldehyde remains in the body because the non-radioactive formaldehyde is still being processed.

Formaldehyde adducts are difficult to eliminate from the body. They damage the nervous and immune systems and cause irreversible genetic damage.[35]

Formaldehyde is often found in dark wines.[36] A few years ago, a friend of mine became the caregiver for her 80-something year-old father after his previous caregiver gave him copious amounts of wine while forging his name on his checks. (She later went to jail for forgery.) My friend said that her father's hair was yellow when she first started caring for him. After weaning him off the wine, his hair returned to its natural white.

In my experiment, the females on aspartame shown in Figure 4-4 through Figure 4-13 and the males on aspartame shown in Figure 4-21 and Figure 4-22, appear to have yellow tinges or patches on their otherwise white fur. The white and black control females shown in Figure 4-28 through Figure 4-31 also appeared to have yellowing fur, though in general the yellowing appeared to be significantly less than on the fur of the white and black females in the aspartame group.

I was unaware of the issues surrounding yellowing fur until writing this report, and therefore did not look for it on my rats during the experiment. So there may have been others with yellowing fur that I did not photograph.

Mutations within the aspartame group

In 1992, my grandson Cameron was born with multiple birth defects involving his head and face.

He...is unable to speak, sit by himself, walk, and is unable to reach out to grasp something in his hands or to fend for himself in any way.

In 1992, my grandson, Cameron was born with multiple birth defects involving his head and face. He has hydrocephalus, Dandy-Walker Syndrome, a cleft lip and palate (now repaired) and is unable to speak, sit by himself, walk, and is unable to reach out to grasp something in his hands or to fend for himself in any way. He is, however, mentally cognizant and responds to us by blinking his eyes or smiling in answer to our questions. Doctors have no clue as to what caused his birth defects. The best we could figure was that my daughter had a high fever and some kind of flu when she was six weeks pregnant. We have always just assumed that the fever or virus caused his defects, although I know many pregnant women who have fevers without getting defective children. She was drinking large amounts of diet sodas before and after his conception until she found out she was pregnant. I read that it alters DNA.[37]

The female on aspartame shown in Figure 5-21 had a tooth growing outside her mouth. According to the book *The Rat*, "*Rats do not usually get overgrown teeth, but it does happen. Rats' teeth grow throughout their lives, which is why rats constantly chew and gnaw.*"[38]

I understand that if rats are not provided chewing toys, this can happen. Both my control and study rats, however, were provided pieces of wood and other things to chew on.

While writing this report, I searched online for photos of other rats with teeth growing outside their mouths and found two of them. In my mind, it remains a question whether the overgrown tooth is a natural occurrence or a mutation, because as mentioned earlier, the formaldehyde breakdown component of aspartame can damage DNA, which in turn can cause mutations.

FIGURE 5-21: Aspartame female with a mutant tooth

Obesity within the aspartame group

"Consuming aspartame seems to trigger a hunger type feeling, even if I have just eaten, whereas if I abstain from aspartame, I would be satisfied. Does this have any scientific validity, or am I just imagining it? I really get ravenous after consuming 'straight' aspartame like in a diet coke, versus aspartame added to a food, like a milkshake or oatmeal sweetened w/ aspartame."[39]

"Two-thirds of adult American women fall into the overweight or obese category."

According to a December 2007 online article from *Newsweek*, "*Two-thirds of adult American women fall into the overweight or obese category, according to their BMIs* [body mass index]*...A* [November 2007] *report from the Centers for Disease Control* [CDC] *found that the prevalence of obesity among U.S. adults doubled between 1980 and 2004 and has since stabilized at an alarmingly high level. Compared to women of a generation ago, we're 24 pounds heavier on average, and there's been an especially alarming increase in those at the upper end of the scale (not just obese, defined as a BMI of 30 or higher, but significantly obese, with a BMI above 35)*."[40]

Aspartame was introduced to the American public in dry goods starting in July of 1981, and in beverages in 1983.[41] In 2004, aspartame's prior meteoric rise in sales started reversing in North America. According to aspartame vendor Merisant's annual report, sales of aspartame in North America were down from $146,000,000 to $113,500,000 or 22% in 2005 over 2004. Aspartame sales also decreased for the company by 9.3% in North America from 2003 to 2004.[42]

The overlap in dates between the rise and stabilization of the obesity epidemic among women described in the Newsweek article and the rise and descent of aspartame sales in North America appear to indicate a possible positive correlation between the two events.

This correlation appears to be confirmed by a study from the Federal Centers of Disease Control and Prevention. A 2008 report from the Associated Press states that *"The percentage of American children who are overweight or obese appears to have leveled off after a 25-year increase, according to new figures that offer a glimmer of hope in an otherwise dismal battle...Overall, roughly 32 percent of children were overweight but not obese, 16 percent were obese and 11 percent were extremely obese, in a study based on in-person measurements of height and weight in 2005 and 2006. The results are based on 8,165 children ages 2 to 19 who participated in nationally representative government health surveys in 2003-04 and 2005-06....*[The] *levels were roughly the same as in 2003-04 after a steady rise since 1980."*[43]

By adding up the percentages of overweight and obese children in the study, we see that 59% of the children were considered overweight or obese. That appears to correlate loosely with the number of females in the CDC study, which showed that 67% of the women were overweight or obese. That stands to reason to me, because women probably use more diet products than children. We now need a study on men over the same time period.

During my experiment, the female on aspartame in Figure 5-22 grew obese. The male with a tumor shown in Figure 4-25 also grew obese.

This female grew fat, which is also an adverse effect of MSG. (MSG is given to lab rats to make them gain weight.)

None of the rats from the control group became fat.

Ironically, aspartame is sold to help people lose weight.

FIGURE 5-22: Female on aspartame that became obese

Jack Samuels, founder of the website truthinlabeling.org explains that:

"MSG and aspartame can cause weight gain...When we eat foods with aspartame and/or MSG, it is now clear that it affects insulin levels, causing people to have the urge to eat more in order to balance the insulin levels. It is apparently the result of an increased level of the hormone glucagon, in the body from the excitotoxins."[44]

According to the scientific literature, aspartame stimulates and increases the appetite for carbohydrates. In fact, a recent study shows that each can of diet

soda increases the risk of being overweight by an unbelievable 41%![45] Leading anti-aspartame advocate and neurosurgeon Dr. Blaylock explains the various mechanisms that together contribute to weight gain from excitotoxins such as aspartame:

"In 1969, neuroscientist Dr. John Olney discovered that feeding newborn rats MSG (monosodium glutamate) caused them to become grossly obese. Each time he repeated the experiment, he saw the same thing. Subsequent studies have shown that this phenomenon occurred in most animal species, indicating that it wasn't something peculiar to the rat. The effects of MSG are now so well established that the substance is routinely used in experimental obesity studies on animals.

"In fact, scientists have also discovered how it was producing the obesity. For over fifty years, researchers knew that a pinpoint injury to certain parts of the hypothalamus portion of the brain would cause an animal to become grossly obese. What they would later discover was that MSG itself actually destroys the same area in the hypothalamus.

"An intensive 1995 review of MSG toxicity by the Federation of American Societies for Experimental Biology (FASEB) concluded that infant formula contained a dose of glutamate (the toxic ingredient in MSG) in the form of caseinate (cow's milk protein) that would sufficiently produce the very same brain injury seen in experimental animals.

"Disturbingly humans are five times more susceptible to MSG toxicity than even the most sensitive lab animal. And babies are four times more sensitive than adults. It is this early exposure to MSG and other excitotoxins that leads to gross obesity...Recent studies have shown that obese animals actually have the metabolic syndrome, which is now seen in 50 million adults in the United States...The metabolic syndrome is the cause of type-2 diabetes as well as hypertension and atherosclerosis.

"Science proves that excitotoxins can trigger metabolic syndrome and obesity.

"Essentially, science proves that excitotoxins can trigger the metabolic syndrome and obesity. And we know that the level of excitotoxins added to our food is at least equal to (and sometimes exceeds) the amount needed to produce the metabolic syndrome in animals.

"Recent studies have shown that glutamate (MSG and other excitotoxins) can powerfully stimulate the insulin-producing cells of the pancreas. Excess insulin can cause atherosclerosis, hypertension and type-2 diabetes by stimulating chronic inflammation. And remember that insulin resistance can also lead to high insulin levels. Of course, the obese MSG animals experience all this as well. It all fits in with what we are seeing in human beings. And one other part of the obesity puzzle has recently been pieced together.

"In discussions about obesity, you may have heard about something called leptin. This enigmatic chemical is produced in the fat cells and controls many things, including fat accumulation. Normally, when leptin surges into the blood, it enters the brain and acts within a specific group of neurons inside the hypothalamus to powerfully suppress the appetite and increase fat burning, thereby making us thinner. But MSG and other excitotoxins damage the very nucleus of brain cells needed to do this. Those cells are known as the arcuate nucleus. This vital collection of neurons is the area of the

brain most sensitive to excitotoxins. In experiments, MSG rendered leptin ineffective, causing the animals to become grossly obese. Scientists call this leptin resistance, an occurrence linked to obesity in both children and adults. While it is soon after birth that a child may first be exposed to foods containing MSG and other excitotoxins, the effects persist for a lifetime.

"Also, excitotoxins like MSG cause more glucose to enter fat cells, preventing it from being burned in muscle cells as it should. As a result, more fat accumulates, especially around organs and within the abdomen. This visceral fat is the root of all the of the metabolic syndrome's bad effects.

"Unbelievably, dietitians, medical doctors and many public institutions are promoting the use of 'diet' soft drinks and other foods sweetened with aspartame (NutraSweet, Equal, etc.) as the answer to the problem of obesity.

"Like glutamate, aspartame stimulates the pancreas to secrete insulin, making you hungry—...the more you drink, the hungrier you get."

"Aspartame is made up of three components: phenylalanine, methanol and aspartic acid. Aspartic acid (aspartate), like glutamate, is an excitotoxin. It is just as capable as glutamate of doing damage to cells and brain nuclei. In fact, one of the acknowledged effects of aspartame is weight gain. The FDA even lists increased weight as one result of using the sweetener. Like glutamate, aspartame stimulates the pancreas to secrete insulin, making you hungry—especially for sweets. And the more you drink, the hungrier you get. Just like glutamate, aspartame destroys the arcuate nucleus, which in turn produces leptin resistance. As a result, you get fat."[46]

A study that came out in August 2008 has confirmed that the consumption of MSG causes weight gain in humans. Researchers at the University of North Carolina at Chapel Hill and in China "*studied more than 750 Chinese men and women, aged between 40 and 59, in three rural villages in north and south China. The majority of the study participants prepared their meals at home without commercially processed foods. About 82 percent of the participants used MSG in their food. Those users were divided into three groups based on the amount of MSG they used. The third who used the most MSG were nearly three times more likely to be overweight than non-users*."[47]

Now for my own personal story. Recall the statistic from the beginning of this section: "*Two-thirds of adult American women fall into the overweight or obese category, according to their BMIs."*

While consuming aspartame and MSG, I became *morbidly obese*, also referred to as *clinically severe obesity*, when one weighs more than 100 lb. (45.5 kg) over his or her ideal weight. Figure 5-23 shows a slim version of myself in 1988 at the age of 40.

Here's a photo of me in 1988.

FIGURE 5-23: Victoria in 1988

At that time I was *vegan*; I ate no animal products. I ate mostly raw fruits and vegetables, a diet similar to the one that brought Demi Moore at 40 into fabulous shape for the movie *Charlie's Angels—Full Throttle*.[48] I consumed no aspartame during that time.

Note: For one of the best books on the subject, see* The Raw Food Factor *by Susan Schenck, available through the For More Info link on my website, aspartameexperiment.com. As Amazon associates, I receive 10% of Amazon's price to support my ongoing work.

For ways you can lend your support, see "How to Support this Work" on page 74 or visit the link of that name on my website.

Figure 5-24 shows a photo of me at age 60, taken for this book on August 6, 2008.

This photo from August, 2008 shows how much weight I gained.

FIGURE 5-24: Victoria in August 2008

About a year after the first photo I went through a trauma from which it took several years for me to recover. I lost my discipline to stick to the living foods program and although I was still primarily vegetarian, I was no longer vegan. I started eating dairy products along with foods containing MSG, such as soy burgers, soy chicken patties, soy sausage links, soy bacon, and soy chorizo. I also resumed drinking diet sodas, a habit I had developed as a teenager. Based on my research and personal experience, I have come to believe that all processed soy products contain glutamic acid, the excitotoxic component of MSG. I stopped drinking diet sodas about nine years ago, and stopped eating soy products about four years ago. I have been struggling to lose weight with various degrees of success and about the same amount of failure for a number of years. To be fair, there were other factors that I feel contributed to my weight gain that I plan to address in a future publication, along with the details of my struggle.

Miscellaneous adverse effects among my control rats

All control rats were free of visible symptoms of neurological damage. Some males from the control group developed thinning fur. One female from the control group had skin problems.

All control rats were free of visible symptoms of neurological damage. Some males from the control group developed thinning fur. One female from the control group had skin problems; however, the damage appears to have occurred after death (see Figure 4-31 on page 43). Some females from the control group appeared to have slightly yellowed fur, but not as yellowed as the fur on the rats in the aspartame group (see "Yellowing fur" on page 60). It has come to my attention that my control rats appear to have been healthier than those in most studies. I was actually concerned when some controls developed tumors, and investigated possible causes such as pesticides in their food and the type of bedding I used. I plan to address these topics in a future publication. To get on our mailing list and receive notifications of upcoming publications, sign into the forums at aspartameexperiment.com.