

Glutathione Role as an Antioxidant

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Glutathione supplements have been widely popular for their strong antioxidant properties. Since the oxidative levels are as high as they can be, we need all the help that we can get to reduce them and fight the common health issues that are expected to develop in the result. Glutathione offers to do that for us. Let's investigate how exactly are Glutathione supplements able to reduce the oxidative stress in our body and help eliminate the common health risks.

The antioxidant effects of glutathione?

Glutathione is known to be the king of all antioxidants, along with Vitamin C and Vitamin E. Luckily, our bodies are able to produce Glutathione on their own. However, there are times where the need for Glutathione supplements occurs. There are multiple health benefits that the human body gains from the daily use of Glutathione supplements.

Because Glutathione is such a powerful antioxidant as it is, it can be efficiently used in the fight against high levels of oxidative stress and free radicals in the body, which are known to lead to great amounts of risks to our danger. Before the oxidative stress manages to harm our DNA and cells, Glutathione will work to reduce its levels efficiently. By doing so, Glutathione helps <u>protect</u> our bodies against cancer, neurological diseases (Alzheimer's disease, Parkinson's disease, multiple sclerosis, etc.), rheumatoid arthritis, etc.

Being a strong antioxidant is useful in the fight against inflammation as well. Glutathione deficiency has been shown to cause inflammation to occur directly. Chronic inflammation can lead to a number of health issues that you would normally want to stay away from. One example is a number of lung diseases that have been scientifically confirmed as being caused by excessive inflammation. The <u>study</u> also showed that restoring the body's Glutathione levels back to normal, by using

Glutathione supplements, of course, has helped to not only reduce the present inflammation but also to treat the previously mentioned diseases. To sum all up — Glutathione deficiency leads to inflammation in the body, which leads to multiple health issues. As soon as its levels in the body are restored, the overall health improves.

When a Glutathione deficiency is present, in combination with chronic inflammation and excess oxidative stress, the cognitive decline and the aging of the skin are happening at a much faster rate as compared with before. Osteoporosis, cognitive decline, wrinkles, and dark spots are just some of the common issues that happen as a result. However, science has shown that restoring the Glutathione levels back to normal has helped to slow down the aging process and the cognitive decline, protecting our body and brain all at once.

Glutathione protects the brain from various neurological diseases as well by <u>detoxifying</u> the reactive oxidative species that are generated as a result of the brain's metabolism. Luckily, Glutathione acts as a powerful detoxifier, reducing their presence efficiently, and protecting our brain in the meantime.

Is it safe to use glutathione?

Glutathione is generally considered safe to be used, taking into consideration the lack of scientific research on the potential side-effects, but also, the experiences shared by past users. So far, bloating, muscle cramps, diarrhea, weight gain, flatulence and a possible skin rash as an allergic reaction have been reported to occur as potential side-effects after a 4-weeks oral consummation of Glutathione supplements.

One thing that is known for a fact is that Glutathione is not advised to be used by pregnant or breastfeeding women. It is the lack of research on the topic of how taking Glutathione supplements can interfere with the health of the infant that decide against using Glutathione during pregnancy/breastfeeding period.

It is unknown whether or not Glutathione supplements can interfere with any other medications that might be used at the moment. For any questions, a doctor should be advised.

What is the right dosage?

When it comes to using Glutathione supplements, there is no right or wrong dosage. A number of factors are included in the decision-making process, including age, gender, overall health condition, medical history, etc. Once again, the lack of research plays a big role in deciding on the right dosage for the patients. The <u>usual</u> dosage used for intravenous therapy of Glutathione is between 600mg to 1800mg per treatment.

How to use Glutathione?

Glutathione supplements are available in various forms. The most popular is the Glutathione supplements for oral use, which are usually used in combination with Vitamin C supplements to enhance the overall beneficial effects. Glutathione supplements are also available in the form of supplements and injections, for both intramuscular and intravenous use. The Glutathione injections are the fastest way to deliver Glutathione into the bloodstream and are mostly used for cosmetic purposes. The topical Glutathione supplements are considered to be the safest way to introduce Glutathione in the body and gain the benefits that it has to offer.

Conclusion?

Despite the fact that more research needs to be done, what we do know so far about the beneficial effects of Glutathione supplements sounds promising enough. There are multiple positive effects that can be gained with the use of these popular supplements – from prevention of an early cognitive decline, lower oxidative stress levels, to a reduced risk of multiple health issues – the use of Glutathione supplements will benefit greatly on the health condition of anyone who uses it.

References

- 1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5551541/
- 2. https://www.ncbi.nlm.nih.gov/pubmed/24978607
- 3. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3048347/
- 4. https://www.ncbi.nlm.nih.gov/pubmed/21693129
- $5. \quad \underline{https://www.ncbi.nlm.nih.gov/pubmed/21875351}$
- 6. https://www.ncbi.nlm.nih.gov/pubmed/10880854
- https://reference.medscape.com/drug/gamma-l-glutamyl-lcysteinylglycine-gsh-glutathione-344599
- 8. https://medium.com/@rachellelansangan/is-glutathione-safe-and-effective-f93a36099e04

