

Sun Protection from the Inside!

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Warm and sunny weather beckons us to enjoy cavorting outdoors, or just lying in serenity on the beach or in the backyard or park.

It is widely understood that unprotected skin can be severely damaged by constant exposure to the sun's UVB and UVA rays, and there are many topical products to select for outer protection.

However, a dietary supplement with outstanding clinical evidence supports the fact that you can also help protect your skin from the inside. GliSODin is a distinctive and powerful antioxidant catalyst, meaning it works to increase the body's own production of its natural antioxidant defenses, helping the body to disarm the reactive oxygen species triggered by sunrays.

Besides a sunburn (erythema) that is a visible reaction to the sun, the rays that emanate can set off a chain reaction underneath the skin. UV rays have three wavelengths, including UVA, UVB and UVC. These rays can damage collagen fibers, which, over a period of time, result in visual aging, such as wrinkles and a dry, leathery appearance. UVA is the least harmful, but through time and exposure does contribute to skin aging and DNA damage. UVB rays are most damaging to DNA; they corrupt DNA molecules by causing malformations that can lead to mutations and unhealthy cell production.

Most sunscreens protect against UVB rays only and recently several have come onto the market that contain more amounts of titanium dioxide, zinc oxide and avobenzone to also help protect UVA rays.

But these take care of skin from the outside. Did you know you can significantly help prevent sun damage on your skin from the *inside*?

Antioxidant Protection

In general, plants, fruits and vegetables produce antioxidants and carotenoids (types of antioxidants) that serve to protect them from external and internal damage. Many studies have demonstrated that taking in antioxidants through food and/or supplements may be beneficial for human wellness.

These are known as exogenous sources, and yes, they do have biophysical merit. When looking at the larger and longer term picture, though, the concept of empowering your body's own ability to produce greater sources of its own antioxidants is sensible and attractive. And, now it can be done.

Our bodies produce the antioxidants catalase, glutathione peroxidase and superoxide dismutase (SOD). SOD is the first antioxidant to attack harmful superoxide radicals by transforming them into less reactive ions that are then disarmed further by catalase and glutathione peroxidase. This process is called dismutation, hence the name of Superoxide Dismutase. SOD when consumed normally is destroyed by stomach acids. But, when scientists encased it in gliadin (a wheat protein), the SOD was protected from digestive acids and effectively recognized by immune active cells in the gut.

GliSODin is the only dietary supplement form of SOD that utilizes this patented and proprietary technology, ensuring that SOD can help fortify your body's own antioxidant defenses.

In the case of sun exposure and UV radiation, the healthier and more effective your own endogenous antioxidant system is, the more you help the skin protect itself.

In addition to sunscreen, protective clothing and good choices, such as not going into the sun when it is most intense, GliSODin may help with exposure to the sun. The excitement about GliSODin is that it has several clinical studies that actually show better tolerance to sun exposure, particularly for the sun sensitive.

The first study was a pilot trial, which involves a small group of people to determine potential for larger studies that confirm or reaffirm initial findings. This involved 15 people who redden easily or have hypersensitivity to the sun, for example, those who experience a sun rash from exposure. They were given 500 mg of GliSODin every day for two months. After three to eight weeks of normal sun exposure, all subjects reported higher tolerance and significantly diminished propensity to redden, flush or sun-induced skin irritation, when compared to previous incidence of summer sun exposure.

The next study was undertaken by 40 dermatologists in France and 150 individuals who were chosen based upon susceptibility to reddening, flushing and other reactions caused directly by the oxidative stress incurred by sun exposure. They too took 500 mg (2 x 250 mg doses) of GliSODin daily for two months and kept sunbathing routines consistent. They were split into three groups: 75 patients with significant flushing or reddening almost immediately during exposure; 60 who experience sun reactions, and 15 patients who experience other reactions such as irritated skin.

Results after four to eight weeks were as follows: 64 patients in the first group reported excellent tolerance; in group 2, 44 did not experience negative reactions, and in group 3, none reported the usual symptoms. A majority, 110 participants, judged that their skin was well prepared for sun exposure.

The third study was a randomized, double-blind trial of 50 subjects, 25 of whom took two 250 mg doses of GliSODin daily for four weeks. The goal of this study was to compare rates of reddening between the placebo and supplement takers, divided into three categories of phototypes. These are classified by amount of melanin pigment in the skin. In this study, there were phototypes II (fair skin, reddens easily, tans poorly), III

(darker white skin that tans after exposure) and IV (light brown/olive skin that is more resistant.) Researchers controlled exposure by using a UV light to test photo-oxidative stress on the skin of the inner forearms, causing reddening and then measuring the change in the color of the redness (erythema). The redness was less pronounced and also decreased more quickly in the GliSODin group. The study confirms the efficacy of GliSODin in the prevention of the consequences of oxidative stress from exposure to the sun.

Fun in the sun should be enjoyed through good sun safety habits that include generous use of high-quality sunscreens/blocks, wearing sunglasses, drinking lots of water to hydrate the skin and, especially for the sun sensitive, consider the addition of GliSODin daily.

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GliSODin and Exposure to the Sun,” an open study conducted in France on 150 patients by 40 dermatologists following a protocol compiled by Catherine Laverdet, M.D., Nadine Pomarede, M.D. and Catherine Oliveres-Ghouti, M.D. Sponsored by ISOCELL Nutra, France. March 2005

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