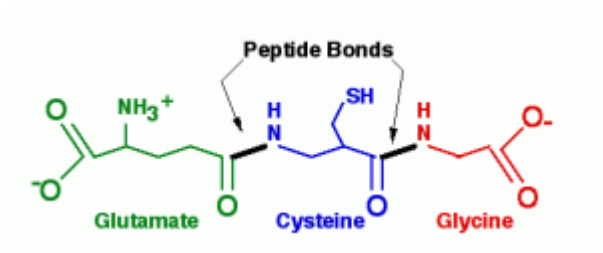


Glutathione



Glutathione, the King of Antioxidants

In the vast majority of patients with chronic illnesses, there's one consistent finding: a lack of adequate glutathione. Glutathione is one of the most important elements in the body. It protects us from oxidative stress, helps us detoxify, and plays a key role in the regulation of our neurotransmitters.

It's unlikely that you've ever had your glutathione levels measured, but it's a key marker of health. Lack of glutathione is associated with virtually all chronic neurological degenerative diseases, diabetes, heart disease, migraines, depression, cancer, and autoimmune diseases. Yet, you've probably never heard of it. If you go to the government's medical database, pubmed.gov, and put in glutathione, you'll find 110,000 citations. There are more than 700 citations discussing glutathione and depression, 500 references discussing glutathione and Parkinson's disease, and 3,300 references related to diabetes and glutathione.

There's increasing interest in glutathione because it's a key to understanding chronic illness. Glutathione has two main purposes; one is to reduce oxidative stress, and the other is to remove toxins.

Dr. Mark Hymen Discusses Glutathione

Oxidative stress is a result of energy production in the body, and we can't live without oxidation. If it isn't controlled, it can also destroy our body. This is much like an automobile. The process of making energy results in heat and exhaust and chemical byproducts that need to be released. If we don't have enough oil in the engine, these chemicals, the heat, and the process will destroy the engine. Glutathione in our bodies serves a similar purpose. Vitamin C, vitamin E, and CoQ10 when used with glutathione recycle and renew the body

The other purpose of glutathione is to remove toxins from the body. When glutathione removes a toxin, it binds to that toxin and leaves the body with the toxin. Consequently, we have to replace (or the body has to produce) the glutathione in order for us to maintain healthy levels.

When we can't produce adequate glutathione, toxins build up in the body, which, in turn, cause more oxidative stress and put further demands on our glutathione production system. Add a major stressor, which places further demands, and our detoxification system goes into a tailspin spiraling down into a chronic illness. And this is often the story we hear: A chronic illness started shortly after or during a major stressor.

So one of the components to regaining health is to restore glutathione levels to normal. The problem is even if we restore the normal production of glutathione, removing the accumulation of toxins that have built up due to insufficient glutathione uses up much of that additional glutathione. That's why it can take some time to recover from a glutathione deficiency-induced disease; it takes some time to remove the toxins and restore glutathione to its normal levels.

How We Use Glutathione IVs

We can generate glutathione in the body or give special forms of glutathione that are specially processed so the glutathione

can be absorbed orally. However, new patients may have high levels of oxidative stress and internal toxins. This is where IV glutathione can play a key role. If you imagine that your backyard has a huge pile of trash 20 feet high, you can choose to remove it using a backhoe and a dump truck (IV glutathione) or with a wheelbarrow and a shovel (oral glutathione). The point being is IV glutathione can remove large amounts of glutathione quickly. We find IV glutathione is very helpful in getting seriously ill patients back on their feet quickly. IV glutathione and chelation therapy has been key to my own health.

We can safely remove large amounts of toxins with glutathione by taking precautions to prevent the reabsorption of mobilized toxins. Shortly after receiving a glutathione IV, the liver will dump those toxins into the bowel via bile. If this toxic bile is allowed reabsorb side effects can occur mainly severe fatigue for several hours. To prevent this from happening we also give binding agents orally at the time of the IV that absorb the toxic bile released from the liver. This has worked quite well to prevent any side effects from IV glutathione.