



## Week 8: Biomedical & Nutritional Blueprint

The science behind using a biomedical and nutritional approach, here are 5 steps:

**1. Studies show a potential link between glyphosate** (this is a pesticide in most oat/gluten/corn/soy/non-organic produce and non-organic meats) and the following diseases: cancer, non-hodgkin lymphoma, degenerative diseases, obesity, endocrine issues, autism related disorders, Alzheimer's, birth defects, celiac, gluten intolerance, kidney disease, colitis, depression, diabetes, heart disease, hypothyroidism, liver disease, inflammatory bowel disease, ALS, MS, Parkinson's, infertility, miscarriage, and respiratory illnesses. In plain layman terms, glyphosate is a chemical found in herbicides.

It's the most commonly used herbicide and is marketed under the name Roundup but did you know it is patented as the following:

#1: an Antibiotic – which is harmful to humans because it kills your beneficial gut bacteria which causes immune system damage

#2: a Chelating Agent which binds to minerals and chelates like Liquid Drano. The health issue is that the chelation properties may lead to vitamin and mineral deficiencies.

How can anyone in good conscience, consume or promote any food with glyphosate which has been patented as both a mineral chelator and an antibiotic...both of which have enormous implications on human and your loved one's health?

The list goes on but I don't want to overwhelm you but I must tell you that the highest level of glyphosate is found in the non-GMO Cheerios so get Cascadian Farms organic ones instead. Also, Quaker Oatmeal is loaded with the chemical.

Here's 3 ways to reduce your exposure to glyphosate:

- 1 *Purchase 100% organic foods.* One way to cut out the glyphosate and other pesticide residue from your foods is to purchase organic items. Labeling laws require these foods to fit a certain description especially in regards to pesticide use.
  - Definitely choose to purchase 100% organic fruits and vegetables. Many pesticides are used to grow fruits and vegetables so choosing organic foods will automatically reduce the quantity of pesticide residues.
  - Also buy 100% organic meats and poultry. Even though pesticides are not used on animals, it is used on their feed (like corn or soy). This allows pesticides to get into the meat and skin of the animal.
  - Purchase 100% organic grains (like wheat or quinoa) as these plants as well as corn have also been implicated in having higher levels of glyphosate residues because of pre-harvest spraying.

- 2 *Do not purchase foods known to have high levels of glyphosate:*
  - Soy (soy products and soy/vegetable oil)
  - Corn and corn oil
  - Canola seeds used in canola oil
  - Beets and beet sugar
  - Almonds
  - Dried peas
  - Carrots
  - Quinoa
  - Sweet potatoes
- 3 *Grow some of your own food:*
  - Start growing your own garden. Make sure you choose a spot with plenty of sunlight and use organic dirt without pesticides. Plant vegetables or fruits that you eat frequently.
  - If you do not have a backyard or a large amount of space, consider doing container gardening.

Recent studies have discovered glyphosate exposure to be a cause of many chronic health problems. It can enter the body by direct absorption through the skin, by eating foods treated with glyphosate, or by drinking water contaminated with glyphosate. Glyphosate is the world's most widely produced herbicide and is the primary toxic chemical in Roundup™, as well as in many other herbicides. In addition, it is a broad-spectrum herbicide that is used in more than 700 different products from agriculture and forestry to home use. Glyphosate was introduced in the 1970s to kill weeds by targeting the enzymes that produce the amino acids tyrosine, tryptophan, and phenylalanine. The enzymes of many bacteria are also susceptible to inhibition by this chemical, thus altering the flora of many animals. Usage of glyphosate has since amplified, after the introduction of genetically modified (GMO) glyphosate-resistant crops that can grow well in the presence of this chemical in soil. In addition, toxicity of the surfactant commonly mixed with glyphosate, polyoxyethyleneamine (POEA), is greater than the toxicity of glyphosate alone. In addition, in 2014 Enlist Duo™, a herbicide product which contains a 2,4-dichlorophenoxyacetic acid (2,4-D) salt and glyphosate, was approved for use in Canada and the U.S. for use on genetically modified soybeans and genetically modified maize, both of which were modified to be resistant to both 2,4-D and glyphosate.

**2. Peptide removal of gluten and casein** as it can negatively affect one's cognition and behavior:

Incorporate dairy free products for milk, butter, ice cream, cheese, dairy.

So Delicious offers ice cream in cashew, coconut or almond.

So Delicious offers unsweetened milks.

Daiya Foods offers frozen pizza, shredded cheese, cream cheese and taste great.

Kite Hill is another good brand for cream cheese.

Incorporate gluten free breads like Gillian Foods available at Mrs. Green's or Canyon Bakehouse or Udi's bread.

Pasta can be Banza pasta.

### **3. Candida Overgrowth:**

Elevated values are common in celiac disease, transient lactose intolerance and can be associated with eczema, foot fungus, bloated belly, sugar cravings, etc.

Treatment with **probiotics** may be clinically useful.

(1) Follow the nutritional steps indicated in this interpretation

(2) Since Candida is present, treat Candida

(3) Monitor progress with daily journaling.

Foods especially high in oxalates which can be a by-product of candida include spinach, beets, chocolate, soy, peanuts, wheat bran, tea, cashews, pecans, & berries. *I'd remove gluten, soy and casein.*

### **4. Nutritional Balancing:**

Enzyme cofactors **B6** (pyridoxine) recommended; neurotransmitter levels may increase with supplementation with these cofactors and BioMood or ZEN.

For *magnesium*, *one can bathe in Epsom Salt baths. Do not leave unattended.*

Supplementation with BioMood and/or **ZEN**.

Pyridoxic acid (Vitamin B6) deficiency may be associated with less than optimum health conditions (low intake, malabsorption, or dysbiosis). Supplementation with **B6** (20 - 50 mg/day) or a multivitamin may be beneficial.

Remove bananas as they are part of the histamine family (amine).

### **5. Nourish the Adrenal System** with Vitamin C, B6, Zen and/or homeopathic remedies.

L-theanine elevates levels of GABA, as well as serotonin and dopamine. L-theanine blocks excitatory stimuli at glutamate receptors in the brain. L-theanine also stimulates production of the inhibitory, relaxing neurotransmitter GABA, adding to its calming, anti-anxiety effects. Calming effects may last 8 to 10 hours and are usually experienced within 30 minutes following ingestion of l-theanine at doses between 50 and 200 mg.

Many of the symptoms and much of the damage associated with depression, anxiety, and other brain maladies stems from abnormally elevated levels of one of the key neurotransmitters: glutamate. Glutamate is the major excitatory neurotransmitter in your brain. It is crucial for,

among other functions, learning and memory. Low levels can lead to fatigue, “brain fog,” and poor memory. Increased levels of glutamate, on the other hand, cause numerous symptoms and can even kill your brain cells. Glutamate imbalance has been shown to be involved in many neurodegenerative diseases such as Alzheimer's, Parkinson's, Huntington's, Tourette's, delirium, depression, OCD, and autism. Your natural counterbalance to excess glutamate is the amino acid gamma-aminobutyric acid (GABA). Most of the nervous system disorders mentioned above are not only associated with elevations of glutamate but also with low levels of GABA.

This mismatch between glutamate and GABA is where L-theanine comes into the picture. Based on specific psycho-neuro-immunological perturbations (PNIPs), L-theanine is one of those versatile supplements that provides general support in most areas of neurotransmitter imbalance.

To better understand this notion, let's take a closer look at some of L-theanine's specific actions:

- L-theanine directly mimics the calming effects of your natural GABA
- L-theanine also helps you make more of your own GABA
- It is believed that L-theanine's effects are due to its ability to block glutamate receptors, thereby dampening the ravages of excessive glutamate activity
- By blocking glutamate receptors, L-theanine indirectly supports GABA activity by freeing it to perform other important duties

Due to these multiple mechanisms, L-theanine is often referred to as, the "adaptogen" of neurotransmitters - similar to the concept of herbs such as rhodiola in adrenal fatigue. It has been recognized for centuries as having relaxant properties. A unique amino acid, L-theanine is the biologically active constituent of green tea, which has been widely studied for its ability to produce a calming effect and prevent over-stimulation.

Because it supports GABA activity, L-theanine is a solid treatment consideration when your calming neurotransmitters (GABA and serotonin) levels have been documented to be low. Additionally, L-theanine promotes both neuroinhibitory and parasympathetic responses. As a result, it is useful when you are experiencing elevations of your excitatory neurotransmitters including dopamine, norepinephrine and epinephrine. Furthermore, L-theanine promotes the release of serotonin and dopamine, and, as such, may be included in a well-rounded treatment plan - particularly when additional neurotransmitter imbalances are present. Importantly, L-theanine helps you relax without making you drowsy or fatigued. Although L-theanine is a good bet for any number of neuro chemical imbalances, determining specific neurotransmitter disarray with an organic acid test is an easy and accurate means to identify excess or deficiency for targeted treatment. **One can explore L-theanine and GABA product.**

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