

## **Benefits and Why Optimized Glutathione in Lozenge Form**

### **Glutathione has been recognized as a Master Antioxidant**

Absorbed into the bloodstream through the mouth mucosa cells, this synergistic antioxidant composition boosts- in an IV dosage amount- the body's immunologic defenses to viral infections, helps prevent cancers, skin and whole-body aging, infections and inflammations such as acne, shingles, eczema, psoriasis, melasma, brown spots enlarged pores, scarring and skin growths.

It helps detox all cells of the body and enhances energy, brain power, optimal health and wellness longevity.

**EVERYONE should take 1 lozenge per day preventatively and 2 per day if ill.**

#### **GLUTATHIONE FACTS SHEET:**

- Substances that are absorbed through the buccal route go directly into the systemic circulation, bypassing the gastrointestinal tract where glutathione is destroyed and cannot be absorbed or survive. Glutathione cannot be absorbed when taken by pill or any swallowed form.
- Animal and human studies indicate that the levels of glutathione in every cell of the body progressively decline with aging, thereby making cells as we age more susceptible to oxidative damage and increased aging caused by different environmental factors compared to younger individuals.
- Sex-related mortality is one of the common epidemiologic findings around the globe suggesting susceptibility to severe illness. It has been observed that men are significantly more likely to suffer a higher mortality rate than women. In addition, men have lower plasma levels of reduced glutathione than women, making men more susceptible to oxidative stress and inflammation thus aging and diseases.
- Smoking of anything and inhaled pollution is also considered a risk factor. Cigarette smoke is known to deplete the cellular glutathione pool in the airways, exacerbating oxidative damage, inflammation and risk of diseases in the lung,
- Genes for innate immunity and antiviral activity required Glutathione for their induction
- Several genes that are important for the antiviral response, require glutathione for optimal induction, indicating that glutathione can inhibit viral infection.
- Studies show that exogenously added oxidative stress induce inflammatory cytokines, while addition of antioxidants, including the main thiol antioxidant, glutathione inhibits it.
- A novel preparation of glutathione, with absorption using the oral mucosal route, has thus been formulated to facilitate optimum absorption into the bloodstream without the side effects of IV administration.
- Glutathione is a peptide (smaller versions of proteins). Glutathione is found in plants and animal tissue, but we often don't get enough because it is easily destroyed by cooking. Additionally, glutathione is used rapidly

in every cell of the body by exposure to toxins, infections, stress, disease and some pharmaceuticals, leaving us depleted and at increased disease and aging risk when we need it the most.

- Glutathione is essential for the viability and function of virtually all cells. Glutathione reduces viral replication.
- Glutathione is the most abundant antioxidant that plays a crucial role in antioxidant defense against oxidative damage of cells and is also involved in the regulation of various metabolic pathways essential for whole body health and well-being. The maintenance of the highest concentrations of reduced glutathione in most cell types highlights its vital and multifunctional roles in the control of various biological processes such as detoxification of foreign and endogenous compounds, protein health and youthfulness, regeneration of vitamins C and E, maintenance of mitochondrial function, antiviral defense, regulation of cellular proliferation, healthy destruction of damaged skin cells which increase the risk of disease and aging, and immune response.
- A recent experimental study showed that glutathione deficiency and the associated increased oxidative stress forever alters vitamin D regulatory genes and, as a result, the suppressed gene expression decreases Vitamin D biosynthesis, ultimately leading to a secondary deficiency of Vitamin D.
- Important studies reveal that glutathione is essential for the control of endogenous vitamin D biosynthesis and demonstrates potential benefits of glutathione treatment in reducing the deficiency of vitamin D. Taken together, these findings suggest that glutathione deficiency rather than vitamin D deficiency is a primary cause underlying biochemical abnormality, including the decreased biosynthesis of vitamin D, and is responsible for serious manifestations and death.
- Several studies reported that glutathione levels positively correlate with active vitamin D.
- The depletion of glutathione levels characterizes viral infections and associated-disease progression. Many studies correlated the glutathione level with immune response and suggest adding the glutathione replenishment to highly active antiviral treatment.
- Biochemist Dean Jones tracked oxidation levels, finding that they are higher in the morning, placing people in a vulnerable state in which their bodies are less able to guard against infection. If you are able to pop something in your mouth at vulnerable times of oxidation, you may be able to use your first line of defense to fight off infection and increased aging and disease.
- The supplement can mitigate the risk, which is manifest in times and places where infection occurs—when people are tired and stressed, when they are using public transportation, or even when they are sitting in the sun at a baseball game, according to Jones.
- The levels of glutathione progressively decline with aging due to decreased production.
- Deficiency in the entire body and skin glutathione is a common finding in patients suffering from chronic diseases such as diabetes, obesity, cardiovascular disorders, respiratory diseases, cancer and liver diseases.

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