

Glutathione & Lyme Disease and Neurological Help

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Our creator made our systems and organs to use glutathione in multiple roles. As we understand this the importance of glutathione cannot be overstated. Since the body needs so much glutathione all the time the necessity for glutathione becomes increasingly evident. Research has shown that Glutathione production in the cells with simple aging and even more so with chronic diseases as in Lyme Disease. When glutathione levels are measured in older people those with better health have higher glutathione levels. This finding emphasizes the importance of this little known substance for maintaining a healthy, well-functioning cells and systems in the body.

Glutathione has so many benefits that it can support the health of those with a vast range of conditions. Glutathione is found in every cell in your body.

We are so bombarded with free radicals in the form of radiation, electromagnetic radiation, air pollution, toxic metals, virus', bacteria's, fungi, molds, chemicals, pesticides, stress, etc. Glutathione scavenges these free radicals, detoxifies heavy metals, helps ferry amino acids into the cells, assists in bile production, and much more. This substance with all of its capacities, make glutathione crucial in maintaining immunity. Lyme Disease is a disease with critically stressed immune functions.

We don't get a lot of glutathione in our diet and even if we did not much would be absorbed directly into the blood or be usable by the body. God made our bodies with the ability to synthesize glutathione from amino acids. In our modern society where we are exposed to some 60,000 chemicals a day our bodies cannot make enough glutathione to keep up with the chronic toxic load from infections and poisons leaving us with an ever increasing population of people with immune dysfunction.

"Stress can also deplete glutathione, because increased adrenaline suppresses glutathione production. In animal studies, glutathione has been shown to protect against liver cancer; it has also been used in humans to protect them from kidney damage from chemotherapy drugs. It protects kidney function in patients undergoing bypass surgery." <http://planetthrive.com/cgi-bin/members/pub9990215236855>)

Glutathione efficiently goes after the inflammation in cystic fibrosis patients. This wonderful substance has even been shown to increase insulin production in older individuals who have impaired sugar metabolism. Dr Robert Keller's studies has shown Glutathione also seems to inhibit herpes viruses and has been shown to help reduce viral load in hepatitis C patients.

Lyme disease and the ensuing neurological difficulties it brings from the Bb infection makes glutathione the most important therapeutic substance. Why, because **glutathione is a major factor in limiting the damage to the nervous system** that can occur with Lyme disease.

Glutathione, this important nutrient is a potent free radical scavenger which neutralizes toxins (especially those in the liver where glutathione is found in high concentrations. It aids in repair and synthesis of DNA and helps maintain red blood cells membrane integrity. Glutathione is especially powerful in neutralizing toxins in Lyme disease because it can render inactive the neurotoxins produced by Bb. This is so important because it can decrease the neurological symptoms and protects the nervous system from damage.). Low glutathione means: less ability to detoxify free radicals, less ability to clear heavy metals, lower immune function, increased inflammation, and lower levels of Vitamin C and Vitamin E, antioxidants that depend on glutathione.

Practitioners working with Lyme Disease have seen improvement in cognitive function within minutes of taking the glutathione accelerator which increases the glutathione in the cells of the entire body in seconds and especially the brain.

Lyme diseases is a complex problem on immunological dysfunction with is triggered by bacterial exotoxins. Glutathione forms soluble compounds with the exotoxic and mycotoxic acids that it is removing. Then it secretes these toxins through the gut.(Immunological Dysfunction. FASEB J, 11(13):1077-89 1997 Nov. (Can Glutathione Help LymeDisease Suffers?Excerpt from: The Glutathione Report: Optimal Health with the Master Antioxidant, Issue 4, Volume 1, May 2004).

The Detoxifying and Excreting the Toxins of Borrelia.

Lyme disease has as one of its main bacteria's Borrelia which produce a lot of toxins which trigger many harmful body responses which produce inflammation which can then damage healthy tissues, and cause the immune system to become imbalanced.

The toxins that are created by the Borrelia are fat-soluble lipoproteins and the body has a very difficult time ridding the body of these. In the normal bodily process of detoxifying fat-soluble substances through the liver they are excreted from the bile. But the problem occurs when these toxins can then be reabsorbed from the gut and recirculate back into the body.

Therefore it is critical in Lyme disease that there be a way to aid the body in eliminating these toxins from the body completely and effectively. Glutathione is that critical factor, often missing in Lyme protocols.

The most important detoxifying agent in the body is glutathione which aids the body in getting rid of harmful toxins such as those BLPs (Bacterial lipoproteins)produced by Borrelia burgdorferi bacteria (Bb) The importance of Glutathione is that when it grabs the toxins they do not reabsorb in the gut and go back into the blood. Glutathione forms a soluble compound with the toxin that is excreted through the urine or the gut.

The kidney and liver get the greatest exposure to toxins and God created them to have and need high levels of glutathione because of their front line protection to the body from toxins.

Glutathione is also needed in the lungs because they are important in our oxygen in our cells. Since glutathione is a very small molecule that is found in almost every cell, yet it cannot enter the

cells directly. So the cells have to make the glutathione inside the cell or the liver. If there are three amino acids: glycine, glutamate and cysteine it can be synthesized inside the cell.

Obtaining glutathione from food in sufficient quantities is almost impossible. Making glutathione on our own in the body depends on the availability of cysteine almost non-existent in the foods we eat. The cysteine molecule has a sulfur-containing portion which allows the glutathione molecule the ability to do its functions and be biochemically active.

We need protection in the cells from oxygen radicals or free radicals. Glutathione is made by the cell to protect the cells. When the highly reactive oxygen radicals and free radicals are not taken care of, they will damage or destroy the most key and important facets of a cell's components like its membranes, DNA in microseconds.

When the cell burns oxygen to make energy in the thousands of mitochondria inside each cell high amounts of oxygen radicals are generated. Something has to put out this "fire" that was the after burn of the mitochondria (the batteries that provide the power for our cells to function). Glutathione is that needed substance.

When there is some kind of inflammation created by fungi, molds, virus, bacteria, toxins, pollutants, etc., the cell produces more free radicals from the hyper immune response. This product of free radicals must also be dealt with and the best way to accomplish this is with glutathione.

We need high amounts of glutathione in the most intricate of steps needed to carry out an immune response. One such response needing high amounts of glutathione is the lymphocytes that must multiply in order to support the development of a strong immune response. Another example of the need for glutathione is in the "killer" lymphocytes to be able to kill undesirable cells as in cancer cells or cells infected with a virus. We need glutathione to carry out multiple and intricate steps in our immune responses.

It is remarkable that a nutrient in our bodies that is critically vital to all our cell's health has so much evidence of its huge importance in detoxification and yet is so unknown by professional, medical personnel and the populace. It should one day take its place in being more known and talked about than vitamin C.

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