Dr. Emily Parke

NAC

CLINICAL APPLICATIONS

- Improves Glutathione Status
- Supports Detoxification of Environmental Toxins and Pollutants
- Supports Healthy Respiratory Function
- Supports Cellular Antioxidant Activity

What is NAC?

N-acetyl cysteine (NAC) is an amino acid that boosts antioxidant function and is commonly used as an agent to help clear sinus and airway congestion caused by mucus overproduction. NAC is a source of the conditionally essential amino acid L-cysteine and is a precursor to the tripeptide glutathione, an essential intracellular antioxidant, and therefore supports antioxidant and cellular detoxification pathways in the body. In addition, a growing body of research also highlights the role of NAC in supporting neuropsychiatric health. Each capsule of N-Acetyl Cysteine provides 500 mg of this versatile amino acid.

Overview

N-acetyl cysteine is one of the few antioxidants found to raise glutathione levels. Glutathione is an important antioxidant used in many different metabolic processes within the body. Maintaining adequate levels is important to maintaining the health of the respiratory, hepatic and immune systems. It is also important in supporting antioxidant protection of lipids and proteins and supporting the normal response to inflammation.[1-7] Glutathione is not well absorbed by the body when taken orally, so it can be difficult to sustain adequate glutathione levels. NAC has been shown to significantly increase glutathione levels. NAC is also capable of reducing the viscosity of mucous and is also used to support respiratory and pulmonary health.

Detox Support and Antioxidant Protection†

Though studies have shown the absorption of oral glutathione to be limited,[8] supplementation with NAC has been shown to significantly increase circulating levels of glutathione in the body.[9,10] Increasing glutathione levels in turn increases the production of specialized antioxidant enzymes such as glutathione peroxidase, glutathione reductase and detoxification enzymes such as glutathione S-transferases. Through the activity of these enzymes, NAC protects the body from oxidative damage, increases phase II detoxification, and enhances the normal breakdown of toxins and other metabolic byproducts of the body.

Respiratory Function†

Studies show NAC supports normal mucous production and may positively support pulmonary and respiratory function, especially when consumed over a prolonged period.[11,12] A clinical trial of 100 smokers found NAC significantly improved measures of pulmonary health,[13] and high-dose NAC taken over a one year period resulted in significantly improved small airway clarity and decreased frequency of respiratory challenges.[14] A systematic review found NAC to be effective in supporting children's pulmonary health as well.[15] NAC was also shown to support pulmonary health after inhalation of mustard gas.[16]

Neuropsychiatry Health†

More recently, research has pointed to the role of NAC in targeting a diverse array of factors related to the neuropsychiatric health. NAC has been shown to protect neurons from oxidative damage, and to improve neurotransmitter production, mitochondrial function and inflammatory balance.[17] Studies have also highlighted the role of NAC in modulating oxidative stress as its mechanism of action in neuropsychiatric health.[18] In one 12-week, double-blind, randomized, placebo-controlled study of NAC in children with developmental delay, NAC resulted in significant improvements in irritability scores.[19]

† These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

Directions
1 or more capsules per day or as recommended by your health care professional.

Does Not Contain
Gluten, corn, yeast, artificial colors and flavors.

Cautions
If you are pregnant or nursing, consult your physician before taking this product.

Supplement Facts V1

Serving Size 1 Capsule
Servings Per Container 60

1 capsule contains	Amount Per Serving	% Daily Value
N-Acetyl-L-Cysteine USP	500 mg	*

* Daily Value not established

References

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