

New Hope for People with Epilepsy

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Introduction

"Can epilepsy be cured? Usually not. Like diabetes, most cases of epilepsy can be controlled by medication. Children with epilepsy will sometimes 'outgrow' the condition, although no one is sure exactly why." That statement, published in the July, 1984, University of Washington Regional Epilepsy Center newsletter, represents a hopeless attitude in the medical profession which has succeeded in limiting the treatment of epilepsy largely to drug therapy. Seizures are so sudden and dramatic that both physicians and family members tend to focus all attention on seizure control and almost none on the patient's lifestyle and dietary habits.¹ If we don't know "exactly why" children sometimes "outgrow" their epilepsy then why aren't we trying to learn what accounts for that change?

"For one mistake made for not knowing, ten mistakes are made for not looking," wrote J. A. Lindsay (Alvarez, 1943). "Epilepsy heads the section on 'diseases of undetermined causes' ... in the 3 volume Neurology of Wilson and Bruce (1955)," wrote William G. Lennox, M.D., of Harvard Medical College, who devoted his life to the study of epilepsy. We do know that "epilepsy is explainable as a dysfunction of some of the cells of the brain," Dr. Lennox stated. "With epilepsy, as with most diseases (for example, diabetes, obesity, cancer, nephritis, arthritis), the ultimate origin has been traced to the doorway of the cell... Take, for example, diabetes... the knot was seemingly untied. Certain cells of the pancreas ... failed to provide insulin ... but a snarl yet remains ... *Why do these cells fail?*" (Lennox & Lennox, 1960).

How many of you have both epilepsy and diabetes in your family? Did you know that epilepsy and diabetes may be triggered in the same family by severe

1. 2328 N.E. 104th Street, Seattle, Washington 98125. hereditary allergies to the *same* food?

While neurologists are careful to check the absorption and metabolism of their seizure patients' anticonvulsants, how many consider checking the absorption and metabolism of their patients' food intakes? Abnormal reaction to foods — such as food allergies — can cause malabsorption of essential nutrients, starving and eventually damaging such vital organs as the brain and pancreas (Reading & Meillon, 1984).

The intent of this article — in which the biochemistry of *both* brain cells and body cells is considered — is to provide new hope for controlling epilepsy by focusing upon treating the *whole* person, rather than only symptoms — the seizures; is to show how what we eat may trigger seizures, even when the seizures appear to be caused solely by physical brain injury; and is to convince people that nutritional therapy, based upon adequate research, is imperative if we are to make progress in the treatment of seizure patients. Why *do* cells fail?

Hippocrates said, "We must turn to the observation of the body in health and disease to learn the truth." How many epilepsy researchers have studied people who have "outgrown" their seizures? Did they "outgrow" their seizures, or did they "grow into" some *other* kind of sensitized reaction? One mother told me her child had "outgrown" his seizures but was having migraine headaches, which he had **not** previously had; and migraines can be triggered by food sensitivities.^{2,3}

My Introduction to Nutritional Therapy

Like many members of the medical profession who first discovered the value of nutritional therapy through personal experiences, it was my personal experience with seizures — rather than my formal training as a hospital dietitian (1942-1947) — which was to convince me of the value of nutritional therapy for epilepsy. For the

last nine years I have devoted much time to learning more about alternative therapies for epilepsy.

When I met Dr. Abram Hoffer, in 1986, he told me he had been using niacin for reducing dopiness from anticonvulsants in some of his seizure patients. Since then he has written that niacin is "a good anticonvulsant potentiator. I have used it for 30 years to bolster the power of standard anticonvulsants, which allows far better control and fewer side effects, as in many cases the dose of anticonvulsants can be reduced" (Hoffer, 1987).

Only 50% Helped by Anticonvulsants

Dr. Hoffer continued, "M. B. Sterman tackles ... the connection between epilepsy and nutrition ... He is disturbed that neurologists do not use nutrition in treatment, even though only 50% of epileptics are really helped by anticonvulsant therapy."

My Parents Practiced Preventive Medicine in 1930's

Because preventive medicine is seldom considered for the treatment of seizure patients, I feel unusually fortunate to have had parents who introduced me to nutritional therapy as a child. While my world was still tiny I could not appreciate their farsightedness. They believed that "food toxins absorbed through my spastic colon" had caused the occasional seizure I had had since I was about 6 years old. Their belief was based upon careful observations and the advice of physicians.

My stools had been regularly examined and, when half-inch white strips were found after I was dosed with castor oil, tapeworm was thought to be the culprit. Pork was eliminated from the family diet. Later a laboratory analysis indicated the "tapeworm" was part of the lining of my colon! In 1934 I was diagnosed as having "colitis" and placed on a "low residue diet".

It was largely observations, such as those, and consultations which eventually led my parents and the physicians to conclude that "food toxins" entering my bloodstream through a "leaky gut", following periods of severe constipation, were triggering my seizures. After each

seizure I was given an enema and placed on a liquid diet. Since I usually had no more seizures for many days — often weeks or months — it was assumed that "food toxins" were the cause. I was still on a low residue diet when I entered college in 1942, although I had yet to learn that I had "epilepsy". My parents referred to my illness as "seizures, convulsions and/or spasms". I had heard the word "epilepsy", but I knew nothing about it.

Training as a Hospital Dietitian

Because I wanted to learn more about "food toxins", I majored in hospital dietetics. Charged with enthusiasm, in my freshman year I wrote an English term paper on seizures caused by a calcium deficiency. But that independent research was the closest I was to come to associating seizures with food toxins during my formal education. I saw no more literature connecting nutrition and seizures during the remaining years of my training.

Four years later, while interning at St. Mary's Hospital and the Mayo Clinic, in Rochester, MN, an event occurred which was to detour me from my "food-toxin" goal for almost 40 years.

"Fainting is Epilepsy"

While on duty in the diabetic clinic at Mayo's I fainted. Specialists there immediately drugged me, probably with pheno-barbital, and when I regained consciousness I was lying in a hospital bed in St. Mary's. Afterwards I was given an EEG with what was then probably the best EEG equipment in the world. I had first seen the EEG room several months earlier while on an introductory tour conducted by a senior intern who commented that she had to have an EEG in that room after she fainted. In her words, the neurologists from the Mayo Clinic were "giving EEG's to everyone who fainted to prove that they had epilepsy". She laughed, thinking the test was a waste of time as her brainwaves were normal.⁴

No one at St. Mary's Hospital nor at Mayo's was aware that I had had seizures when I was invited by another dietetic intern to observe an "unusual" patient on her floor, something we frequently did to learn from case histories. That patient was

a 10 year old girl with seizures. What made her case "unusual" was that she was a straight A student. Many medical professionals, myself included, filed past her door to glimpse at that "special case", while making no effort to communicate with her. That collective action drove her parents to have her door closed with a "No Admittance" sign posted. Even dietitians were excluded.

That experience surfaced an old memory I had tried to bury. When I was about 10 years old I, too, had been hospitalized with seizures — the only time I have ever had status seizures. I was also a "straight A" student and many nurses were filing past my door glancing at me while making no effort to communicate — actions I had not understood until that moment when I was an uncommunicative "nurse". I had wanted to encourage that young girl — but I was overwhelmed by the fear that I might be dismissed from my internship if anyone learned that I had had seizures. I rationalized, thinking that by remaining silent I could complete my internship and, in time, help many more seizure patients. But I continued to be "haunted" by the desire to communicate with her. The emotions associated with my deep conflict of interest may have helped trigger what soon followed.

The thought of *my* having an EEG, and maybe being labelled an "epileptic", terrified me because of something I had learned while writing my term paper on seizures — that seizures were somehow related to epilepsy and that people with epilepsy were legally subject to involuntary sterilization through laws, laws which I later learned were established largely through physicians who assumed *all* epilepsy was genetic and that there was no better way to get rid of epilepsy. (The panic from the recent AIDS epidemic must be similar to the terror which seized legislators at the beginning of this century following a sudden increase in the number of cases of epilepsy. That was approximately three decades, or one generation, after we began removing essential nutrients from grains.)

I had tried to forget those laws by assuming that I wasn't an "epileptic" — that my seizures were not caused by "bad genes" but, instead, by

"food toxins". One

of those laws made it possible to imprison Connecticut citizens for no less than 3 years if they were caught having sex with *anyone* under 45 years who had epilepsy (Linn & Bowers, 1978).

The day the neurologists from Mayo's informed me that I had "petit mal brainwaves" — indicating that, according to their judgment, I was an "epileptic" — they did not mention those laws. Only the physical brain was their arena — not the emotional brain.

Until then I had always taken it for granted that I had the right to decide whether or not I wanted to marry and raise a family. Those laws were deeply shocking to me in that they implied that *anyone* with epilepsy lacked the common sense and intelligence for making those decisions.

Pessimism about epilepsy "stems from hospital experience", wrote Anthony Hopkins, M.D., "a pessimism which is unjustified by the facts. In the past, when neurologists were fewer, they tended to see only those with the worst epilepsy, with the worst prognosis. As they taught the future general practitioners, these too were infected with the same pessimism." (Hopkins, 1981) When diagnosed I was told that while they couldn't change my "petit mal" brainwaves they could prescribe a "wonderful new drug" (Dilantin) which would prevent me from having any more seizures if I were to take the drug as prescribed. I was informed that if I decided to take Dilantin that I would die from status seizures if ever I discontinued it. The pressure of having to make such a fateful lifetime decision, when I was still *dopey* from my new medications, was something I was unprepared for.

But there was still one ray of hope before I had to commit myself to taking drugs the rest of my life. I was anxious to learn what they knew about "food toxins". Their laughing reply, their body language, "informed" me that they had no respect for my parents' opinion. They "knew" there was no connection between my seizures and my spastic colon — that the *only* thing causing my seizures were my "petit mal" brainwaves.

That popular attitude among neurologists during that period was based largely upon research by the prominent gastro-enterologist and senior diagnostician at the Mayo Clinic, Dr. Walter C. Alvarez. "After a critical examination of all the evidence for and against intestinal auto-intoxication as a cause of disease, Alvarez reached the Scottish verdict of not proved but with an evident leaning toward not guilty" (McLester, 1943).

Metamucil for Seizure Prevention

The neurologists also said that if I was only taking Metamucil to prevent seizures (by preventing constipation and the absorption of "food toxins") that I could "throw away" the Metamucil. Ignorant enough to think that people with their specialized training always knew more than parents without medical training, I threw away my Metamucil and began taking Dilantin and Phenobarbital. Yet today we know that "constipation is a much more common problem in children with epilepsy than in the general population" (Lagos, 1974).

Then I asked the neurologists how I could possibly tell our Director of Dietetics, Sister Mary Victor, that I had "epilepsy". They said the *only* thing I needed to tell her was that I was on medication which would prevent me from "fainting" again. I had forgotten that Sister Victor and her staff had access to my case history. But Sister Victor, rather than dismissing me, was to become one of my strongest supporters. Still in a wheel chair following her life-threatening heart attack, she knew the importance of goal setting in the healing process. She repeatedly asked me questions about my future and remained in contact with me for several years.

Starting Our Family

Next year, while I served as head dietitian at the city hospital in Ames, IA, and my husband completed his education, we decided to start a family. Neither of us knew of any epilepsy in our families and therefore presumed there would be no risk of our children acquiring hereditary epilepsy.⁵

We had had two daughters by 1957 when our younger one, 6 years old, not only had her first seizures but almost died from them — status

epileptic seizures. I was emotionally devastated and considered suicide. Even the minister whom I called during that traumatic experience, while our physician was struggling to save our daughter's life, could not offer me any hope. Later I learned why — his brother had been a "hopeless" epileptic.

We were fortunate, however, to have as our family physician a gentleman who received his medical training in Vienna, Austria — the nation where Hans Berger invented the EEG machine in 1929. He was not satisfied to limit our daughter's treatment to anticonvulsants and suggested psychotherapy for my husband and myself. He said it was his opinion that what little brain damage was evident from our daughter's EEG couldn't possibly have caused her life-threatening seizures. He believed that "hidden emotional problems" might have helped trigger her seizures, although he acknowledged that perhaps no other physician would agree with him.

Psychotherapy for Epilepsy

Through psychotherapy we changed our lifestyles, eliminating numerous health-threatening stresses by learning how to better adapt to our fast-changing world.⁶

Late in 1979 I began talking in public about my epilepsy and the value of psychotherapy for people with epilepsy.⁷ By then our younger daughter had graduated from high school.⁸

I began reading all of the books I could find on epilepsy. Walter C. Alvarez, M.D., had a special interest in epilepsy, perhaps because of his personal food-allergy brain problems (Lesser, 1980). He wrote, "While I worked in the gastroenterology section of Mayo Clinic many non-convulsive epileptics came to me, usually because of an abdominal discomfort, but never because of convulsions" (Alvarez, 1976).

In time Dr. Alvarez learned that those patients with abdominal discomfort frequently had abnormal brainwaves and that by prescribing Dilantin he was often able to relieve their abdominal pain. In a book on "non-convulsive epilepsy" he wrote, "In 1945, when I abstracted 99 histories of relatives of epileptics, I found that in 38% of the families there had been

alcoholics. Later I read L. Marchand's splendid book (*Heredité et Epilepsies*, Paris, 1938) and found how surprised he was to note that a number of epileptologists had found alcoholism in a high percentage of relatives of epileptics — almost half or more than half of the cases. Marchand and others were much impressed by the fact that in many epileptic families there were more alcoholics than epileptics" (1972). Dr. Alvarez also listed alcoholism as one of the symptoms of non-convulsive epilepsy.

Epilepsy-Alcoholism

While I knew of no epilepsy on either side of my family (Fredin, 1978), I had traced alcoholism in blood relatives of my ancestors back to post-Revolutionary War days when Benjamin Rush, M.D., made the first national study on alcoholism. My husband also had alcoholism in his family, but he found no epilepsy (Fredin, 1985).

I had a personal experience with alcohol in the 1960's. While I rarely had a seizure after being placed on anticonvulsants, my seizures (nocturnal since 1947) began to recur in the 1960's although I had been on the same dosage of anticonvulsants for many years. Having heard that people with epilepsy should not drink alcohol, I asked my physician if he thought that the small glass of wine I had been drinking once a day for years might be triggering my seizures. He said alcohol could "lower the seizure threshold"; so I stopped drinking wine — and my seizures stopped.

After reading what Dr. Alvarez wrote about the high percentage of alcoholism in families with epilepsy, and because there was alcoholism in my family but no epilepsy (before mine), I began to wonder if our daughter's seizures could have been related to some hereditary factor connected with alcohol addiction. Could the trigger of seizures in alcoholics be related to the trigger of seizures in non-alcoholics?⁹

Food Allergies, Alcoholism and Epilepsy

In 1981 I attended the 11th annual Well Mind Association symposium, in Seattle.¹⁰ Doris Rapp, M.D., pediatric allergist from Buffalo, N. Y., spoke on seizures caused by "food allergies" and showed a movie of a woman going into seizures after consuming a food to which she was allergic.

But even more fascinating was seeing the woman's seizures controlled almost instantaneously when Dr. Rapp injected her with a very minute quantity of the *same* food to which she was so sensitive (a "desensitizing" dose).

While I thought that information could help other seizure victims, at the time I never dreamed it might be of any personal value to me. That was because I "knew" I had no food allergies, based upon what little I had learned about allergies in training. Although as a child I had hives each spring when I ate fresh tomatoes and fresh strawberries, I had "outgrown" those reactions. Consequently, I failed to associate Dr. Rapp's "food allergies" with the "food toxins" my parents had talked about. Not until three years later, when I heard another physician address the WMA, did I slowly begin to see a possible connection between my "food toxins" and food allergies. Even then I found it extremely difficult to change the firmly-entrenched attitudes I had acquired during my formal education.¹¹

Active in the WMA

The physician I heard was Dr. Janice Keller Phelps, who lectured on "genetic depression" and her personal experience with alcoholism and depression (see Phelps & Nourse, 1986). Afterwards I introduced myself as an epileptic and said I had read that there was not only a high percentage of alcoholism in families afflicted with epilepsy but that there was also a high percentage of suicides among epileptics and alcoholics. I asked if she thought the "genetic depression", which she said might afflict 40% of the population, could be related to the high percentage of suicides among epileptics.¹² She replied affirmatively.

Dr. Alvarez had written "epilepsy is commonly related to a depressive psychosis" (1972).

Wanting to learn more about "genetic depression", I made an appointment for the 6 hour glucose tolerance test Dr. Phelps gave when diagnosing addictions — though I still believed addictions were limited to alcoholism, drugs and smoking. While I had heard members of the WMA talking about "hypoglycemia" I didn't

remember learning anything about hypoglycemia during my professional training.

Dr. Alvarez, who lectured to my class of interns, later stated, "I have never seen a case of functional hypoglycemia in my 30 years of practice" (Airola, 1977). Believing that knowledge from my formal dietetics training was superior to "non-professional" knowledge acquired by members of the WMA, at first I failed to listen to much of what they were saying about hypoglycemia. Their "practical experience" knowledge didn't count! Yet one thing that managed to penetrate my "professional shell" was that "*hypoglycemics crave sweets*".

In 1976, when I was traveling in Japan, I couldn't seem to find anything sweet enough to satisfy my appetite. I collected two large grocery sacks full of what I thought looked like sweet pastries, only to learn that they weren't sweet enough; nor did fruits satisfy my craving. I was somewhat alarmed until I heard that that was a common experience among Americans arriving in Japan during that period, so I mistakenly thought that I was "normal". Not until 1984 did I learn I was a sugar addict going through my "withdrawal" from the typical Western diet I ignorantly thought was so "well balanced".

After diagnosing my hypoglycemia Dr. Phelps was the first physician to hand me the results of my lab tests, expressing confidence in my being able to understand them. As I left she said she thought I would soon be feeling much better. While I wanted to believe her, inwardly I thought, "I'll believe it when I feel it." With an elimination diet and supplement instructions she gave me a bibliography of books on hypoglycemia. From those books I learned that some seizure victims no longer had seizures after being treated for hypoglycemia and that the brainwaves of hypoglycemics were similar to those of persons afflicted with "petit mal seizures" (Abrahamson, 1951).

I was continuing to read books about epilepsy. Margaret Walker Sullivan wrote that Dilantin causes a reduction of insulin secretion, possibly masking symptoms of hypoglycemia. A report by the Western Institute of Epilepsy suggested that possibility be explored before initiating drug therapy (Sullivan, 1979).

My Improving Health

After eliminating refined sugars, most processed foods, Phenobarbital and slowly reducing my dosage of Dilantin (with a physician's approval), I *did* begin to feel better. Although I was experiencing occasional nocturnal seizures — usually petit mal, sometimes grand mal — I was surprised at how much less muscle fatigue followed my seizures.

I even had enough energy to occasionally out race my husband on our regular bike rides — for the first time. By the end of the year many of my other health problems were fading away. I was no longer bothered with hiatal hernia, irregular and rapid heartbeat (and was able to eliminate Digoxin), stiff joints, severe pain in my lower left abdomen (diagnosed as "diverticulo-sis"), hemorrhoids, snoring, loose teeth and periodontal disease, crusty eyelids and fatty cysts. The loss of excess water in my tissues made it necessary for me to wear guards on my wedding rings and to tighten my watch band. I also felt more emotionally alive.

Continuing my search for more clues, I had food sensitivity tests (cytotoxic, electroacupuncture and skin) by three doctors. All tests indicated my strongest sensitivity was to wheat.

But my husband, a scientist, was still skeptical about my new therapy — skeptical about paying physicians whom the insurance companies wouldn't reimburse, skeptical about buying expensive supplements when even our family physician¹³ questioned my need for nutritional therapy. I could easily understand his skepticism — the same kind of skepticism which had made me so slow to accept this revolutionary kind of nutritional therapy. In an effort to win his confidence I made an appointment in a local clinic with orthodox physicians for a second opinion, 5 months after I first consulted Dr. Phelps.

A Most Exciting Moment!

The neurologist who studied my EEG said he could not find any "petit mal" brainwaves — the abnormal brainwaves which, in 1947, the Mayo Clinic neurologists confidently told me were the *only*

thing causing my seizures.

The 50 mg's of Dilantin I was still taking daily did not register in my blood serum tests, and so were not considered a therapeutic dose. By then I sensed I might be able to control my seizures on an even lower dosage of Dilantin by avoiding the foods to which I was the most sensitive — especially concentrated sweets. While there is risk in reducing one's seizure medications, and this should always be done only in consultation with a physician, preferably one who is nutritionally oriented, there is also risk in taking anticonvulsant drugs.

"Gastrointestinal disturbances may be observed during the administration of practically all medications," wrote Dr. Sugarman, and "long term therapy with phenytoin (Dilantin) ... produces considerable alteration of thyroid hormonal states, particularly in epileptic children. Over 40% of individuals undergoing therapy may have decreased levels of calcium and phosphorous and elevated serum alkaline phosphates. Phenytoin decreased absorption of vitamin D, vitamin C, folate and calcium" (Sugarman, 1984). Anticonvulsants can also cause deficiencies of vitamin K, magnesium and manganese wrote Sullivan (1979).

Biochemistry of People With Epilepsy

That Christmas my husband gave me a copy of Dr. Lendon Smith's book, *Feed Yourself Right* (1983).

According to Dr. Smith, William Philpott, M.D., learned that "one-half of the epileptic population has abnormal carbohydrate metabolism, low B₆, low calcium, and low magnesium, which can allow a susceptible person to have seizures." Dr. Smith also wrote: "Low blood sugar in the person ready to convulse will trigger the attack. Most just faint... Eating, for some reason, makes a difference. The brainwave test (EEG) is different before a meal as compared with after" (1983). In 1985 he said, "Something like 1/3 of our population with seizure disorders are low in manganese."¹⁴

Dr. Doris Rapp had written (1979): "There are reports of altered brainwaves noted in association with the ingestion of certain foods (Speer 1970, Davison 1949, 1952). Dr. Richard Mackarness (1976) confirmed

the role of foods in this problem during a recent British television demonstration. He placed a few drops of liquified instant coffee under the young woman's tongue and showed this made her convulse in a few minutes. Dr. Theron Randolph has noted that odours, as well as foods, can cause similar symptoms.

To prove to others how my change in diet had rebalanced my biochemistry, I decided to have a second hair test. The results were unsettling — my hair manganese was even lower than it had been in 1984! The laboratory suggested that my numerous low trace elements might not be from a malnourishing diet but possibly were from *malabsorption* caused by a deficiency in stomach acid and/or pancreatic enzymes. In a do-it-yourself test (C-Strip) I had learned that my body required almost nine times as much ascorbic acid as my husband's, although we were on much the same diet. Thinking that maybe the low trace elements and need for so much more ascorbic acid were related, I decided to be tested for stomach acid and enzymes.

"Controversial" Tests

My family physician¹³ insisted I couldn't have an absorption problem. Otherwise how could my health have improved so much? He refused to consider the results of the hair and C-Strip tests, but I persuaded him to name a gastroenterologist who could perform the stomach acid and enzyme tests. That gastroenterologist, after taking my history and examining me, refused to order the tests because he "knew" that I had no absorption problem. The sigmoidoscopy showed no inflammation of the lower colon or any growths, strengthening his belief that his diagnosis was correct. My family physician refused to give me the name of another gastroenterologist. Sensing my physician's lack of faith in my judgment, I finally went to a naturopath, Leyardia Black, who was willing to explore the possibility that I might have a malabsorption problem and ordered those tests.

My stomach acid tested normal but the full stool analysis revealed: undigested carbohydrate, protein and fat; low pancreatic enzymes; low bile; excessive Candida

and hyphae; and an alkaline pH. She prescribed a liver detoxifier and pancreatic enzymes. A couple of months later my stool analyses no longer showed undigested proteins and fats, but I was still excreting undigested carbohydrates, was low in amylase and had a fairly large amount of Candida. So I still had a problem.

Learning More About Epilepsy

In April, 1986, I attended the Canadian Schizophrenia Foundation's symposium, where Dr. Lendon Smith said: "I have 20 patients with seizure disorders ... the mineral levels in their hair were O.K. except manganese. About 3/4 of them were able to get off their seizure medications after about 3-6 months (of manganese supplementation)."

At the same meeting Alexander Schauss, Ph.D., reported on two double-blind studies, involving children with seizure disorders, performed by pediatric neurologist Professor Joseph Egger, M.D., of the University of London and University of Munich, and colleagues.

Both groups were placed on oligoanti-genic diets (hyposensitive foods). The first, 76 hyperactive children, included 14 children with seizure disorders (Egger et al, 1985). On their restrictive diet most of those children were seizure free. The surprising results of the first study prompted a second study on 100 children with seizure disorders,¹⁵ and "over 80% of the children were seizure free" while on hyposensitive foods. They were surprised that "the average onset of a reaction by a child to a food occurred 2.3 days after exposure to the food — primarily IgG reactions of a delayed nature."

William G. Lennox, M.D., believed that epilepsy was not hereditary but that there was a "congenital predisposition to seizure disorders" which was hereditary (Schneider & Conrad, 1983). Could that "congenital predisposition" to seizures be a susceptibility to allergies, I wondered.

Dr. Sugarman (1984) wrote, "There have been reports in medical literature stating that, among the families of epileptic patients, allergic diseases occur more frequently than can be explained by chance ... Many epileptics and their families have skin sensitivities and upper respiratory allergies."

Keith Mumby, M.D., Ch.B., who operates an allergy clinic in Manchester, England, wrote: "Believe it or not, it is illegal in this country to cure epilepsy. Happily, though, it is not against the law to tell you that convulsions are often demonstrably due to allergies. A fit is merely another symptom of temporary maladaptation ... Most allergic reactions are either over- or under-functioning of an organ. A convulsion is really just a bout of extreme over-activity of the cerebral cortex ..." (Mumby, 1986).

The month after I first learned about Dr. Egger's study, Leo Bolles, M.D., spoke at the WMA on his work with the electro-acupuncture (EAV) diagnostic machine. Since I still had undigested carbohydrates in my stools I decided to be tested on that machine. Not until after my EAV test, which indicated that wheat was my strongest allergy (verifying 1984 cytotoxic test results), did I decide to eliminate wheat from my diet for 6 weeks. Having just learned about Dr. Egger's study, in which most seizure patients had delayed reactions to foods, I thought maybe my reaction to wheat was a delayed one I had not detected in my 4 week elimination diet in 1984. When I lost my abdominal bloat during that 6 weeks, the EAV test — still considered a controversial test — scored a plus with me. Later I heard that a WMA friend, a recovered alcoholic with epilepsy in her family, had had a similar experience when she eliminated wheat.

My EAV tests also showed a sensitivity to mercury. So in the spring of 1987, after hearing Hal Huggins, DDS (see Huggins, 1985), address the WMA on health problems caused by mercury toxicity from amalgam fillings, I had the electrical charges on my amalgam fillings measured by two dentists. In May, 1987, I had the amalgams replaced with materials to which I was not sensitive. One week after the removal of my last amalgams my stool test was repeated. That was the first of several stool tests with no undigested carbohydrates and with very little Candida.

While I am still taking antioxidants to help detoxify and excrete the mercury which must have been accumulating in my tissues for decades, I was especially

interested to learn that not only is the amino acid L-cysteine recommended as a mercury detoxifier (Braverman & Pfeiffer, 1987), but that seizure patients are often deficient in L-cysteine (Philpott et al, c. 1980). L-cysteine, and the synergistic nutrients essential for metabolizing it, appears to have helped remove mercury from my tissues, according to hair tests and 24 hour urine tests taken during the last 6 months. (Excesses of toxic metals are commonly found in allergy victims.)

Dr. Chris Reading, from Australia, Visits the WMA

The spring of 1988 I met Chris M. Reading, M.D., of Australia, at his WMA lecture. His book, *Relatively Speaking* (1984), told of his research on hereditary food allergies — especially hereditary allergies to wheat: "If grain allergies are, as I believe, the most common cause of psychoses, you obviously start looking for their footprints in your family tree ... you shouldn't have much trouble spotting them... gastric cancer, frequent viral infections, hyperactivity in children, diabetes, pellagra, plus that whole grain allergy-linked cluster of autoimmune diseases: disorders of the thyroid, adrenal, parathyroid and pituitary glands. And perhaps most important of all, systemic lupus erythematosus (SLE) and other connective tissue disorders (such as arthritis), coeliac disease and pernicious anemia."

Regarding the SLE which he has traced to food allergy, Dr. Reading personally told me: "Epilepsy can precede SLE by many years — epilepsy can be the first sign of SLE." Only "later (do) they get the fullblown SLE and people suddenly realize that they've had SLE all along." He said that "in Australia's main lab," where the *skin biopsy immunosuppressant technique* is used to diagnose SLE, "they were surprised when they found that I was turning in tissues of 2 and 3 year olds and they were finding SLE in those kiddies." Previously they had not been looking for SLE in children under 15 years of age.

He also said that deficiencies of Vitamins B₁, B₃, B₆, B₁₂, folic acid and the minerals, calcium and magnesium, can cause abnormal EEG's and/or seizures, and that those deficiencies are not necessarily caused

by a poor diet. Dr. Reading believes that such deficiencies can also be caused by a damaged intestinal tract after eating foods to which our bodies are sensitized — such as wheat. "I think that ... food allergies damage the gut and ... some of the toxic fractions (of wheat, etc.) can then go through and cause cerebral irritation because of the leaky gut and impaired blood-brain barrier." The blood-brain barrier can be impaired, he explained, by low vitamin B₁.

Wheat is probably my most severe food sensitivity. Many of the illnesses Dr. Reading linked to grain allergies, primarily wheat, were in my family: hyperactivity¹⁶ (both my daughter with seizures and I were hyperactive children); frequent viral infections; gastric cancer (my mother died from stomach cancer when 44 years old, a common disease on both sides of her family); diabetes (on both sides of my family); and arthritis (common among my relatives). Obesity, which may be related to food sensitivities, is also in my family. My maternal grandfather was institutionalized with manic depression about 30 years after his father had built and was operating their town's first wheat mill. Three of his siblings were also institutionalized with manic depression. The father died from skin cancer at about the same time. The family probably dined on some of the first nutrient-deficient white flour products produced in the Midwest, as well as inhaling much wheat dust. A skin test not only indicated that wheat was my strongest sensitivity but that I was also very sensitive to wheat pollen.

Back to Food Toxins

With Dr. Reading's research I seem to have come full circle in my quest for knowledge about "food toxins". Early in this century "intestinal auto-intoxication" was thought to cause numerous kinds of illnesses, including seizures. But by the middle of this century the blood-brain barrier was believed by Dr. Alvarez, and others, to prevent "food toxins" from entering the brain. Dr. Alvarez wrote, "Eventually, I gathered and wrote up so much evidence against the disease of 'auto-intoxication' that most doctors stopped making that diagnosis" (Alvarez, 1977).

That popular attitude among physicians had not changed by 1974 when pediatric neurologist Jorge C. Lagos, a former trainee at Mayo's, wrote (1974): "For a number of years, laymen as well as a few prominent authors of medical textbooks were convinced that constipation was a cause of seizures, or that constipation could bring on a seizure in a child with epilepsy. This obsolete concept has nowadays been largely abandoned by just about anybody except strong headed parents who are firmly determined to find a simplistic explanation for all of their child's problems."

Recently Jeffrey Bland, Ph.D., wrote (1987): "Only in the last few years has there been an acknowledgement by medical specialists studying the human intestinal tract that internal toxins in the intestines can adversely influence general health."

With the knowledge we are acquiring from studies by Drs. Hoffer, Smith, Lennox, Alvarez, Philpott, Eggers, Reading, and others, we are slowly learning that those with epilepsy *can* be helped by the same nutritional therapy which can benefit other family members with degenerative diseases.

Conclusion

"Chance throws peculiar conditions our way ... they may be the little beginnings of trails leading to unexplored heights in human progress," wrote Walter B. Cannon, M. D., whose chance observation led to the discovery of the body's flight-fight mechanism (Cannon, 1945). That chance observation eventually led to the discovery of the mind's effect on the digestive system. Dr. Alvarez, who studied under Dr. Cannon, later observed that many people with abdominal pain¹⁷ and mental irritability had abnormal brainwaves. Because they frequently responded to Dilantin he diagnosed them as having "non-convulsive epilepsy". He prescribed Dilantin for relatives of "non-convulsive epileptics" who had "temper tantrums" — the "temper tantrums" which he considered one of the most common symptoms of "non-convulsive epilepsy". (It is also a common symptom of functional hypoglycemia.)

While Dr. Alvarez contributed so much to our understanding of the digestive system, and what he called "non-convulsive epilepsy", he

apparently never considered food allergies as a possible cause of seizures because he "knew" that seizures were caused by "bad genes" which caused irreparable brain damage — although he had learned from personal experience how food sensitivities could cause reversible brain abnormalities.¹⁸ He likewise believed that psychotherapy was of no value for seizure patients and limited his treatment of epilepsy and "non-convulsive epilepsy" to Dilantin and other anticonvulsants.

While many physicians have now linked food allergies to seizure cases, Dr. Reading has gone further, suggesting that some of the same hereditary food allergies which cause one disease in one member of the family cause other diseases in other family members. In families afflicted with many allergy-linked degenerative diseases, epilepsy and alcoholism included, we may find it more practical to test and treat entire families.

It has been suggested that in the future we may be able to replace, or repair, faulty genes. "It is well known that low vitamins can increase the risk of chromosomal changes and that chromosomal changes increase the risk of cancer," said Dr. Reading. Will it be possible to reverse that process and repair faulty genes?

Dr. Alvarez wrote, "Early in my career I learned that even some able physicians can never do research of any value because — they start their study with the conviction that they know what the answer is going to be." Instead of limiting our research for epilepsy to creating new anticonvulsants — which are still foreign to the body and must be detoxified — I think it is time for those of us who are interested in improving the quality of life for people with epilepsy to broaden our horizons.¹⁹ By working to direct governmental funding towards nutritional therapy research for epilepsy, and other degenerative diseases, we will not only be helping people with epilepsy and their families but we'll be improving the quality of life for our entire society!

Notes

1. Lechtenberg (1984) stated, "A person who has always been treated as 'sick' will have trouble realizing his/her own capabilities."

2. Egger, et al, (1983): "93% of 88 children with severe frequent migraine recovered on oligoantigenic diets."
3. Kushi (1985): A study showed that children can "grow out of" food allergies and "grow into" respiratory allergies over a 5 year period.
4. Alvarez (1972) wrote: "The Lennoxes reported a study of 2,130 epileptics which showed that 'fainting' was much more common in the relatives of epileptics than in the relatives of a control group of healthy people. And when the Lennoxes were able to get EEG's on the fainters, they found that a number of the electric records were abnormal."
5. Later, after 10 years of research, we did find a 3rd cousin who had epilepsy after serious head injuries.
6. Dr. Gillham reported (1987): "A group of Scottish patients with epilepsy who received short term psychological treatment experienced a significant reduction in weekly seizure rate as a result of their treatment — no change in medicine."
7. I knew of 2 young married people whose seizures were not controlled with anticonvulsants but were controlled after psychotherapy. But I didn't begin talking in public about my epilepsy until late 1979, after I learned in a local clinic that physicians were the most alcoholic addicted occupational group. I sensed that if physicians could not heal their brothers they could not find a cure for epilepsy — without the help of families afflicted with epilepsy.
8. Following her graduation a vocational rehabilitation social worker tried to persuade her to choose lab technology over nursing only because she had epilepsy. Overprotection by professionals can be just as damaging to people with epilepsy as overprotection by family members. (She has now been in nursing for over 10 years.)
9. Scientists from around the world reported new studies suggest that alcohol withdrawal accounts for only about half of seizures following withdrawal. "Some people have both epilepsy and alcoholism ... in some ... epilepsy predates the alcoholism ... in some ... it follows it" (Mattson, 1988).
10. In 1980 I helped reorganize the local epilepsy association (now Epilepsy Association of Western Washington). In 1981 Elaine Stannard (now WMA president) invited EAWW members to hear Dr. Rapp. That enlightening symposium was a major turning point for me.
11. Through contacts with the WMA I slowly regained confidence in the value of nutritional therapy for epilepsy. "There are over 200 reported cases of epilepsy related to food sensitivity" I read in an article (Crayton et al, 1981) copied for the WMA by Elizabeth Gentala, a founding member of WMA and a social worker who also had special interests in nutritional therapy for epilepsy.
12. Middleton, et al, wrote (1981): "The consensus is ... that the rate of suicide (or suicidal attempts) is nearly double that of the normal population."
13. This was not the family physician trained in Vienna. He had retired.
14. 1985 Well Mind Association symposium.
15. Brown (1985) wrote: "Recent research has confirmed beyond a doubt that food is the cause (of seizures) in 3/4 of a large group of epileptic children. This has been accomplished by using the same double-blind methods used in the migraine and hyperactive groups at Great Ormond Street Hospital, London. Similar trials must now be carried out in adults suffering from these conditions."
16. U.S. Rep. Tony Coelho, who has had seizures, said, "In epileptics the regulator doesn't always work — we don't get the signal to slow down or stop. And when we pass the ultimate point, we must have a convulsion to relax ourselves so that our internal system doesn't burn out" (*People*, Aug. 17, 1981).
17. Reading wrote (1984), "Epilepsy often goes along with porphyria, as do abdominal pains, nausea, vomiting and constipation — the basic treatment is a diet high in carbohydrate and low in fat and protein. This diet... counteracts the metabolic malfunctions ... and gets the body chemistry working more normally."
18. Philpott & Kalita (1980) wrote, regarding Alvarez's severe allergy to chicken, "If he had continued to eat chicken, even as much as twice a week, he might well have been sitting in the back ward of a state hospital."
19. "Remember that the Egyptians achieved remarkable things in medicine ... and then retrogressed through 2 milleniums of standardized specialization," said neurosurgeon Wilder Penfield, M.D., during a speech before a group of surgeons.

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