The Game-Changing Liposomal Vitasome® Delivery Technology

Glutathione, Vitamin C, and Phospholipids:
If They Are Not Absorbed, They Are Worthless

by Maria Jacketti, PhD

Traditional methods of taking vitamins are about to collapse. The information contained in this report has the power to ignite a nutraceutical revolution. The key word to follow is "absorption." For decades, the absorption of vitamins and other nutritional supplements has remained controversial and a matter of considerable investigation. In effect, the results have long been known. When we pop most vitamin and mineral pills, or even take supplements in liquid or powder forms, only a fraction of the dose stated on the label of the product is ever absorbed. What purports to be mega-doses of certain vitamins may only be conveying only conventional doses, since so much of the product is lost when phagocytes begin attacking the digestive system, where these cells perceive supplements to be foreign invaders.

This is new, or hidden, information for most. If consumers purchase bottles of Vitamin C that promise 1,000 mg per pill, they expect to receive that dosage. While one may argue that they do, the dose is not completely bioavailable.

In fact, in order to achieve that real dose of 1,000 mg, customers will have to take multiple doses or mega-doses of commonly available forms of Vitamin C. In the long run, this can prove extremely costly, and, in addition, the stress of excreting so much unabsorbed product may also put stress on organs such as the kidneys.

In an age when consumers are facing considerable economic hardship, nutritional supplements may be some of the first "luxuries" to be deleted from their shopping lists, particularly if they are delivering low-level or questionable results.

Yet, never before has an overworked and ultra-stressed general population needed to ***invest in nutritional supplements that actually protect their health***. The truth is, however, that such premium products, currently, are as rare as the new technologies that deliver them.

Glutasome™ by Vitasome Labs is the first true nutraceutical to fill this need. It is truly a next-generation nutraceutical that unites 500 mg of L-Glutathione (GSH) with 1,000 mg of Vitamin C (sodium ascorbate) and 400 mg of phospholipids, delivered as Phosphatidylcholine (PC), in a one-of-a-kind synergistic gel.

Its PEGylated liposomal delivery system allows the greatest absorption of any glutathione-based product on the market. A basic understanding of the process of PEGylation is required in order to appreciate how the process can change ***the future of vitamins.*** Indeed, the gateway to this future is opening right now.

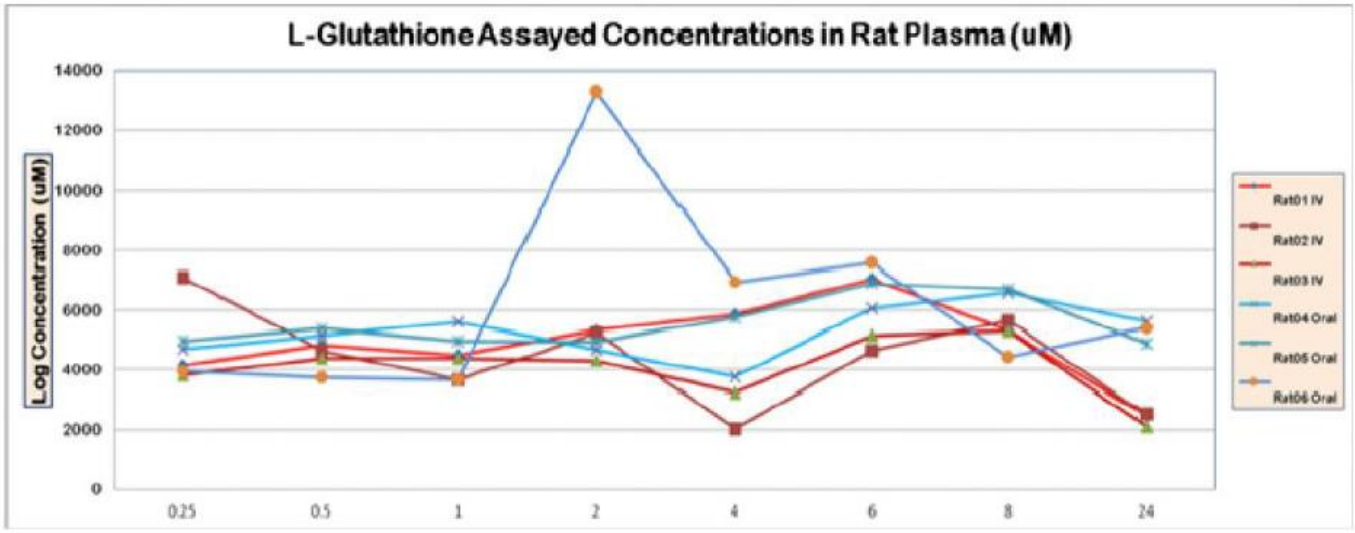
Technically, PEGylation refers to "polyethylene glycol modification" ("PEGylation"). The process of PEGylation occurs when polyethylene glycol polymer chains attach to another molecule in order to achieve a desired purpose. In general, this attachment is for a drug or therapeutic endeavor. This process is achieved when there is incubation of a specific macromolecule with one of PEG's reactive derivatives ("Definition for "PEGylation"). While this procedure grows out of the pharmaceutical market, its use in nutraceuticals represents new ground for exploration, since PEGylation enables the maximum absorption of many supplements that the body normally destroys or discards.

The results-oriented consumer will ask, "Why should I care about PEGylation? What can it do for me?"

In fact, PEGylation can make a good thing — glutathione — live up to its potential as a supplement. In the case of the patented Vitasome® delivery technology, PEGylation prolongs its circulating time in the bloodstream, decreases the need for frequent dosing (because of the efficiency of the delivery system), stabilizes the formulation, and optimizes solubility. PEGylation maintains the integrity of the product and offers an extended shelf life (Veronese 405-17). (The product should be stored at room temperature and out of direct sunlight to further assure its integrity.)

Additionally, Glutasome's absorption is maintained over a greater period of time than even a glutathione IV, which is processed in a surge time. Vitasome's time-released formula assures gentler and more uniform release, bypasses side-effects of the IV, which include organic stress, heart disease, infection, and even death (Santos).

A Charles River Lab study of glutathione blood levels in a test group of male rats over a period of 24 hours demonstrates that Glutasome™ remains in the bloodstream for extended periods of time and manifests high absorption rates. Over an eight-hour period, rats demonstrated a blood level of glutathione of 69.2%. The study noted glutathione's absolute bioavailability as "The fraction of L-Glutathione reaching the systemic circulation after an extravascular dose" (Charles River Laboratories 8). This level of bioavailability is unprecedented, and sets a new standard for the industry.



(Charles River Laboratories)

While IV glutathione injections provide better bioavailability than over-the-counter forms such as the most commonly used pills and tablets, IVs come with enormous expense and significant risks.

Consequently, this report will demonstrate that not only is Glutasome™ the best game in town — it is the only product that delivers optimal dosages safely, while ensuring high levels of absorption. Consumers seeking other forms of glutathione, whether simple or enhanced, are simply flushing away their hard-earned dollars.

The Wonders of Glutathione

Glutathione has garnered the nickname "the Master Antioxidant." It helps other antioxidants, such as Vitamins C and E, work better. In the scientific community, this synergy is common knowledge; however, for the first time, consumers have this bioavailable synergy available in a liposomal product, Glutasome™ by Vitasome®.

To date, research points to glutathione enhancing immune function, and cardiovascular, oral, and vision health (Todd 18). It is a superior detoxifier and liver protector. Studies are demonstrating that glutathione levels are lower in individuals with illnesses. If one is already in perfect health, it can protect that state of well-being, as well as slow the aging process (Todd 18). All of this is only true, of course, if the glutathione is absorbed in meaningful amounts.

The following summarizes a number of the newest clinical findings regarding potential uses of glutathione:

- **Cataracts** — Glutathione can prevent retinal oxidation and may impede macular degeneration. Treatments should be glutathione-centered and also include additional supplements, such as Vitamins C, E, and selenium ("Glutathione . . . Cataracts").
- **Glutathione Purges Carcinogens** — Glutathione helps rid the body of cancer-causing substances (Balendiran 343-52). Therefore, glutathione represents a proactive approach to cancer prevention. While no one can guarantee freedom from the disease, routine flushing of carcinogens from the body just makes sense.

- (**Uncontrolled) Diabetics Exhibit Depleted Glutathione Synthesis Levels** — The inability to synthesize glutathione is seen in diabetes patients with uncontrolled disease. The lack of glutathione leads to systemic oxidative stress, i.e., oxidation and associated tissue damage (Sekhar 162-67).

- **Heart Health, Including Cholesterol Management** — Glutathione may be your heart's best friend. Dr. Jimmy Gutman, in his new book, GSH *Most Powerful Protector*, using many current studies, documents a new take on heart disease. Oxidative stress from free radicals has been shown to contribute to arterial decay ("Glutathione: GSH"). Glutathione also works against the oxidation that is inherent in decay caused by high cholesterol.
- **Radiation Protection of Thyroid and Small Intestine Noted** — A Turkish study of rats, irradiated with x-rays, demonstrated the shielding effects of glutathione used in a synergy of Vitamins C and E. ("Radioprotective . . . C,E. and Glutathione").
- **Reduction in Stress-Related to Oxidation in Liver Noted —** Laboratory studies demonstrated that glutathione, when combined with Vitamin C, decreased oxidative stress on the livers of a test group of rats (Wang 29).
- **Generalized Anti-Aging Effects Exhibited** -- In a study involving old rats, the synergy of glutathione and Vitamin C was shown to slow down systemic oxidative stress. Simply put, the systemic decay associated with aging was slowed down (Amer 165-68).

Vitamin C, the Super Antioxidant

The benefits of Vitamin C are myriad and have been well documented over decades. Vitamin C has been hailed widely as a cancer preventative/combatant. The vitamin's strong antioxidant value makes it a respected detoxifier (Hendler 84). Vitamin C boosts collagen production and, when combined with glutathione, works as a team. It allows for a much slower reuptake of glutathione, prolonging its period of bioavailability.

This formulation contains buffered Vitamin C as high doses of the unbuffered vitamin may result in stomach upset, due to acidity. Buffered Vitamin C protects against this side effect. Vitamin C's extensive history of proven benefits is only made more viable through Vitasome Labs's patented liposomal delivery system, which assures greater absorption.

- **Vitamin C and Cancer —** Vitamin C has been shown to exhibit varying degrees of value in the prevention of certain types of cancers, including esophageal, stomach, and cervical cancers (Bright 294-298) (Conner 1675-76) (Wassertheil-Smoller 714). Vitamin C has been shown to suppress the development of certain leukemia cells and boost the effectiveness of chemotherapy drugs used to treat the illness (Siegel 409).
- **Those with Toxic Lifestyles Need More Vitamin C —** Smokers display chronically depleted vitamin C levels. Although the vitamin can offer no promise of absolutely shielding against an array of debilitating, and often fatal lung ailments, it can offer some protection to the lungs of smokers. However, science cannot quantity this as much as we might like because of many variables involved in the disease's evolution. Heavy smokers show incrementally lower Vitamin C blood levels than occasional smokers.

So, while Vitamin C helps smokers to slow down the outcomes of their self-destructive behavior, not smoking offers the most sensible path to lung health (Schectman 158-162). Should one decide to continue smoking, a Vitamin C regime, offering the greatest levels of absorption, offers a modicum of protection until the addiction can be overcome.

- **The Air We Breathe —** Most people are exposed to airborne pollutants every day. Even non-smokers may require similar levels of protection. Of course, cleaning the air of chemical sludge should be our ultimate goal. In the meantime, supplemental Vitamin C can act as an environmental shield. Humans used to produce all the Vitamin C their bodies needed, and most animals still synthesize their own. Of course, even if that evolutionary mechanism were still in place, it would probably not have caught up at the same rate with the extra need for the vitamin that living in a polluted world has made a "new normal" requirement (Pauling 1643-48).

- **Heart Disease and Vitamin C Deficiency —** Linus Pauling and Matthias Rath connected heart disease with "a chronic, sub-clinical vitamin C deficiency — due to a missing liver enzyme, caused by the ancient GULO genetic defect in primate *DNA*" **(Kim).** This research posits that Vitamin C can, in some cases, clear arterial blockages. Vitamin C used in a glutathione synergy presents hitherto unexplored possibilities for cleansing arteries of plaque accumulations.

Benefits of Phosphatidylcholine (PC)

Phospholipids act as "detergents" in the body. Phosphatidylcholine (PC) is a specific phospholipid, not to be confused with more the commonly available lecithin. PC improves memory function and works in concert with glutathione to protect the liver. It also helps with normal fat metabolism and in the clearing of potentially dangerous fat deposits in arteries, for example. In general, phospholipids help to form a shield of fluidization within and over cells, generating an extremely protective mechanism, something that may have benefits in the areas of anti-aging, and nutritional fortification against a wide spectrum of diseases (Hendler 244).

Decades of anecdotal evidence point to specific benefits of PC:

- Anecdotal information suggests that PC lowers cholesterol and may protect against heart disease. Since studies have used different doses and types of the supplement, the results have proven somewhat inconsistent (Hendler 260-61). Tests in this area with liposomal PC should be a health care priority.
- A 1980 study showed that choline improved memory in mice. At the same time, memory loss increased in a choline-deficient diet. This finding suggests that the elderly may benefit from PC supplementation, particularly since they may be taking drugs that deplete PC. These drugs include tricyclic antidepressants, antispasmodics, and antihistamines (Hendler 261).
- PC has demonstrated usefulness in the treatment of mania and other psychiatric disorders, pointing to a therapeutic effect on brain function (Cohen 1162-64) (Betoni-Freddari).

Challenges of Crafting the Product

Glutasome's™ formula uses patented liposomal technology to effectively load and deliver a highly bioavailable synergy, without the use of harsh chemicals. While other liposomal products exist, one needs to consider the quality of the liposomes produced. Liposomes of questionable quality can be produced very quickly, yielding huge molecules which form a fragile single layer.

The liposomes produced by Vitasome Labs use a more sophisticated and expensive technology, similar to that which is used for the delivery of chemotherapy. The quality of the liposomes themselves is more uniform and stable, many-layered, and dramatically smaller than the liposomes available in cheaply made products. This allows the product intracellular access.

Why is this important? Consider the following metaphor. When one ingests the liposomal product of larger and more unstable molecules, phagocytes will perceive it as an invader, and gobble up most of it. The remaining product will "bathe" the cells, but the molecules will still be too large to impact the cell internally.

Glutasome's™ amazing "stealth" (small) molecules bypass the phagocytes and can actually enter and fuse with the cells—effectively nourishing, protecting, and detoxifying them.

Glutasome™ is Alcohol-Free and Gelatin-Free

Many glutathione preparations contain alcohol as a preservative. This is not true of Glutasome™. So, children can take it safely, as can people who are alcohol-sensitive or want and/or need to avoid alcohol for cultural or religious reasons. Glutasome™ contains no porcine or bovine products. It is a pure vegan product that contains no gelatin whatsoever.

Glutasome™ is Naturally Flavored and Safe for Diabetics

The product contains no generic or artificial flavoring. Instead, its natural flavoring complements the uniqueness of Glutasome™. The unique flavor medley contains notes of citrus, pineapple, and mango. Essential fruit oils create natural flavors and aid digestion in this holistic formulation. Super gel viscosity prevents spillage that is common and problematic in liquid products. This gives consumers better control of product ingestion, with fewer risks of product leakage or spillage. Glutasome™ is sweetened with only the herb stevia and is therefore completely safe for diabetics.

Travelers Can Take Gel Sachets on Aircraft

Since Glutasome™ is a gel rather than a liquid, it is safe and convenient, and not red-flagged for air travel. These days, when air travelers must endure many necessary inconveniences, it is comforting to know that Glutasome™ will not add to that stress. Glutathione can also boost energy and help relieve the foggy feeling of jet lag. Truly, it can be a traveler's best friend.

Unique Homogenization

Glutathione, Vitamin C, and phospholipids, like many nutraceuticals, are very susceptible to oxidation and light exposure, a process that can weaken or destroy a supplement's dietary integrity. It is wasteful to invest money in supplements that suffer the assaults of oxidation every time a bottle is opened. Today, most supplements suffer this fate.

Glutasome™ is different. There is virtually no oxygen in the sachets; rather, they are nitrogen-infused, ensuring their absolute freshness. Such nitrogen infusion is a rare investment in product quality that few companies will even consider because of the extra cost it adds to production. To ensure, product integrity, Vitasome™ suggests that the sachets be stored at room temperature, out of direct sunlight.

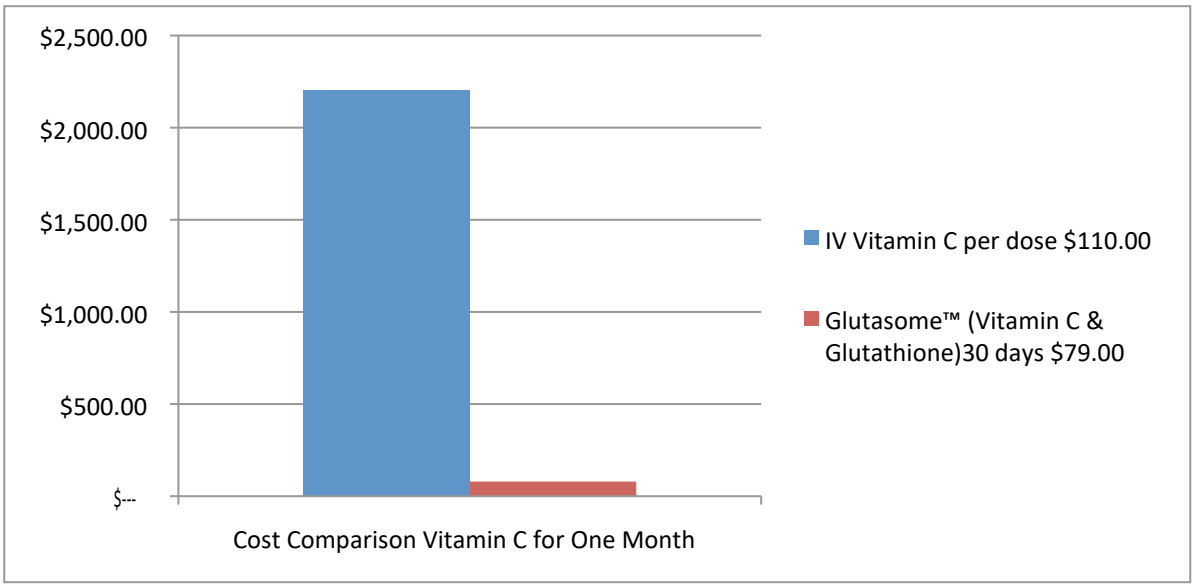
Exclusive Liposomal Loading

Pharmaceutical liposomal loading involves working with micrograms; it is easier to put this into liposomal form. Generally, we see this type of product-loading in chemotherapeutic drugs. It is much more challenging to load higher milligrams of a dietary supplement into such a liposomal delivery matrix. Vitasome™ has achieved this unique maximum loading of product, while retaining the high quality of pharmaceutical-quality liposomal delivery. This makes the supplement readily available with enhanced absorption time.

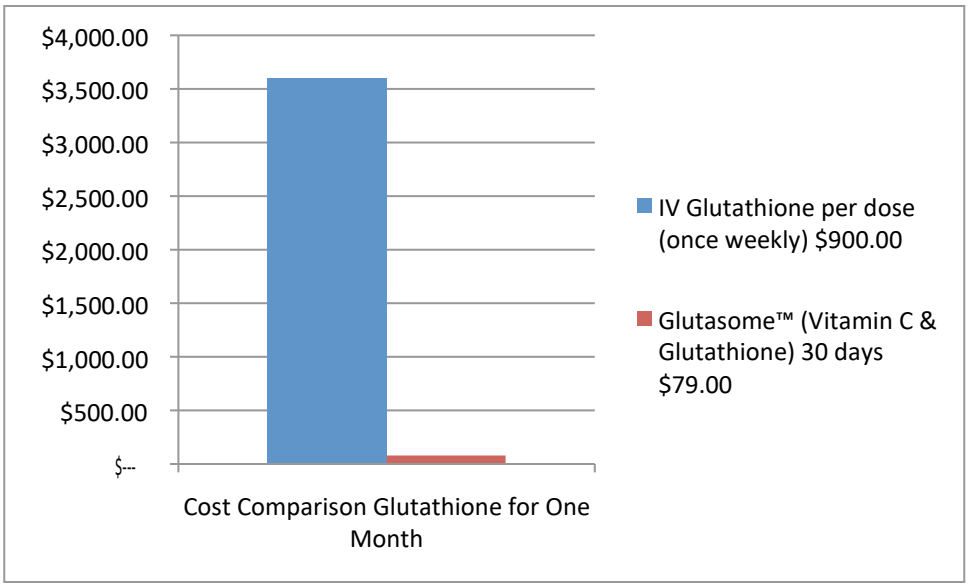
Worth Over $5,000 of Comparable Product — If It Were Available to Consumers

Intravenous Vitamin C is available in the United States at an average dose of $110 per injection. While up to five injections per week are possible, the cost is prohibitive. The injection is superior to the pill form in many ways, but most prominently in terms of absorption. Many patients with immune disorders rely on Vitamin C injections to bolster their immune systems. Few insurance companies will pay for this intervention.

The chart below compares the cost of a month's worth of IV Vitamin C with the highly absorbable buffered Vitamin C available in a month's worth of Glutasome™. The consumer saves approximately $2,000 when choosing Glutasome™.



IV Glutathione provides additional delivery problems. Unless one has cancer or HIV, this treatment is strictly illegal. Of course, one can scour the world in search of IV glutathione. A dose of glutathione, administered once a week, costs approximately $900, but is essentially unavailable to most people. One may travel to certain countries for legal glutathione injections; however, research is showing that long-term use is not completely safe. In the Philippines, for example, where glutathione is a consumer phenomenon, these IVs are illegal. Suzanne Somers and Magic Johnson brought glutathione injections into the headlines in the United States. However, the expense, risk of toxicity, and basic legality/illegality make such a route impossible for all but the Hollywood jet set. If the IV is available, one is looking at a cost of $3,600 per month (plus air fare and travel accommodations) (Pangaea).



("Intravenous Glutathione").

Conclusion

The Charles River study demonstrates that Glutasome™ is a stand-alone product in today's marketplace. It offers a one-of-a-kind liposomal synergy, with unsurpassed quality control. Its absorption surpasses other ingestible forms as well as controversial and expensive IVs. Thousands of dollars of nutritional power are delivered in a month's supply of Glutasome™. The product's many layers of benefits, in effect, is revolutionary in the nutraceutical industry.

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