

# Glutathione is your body's master antioxidant

By Mikaela Quinn

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The air we breathe, the water we drink, the emotional stresses we let build up. All of those are transparent, all are bonded to our daily lives - and all impact our health in a negative way. Not to mention the myriad chemical medications and substance abuse in this country.

"We are totally bombarded with toxins every day, and once your body starts to sag down with toxins it becomes much more vulnerable to infections," says Mary Ackerley, MD, MD(H).

So, is there a magic pill out there that can help us combat this war with toxins and stress?

The good news is: Yes, there is something. But it's not a pill. And it's really not magic. It's a protein produced in our liver from amino acids. It's a powerful antioxidant that protects our cells from free-radical damage and blasts toxins from our body faster than you can say "Slippery Bile." It's called glutathione. (Pronounced: glute-ah-thigh-on.)

"You need glutathione to keep from getting more fatigued or tired or before you totally stress out your adrenals," says Ackerley. A holistic psychiatrist in private practice in Tucson, she sees a lot of patients with depression but also myalgia, hormone imbalance, chronic fatigue and fibromyalgia. "I find glutathione helpful with these conditions because it makes the neurotransmitters in your brain more effective."

In the past six years, some 25,000 medical articles have been published about this critical antioxidant. It is one of the hottest research topics for many doctors and scientists today.

"The application of glutathione is all the rage in the alternative health circles these days, and that's been growing over the last five to 10 years," says Scott Jamison, NMD. Specializing in Family Medicine in Tucson, he has practiced naturopathic medicine for over 20 years.

"Glutathione is really important," says Ackerley. "It's in every cell and is the body's main antioxidant. The cells make it within themselves and the toxins use it up. The more toxins you have, the less glutathione you have."

According to Jamison, glutathione is both "an antioxidant and a detox molecule that contains sulphur that binds to toxins and flushes them out of your body."

Of all the antioxidants naturally produced by the body, glutathione is the master antioxidant because all other antioxidants need it to function efficiently. By boosting levels of antioxidants, you may be protecting yourself against Parkinson's disease as well as cancer, infection, and much more.

Recent Research emphasizes the importance of glutathione as a protection from the factors that drain our levels of glutathione: stress, pollution, radiation, infection, drugs, poor diet, smoking, aging, injury, trauma, and burns, as well as exposure to auto exhaust, smog, pesticides, and heavy metals.

As we age, our glutathione levels decrease. The body's cells produce glutathione at maximum capacity in our 20s. In each subsequent decade of life, the cells lose about seven to 10 percent of their glutathione-producing capacity. Whenever we are exposed to emotional or physical stress, glutathione goes to war against the intruder and in turn gets consumed by the bad guys. When we're in our 50s and we're not producing as much glutathione as we did in our 20s, our body's ability to heal and fight disease is jeopardized.

There are other obstacles to glutathione production, besides aging. "Mercury can cause problems with making glutathione - it blocks its ability to produce," says Jamison. "Mercury really attacks the nervous system, and mercury is everywhere - in the water and air and things you wouldn't suspect, like the older metal mini-blinds."

Hunter Yost, MD, DAAPM, says Tylenol robs the body of glutathione. "People who use a lot of Tylenol will drastically reduce their glutathione levels." He specializes in Functional Medicine and Chronic Pain Management in his Tucson practice.

Raising the amount of glutathione in the blood helps bind toxins and heavy metals, and removes them. It also has been shown to help brain development and immune function for children with autism. Increasing glutathione levels, and effectively improving detoxification of the liver, has been found to increase language ability and awareness for these children.

"The sicker you are, like with aids or cancer, the lower your levels of glutathione are going to be," says Ackerley.

According to all of the medical professionals I interviewed, nearly every debilitating condition or disease demonstrates low levels of glutathione, including cancer, multiple sclerosis, AIDS, ALS, Alzheimer's, male infertility, pregnancy complications, cataracts, atherosclerosis and Parkinson's.

Conversely, glutathione has been used effectively to treat many health problems, including autism, cancer, Chronic Fatigue Syndrome, drug addiction, emphysema, fibromyalgia, glaucoma, hepatitis, hypoglycemia, kidney disease, liver disease, diabetes, mercury poisoning, heart disease, sickle cell anemia, skin conditions, Parkinson's disease, respiratory problems such as cystic and pulmonary fibrosis, smoking damage, COPD, Tuberculosis, and Alzheimer's.

"The immune function of glutathione is really important," says Ackerley. "Someone with AIDS or Cancer is going to do better with glutathione supplementation. Studies have shown it really helps with neurotransmitters in the brain - so it also helps with depression."

Elizabeth Grady, NMD, a Naturopathic Medical Doctor in private practice in Tucson, says glutathione plays an important role in improving health. "Not only does it destroy free-radicals being created in our bodies, glutathione creates energy production, strengthens our immune systems, detoxifies our bodies at the cellular level, improves peak athletic performance, and fights cellular inflammation," she says.

In addition to ongoing studies of the role of glutathione in cancer and cancer therapy, clinical trials of glutathione in Amyotrophic lateral sclerosis (ALS) - also known as Lou Gehrig's disease - are currently underway. The U. S. National Cancer Institute has included glutathione in a study to determine whether nutritional factors could inhibit development of some types of cancer.

European researchers, with support from the Cystic Fibrosis Foundation, are examining the potential uses of inhaled glutathione in cystic fibrosis. Many physicians now use inhaled glutathione in treating airway restriction and asthma. Other studies are investigating whether administration of alpha-lipoic acid, a material that can elevate intracellular glutathione, may be beneficial in restoring the immune system in AIDS patients.

"Pretty much the only treatment known to REVERSE macular degeneration is glutathione," says Grady. "People also tend to report that colors are more vivid and their eye pressures tend to normalize after an

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# ***Glutathione: Master Antioxidant***

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intravenous infusion of glutathione and B vitamins, making it a treatment for glaucoma as well.”

Grady specializes in Family Holistic Naturopathic treatment and has been using glutathione with her patients for over 10 years. “I love using glutathione in people just newly diagnosed with asthma, as it has completely gotten rid of several cases within a fairly short period of time,” she says.

There are glutathione nebulizers and inhalers on the market today. Many forms of glutathione elevation have become available since 1984, when it was first introduced in cancer treatments. Lotions, capsules and nebulizers have been found to increase blood glutathione levels to as much as eight percent, while injections and IV drips have shown a 15 to 18 percent increase.

“Some doctors have used glutathione IV drip therapy, but that’s just a temporary fix,” says Yost. “More recent research shows that it does not get absorbed.”

Jamison says, “Glutathione is a very high energy reactive molecule so it doesn’t last long in the digestive system – so the oral route, such as with supplements, is not the best way to administer it.” Both Jamison and Yost say that taking supplements of N-acetylcysteine, which is converted into glutathione in the body, seems to be effectively absorbed.

Ackerley says the body will not produce any more glutathione than it needs.

Quila Rider, RN, PhD, agrees. She has been in the nursing field for over 30 years, has an Advanced Certification in Auriculotherapy, and is certified in Emotional Freedom Techniques (EFT). She also has studied Natural Medicine for over 25 years and holds a doctorate in Complementary Medicine.

Within the last two years, a new nano-technology medical non-transdermal (nothing enters the body) patch has emerged on the market which is shown through clinical trials to increase blood glutathione levels. Rider has participated in independent controlled research studies for LifeWave, the company that developed these patches, to look at the effectiveness of their glutathione patch. Objective data was obtained by blood and urine samples before and after applying the patches.

“The results were absolutely amazing,” Rider says. “In the first 24 hours of wearing the LifeWave glutathione patch, we were seeing a 300 percent increase in their glutathione levels. Everybody in the study got skin changes within 24 hours - softer skin, less wrinkles, and reduced acne. They had more energy, too,” she says.

Studies also have shown the LifeWave glutathione patches to be highly effective detoxers. “Glutathione really is a master detoxifier,” says Rider. “The patches bring out gobs of heavy metals from your body - arsenic, mercury, lead, and many others.”

How do the patches work if nothing enters your body or bloodstream? Rider says the patches are activated by body heat and work on light waves to signal the body to produce glutathione. “If the body needs more glutathione, the patches will signal it to do that - like the sun signals your body to produce melanin,” she says. “But if your body doesn’t need to make more glutathione, it won’t. We know the body is always in charge and it will not hurt itself.”

Yost says the best way to find out if you need to boost your glutathione level is to have a nutritional evaluation. “A blood test can simplify things and show what your body needs right now,” he says.

Ackerley says whey powder is an excellent source for glutathione. Yost also gives a thumbs up to whey but says diet, exercise and lifestyle are more important than taking supplements. Foods high in glutathione that he recommends are horseradish and cruciferous vegetables - broccoli, cabbage, Brussels sprouts, kale, turnip and mustard greens. “If people eat those every single day, they don’t need to run out and buy a bottle of glutathione unless they have some severe degenerative condition,” he says. “If our diet is good, if you’re eating right and exercise moderately, and you don’t have a chronic or debilitating condition or illness that you’ve been dealing with for years, then your body probably has the correct amount of glutathione.”

Rider, age 66, stands by the LifeWave patches she’s been using for about four years. “People I haven’t seen for awhile are asking me if I’ve had a facelift!” she says.

“For anybody looking to improve their health, they’re going to want to get more glutathione,” says Ackerley.

Ahhh, looking young again and being healthy. That’s what I call quality of life.

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