

# Glutathione Benefits for Neurological Diseases

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# CENTRAL DRUGS ACADEMY presented by Central Drugs Compounding Pharmacy

Every cell in our body contains a powerful antioxidant called glutathione. It is comprised of three amino acids, namely- cysteine, glycine, and glutamine. It has many crucial functions in our body; that's why it is important to maintain normal glutathione level.

In fact, low levels of glutathione in our body are linked to various diseases. There are various reasons why glutathione levels in our body are reduced, including stress, poor nutrition, and environmental toxins. It declines too as we age.

Glutathione has multiple roles in the central nervous system. The reduction of glutathione is associated with cell death. People who have errors in glutathione metabolism manifest neurological problems.

That's why a study concluded that the higher the level of glutathione the more therapeutic benefits in our <u>brain</u>.

# Here are the benefits of glutathione in neurological diseases:

#### ☐ Parkinson's disease

The neurons in the brain are greatly affected when a person suffers from Parkinson's disease. It is a neurodegenerative disorder that slowly develops over the years. Due to the complexity of the disease, the symptoms experienced by one person are often different from another.

According to <u>Parkinson's Foundation</u>, the cause of the disease is left unknown, and the cure is not yet fixed. However, there are already many treatment options available. Complications from the disease can cause a serious problem; that's why we need to know how glutathione is helpful to Parkinson's disease.

Do you know that Parkinson's disease is a very prevalent disorder suffered by people due to old age? In fact, <u>Parkinson's News Today</u> showed that it is second in the list after Alzheimer's disease when it comes to the most common neurodegenerative disorder.

There are 7 to 10 million people who suffered from Parkinson's disease worldwide. According to <u>Parkinson's Foundation</u>, nearly 1 million Americans will be suffering from Parkinson's disease by 2020. There are 60,000 Americans who are diagnosed with such a disease every year. And men are more likely to have such than women.

When oxidative stress is generated, the brain uses an unusual amount of oxygen that results in neurodegenerative diseases such as Parkinson's disease. A study published in <a href="NCBI">NCBI</a> shows that glutathione can protect us from the production of oxidative stress.

Glutathione reduces reactive oxygen species that establishes oxidative stress. The study shows that lower levels of glutathione can increase oxidative stress not just in whole cells, but also in mitochondrial fractions.

That is why it is essential to maintain Glutathione levels to ensure a therapeutic treatment for Parkinson's disease.

#### ☐ Alzheimer's disease

If brain cells degenerate and die, people suffer from a progressive disorder called Alzheimer's disease. Perhaps, the most common type of dementia is Alzheimer's disease. Dementia is the continuous decline in behavioral, social, and thinking skills.

According to the Mayo Clinic, there is still no treatment to cure the disease, but there are medications in order to slow the decline of memory or to temporarily improve the symptoms. However, the worst cases of Alzheimer's disease can produce other complications, aside from severe memory loss.

Do you know that only one out of four people who are already suffering from Alzheimer's disease are diagnosed having such kind of disease? Yes, it is according to Alzheimer's News Today.

Just come to think that there are approximately 44 million people in the world who are suffering from Alzheimer's diseases and other forms of dementia. There is no doubt why it tops the most common neurodegenerative disorder suffered by people.

Approximately 5.5 million people in the US suffer from such disease, and around 5.3 million of them ages from 65 years old. Unlike Parkinson's disease, women are most likely to suffer than men. In fact, around 2/3 who suffer from the disease are women.

Just like Parkinson's disease, one of the common reasons for Alzheimer's disease is due to the increased level of oxidative stress. Because of that, the antioxidant in the brain decreases. Remember that glutathione is a powerful antioxidant found in every cell.

Perhaps, the most versatile and abundant endogenous antioxidant has a crucial role in combatting oxidative stress. According to a study published in <a href="NCBI">NCBI</a>, antioxidants are links to the progression of Alzheimer's disease.

It is for that reason that higher level of glutathione is a potential therapeutic remedy to prevent or slow down Alzheimer's disease.

### ☐ Autism

There are various subtypes of autism. Most of these are influenced by genes and environmental factors. Autism is a spectrum disorder which makes a person manifest repetitive behaviors. Perhaps, each has its own strengths and weakness.

Autism is a neurodevelopmental condition, described by challenges with speech, non-verbal communication, social skills, and repetitive behavioral patterns. The symptoms of autism may show from birth, but there are cases when they manifest as the person becomes older.

Do you know that 1 out of 59 children is diagnosed with autism? According to <u>Autism Speaks</u>, boys are most likely to suffer from autism than girls. In fact, it is shown that 1 out of 37 boys, while 1 out of 151 girls is diagnosed to have autism.

As early as two years old, you can already diagnose autism. But most children who are suffering from such are diagnosed after four years old.

A study published in <u>NCBI</u> found out that people suffering from autism have lower levels of glutathione. It means that the oxidative stress is higher as the glutathione level is lower. The good thing is that glutathione supplementation can actually help in the increase of glutathione level.

In that way, people suffering from autism can be protected not just from oxidative stress, but also from inflammations. There's no wonder why glutathione helps in alleviating various emotional, behavioral, and physical symptoms.

## Conclusion?

We have seen the various functions of glutathione in our central nervous system. Although the above mentioned neurological diseases have no known cure, we learned that glutathione could actually aid in prevention and the slowing down of neurodegenerative disorders.

Perhaps, the most common reasons for these disorders are due to the increased level of oxidative stress. The increased level of glutathione can decrease the oxidative stress that's why we now know how essential glutathione is in our body.

#### References

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