

Nitric Oxide + Beetroot Powder

Nitric Oxide plays a key role in antioxidant support, immune response modulation, as well as cardiovascular, metabolic, and muscular function, performance, and protection. Supplementation with a Nitric Oxide booster can further increase bioavailability.

Nitric oxide is found in high amounts in leafy green vegetables and root vegetables such as beets. Beetroot delivers dietary nitrates via the nitrate-nitrite-NO pathway, which promotes the highest bioavailability of nitric oxide supplement types.

Beetroot also contains a variety of bioactive phytochemicals (including carotenoids, ascorbic acid, flavonoids, phenolic acids, and betalaine), shown in studies to be antioxidant and anti-inflammatory.

Nitric oxide supplementation resulted in a significant decrease in resting blood pressure (138 ± 12 mm Hg in systole and 84 ± 5 mm Hg in diastole at baseline vs 126 ± 12 mm Hg in systole and 78 ± 4 mm Hg in diastole at follow-up, $P < .001$, vs baseline) and a significant increase in the achieved walking distance in the standard 6-minute walk test.

Oral microbiome plays a critical role in Nitric oxide bioactivation of dietary nitrates. Effectiveness of nitric oxide supplementation is decreased in those using an antibacterial mouthwash.

Beetroot derived nitrate supplement optimal dosing is 300 – 600mg nitrate daily for blood pressure support, exercise endurance, and vascular health.

Consult with your primary care physician before use, as Nitric Oxide supplements can interact with certain medications such as (but not limited to) blood pressure medications and antidepressants.

Clinical References for Nitric Oxide & Beetroot:

Arazi, H. & Eghbali, E. (2021). **Possible Effects of Beetroot Supplementation on Physical Performance Through Metabolic, Neuroendocrine, and Antioxidant Mechanisms: A Narrative Review of the Literature.** Front. Nutr. 8:660150. doi: 10.3389/fnut.2021.660150
<https://www.frontiersin.org/journals/nutrition/articles/10.3389/fnut.2021.660150/full>

Biswas, O. S., Gonzalez, V. R., & Schwarz, E. R. (2015). **Effects of an oral nitric oxide supplement on functional capacity and blood pressure in adults with prehypertension.** Journal of cardiovascular pharmacology and therapeutics, 20(1), 52–58.
<https://doi.org/10.1177/1074248414539563>

Broeder, C. E., Flores, V., Julian, B., Wojan, F., Tauber, R., Schubert, L., Salacinski, A., & Ivy, J.L. (2021). **Nitric oxide enhancement supplement containing beet nitrite and nitrate benefits high intensity cycle interval training,** Current Research in Physiology, Volume 4, 2021, Pages 183-191, ISSN 2665-9441, <https://doi.org/10.1016/j.crphys.2021.07.002>.
<https://www.sciencedirect.com/science/article/pii/S2665944121000213>

Esen, O., Cepicka, L., Gabrys, T., & Karayigit, R. (2022). **High-Dose Nitrate Supplementation Attenuates the Increased Blood Pressure Responses to Isometric Blood Flow Restriction Exercise in Healthy Males.** Nutrients, 14(17), 3645. <https://doi.org/10.3390/nu14173645>

Gonzalez, A. M., Townsend, J. R., Pinzone, A. G., & Hoffman, J. R. (2023). **Supplementation with Nitric Oxide Precursors for Strength Performance: A Review of the Current Literature.** Nutrients, 15(3), 660. <https://doi.org/10.3390/nu15030660>

Mrakic-Sposta, S., Vezzoli, A., Parenza, M., Magno, M., D'Angelo, G., Nannipieri, F., Battaglia, S., Solfanelli, L., Tacconi, E., Dellanoce, C., Montorsi, M., & Pratali, L. (2026). ***Effect of Beetroot Nitrate Supplementation on Nitric Oxide Pathways and Oxy-Inflammatory Biomarkers in Amateur Triathletes: A Randomized Cross-Over Pilot Study***. *Nutrients*, 18(8), 1215. <https://doi.org/10.3390/nu18081215>

Norouzzadeh, M., Rashedi, M. H., Payandeh, N., Harijani, A.M., Shahinfar, H. (2024). ***The effects of dietary nitrate on blood pressure and vascular Health: An umbrella review and updated Meta-Analysis and meta-regression***, *Journal of Functional Foods*, Volume 114, 2024, 106082, ISSN 1756-4646, <https://doi.org/10.1016/j.jff.2024.106082>

Poeggeler, B., Singh, S. K., Sambamurti, K., & Pappolla, M. A. (2023). ***Nitric Oxide as a Determinant of Human Longevity and Health Span***. *International journal of molecular sciences*, 24(19), 14533. <https://doi.org/10.3390/ijms241914533>