

ADVOCATE FOR HEALING

Nutrition for Seizures

An adjunctive approach

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HEALTH
DETECTIVE

Everyone has a doctor in him or her; we just have to help it in its work. The natural healing force within each one of us is the greatest force in getting well. Our food should be our medicine. Our medicine should be our food. But to eat when you are sick, is to feed your sickness. Hippocrates

A functional approach using nutrition and lifestyle supports for those who experience seizures.

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BIO

Lynn Altieri-Need, B.S., F.D.N.

Lynn's son at the age of 4 was diagnosed with an intractable seizure disorder (non-responsive to medications). He incurred between 20-40 seizures a day for a year and a half until she found the tools he needed to heal and recover completely. She is committed to sharing her experience and her research in the efforts to benefit hopefully many, many others.

Over the past 5 years, Lynn Altieri-Need has devoted thousands of hours toward understanding the physiology of the body and its biochemical needs. She has acquired a certification in Functional Diagnostic Nutrition[®] and is actively studying under the Academy of Functional Medicine with modules such as neurological disorders, gastrointestinal disorders, amino acids, vitamin and mineral deficiencies, and metabolic disorders and how they manifest symptoms. She is an avid reader of health books and an advocate for the emerging field of functional medicine, a 'whole-istic' approach to health.

Lynn is the founder of her nutrition practice, Advocate for Healing. The mission at Advocate for Healing is two-fold: To teach individuals that health is a whole body approach used to identify problems and to restore functionality. To empower individuals by understanding why dysfunction occurs and by teaching adults and children how to make nutritional and lifestyle changes that will improve their overall well-being. This is done through educational seminars, one on one consultation and by professionally remaining current on research and proven protocols. Lynn wrote this Ebook with the intentions of fulfilling both needs.

How common are Seizures?

According to the Epilepsy Foundation 65 million people world-wide live with seizures and up to 2.8 million Americans suffer from epilepsy (meaning prone to more than that one unprovoked seizure). Of those million Americans over 1 million do not respond to medications. 300,000 children are identified as having epilepsy and more than 90,000 of them do not respond to conventional treatments. In 6 out of 10 persons, the cause for seizures is unknown.¹ In other words, the professionals do not know how to support more than 1.3 million Americans who are suffering from seizures. My understanding through research and personal experience is that the neurologists do little to look to the root cause of seizures; it does not fall within the allopathic model. Finding the root cause(s) is what saved my son's life.

“When my son first started having seizures we met with our first neurologist. She recommended a drug to suppress his seizures. I asked about a diet for seizures that was high in fat. She said that she hadn't recommended that in 10 years; it was too difficult. I then asked what we could do to nutritionally to support and strengthen his central nervous system. She looked at me as though she had never been asked that before and responded with 'nothing'. She had been practicing for 40 plus years and had sat on a prominent neurology board; one of the top in the country. I'm sure glad I never listened to her.” - Author

What cured my son of seizures?

If only the answer were that simple. I've learned now that the body in its complexities functions as it needs to be based on its supports and its limitations. The body adapts and compensates, even without us asking it to. It works ideally, or optimally, if all of the systems are supported. It works as it needs to if some, many, or all of the systems have had to adapt over time. And if the body can't adapt it develops symptoms. In essence, it took time for the body to begin to fail; and thus it takes multiple supports of varying systems to restore its balance. That's what we did with my son and it worked.

Today, 2 and half years later, I can smile knowing that we have sustained a happy, flourishing, 8 year old boy without seizures. From 2009 to 2011 we weren't sure this was a possibility; even though we put every last momentum of effort (and trust me, we had to dig deep) toward hoping that it would become a reality. When my son was 3 he had his first seizure; then a second at the age of 4. At 4 ½ the seizures came in like a windfall: several grand mal seizures, absence seizures and drop seizures a day. We were stumped at how our son, who came into this world healthy and well developed, could be consumed by the symptoms called seizures. We sought “top” neurologists for over a year: put Koa on medications (with much resistance) the ketogenic diet (didn't cure him), applied acupuncture, NAET, tested food sensitivities; nutritional balancing through a biochemist, Neurofield work, and even sought a Shaman. We requested labs that were not commonly requested: Amino Acids, Gene variances and any and all

¹ <http://www.epilepsy.com/start-here/introduction-epilepsy>

leads I could get my hands on. My son's seizures got worse averaging 20 to 30 per day. He would wake in the morning drooling, staring off into space and proceed throughout his day with a helmet on to protect his head from his multiple daily attacks: broken teeth, a bruised nose, split tongues and forehead 'knobs' were a common occurrence. He had been hospitalized 3 times, with neurologists (yes we hired 3 at separate times) with his head connected to an EEG monitor that advised us that he was having even more seizures than we thought. Each neurologist would try to assign some syndrome or classify his seizures so that they could determine the next drug therapy to use. He was diagnosed with Lennox Gateaux syndrome (after some consideration for Draves) that advised us that he would face cognitive decline the rest of his life. I never shared with anyone what my son was 'diagnosed' with. I didn't believe it and wouldn't accept it knowing that there is always another perspective.

I tell you all this, because if you have a child or loved one that has seizures, or a seizure disorder; I want you to know I have been there, up front and personal. What we saw, day after day, was that our son's brain was on fire.

What caused the fire?

My husband and I were frightened of what the neurologist had advised us: that there is nothing more that can be done, than what she had done to support him. After 13 months of my son's seizures worsening, I thought 'then we have nowhere to move but up'. I received a spam email quoting Einstein² and in an effort to make a difference in our sons sickness we changed our thinking entirely; knowing that there was an entire body attached to his head and that somehow there was a metabolic reason for these seizures.

We sought a naturopath who tested my son's detoxification pathways, heavy metal load, and amino acid profile to assess Koa's absorption, assimilation, and integrity of his digestive system, neurotransmitters (our built-in calming mechanisms) and potential gene variances that could be creating added additive nutritional deficiencies. The neurologist we were working with refused to administer these tests, arguing validity even though I urged her to order something valid and comparable. She offered us a 6th 'free sample' of a newer drug and reminded us that she worked for a top Epilepsy and Brain Mapping institution and that she knew more than most. We walked out of that room knowing that we were not ever going to return. We were on a wait list to meet with a functional neurologist across the country in August. We knew that it was imperative, though frightening, that we changed our reaction to my son's seizures and adopted the naturopath's approach to recovery. The moment we elected to adopt the naturopath's recommendations became a pivotal moment for my son's recovery.

Within 5 weeks of addressing my son's detoxification pathway, GABA/glutamate balance, neurotransmitter support, diet, and digestive health, the number of seizures reduced daily. July 24, 2011 was the first day of the last of his seizures. We met with the functional neurologist 15 days after

² "Insanity is doing the same thing over and over, expecting different results" – Einstein.

the seizures ended. He did offer additional digestive supports. We still continue to meet with him over the phone periodically to 'check in' on my son's health.

Initially in the recovery phase, my son suffered cognitive effects from the seizures. But now, after some time with repair work, he excels in the classroom, learns in two languages and plays the cello. He shows no signs of ever having a seizure disorder.

What we know about seizures

We know that 6 out of 10 persons do not respond to medications or treatments for their seizures. We also know that 150,000 new persons annually surface with the symptoms of seizures. Epilepsy is the fourth most common neurological disorder behind migraine, stroke and Alzheimer's. Epilepsy is a generalization that implies that an individual is prone to more than one seizure. We must be clear that Seizures are a *symptom*. I never embraced the term epilepsy for it was labeling and implied a permanent condition. In truth epilepsy should be defined as prone to more than one symptom. I believe the latter definition is better to help us in health practice so we can focus more on the root cause rather than on the condition. Yes, those who experience seizures need relief care, through the direction of a qualified neurologist. But there has to be an emphasis on exploring why the seizures have manifested and what supports need to be put in place, which are often nutritional supports. Essentially, all other systems that communicate with the brain must be pursued.

What the head will tell you about seizures

Neurologists use a brain wave monitoring system called an EEG. It's used to measure the brain waves in an individual. Based on the patterns of these brain waves and a deduction of what location of the brain the seizures are occurring, a syndrome or diagnosis will be deduced. Determined by the diagnosis or syndrome, a pharmaceutical drug will be prescribed. If the first drug doesn't work, then a second will be attempted and then a third, etcetera. When the drugs don't work, brain surgery is introduced. This is the standard approach by allopathic/western medicine.

What the rest of the body will tell you about seizures

The head and the body are without question connected. They communicate constantly through blood, cells and nerves. They are interdependent on each other; that is one cannot work without the other and vice versa. Acknowledging that all of our parts are interrelated and interdependent is the foundation to supporting an individual with seizures. The brain may be delivering the symptom, but the body could be creating the spark. Looking at the brain without looking at other systems of the body is like putting tires on a car when it won't start. This is the foundation of functional medicine: looking at systems and determining root causes.

This is a stretch for much of western medicine that is educated with Newtonian thinking; that the body operates in parts. I would remind the neurologists that we were working with that our son had an entire body attached to the head. In order to understand a nutritional approach, one must adopt an

understanding that the body is a whole of its parts. Explaining to a practicing neurologist that the immune, digestive and detoxification systems must be explored may be met with resistance but it will make the difference between a potential recovery and a lifetime of managing a condition with only drugs.

We must look at seizures with a new perspective

In order to understand how we can support all symptoms nutritionally it's important to understand some biology and biochemistry and the systems that become affected.

There are two types of stressors: external and internal. External stressors are thought to be somewhat manageable under our control: job, work, relationships, and finances, for some examples. Internal stressors are those that may not present symptomatically at first but can over time create dysfunction in the systems and eventually disease. Functional medicine has identified several categories that can be contributing to internal stress: infections (chronic and low grade), nutritional deficiencies, poor diet, toxin/chemical exposures, food sensitivities, digestive issues, exercise and sleep issues.

Any one of these internal stressors or multiple stressors can put the body in a state of chronic stress response. The body needs to respond to the demand of the stressors and does so through adaptation in an attempt to attain balance. The autonomic nervous system that controls our life force mechanisms such as breathing, blood flow, reflexes and more becomes out of balance by putting the body in a primary state of fight/flight rather than a shared state with rest/digest. As a result fight/flight takes over and the rest and digest control within the body becomes compromised.

What does this mean? The adrenals, two glands that sit on top of our kidneys that manage our stress, become overworked. When the adrenals become overworked, they, the hormones, the thyroid gland and digestive functions become short changed. It's physiological. All three of these systems dictate the performance of the hormone, immune, digestive and detoxification systems.

In addition, diet and nutritional deficiencies can adversely affect the master control for the entire body, the brain. As a result, when these systems are underperforming, a whole cascade of failures can occur which contribute to brain inflammation and ultimately seizures.

Allow me to explain more in detail.

The Three Needs of the Brain

The brain, weighing 3lbs, is the heaviest organ in the body. In order for the brain to function optimally, it needs three things:

1. Oxygen
2. Glucose
3. Stimulation

It's presumptuous to assume that because we are breathing we are getting enough oxygen to the brain. Body disturbances such as hypoglycemia, hypothyroidism, low blood pressure, insulin resistance, anemia, or diabetes can limit the oxygen delivered to the brain. ³

The brain requires 30% of the body's glucose (fuel) in order to function optimally. Sugar and refined foods are major culprits in depriving the brain of glucose by introducing spikes and drops in blood sugar levels. If you or your loved one "bonks", "hits a wall" from lack of food, or perks up after eating a well balanced meal, it's a result of hypoglycemia. Hypoglycemia, an often under diagnosed state, can deprive the body of glucose. Diabetes, or pre-diabetes, with insulin resistance, also deprives the body of glucose. Both can be attended to with dietary changes.

Lastly, stimulation is essential for the brain to optimally work. It's human nature to migrate toward tasks or skills that come naturally. Yet these natural abilities or skills can further weaken those areas that need to be built and strengthened. Simple exercises such as doing math if you are poor at math can help exercise the part of the brain that needs stimulation.

The gut-brain connection

The bacteria

The gastrointestinal tract is approximately 20 feet long. Also referred to as the "gut", it houses several pounds of bacteria that greatly affect our digestive performance. With 90% good bacteria, the gut and the body benefits; however with bad bacteria, the digestive system suffers as do other systems. If one breakdown occurs then a series of breakdowns will ensue. Poor diets, excess sugar, alcohol consumption, chronic stress, medications, vaccines, insulin resistance from eating too many carbohydrates can all compromise the healthy bacteria in our gut.

The mucosal barrier

The gut is protected by a thin skin also referred to as the mucosal barrier. The barrier that winds and turns transporting nutrients is bonded by tight junctions. Its purpose is to keep the bad toxins out and absorb and assimilate nutrients from food into the blood stream. Also inside of the gut is its own branch of the central nervous system, referred to as the enteric nervous system. It houses more than 30 neurotransmitters and is host for more than 95 percent of the body's serotonin, the body's natural Prozac. This is why the gut is often referred to as the 'second brain'. ⁴

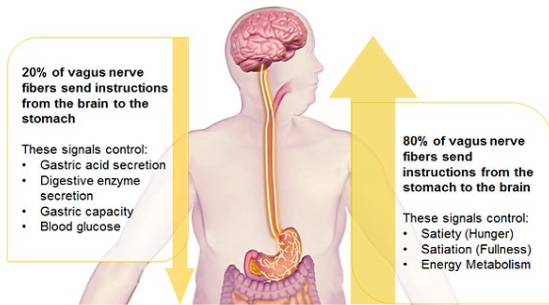
The Vagus Nerve

The gastrointestinal tract is connected to the brain via the vagus nerve which travels along the spinal cord. The vagus nerve serves as a two-way communicator between the brain and the gut. The brain

³ Why Isn't My Brain Working - Dr. Karrhazian

⁴ <http://www.scientificamerican.com/article/gut-second-brain/>

tells the vagus nerve to tell the enteric nervous system to maintain motility in the gut. In reverse the gut communicates with the brain, dictating mood disorders, appetite, sleep, and alertness.



If the brain via the vagus nerve is not communicating clearly then the digestive system will begin to breakdown. Constipation will occur, and over time stomach acid and digestive enzymes necessary for the breakdown of foods will become deficient and ineffective. The mucosal membrane in the gut, with its tight junctions, becomes vulnerable and 'leaky' allowing toxins to spill into the blood stream and

preventing the body from optimally absorbing and assimilating nutrients. When a leaky gut occurs, the gut is susceptible to invasions from parasites, bacteria and fungus. When the digestive system is damaged and its vitality is compromised, the body's ability to calm its central nervous system is severely compromised. The enteric nervous system can no function optimally which means there are limited natural mechanism to calm the body.⁵

Stimulating the vagus nerve has shown positive results by reducing seizures in children as much as 50%.⁶ Electrical vagus nerve stimulation has also been used effectively to treat depression. We know that manipulating vagus nerve shows positive results. This implies at times the vagus nerve needs stimulation. The great news is there is a means to stimulate the vagal or vagus nerve without a device that's non-invasive and involves a few simple exercises.⁷ Some examples include singing loudly and gargling multiple times per day.⁸

There's further discussion that psychiatry, and other medical practices may need to start evaluating the 'second brain' as well as the brain in our head. In a nutritional approach to seizures, the gut, the vagus nerve and the brain must all be explored.

Brain Inflammation

In the brain there are chemical messengers, both neurons and microglia. Microglia, are immune cells and make up a higher percentage of the brain than neurons which means that the brain is primarily immune. The gut in its efforts to protect itself will send off communication of inflammation through its heavily networked immune system. This is why it's physiologically *probable* that when there's a problem in the digestive tract, the brain is affected as well. Inflamed gut equals an inflamed brain. Or in a casual sense: gut on fire; brain on fire.

⁵ Absence of the gut microbiota enhances anxiety-like behavior and neuroendocrine response to acute stress in rats.

<http://www.ncbi.nlm.nih.gov/pubmed/24636517>

⁶ Vagus nerve stimulation in pediatric patients: Is it really worthwhile?

<http://www.ncbi.nlm.nih.gov/pubmed/24210463>

⁷ Vibhuti N, Singh; Monika Gugneja (2005-08-22). "[Supraventricular Tachycardia](#)". *eMedicineHealth.com*. Retrieved 2008-11-28.

⁸ Why Isn't My Brain Working - Dr. Karrahzian

What else can activate the immune cells, known as microglia, in the brain? Gluten sensitivity, high carbohydrate diets, head trauma, an autoimmune reaction, lack of oxygen, systemic inflammation, medications, excess alcohol, inflammatory bowel, etcetera.

Blood Brain Barrier

Like the mucosal membrane surrounding the gastrointestinal tract, there is a blood brain barrier made of a similar skin-like substance. Its purpose is to keep the toxins out of the brain and absorb and assimilate nutrients. It too can become leaky if subjected to chronic stressors, inflammation. These include but are not limited to: chronic stress, alcohol, nutritional deficiencies, system inflammation, insulin resistance, gluten sensitivity. A leaky brain allows large molecules to enter, creating potential for brain infections and neuro-inflammation and has been studied in its link to seizures.^{9,10}



Lifestyle choices, chronic internal stressors and a cumulative stress load can assault the digestive system. Repeated assaults can result in depleted good bacteria, reduced ability to absorb and assimilate nutrients, insufficient neurotransmitters and a leaky barrier seeping toxins in the bloodstream leading to system wide inflammation reaching as far as the brain. The brain becomes inflamed and the blood brain barrier becomes vulnerable allowing the potential for brain infections.

It's no wonder seizures occur.

Gluten and the Brain

Gluten and seizures have been largely linked for years, citing mostly celiac disease and epilepsy.¹¹ In the past 50 years Gluten, the protein derived from the wheat grain, is the most potent trigger for neurological disorders than any other protein. The wheat grain as we know it today has been stripped, modified and compartmentalized; it is no longer a whole grain. Equally so, parts of wheat are used in the manufacturing of many foods: meats, breads, many of the staples of the American diet.

If the body has been subjected to excess amounts of internal stressors including gluten itself, the body puts itself in a state of defense. The body creates antibodies against gluten in its efforts to protect itself. In the body the protein structure of gluten is similar to the protein structures in the nervous system. If the body develops antibodies to gluten it can make the mistake of attacking its own tissue. When the body begins attacking itself in the intestinal tract it's called celiac. What we are learning is that the body

⁹ Role of Blood-Brain Barrier Dysfunction in Epileptogenesis.

<http://www.ncbi.nlm.nih.gov/pubmed/22787606>

¹⁰ Seizure-promoting effect of blood-brain barrier disruption

<http://www.ncbi.nlm.nih.gov/pubmed/?term=Seizure-promoting+effect+of+blood-brain+barrier+disruption>

¹¹ Prevalence of celiac disease in children with epilepsy.

<http://www.ncbi.nlm.nih.gov/pubmed/24474232>

can also attack other tissues in the body as a response to eating gluten thus equally as damaging as celiac disease and a major contributor to neuro-inflammation.¹²¹³¹⁴

As I discussed earlier the blood brain barrier is designed to keep infections out and allow nutrients in, similar to the intestinal barrier. The majority of our brain is filled with microglial cells indicating that our brain is loaded with immune cells. Gluten, in creating an immune reaction, can penetrate the blood brain barrier.

Peer reviewed journals report that a gluten free, dairy free (casein) diet has been shown to reduce seizures and hyperactivity.¹⁵

The basis of my work is to remove irritants/assaults on the body and put supports in place for the bodies systems in need. Removing gluten and possibly dairy are necessary dietary considerations with any individual who has seizures.

Heavy Metals

Mercury, under the name of thimerisol, has been under scrutiny since it was introduced in the 1990s as a vaccine preservative. The FDA argued that in minute doses mercury would not cause damage to the neurological system of the human body. After thimerisol lost favorably as a preservative and was thus determined to be a neurotoxin in any dosage, aluminum became the replacement (thimerisol still remains as the adjuvant in the inactivated influenza vaccine¹⁶). The number of aluminum containing vaccines has quadrupled in the last thirty years.¹⁷ In the 1970s children received four aluminum containing vaccines. Today the average child receives 17 vaccines in the first eighteen months of life. In addition, aluminum is found in numerous household items and can contribute to cumulative damage and brain inflammation. Other heavy metals such as arsenic, uranium and mercury can be found in the environment and can contribute to a cumulative stress load.

Why do some children become toxic and others don't?

¹² The gluten syndrome: a neurological disease.

<http://www.ncbi.nlm.nih.gov/pubmed/19406584>

¹³ Gluten sensitivity: from gut to brain.

<http://www.ncbi.nlm.nih.gov/pubmed/20170845>

¹⁴ Hypothesis for a systems connectivity model of Autism Spectrum Disorder pathogenesis: links to gut bacteria, oxidative stress, and intestinal permeability.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=gluten+neuroinflammation>

¹⁵ Haavik S, Altman K, Woelk C. Effects of the Feingold diet on seizures and hyperactivity: a single-subject analysis. *J Behav Med* (1979) 2:365–74.10.1007/BF00844740

¹⁶ fda.gov/bloodvaccines/safetyavailability

¹⁷ nvc.org vaccination pamphlet)

In my research I've discovered that impaired detoxification pathways are the variable differences between an individual that is symptomatic or not. In reviewing the signs and symptoms of aluminum toxicity they are shockingly similar to the behaviors we see in autism, Alzheimer's, Parkinson's and other neurological disorders¹⁸ It's necessary that the heavy metal toxic load of an individual be assessed in determining toxicity. It's also worth noting that aluminum impedes glutathione production which is the body's main detoxifier, combatting intracellular damage and oxidative stress. One component of my sons healing process was identifying aluminum toxicity and supporting his glutathione production. His seizures began to dissipate immediately after introducing proper nutritional and dietary supports.



The Importance of Detoxification

Our bodies are stressed out these days from all of the exposure that happens on a daily basis: toxic drugs (including sugar, caffeine and excess alcohol), lack of sleep, medications that strip the body of nutrients, metals in our: antacids, baking soda (aluminum), calcium supplements (lead), vaccinations (mercury), dental fillings (mercury), toxic environmental chemicals from factories, additives and toxins in our foods (pesticides), toxic molds and electromagnetic waves (microwaves, cell phones, SMART meters, electrical wires). The list goes on and on. Whether you are a small body or a large one, the exposure is unavoidable. It's imperative in a symptomatic body that the detoxification system(s) are supported and any weaknesses are identified. There are two issues of detoxification that must be addressed.

Phase I: Once food is process through the digestive system it is then delivered through a hepatic portal vein into the liver. The liver's purpose is to move the waste through our disposal system. If however the digestive system is compromised, the liver will become congested with excess waste. A congested liver can create sleep issues, skin problems, and result in toxins leaking into the blood stream, to name a few.

¹⁸ Material Safety Data Sheet Aluminum)sciencelab.com

Phase II: Compromised enzyme activity, insufficient hydrochloric acid (stomach acid) and nutritional deficiencies can cause a phase II detoxification issue, referred to as methylation. It's considered to turn on and off genes, build neurotransmitters (our calming mechanisms in our bodies), process hormones, build immune cells, produce energy, protect our nerves and build and maintain cell membranes. Unless there are disruptions, methylation occurs every second of every minute of every day and our bodies do it naturally. ¹⁹

Thanks to the study of Genomics, the study of genes and the environment, it is now recognized that 30% to 40% of the population have compromised enzymatic function in converting folate to an active form. This inhibited conversion has been linked to folate-dependent seizure disorders. ²⁰ Once identified, nutritional supports can be put in place to assist with this conversion and ensure that a phase II detoxification is working optimally.

Neurotransmitters

Earlier I explained the presence of neurotransmitters in the enteric nervous system located in the gut. Specifically neurotransmitters are the calming mechanisms in our body. Dopamine is our natural "Ritalin", serotonin is our natural "Prozac", GABA is our natural "Xanax" and acetylcholine affects mood and memory, to describe a few of the major contributors. Neurotransmitters are often challenged in attempting to put out the fire in the brain, especially when the source of inflammation is located elsewhere in the brain or *in the body*. It's important to support the neurotransmitters on an as needed basis but equally as important to continue to dig for the root cause of the disruption.

Turn the direction from symptoms to systems

In order to address the root causes of all dysfunction, systems must be explored. I assess specifically, Immune, Digestion, and Detoxification all of which are necessary to be addressed as areas of support through nutrition. Hormones can and should be tested for, especially when working with adults. An individual's neurotransmitters are essential to assess, for relief purposes while identifying supporting systems in need.

There are multiple system breakdowns that can and do occur within the human body. This is why there is rarely a 'magic bullet' to resolving seizures or symptoms. It must be a comprehensive whole body approach identifying and removing assaults on the body and supporting the systems that have been compromised. It's what worked for my son and I'm confident this approach will work for others.

¹⁹ Metabolic epilepsy: an update. <http://www.ncbi.nlm.nih.gov/pubmed/23273990>

²⁰ MTHFR C677T genotype as a risk factor for epilepsy including post-traumatic epilepsy in a representative military cohort. Pubmed/21787169

Tools

Watching my son, a healthy individual, develop seizures, was the most disheartening, frustrating and trying time in my life. I often felt alone and abandoned by the health care system not ever being supported with nutritional therapies. There were three approaches I employed throughout this time and I believe that they are what kept me strong, persistent and tenacious. I'd encourage you to consider these approaches while you seek nutritional supports. Please modify these how you see fit.

1. First, I believed this: If there are no absolutes, there are no impossibilities.
2. I only allowed in very close to us those that believed that my son could get better and could improve. This was particularly trying as I discovered that who I thought were close friends, could only accept the reality that was presented to them. I also had immediate family members that I needed to distance from our efforts. They criticized our nutritional efforts believing that the allopathic direction was the only direction to follow. I had to reserve any strength (and it was weak at times) toward the research and recovery of Koa. Since Koa's recovery, I have rekindled those relationships.
3. I kept the book "Think and Grow Rich" by Napoleon Hill next to my bed. It was written in 1937 about the greatest successors in the world: how they failed *repeatedly* and how they eventually achieved greatly. Thomas Edison failing 10,000 times before inventing the light bulb was encouraging for me to read.

I must admit that I also had the "Power of Now" book by Eckert Tolle sitting on my bedside table. I found little comfort in focusing on the present and that book met the wall a few times. Find a great book that gives you hope and belief and support and refer to it when needed.

Where to Begin?

As a functional diagnostic nutrition practitioner I use functional labs to assess a person's metabolic function. I work with individuals on supporting their systems by applying nutritional approaches including diet, lifestyle recommendations, nutritional exercises, stress reduction and supplements.

I work with families and individuals using these foundations as my premise:

1. If there has been no physiological damage, then there is a high probability that a metabolic disorder is the root reason for the symptoms.
2. The tests that I use explore how systems are functioning, if there are nutritional deficiencies and detoxification concerns.
3. Hormone, Immune, Digestion, Detoxification, Environment and Neurotransmitter systems need to be explored (through tests) and supported as needed on an individual basis.

4. All of this can be done through nutrition and natural supplements (as needed).
5. The gut (digestive tract) and the brain are in direct correlation and both must be tested for and supported: brain on fire, gut on fire.
6. Testing especially for children is done mostly through urine (abstaining from blood or stool unless absolutely necessary).
7. When there are no absolutes, there are no impossibilities.

I have a format that I apply in my practice and I refer to it as “Applying the 7 R’s of Brain Healing”²¹

1. Replenish basic brain nutrition
2. Revive the Gastro-Intestinal Tract
3. Reduce Brain Oxidative Stress and Inflammation with supplements
4. Repair Neurons
5. Remove Neurotoxins
6. Restore Neurotransmitters
7. Relieve Brain Stress

Summary

Based on my personal and professional experience I am confident in the research put forth in this document. My mission at Advocate for Healing is two-fold. To teach individuals that health is a whole body approach used to identify problems and to restore functionality. To empower individuals by understanding why dysfunction occurs and by teaching adults and children how to make nutritional and lifestyle changes that will improve their overall well-being. This is done through educational seminars, one on one consultation and by professionally remaining current on research and proven protocols. I wrote this E-book with the intentions of fulfilling both needs.

Please share this E-book with your loved ones, friends, peers, colleagues, doctors, neurologists. This information needs to reach the masses.

I work as an adjunctive support to families who are working with neurologists. Feel free to contact me with any questions or support.

Be well,

²¹ Adapted from Academy of Functional Medicine- Dr. Charles Gant.

Lynn

P.S. I will have a case study available about my son's recovery. If you are interested please email me at Lynn@AdvocateforHealing.com

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