

# Crash Course On Selenium

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Since Dr. Alex Vasquez has shared with us that selenium is one of many supplements that supports and protects antiviral barriers, inhibits viral replication, supports immune function, protects against cytokine storms, and facilitates systemic cell system support, I thought it would be nice to do a crash course on selenium.

Selenium is a trace mineral that is essential to good health, but is required in small amounts. Although it is a micro nutrient, it plays a macro nutrient role. Selenium is incorporated into proteins to make selenoproteins, which are important antioxidant enzymes. Selenoproteins help prevent cellular damage from free radicals. Selenoproteins also help regulate the conversion of the thyroid hormone T4 to its activated form T3.

Selenium is reported to help in preserving elasticity in body tissues like skin and hair. It helps to slow the aging process by aiding detoxification and is a necessary mineral



for glutathione production – the master antioxidant! It improves the flow of oxygen to the heart and helps prevent abnormal blood clotting. Selenium supports the formation proteins that help fight invading microorganisms commonly referred to as antibodies.

Some researchers also claim selenium protects the body against cancer by causing cancer cells to die before they have a chance to grow and spread. Although selenium was once considered to be a toxic, undesirable, and carcinogenic element, it is now recognized as an essential element with

anticarcinogenic properties. Epidemiological studies in the United States have shown an inverse relationship between selenium intake and certain forms of cancer in humans. Besides its antioxidant, anti-viral capacities, one of the reasons selenium may reduce cancer is selenium’s ability to counteract the toxicity of heavy metals such as cadmium, inorganic mercury, methylmercury, thallium, and, to a limited extent, silver.

Because it does perform those roles, always consider selenium with stubborn cases of elevated liver enzymes. Elevated liver enzymes represent oxidation, and that

oxidation can come from infections or metals. So if Beta TCP, a beet product with taurine and pancreatic enzymes, and dietary changes don't work to reduce liver enzymes, consider selenium.

The content of selenium in food depends on the selenium content of the soil where plants are grown or animals are raised. For example, researchers know that soils in the high plains of northern Nebraska and the Dakotas have very high levels of selenium. Knowing that food enhanced with mineral content in the soil yields food grade organic forms of minerals, Biotics developed their line of vegetable based minerals.

Let's take selenium as an example. A selenium salt is added to a vegetable culture plant growth medium, and then at maturity, the plants are harvested and dried at low temperatures to preserve enzymes. Researchers from Biotics know that 300 mg of the dried plant will yield 100 mcg of selenium. So Se-Zyme Forte, one of Biotics' forms of selenium, contains 100 mcg of a unique organic non-GMO food form of selenium as well as antioxidants, enzymes, and other trace elements that are contained in the vegetable culture. It's more than a tablet. It is concentrated food that contains measurable amounts of selenium.

Biotics has a second form of selenium called Selenomethionine. Each capsule contains 200 micrograms of selenomethionine, also an organic form of selenium.

Selenomethionine was used in a large-scale cancer prevention trial in 1983, which demonstrated that taking a daily supplement containing 200 micrograms of selenium per day could lower the risk of developing prostate, lung,

and colorectal cancer. Selenomethionine is unique because research has found it can easily cross cell membranes and can be used intracellularly. As such, it has found to have properties which inhibit viral replication.

Consider this form for all viral problems including: HIV, EBV, CMV, COVID 19, Herpes, etc. Also use as an adjunctive support for cataracts, coronary artery disease, any type of free-radical problem, poor hair structure and color, whitened fingernail beds, poor joint mobility, loose skin, muscle wasting or weakness, fatigue, patients on TPN, Crohn's disease, digestive inflammation, heart disease, and increased liver enzymes. Suggested dosage is 200-400 mcg per day. However, when fighting a chronic viral infection, doses of 600-800 mcg can be used for several months. Selenium toxicity is possible when ingesting over 1000 micrograms per day for extended periods.

We've discussed many times about how infections create free radicals. And since selenium is both an antioxidant, a precursor to glutathione and known to slow viral replication, it is a small but powerful tool to optimize health. By the way, you can see a link to the right for details on Dr. Vasquez's anti-viral work.

Remember, viruses, metals, infections, and other factors that cause leaky gut can be major contributing factors in Hashimoto's. Use selenium with free radical conditions, to increase the production of glutathione peroxidase, as a synergist to vitamin E, reduced T-3, cardiac stress, and lymph edema.

Thanks for watching. I look forward to being with you again next Tuesday.