

# ASPARTAME AND PSYCHIATRIC DISORDERS

By Ralph G. Walton, M.D.

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Note from Dr. Betty Martini at the end

Although psychiatry is far from an exact science, over the past half century there has been an explosive growth in our understanding of the human brain and consequently in our ability to diagnose and treat mental disorders. We have also become much more sophisticated about the impact of a variety of toxins on psychological processes. I am convinced that one such toxin is aspartame.

Two years after aspartame was introduced onto the market I first became aware of the negative impact of this artificial sweetener on the central nervous system. I had been treating a then 54 year old woman with imipramine, a tricyclic antidepressant, because of recurrent major depressive episodes. Previous psychoanalytically based therapy had proven ineffective, but she responded dramatically to 150mg of imipramine per day. She had done well for 11 years on this medication, but was then suddenly hospitalized with a grand-mal seizure and subsequent manic episode.

One could postulate that she was bipolar, and the antidepressant had triggered the mania - but she had been on the same medication for a total of 11 years, and for the previous 5 years at the same 150mg per day dose. Neither the seizure nor her mania was consistent with what we know about the clinical course of bipolar disorder or epilepsy. Careful history revealed that the only change in her life was a recent decision to switch from the sugar which she had always used to sweeten her iced tea to a newly marketed product with aspartame.

Since aspartame can alter the balance of certain neurotransmitters which we believe are involved in mood disorders and can, in my opinion, alter the seizure threshold, I advised my patient to avoid all aspartame products. She did so, and had no further seizures, no further manic or depressive episodes. I discontinued the lithium carbonate which I had started when I mistakenly concluded that she had a bipolar disorder, reinstated her imipramine and she has continued to do well.

After this case report was published in the medical literature, many patients with unexplained seizures or treatment resistant psychiatric problems were referred to me. I became increasingly convinced that aspartame could both trigger seizure activity and mimic or exacerbate a variety of psychiatric disorders. I presented a paper based on those patients at a 1987 MIT sponsored conference on Dietary

## Phenylalanine and Brain Function

Industry sponsored criticism was made that my conclusions regarding aspartame's toxicity could not be accepted as valid because my case reports were "merely anecdotal" and not based on double blind research. Unfortunately case reports do not currently have the respect in the mainstream medical literature which they

deserve (historically much of medical progress has been based on careful observation of individual patients).

Nevertheless, I was so convinced of aspartame's toxicity, and the need to have its hazards more widely appreciated in the medical community, that I did undertake a double blind study. That study- "Adverse Reactions to Aspartame: Double- Blind Challenge in Patients from a Vulnerable Population" was published in Biological Psychiatry in 1993. It demonstrated that individuals with mood disorders are particularly sensitive to aspartame and experienced an accentuation of depression and multiple physical symptoms. I had expected that the difficulties experienced by patients receiving aspartame would be fairly subtle (the dose of 30mg/kg/day was well below the level of 50mg/kg/day which the FDA considered "safe"). I was not prepared for the severity of the reactions, and for obvious ethical reasons cannot perform any further human studies with aspartame.

Over the ensuing years I have continued to see the multiple neurologic and psychiatric consequences of aspartame use. It can lower the seizure threshold and lead to an incorrect diagnosis of epilepsy, with subsequent inappropriate prescription of anticonvulsants. It can mimic or exacerbate symptoms of MS, it can paradoxically produce carbohydrate craving and weight gain. The world-wide epidemic of obesity and type 2 diabetes obviously has multiple causes, but I am convinced aspartame is a major factor.

The explosive increase in our knowledge base in the neurosciences I referred to earlier is a topic beyond the scope of this brief report, but to drastically oversimplify, we know that in a variety of psychiatric disorders there is a disturbance in the balance of certain neurotransmitters. Specifically, serotonin, norepinephrine, dopamine and acetylcholine are all major players.

Aspartame can affect the levels & balance of all these transmitters. It impairs the absorption of L-tryptophan, the major precursor in the synthesis of serotonin.

The phenylalanine from the dipeptide component of the aspartame molecule, is a major precursor in the norepinephrine-dopamine synthetic pathway. Recent research demonstrated that aspartame reduces acetylcholinesterase, an enzyme which breaks down acetylcholine - a key player in the central nervous system, with an important role in cognition and memory, and with a reciprocal, inhibitory relationship with dopamine.

We are not sophisticated enough at this point in time to fully understand all the implications of the neurochemical changes induced by aspartame, but as a busy clinician I see the profound impact on patients' lives on a daily basis. It can both produce and aggravate depression, in certain patients it can trigger manic episodes, it can produce or aggravate panic attacks. Some of my patients have experienced a complete cessation of panic attacks and needed no further treatment after they completely eliminated aspartame from their diet. Certain schizophrenic patients have experienced fewer auditory hallucinations or needed less antipsychotic medication after the elimination of aspartame.

It is essential that there be much greater awareness of the hazards of this highly toxic substance!

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Dr. Walton's study on aspartame: "Adverse Reactions to Aspartame: Double-Blind Challenge in Patients from a Vulnerable Population: <http://www.mindfully.org/Health/Aspartame-Adverse-Reactions-1993.htm>

Dr. Walton's research on Scientific Peer Reviewed Studies and Funding: <http://www.dorway.com>

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Additional data on aspartame: <http://www.mpwhi.com> , [http:// www.dorway.com](http://www.dorway.com) , <http://www.wnho.net>

Aspartame Toxicity Center: <http://www.holisticmed.com/aspartame>

Note from Dr. Betty Martini:

This excellent new paper by Dr. Walton was distributed to an audience particularly concerned with psychiatric and behavioral problems. Also read Dr. Walton's comments about Abby Cormack of New Zealand who made world news when she was poisoned by aspartame in Wrigley's gum and about to be diagnosed as bipolar. [http://www.mpwhi.com/experts\\_on\\_aspartame\\_and\\_abby\\_cormack.htm](http://www.mpwhi.com/experts_on_aspartame_and_abby_cormack.htm) Off aspartame her symptoms disappeared. In New Zealand there were particularly sad aspartame/bipolar cases where families were wrecked. You can see Dr. Walton in the aspartame documentary "*Sweet Misery: A Poisoned World*" which is still being shown to audiences in NZ. It is alarming that in NZ they want Diet Coke sweetened with aspartame to be in "all" schools. The Minister of Health has been provided with "Report for Schools" [http://www.mpwhi.com/report\\_on\\_aspartame\\_and\\_children.htm](http://www.mpwhi.com/report_on_aspartame_and_children.htm) The first article in these reports is by Dr. Walton.

As to alternatives for schools there is a new product just made available this month called Fiber 1, by Just Like Sugar, and it won't be in plastic. With aspartame (NutraSweet/Equal/Spoonful/Canderel/E951/Benevia, etc.) triggering psychiatric and behavioral disorders it must be immediately removed from schools. Good nutrition is so important for children. Today they are medicated instead of educated.

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