Glutathione
Stepping into the ANTIOXIDANT SPOTLIGHT
Viewpoint

Glutathione: Stepping into the Antioxidant Spotlight

As a highly potent immune-booster and liver detox agent, glutathione (GSH) has earned its title as the body’s master antioxidant, Kate Kunkel explains. However, despite its array of health benefits, the supplement ingredient has yet to gain the recognition it deserves within the marketplace.
Antioxidant Roll Call

What compounds come to mind when you hear “antioxidant”? Here’s my list:

- Vitamin C
- Vitamin A
- Coenzyme Q10 (CoQ10)
- Beta-carotene

What’s missing? Glutathione, “the most powerful antioxidant you’ve never heard of,” according to Mehmet Oz, M.D., of Dr. Oz fame.

Some ingredients have received all of the antioxidant love; others, like glutathione (GSH), aren’t so lucky. At least not yet. GSH is set to become the next biggest antioxidant.

However, there is work to do before GSH becomes a household compound. Consumer awareness of glutathione isn’t great; a mere 6 percent of consumers know of GSH and its health benefits, according to consumer research by Kyowa Hakko.

And it’s too bad because the antioxidant’s health benefits are numerous. GSH deficiencies—which are more common in the elderly—have been linked to heart attacks and Alzheimer’s disease. Studies have also shown benefits for joint, eye, skin and lung health. And, as it’s found in every one of the body’s cells, it’s known as the body’s most prevalent antioxidant.

Manufacturers and marketers can help raise awareness of this crucial antioxidant, and this Digital Pulse is here to help.

In the following pages, assistant editor Kate Kunkel highlights successful strategies for marketing the ingredient, from branding tips to misconception challenges. The research is there, and it’s a smart brand marketer’s job to pass that on to the end user.

Glutathione suppliers have already seen boosted sales due in part to the improved audience education. Yearly sales are up 8.2 percent for products with glutathione as the main ingredient, SPINS data showed. Compare that to vitamin E and vitamin C with 5.5- and 4-percent growth, respectively. Currently, GSH is a niche market, but I—and its suppliers—expect it to gain the recognition it deserves in the coming years.

Now, glutathione tops my antioxidant list.

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Glutathione: Stepping into the Antioxidant Spotlight

by Kate Kunkel

Known as the body’s master antioxidant, glutathione (GSH) has earned a reputation for supporting the immune system and removing potentially harmful toxins from the body. While GSH also boasts countless benefits related to brain, joint, eye and lung health, the ingredient has yet to gain the full recognition it deserves within the dietary supplement marketplace.

A survey of literature shows less research on GSH than the well-known antioxidants, such as ascorbic acid and vitamin E, according to Lise Alschuler, N.D., FABNO. In a podcast sponsored by Kyowa Hakko, Alschuler said that although GSH is the most prevalent antioxidant produced by the human body on a cellular level, it receives less airtime compared to others.

Some of GSH’s important roles throughout the body include protecting the most sensitive organelle (such as the mitochondria) and cell membranes from oxidative damage. Deficiencies in GSH have been linked to Parkinson’s disease, cancers, inflammatory conditions and other chronic diseases. Because aging adults are more susceptible to GSH deficiency, this demographic could benefit the most from supplementation.

INSIDER’s Take

- Glutathione boasts countless benefits, but the ingredient has yet to gain the full recognition it deserves within the dietary supplement marketplace.
- Only about 6 percent of consumers know about GSH and its health benefits, but this percentage has slowly increased over the years.
- Worldwide, glutathione sales trends will likely increase significantly as the global demand drives an estimated 25-percent growth in raw material sales.

GSH also boasts countless health benefits related to

- Brain
- Joint
- Eye
- Lung
With more than 100 different finished GSH products and an estimated 30% growth in raw material sales, the GSH demand increases rapidly.

Twin Tiger’s raw materials are derived from selected global manufacturers and have a basis of current medical science and research. They are manufactured with state-of-the-art technology under stringent guidelines for compliance and quality control.

*For qualified customers only; please contact us for details.
“As we age, our glutathione levels naturally decline,” Alschuler said in the podcast. “We don’t exactly know why that is. It’s probably in part because we lose our efficiency at making it, and it is also probably in part because as we age, our oxidative load tends to go up…so glutathione becomes even more important and more critical as we age.”

**Consumer Use and Perception**

While middle aged adults (45 to 65 years old) often use GSH for its antioxidant and anti-aging properties, younger adults (25 to 35 years old) also maintain an interest in GSH for its immune support and detoxification, according to Karen Todd, R.D., director of marketing at Kyowa Hakko USA. In addition, many consumers are interested in GSH for skin health and a skin-lightening effect.

Glutathione supplement users tend to believe that GSH supports the body’s energy systems and overall immune health, which are both accurate perceptions, Todd said. While there is no immediate effect or rush of energy, users reported feeling better overall and having more energy to perform daily tasks when supplementing with GSH, according to Kyowa Hakko’s research on the consumer market.

Users reported feeling better overall and having more energy to perform daily tasks when supplementing with GSH.

Todd also said the company’s research on consumer awareness shows only about 6 percent of consumers know about GSH and its health benefits, but this percentage has slowly increased over the years.

“Part of the low level of awareness was from a lack of studies to support taking glutathione orally,” Todd said. “It was a long-held misconception that glutathione levels could not be supplemented orally because the data simply didn’t exist.”

**Stepping into the Spotlight**

Practitioners previously thought the body could not properly absorb GSH when taken orally as a dietary supplement, but recent research indicates otherwise. Findings show daily consumption of a Setria® glutathione (from Kyowa Hakko) supplement can effectively increase body stores of GSH in humans (*Eur J Nutr.* 2014 May 5. DOI: 10.1007/s00394-014-0706-z).
Call for ENTRIES
Discovering Innovative Launces and Exploring their Market Significance

For more than 15 years, SupplySide has helped those in the dietary supplement, food, beverage, personal care and animal nutrition industries break through the hype and ambiguity to find the information they need to explore, discover, innovate and market their next best-selling product. The 3rd annual SupplySide Editor’s Choice Awards will recognize innovative launches from CPG companies in more than 20 categories.

The 2014 winners will be announced at SupplySide West, Oct. 6 to 10, in Las Vegas.

Entry Deadline: July 31
Nomination Details
Although animal studies previously illustrated an effective absorption of GSH when taken orally, Danielle Citrolo, registered pharmacist and technical services manager at Kyowa Hakko USA, said the new research proving its effectiveness in human subjects will likely raise awareness of GSH within the supplement market.

“Glutathione has had a challenging history of research in terms of absorption,” Citrolo said. “There have been studies showing that it is absorbed, but others showing it is not absorbed when taking orally, so it has been a controversial topic recently. But I think the study we published will change the mindset on whether it can be taken as a supplement.”

While many consumers know GSH is an antioxidant, Citrolo stressed the importance of also marketing the ingredient as an agent in detoxification and immune health. Many studies stress the use of GSH as an antioxidant, but manufacturers marketing the product should illustrate its other roles as well.

Some of the well-regarded ingredient applications include combination products that contain glutathione, cysteine and vitamin C, according to Kira Schmid, N.D., associate director of scientific affairs, Life Extension. The added vitamin C keeps GSH in its active, reduced form, and cysteine helps with the body’s internal GSH production.

However, single-entity formulations also do well on the market, according to Todd. Once consumers become more familiar with GSH and its health benefits through combination ingredients, they may move on to a single-ingredient formulation.

Branding GSH Products

Regardless of the product’s format, using research to back ingredient claims is crucial when marketing GSH or any type of supplement.

Kyowa Hakko provides a list of structure/function claims to its supplement brand customers to help them with their label copy or collateral literature on products containing GSH. Manufacturers should be aware of these useful claims when marketing new products.

“The best advice I would give a marketing company would be to keep it simple and use the science to support your claims,” Todd said.

L-Glutathione Reduced Raw Material Demands

<table>
<thead>
<tr>
<th>Market/Demand</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
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<tr>
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<td>60</td>
<td>100</td>
</tr>
<tr>
<td>Global Market</td>
<td>180</td>
<td>300</td>
<td>350</td>
</tr>
</tbody>
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*Unit: 1000kg (2,200 lbs.)  **2014 and 2015 data based on factory forecast.
Source: Shandong Jincheng Bio-Pharmaceutical Company

Consumers may be aware of the term “glutathione,” but they often have no idea how to use it.

Most consumers will recognize the word “antioxidant” and have a basic understanding of the term, but people need more education on what antioxidants can actually do.
A WORLD WITHOUT HIDDEN HUNGER?

How private-sector involvement can tackle—and is tackling—malnutrition.
for the body, according to Alice Chin, quality control director, Green Wave Ingredients (GWI). Similarly, consumers may be aware of the term “glutathione,” but they often have no idea how to use it.

“We compared the consumer perception of glutathione to other ingredients, like glucosamine, and you pretty much know glucosamine is for joint health,” Chin said. “But when it comes to glutathione, we haven’t found that people really know what it’s for…this may be partly because of its many functions, which can be a little confusing.”

Chin stressed the importance of using scientific evidence when marketing GSH, and also the importance of educating the audience. While supplements containing GSH have been available on the market for some time, consumers still need a better understanding of the products’ benefits. With more than 80,000 studies available on the health benefits of GSH, marketers have plenty of opportunities to use science-backed claims, Chin added.

“Another useful marketing strategy includes ingredient branding, which helps consumers associate the product with its positive effects, according to Chin.

“If you want to have an ingredient that stands out, you need to give it a certain ‘promise’ that is tied to that ingredient,” she said. “This means the transparency is there, the quality is there, the origin is traceable and most importantly, the scientific research is there.”

Climbing Sales

According to recent data collected by SPINS, which tracks UPC-coded products sold by natural and conventional retailers, products containing glutathione as the main ingredient experienced an 8.2-percent increase from May 2013 to May 2014 within the combined natural and conventional channel (from USD $529,803 to $573,081). However, this data excludes products that may feature GSH, but do not consider it a predominant ingredient. In addition, SPINS does not track Whole Foods Market, Trader Joes or online sales.

The growth percentage of GSH products hits slightly above average within the antioxidant space, with vitamin E growing at a rate of about 5.5 percent and vitamin C at 4 percent, according to Christopher Shanahan, food and agriculture
program manager, Frost & Sullivan. Selenium, which consumers may take to increase their own production of GSH within the body, has experienced sales growth of only about 2 percent.

Though the sales growth of glutathione appears impressive compared to other ingredients, Shanahan stressed the “crowded antioxidant space” makes it difficult for GSH to take the spotlight among all the other products supporting the same types of claims.

While promotions and spokespeople have likely impacted GSH sales and helped raise awareness of the products’ benefits, it is still a niche market, Shanahan added. He predicted that within the total antioxidant space, glutathione makes up a maximum of 2 percent to 5 percent of the total antioxidant ingredients market for nutraceutical and dietary supplement applications.

Worldwide, GSH sales trends will continue to increase as the global demand drives growth in raw material sales, according to Jim Schultz, CEO of GWI. Data collected by GWI’s partner factory, Shandong Jincheng Bio-Pharmaceutical Co., indicated the glutathione market unit is priced around $360 to $400/kg, which means the U.S. raw material market was at $16 million in 2013 and expected to hit $40 million in 2015.

Though glutathione is mainly used as a medical care product in some countries, such as China, its recent prevalence in nutritional supplements will keep the ingredient’s growth consistent. More than 100 different finished GSH products already exist on the market today, Schultz said.

“We have been selling this ingredient for years, and every year there’s growth,” he added. “The raw material price is becoming more affordable, which decreased 80 percent from 10 years ago, and right now, the ingredient is very accessible. I would say there will be continued growth on the sales side.”
The industry’s gathering point where science & strategy intersect

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