USER GUIDE

NAC & ALA 500 mg & 200 mg per day



About NAC & ALA 500 mg & 200 mg per day:

- N-acetyl-L-cysteine (NAC) and alpha-lipoic acid (ALA) contribute complementary antioxidant support for more optimal metabolic function and the promotion of blood vessel health.*
- NAC is the chief building block for glutathione, perhaps the most important antioxidant found within the cell, which is critical for detoxifying the body's natural toxins.*^{1,2}
- Supplementation with NAC may help maintain homocysteine levels and endothelial function, which are markers for cardiovascular health already within the normal range.*^{3,4}
- ALA helps recycle important endogenous antioxidants, including vitamin C and glutathione, helping to limit oxidative damage within the cell.*5
- Supplementation with ALA has been shown to help support healthy blood sugar levels already within the normal range and normal insulin sensitivity, as well as blood vessel health (endothelial function).*^{6,7} It has also been shown to support the maintenance of a healthy weight.*⁸
- ALA may support broad antioxidant activity in protecting multiple tissues, including nerve and heart cells.*^{9,10} It's been shown to clear cellular debris and maintain healthy redox balance.*^{11,12}

How to Use NAC & ALA 500 mg & 200 mg per day

• Take 2 capsules per day with a meal or as directed by a health care professional.

Cautions and Contraindications

- **Caution:** Consult your health care professional prior to use if you are pregnant, trying to become pregnant, breastfeeding, taking medication, have a medical condition, or anticipate surgery. Keep out of reach of children.
- **Contraindications:** Do not use this product if you are taking antibiotics or nitroglycerin. Avoid use if you have acetylcysteine allergy, and use with caution in individuals with asthma.

Drug Interactions

 Long-term use may warrant low-dose copper and/or thiamine supplementation. NAC may have additive effects with nitroglycerin, potentially causing headaches and hypotension. NAC may also reduce the capacity of activated charcoal to absorb acetaminophen.

USER NAME:

PROFESSIONAL NOTES:



Quick Tips for Optimal Health

- A whole-foods, plant-rich diet supports antioxidant activity and overall health, and may help maintain blood glucose levels already within the normal range.*¹⁵
- Foods to emphasize are typically associated with the Mediterranean diet, including whole grains, fruits and vegetables, nuts, legumes, and olive oil. Foods to eliminate or reduce include juices and sweetened beverages, refined grains, starchy vegetables such as potatoes, and sweets.¹⁶
- ☐ Weight loss, especially when part of a comprehensive primary-care-led program, may help maintain blood glucose levels already within the normal range, as occurred in at least one-third of participants followed over two years in a controlled trial.*¹⁷ A ketogenic diet may also support healthy weight maintenance.*¹⁸
- Minimizing your exposure to persistent environmental toxins, including organochlorine pesticides, dioxins, bisphenols, and phthalates (found in many plastics), may support healthy blood sugar levels already within the normal range.*¹⁹ NAC and ALA both support normal glutathione levels needed to detoxify the body's natural toxins.*
- Other foods that may support healthy glutathione levels already within the normal range include brassica vegetables, polyphenol-rich fruits and vegetables, green tea, and foods with omega-3 fatty acids.*²⁰
- A combination of both aerobic and resistance exercise may be better than either one alone for maintaining blood sugar levels and insulin sensitivity already within the normal range.*²¹

PROFESSIONAL CONTACT INFORMATION:

References

- 1. Rushworth, G.F., & Megson, I.L. (2014). Pharmacol Ther, 141(2), 150-9.
- 2. Lee, Y.M., Jacobs, D.R. Jr., & Lee, D.H. (2018). Front Endocrinol, 9, 712.
- 3. Yilmaz, H., Sahin, S., Sayar, N., et al. (2007). Acta Cardiol, 62(6), 579-85.
- 4. Treweeke, A.T., Winterburn, T.J., Mackenzie, I., et al. (2012). Diabetologia, 55(11), 2920-8.
- 5. Liu, J. (2011). Neurochem Res, 33(1), 194-203.
- 6. Kamenova, P. (2006). Hormones , 5(4), 251-8.
- 7. Sola, S., Mir, M.Q., Cheema, F.A., et al. (2005). Circulation, 111(3), 343-8.
- 8. Kucukgoncu, S., Zhou, E., Lucas, K.B., et al. (2017). Obes Rev, 18(5), 594-601.
- 9. Tang, J., Wingerchuk, D.M., Crum, B.A., et al. (2007). Neurologist, 13(3), 164-7.
- 10. Ziegler, D., Schatz, H., Conrad, F., et al. (1997). *Diabetes Care, 20*(3), 369-73.
- 11. Rezaei Kelishadi, M., Alavi Naeini, A., Askari, G., et al. (2021). Int J Clin Pract, 75(9), e14455.
- 12. Khabbazi, T., Mahdavi, R., Safa, J., et al. (2012). J Ren Nutr, 22(2), 244-50.
- 13. Kim, E., Park, D.W., Choi, S.H., et al. (2008). J Clin Psychopharmacol, 28(2), 138-46.
- 14. de Sousa, C.N.S., da Silva Leite, C.M.G., da Silva Medeiros, I., et al. (2019). Metab Brain Dis, 34(1), 39-52.
- 15. Chen, Z., Drouin-Chartier, J.P., & Li, Y., et al. (2021). Diabetes Care, 44(3), 663-71.
- 16. Satija, A., Bhupathiraju, S.N., Spiegelman, D., et al. (2017). J Am Coll Cardiol, 70(4), 411-22.
- 17. Lean, M.E.J., Leslie, W.S., Barnes, A.C., et al. (2019). Lancet Diabetes Endocrinol, 7(5), 344-55.
- 18. Yuan, X., Wang, J., Yang, S., et al. (2020). Nutr Diabetes, 10(1), 38.
- 19. Song, Y., Chou, E.L., Baecker, A., et al. (2016). J Diabetes, 8(4), 516-32.
- 20. Minich, D.M., & Brown, B.I. (2019). Nutrients, 11(9), 2073.
- 21. Zhao, X., He, Q., Zeng, Y., et al. (2021). BMJ Open, 11(10), e046252.