

Healing With Amino Acids

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Amino acids are nutrients which combine to form the proteins which make up every cell in the body. Amino acids also positively influence a range of body functions and health conditions when taken singly as supplements. We will now review the health benefits of four of the most clinically useful amino acids: arginine, GABA, lysine and N-acetyl-cysteine.

L-Arginine: For Immune, Cardiovascular, and Reproductive Health

Arginine is a valuable amino acid for increasing the health of the heart, circulatory system, and immune system. Needs for arginine increase during periods of growth, trauma, or when any immune enhancement or wound healing is needed. The body needs arginine to make creatine, ornithine and a health promoting compound known as nitric oxide. Through its role as a precursor of nitric oxide, arginine helps lower blood pressure and cholesterol while improving circulation. Arginine has been shown to speed the healing of wounds, fractures, and diabetes-related foot ulcers.

Arginine can help lower cholesterol levels when taken in doses of 6 grams per day. Arginine helps promote healthy circulation to the heart while inhibiting platelet clotting, and therefore can help protect against heart attacks and strokes. Arginine is a potent vasodilator, and helps relax and open up arteries. Arginine can also help to lower blood pressure. Arginine may have particular application in angina patients, who have significantly improved exercise capacity when given 6 grams per day.¹

Arginine increases immune function.² In 13 volunteers taking 30 grams per day, natural killer cell activity increased 91%. Arginine increases sperm counts and sperm activity when taken in doses of 3-4 grams per day.³ It also helped eliminate impotence in 31% of men given 5 grams per day.⁴ Fifteen hundred milligrams per day of arginine has been found to help patients with interstitial cystitis experience a decrease in the frequency and intensity of pain.⁵

Because high doses of arginine can increase the release of growth hormone, arginine should not be given to those under 18. Arginine should not be used in viral conditions such as herpes, because arginine can serve as a food for the herpes virus. Cancer and diabetic retinopathy patients should also avoid arginine supplements until further research is done. While for most people arginine is generally considered safe, consult your health care practitioner before taking it. Therapeutic doses of arginine range from 750 mg to 15 grams per day.

GABA: The Calming Amino Acid

Gamma-aminobutyric acid (GABA) is the main calming neurotransmitter in the body. Therefore, using GABA to relieve anxiety is a good idea, because it is the exact molecule used by the body to become and remain relaxed.⁶ Lower brain levels of GABA occur during panic disorder.⁷ Therapeutic doses of GABA range from 300 mg to 3 grams per day.

Lysine: The Herpes Fighter

Lysine helps support immune defense, bone health, muscle growth, and cataract prevention. Food processing, particularly the milling of grains, removes a lot of lysine from foods, and vegetarians as well as those on low protein diets may not get enough lysine.

Human research suggests that 3 grams per day of lysine may reduce the number of herpes simplex outbreaks and speed the healing of those outbreaks that do occur.⁸ Lysine may help prevent diabetic-related cataracts, because lysine helps protect the lens of the eye from the damage caused by elevated levels of blood sugar. Lysine may be an important bone-building nutrient, as it appears to enhance calcium absorption. A deficiency of lysine can increase the loss of calcium through urine. Therapeutic doses of lysine range from 1 to 4 grams per day.

NAC (N-Acetyl-Cysteine): Helps Prevent Colds and Flus

NAC is a powerful lung protector, antioxidant, and also helps nourish the immune system. Because of this, NAC appears to powerfully prevent colds and flus. A recent study of 262 adults found that 1200 mg of NAC taken for six months significantly reduced the incidence and severity of influenza. Symptoms and time in bed were significantly reduced in those who took NAC. Taking NAC during the winter, therefore, appears to provide a significant attenuation of influenza and influenza-like episodes, especially in older adults.⁹ Six hundred milligrams of NAC has also been found to help reduce the number of sick days in those with bronchitis.¹⁰

NAC helps the lungs in a variety of ways: it protects them from damage due to environmental insults, helps those with chronic obstructive pulmonary disease, and is used in inhalants to prevent asthma attacks.¹¹

NAC has a wide variety of other applications. NAC is useful as an antidote to mercury toxicity. Animal studies show that taking NAC increases mercury excretion tenfold.¹² Published human case histories confirm these benefits.¹³ NAC helps lower lipoprotein(a), a risk factor for heart disease by up to 70%, according to human research. Six hundred milligrams of NAC has been found to help relieve ocular soreness in Sjogren's syndrome.¹⁴ NAC is widely used as a treatment for liver failure that results from acetaminophen (Tylenol) poisoning. NAC treatment also replenishes whole blood glutathione and T cell glutathione in HIV- infected individuals.¹⁵ Typical doses of NAC range from 500 mg to 4 grams per day.

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