

Glutathione - Master Antioxidant

Glutathione is called the master antioxidant and is also a master detoxifier..

It protects every single one of your 50 to 75 trillion cells, including your brain.

The lower your levels of it, the higher your risk of:

- Cancer,
- Parkinson's disease,
- Alzheimer's, and
- Autoimmunity.

And as of today, 14 May 2011, a Pubmed search displays 95663 scientific articles on glutathione.

BUT I bet you've never heard of it.

Why? Well, maybe because you can't fortify juices, cereals, and Diet 7-Up with it!

Or maybe because today's multi-billion dollar antioxidant industry will crumble to its knees once the public catches wind of it.

When it comes to antioxidants, glutathione is as underground as it gets.

Before we jump into exactly what glutathione does, let's discuss why it does it. You have probably heard the phrase "the powerhouse of the cell". Every time I hear that I flash back to elementary school and the entire class shouting "THE MITOCHONDRIA!".

The mitochondria's nickname couldn't be any more appropriate. Housed within each of your cells, they generate the energy your body runs on by way of utilizing oxygen to convert food into fuel, or what is known as ATP.

Just like your car produces exhaust as a by-product of the burning of gasoline, the mitochondria's energy production system creates reactive oxygen species, better known as free radicals.

The mitochondria have a built-in protection system (antioxidant enzymes) to protect themselves from these free radical scavengers. However, 5% escape and wreak havoc on the cell, including damage to the DNA (potentially cancerous), enzymes, and cellular membrane. No bueno!

To get an idea of how these free radicals work, let's use an analogy I actually heard last night from my friend Blue Elam. If you were to put 10 rambunctious boys into a room with 9 basketballs, what would happen?

First of all, you'd be a cruel, mean person for doing that. But the boy without a ball would steal a ball from another. And then the boy who doesn't have a ball anymore will steal one from the next boy. And it never stops!

This is exactly what free radicals do. They steal electrons from vital areas of your cells in order to fill their outer shells. This process, called oxidative stress, has been associated with over 200 different diseases and conditions. In fact, a Pubmed search for oxidative stress displays 87374 scientific papers! In some cases, the free radicals cause the disease. In others, the disease causes the oxidative stress.

This is exactly why we have become so enamored with dietary antioxidants in the forms of expensive juices, supplements, and of course, fortification of processed foods.

As we discussed in Tuesday's blog, dietary antioxidants, while effective, are in fact inferior to the antioxidant enzymes produced by your cells. These enzymes include superoxide dismutase, catalase, and the pound-for-pound antioxidant champ glutathione.

Glutathione is a protein consisting of three amino acids (a tripeptide). Its job is to act as a cellular security guard and protect the cell and mitochondria from free radical damage. When glutathione levels become depleted due to aging, stress, heavy metals, pollution, radiation, poor diet, and more - free radicals run wild. One consequence is the dimming of the lights in your cellular powerhouse. In other words, your energy production slows down. Is it any wonder why we have an epidemic of Chronic Fatigue Syndrome!

Glutathione works in conjunction with dietary antioxidants. It breathes new life into the water-soluble vitamin C, which then interacts with the fat-soluble vitamin E and CoQ10 (also vital for energy production), helping to keep antioxidant levels of those intact. (Perricone, 35)

If you're taking a handful of vitamin supplements every day, you'll be well served to boost your glutathione levels to keep them hanging around for longer.

In a nutshell, glutathione is what I call the bomb!

But don't take my word for it.

In his book *Forever Young*, anti-aging expert Dr. Nicholas Perricone states,

"Elevating glutathione levels and other substances that protect against free-radical damage in the mitochondria is the cornerstone of the quest to look and feel Forever Young."

Renowned neurosurgeon Dr. Russell Blaylock, in his book *Health and Nutrition Secrets*, writes,

"Several studies have shown that the lower a person's glutathione levels are, the greater the risk of cancer. We also know that one of the early events associated with Parkinson's disease is a fall in glutathione levels in the neurons associated with the disease."

Check out the video below and see what happens when a man with Parkinson's receives an injection of glutathione. The physician is Dr. David Perlmutter, the world's leading nutritionally oriented neurologist, who as a matter of fact was slated to be my "secret guest" on my Protandim radio show. However, he had a conflict. I was heartbroken. Would have been so cool to interview him!

Speaking of neurology, there is a little-known connection between the health of the brain and the appearance of the skin. Dr. Perricone calls it the Brain-Skin Connection. According to embryology, during the first four months of gestation there are three distinct and separate layers of tissue from which all of our organ systems are derived. The brain and the skin come from the same layer, the ectoderm. (Perricone, 9)

So when that YouTube viewer was complementing me on my skin (mentioned in Tuesday's blog), he or she was actually complementing the health of my brain!

My response: It's the glutathione, baby!!!

Special shout-out to coconut oil, too!

The benefits of the master antioxidant are seemingly endless and go well beyond fighting free radicals.

Your liver contains the highest levels of glutathione, which is why it is known in scientific circles as your chief detoxifier, as it is a primary component in what is called Phase Two detoxification and

protects you from liver damage. You can imagine it as a sticky substance catching all of the toxins floating by and carrying them out of the body through your poop.

Speaking of the liver, it is the site of thyroid hormone activation. Glutathione is a critical enzyme involved in the conversion of the inactive thyroid hormone T4 into the active T3. Increasing your levels may prove highly effective in improving thyroid function, boosting metabolism, increasing body temperature, and aiding in fat loss.

And for the active fitness enthusiasts and athletes like myself, glutathione will give you the edge you're looking for as it reduces muscle damage, increases strength and endurance, and DEFINITELY reduces recovery time.

Wow! I'm 3 pages deep and haven't answered the most important question. How do YOU maximize your glutathione levels to reduce oxidative stress, recover quicker, reduce your toxic load, and boost immunity (will cover in an upcoming blog)?

As I mentioned earlier, manufacturers will never fortify foods with glutathione. This is because glutathione is quickly digested and rendered useless by the digestive system.

There are some forms of liquid glutathione on the market that have debatable effectiveness in boosting levels. You can try it, but you'll probably vomit once you catch a whiff of it. It smells like one of my brother's farts! Maybe worse. This is due to its high sulfur content. Yuck.

You can also find transdermal creams, which combine fatty acids with glutathione to facilitate absorption through the skin. Upon penetrating the deep layers of the dermis, the enzyme make its way into circulation, and eventually reports to the cells and mitochondria for duty.

Consuming foods with a high sulfur content can boost glutathione levels. These foods include eggs, garlic, onions, unpasteurized high- quality whey, and cruciferous vegetables like watercress and broccoli.

Another alternative is LifeWave Glutathione patches. These patches are non-transdermal and stimulate the body to make more of its own glutathione and can increase the body's product between 200 and 300 percent.

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