

Using Glutathione and Selenium to Treat Viral Infections

Glutathione is an important cellular defense that allows the body to prevent and fight infections and disease. Glutathione is the natural defense of every cell in your body working hand in hand and dependent on a plentiful supply of selenium for its existence and function. Glutathione, the most important antioxidant in the body, is that place where sulfur and selenium meet to protect from cancer and viral infections.

Glutathione plays crucial roles in the immune response, DNA repair and the detoxification process that neutralizes bacteria, chemicals, drugs, metabolic wastes, radiation, viruses and reduces carcinogens and toxins that are present in our environment.

Immune System

The immune system cannot function properly without plentiful Glutathione. Antioxidants such as vitamins C and E rely on Glutathione to function properly within the body. Glutathione (GSH) and the GSH-replenishing enzymes keep the antioxidant status of normal cells at a level where they can avert oxy radical-derived mutations. When we talk about sulfur pathways and sulfur sufficiency we are at the same time touching on Glutathione because Glutathione is a sulfur enzyme.

Glutathione is manufactured by every cell and the level of glutathione in our cells is predictive of how long we will live. Without the cleaning and chelating work of Glutathione cells begin to decay as cellular filth and heavy metals accumulate. This sets the stage to attract deadly infections. Without sufficient Glutathione the body accumulates toxins and acid residues, degenerates rapidly, ages prematurely and dies more easily from viral and bacterial infections.

74 Diseases

A low Glutathione level is associated with over 74 diseases or conditions and is a major biological player when it comes to dealing with viral infections. The terrible consequences of a low Glutathione level and how it accelerates the aging process is something that can be avoided by taking a Glutathione precursor and Selenium supplements.

Glutathione is a sulfur based enzyme which can attach itself to anything. It is like sticky flypaper. Whatever Glutathione attaches itself to cannot escape and is removed from the body. Glutathione is our body's natural scavenger. Anything that is not beneficial such as bacteria, viruses and fungi will be quickly removed if there is enough Glutathione present.

In another major active defensive pathway, Glutathione makes sure that all components of the immune system are strong and operating efficiently. Without the interaction of Glutathione with the immune system it remains weak and unbalanced thus leaving you with infections and vulnerable to death. It does not matter if a virus or bacteria has mutated or not, it will be recognized by Glutathione and removed. Glutathione is a basic first line of defense and should be used for all life threatening infections.

The first step in anti-viral or bacterial medicine is to build the strength of the immune system. Our immune cells are designed to protect us, but what protects the immune cell? Glutathione is the protector of the immune cell and allows newly formed immune cells to proliferate to attack germs and viruses. Glutathione feeds, protects and strengthens your immune system.

Fights Infection

Glutathione boosts white blood cell production to fight infection, particularly the T-cells, which are called lymphocytes. T-cells are at the core of our immunity and tailor the body's immune response to pathogens, viral and bacterial infections or anything the cells recognize as being invasive. Studies have shown that Glutathione is food for the immune cells, boosting the strength of lymphocytes. B-cell lymphocytes identify the unwanted pathogen that the T-cells attack.

Glutathione protects us from viruses. Our white blood cells help defend against viruses. They need an abundant supply of Glutathione to be able to effectively protect us from invading microorganisms and viruses.

Liver Support

Reduced and oxidized glutathione levels were determined in liver biopsy specimens obtained from patients with chronic liver disease including chronic active hepatitis and cirrhosis. In patients with hepatitis, Glutathione levels were significantly low compared with healthy patients.

Glutathione is used for preventing poisonous effects of cancer treatment (chemotherapy) and for treating the inability to father a child (male infertility). IV glutathione is used to treat diseases related to the brain (Parkinson's, Alzheimer's, MS), liver (alcoholism) or help those with suppressed immunity (HIV or patients undergoing some chemotherapies like cisplatin). Many people on IV glutathione go once or twice weekly at a cost of more than \$900 for each administration so it is easy to see the cost effectiveness of a self-administered Glutathione precursor.

Healthcare providers give Glutathione intravenously for improving blood flow and decreasing clotting in individuals with “hardening of the arteries” (atherosclerosis), preventing kidney problems after heart bypass surgery, preventing “tired blood” (anemia) in kidney patients undergoing hemodialysis treatment, preventing toxic side effects of chemotherapy, treating diabetes, treating lung diseases including idiopathic pulmonary fibrosis, cystic fibrosis and lung diseases in people with HIV disease and treating Parkinson’s disease.

Nutritional Status and Viral Disease

When it comes to any virus problem it is crucial that you are getting adequate amounts of Selenium in your diet or using a supplement. Glutathione requires Selenium for its production. Selenium is a trace mineral that the body incorporates into proteins to make over 25 different selenoproteins including the enzyme Glutathione Peroxidase. Researchers working with the flu virus discovered that animals deficient in Selenium were more susceptible to infectious diseases. Animals with a Selenium deficiency, when contaminated with the flu virus, the flu virus mutated

into a far more virulent form when it was passed on to the next animal. The AIDS infection rate is highest in those African countries with low levels of Selenium in their soil.

The pre-cursors of Glutathione synthesis are the amino acids glutamate, glycine and cysteine, with cysteine being the most important amino acid. As people age or experience disease, glutathione levels in the blood decrease, causing a reduction in this life-sustaining antioxidant. Dietary sources of Glutathione are therefore necessary to replenish stores and avoid losses.

Magnesium deficiencies cause Glutathione depletion and production of Glutathione is also dependent on magnesium. This is another reason why a high Ca/Mg ratio on a Hair Mineral Analysis is something to correct. Low magnesium is associated with dramatic increases in free radical generation as well as Glutathione depletion and this is vital since Glutathione is one of the few antioxidant molecules known to neutralize mercury. Mercury is included in many vaccines and is put into unsuspecting mouths in the form of dental amalgams.

Glutathione is not something that most practitioners or patients think of using but there is no medicine more basic than the body needs to defend itself from all manner of attacks. Even healthy people would benefit from Glutathione supplementation though at much lower dosages than people under viral attack. Same goes for Selenium. Such supplementation goes a long way to reduce one's chance of dying of cancer. If your selenium is low on your Hair Mineral Analysis, consider supplements with Glutathione precursor and Selenium.

My favorite Glutathione Supplement is *Glutathione Support* by Healthy Habits® and my favorite Selenium Supplement is *Cataplex E* by Standard Process (www.biri.org).

Hair Mineral Analysis (HMA):

Metal toxicity is often the hidden cause behind a "mysterious illness". The easiest way to determine if metal toxicity is behind your symptoms is to do a Hair Mineral Analysis (HMA).

Order the HMA specimen kit and return it with a hair specimen. Mineral levels in your body are an all-important factor for establishing overall wellness of the body. Everything comes from minerals. Minerals are the basic building blocks of the body. So go your minerals, so goes your body -- often ending up in a disease state when in reality it all started with improper mineral ratios that should have been noticed and corrected years earlier. Minerals are the FIRST domino. Most symptoms later in life are the result of unbalanced mineral ratios earlier in life. If your mineral ratios are out of balance, no amount of right anything is going to have a lasting effect until you fix those ratios.

You cannot get this info from blood, urine or saliva. For example, the body will "rob Peter to pay Paul" for years to keep the blood normal. Blood is your lifeline. The body will rob from less critical areas to provide what the blood needs to remain normal. This may create symptoms, like the ones you are reporting, but they won't be life-threatening symptoms like it would be if your blood falls out of normal ranges. This is why you can feel terrible and still have a blood test that is "normal." More info at: <http://hma.biri.org>

You may order the specimen kit from BIRI, or from Healthy Habits. The report is separate from the consultation, which is optional. I encourage you to save \$20 by ordering the pre-paid consultation at the same time as you order the specimen kit.

<https://www.healthyhabits.com/product/hair-mineral-analysis-kit/>

If you have questions, please call my assistant, Lisa, 888-221-4116. She is a walking encyclopedia.

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