OptiNMN™

NAD+ Renewal Complex

Available in 60 capsules

Clinical Applications

- Provides NMN, a Direct Precursor to NAD+, a Vital Coenzyme for Cellular Functions*
- Supports NAD+ Production*
- Increases and Protects Levels of NAD+, essential for over 500 reactions in cells*
- Replenishes NAD+ Loss from Age-Related Decline*
- Increases NAD+, Required for Neuronal Health*

OptiNMN™ *features SIRTality®, a natural source of nicotinamide mononucleotide (NMN) that is a direct precursor to NAD+ and an essential cofactor involved in hundreds of cellular functions. This formula is designed to promote replenishment of age-related NAD+ loss to support healthy aging, vitality, and cognitive function.**

Discussion

Nicotinamide adenine dinucleotide (NAD+) is an essential cellular coenzyme that participates in more than 500 enzymatic reactions involved in energy metabolism, mitochondrial function, DNA repair, and cellular signaling. NAD+ availability naturally declines with age and may also be influenced by physiological stressors, potentially affecting cellular processes that support healthy aging or depend on adequate NAD+ levels to maintain tissue and metabolic homeostasis.*[1,2]

Nicotinamide mononucleotide (NMN) is a naturally occurring intermediate in one of the NAD+ biosynthesis pathways. As a direct precursor, NMN is converted to NAD+ by NMN adenylyltransferase (NMNAT).[2] Given the central role of NAD+ in cellular function and its age-related decline, strategies to support NAD+ production and maintain NAD+ availability have been investigated in a variety of tissues and physiological contexts, including supplementation with NMN and polyphenol-rich plant extracts.*[1,3,4]

NMN Supplementation

In a randomized, double-blind, placebo-controlled trial, healthy adults (N = 30) received either 250 mg/d of NMN or placebo for 12 weeks. Oral NMN supplementation significantly increased NAD+ levels in whole blood compared with baseline. The increase in NAD+ was accompanied by a significant increase in nicotinic acid mononucleotide (NAMN), while circulating NMN levels did not significantly increase, consistent with NMN being used in NAD+ biosynthesis. These findings suggest that orally administered NMN can serve as a bioavailable precursor to NAD+ and support increased NAD+ production in healthy adults.*[5]

In a randomized, multicenter, double-blind, placebo-controlled trial, healthy middle-aged adults (N = 80) received 300, 600, or 900 mg/d of oral NMN or placebo for 60 days. Blood NAD+ concentrations increased significantly in all NMN groups compared with both baseline and placebo at days 30 and 60. In addition, blood biological age—an estimate of biological aging calculated from a panel of 19 routine clinical laboratory parameters—remained stable in all NMN groups, while a significant increase was noted in the placebo group. At day 60, biological age was significantly lower in the NMN groups compared with placebo. These findings demonstrate that oral NMN is a direct precursor to NAD+, supports NAD+ production and maintenance, and may support parameters associated with healthy aging, including measures of biological age and physical performance.*[6]

In a placebo-controlled, randomized, double-blind, parallel-group trial, healthy older men (N = 65) received 250 mg/d of NMN or placebo for 6 or 12 weeks. Supplementation with NMN resulted in significant increases in whole-blood NAD+ and NAD+ metabolite concentrations. Modest improvements were also observed in gait speed and left-hand grip performance, although the authors noted that these findings require validation in larger studies. The increase in NAD+ and related metabolites in healthy older adults provides further support that oral NMN can serve as an NAD+ precursor and promote NAD+ production and availability in the context of aging.*[7]

Studies of supplemental NMN have focused on its role as a direct precursor to NAD+, supporting NAD+ availability and cellular processes involved in mitochondrial function and DNA repair, with potential implications for healthy aging.[1,2] Animal and in vitro studies have demonstrated that NMN supplementation may also support mitochondrial function and cellular repair mechanisms relevant to neuronal health. However, additional research is needed to determine whether these effects translate to humans.*[2,8]

BluNADBooster®

Although NMN supplementation provides a direct precursor for NAD+ synthesis, maintaining NAD+ availability also depends on balancing NAD+ production with processes that contribute to NAD+ loss. BluNADBooster® is a polyphenol-rich blend of pomegranate (*Punica granatum*) and marigold (*Tagetes erecta*) extracts designed to provide complementary support for NAD+ homeostasis.

In a randomized, double-blind, placebo-controlled trial, healthy adults (N = 140) aged 55-70 years received 1,000 mg/d of BluNADBooster or placebo for 60 days. Supplementation increased blood NAD+ levels by 26.48% from baseline and significantly reduced the activity of CD38, an important enzyme that consumes NAD+. Inhibiting CD38 activity may provide a mechanism by which the polyphenol blend helps preserve NAD+ availability. These findings suggest that BluNADBooster may complement NAD+ precursor supplementation by both increasing NAD+ levels and supporting their maintenance.[3] Additional clinical trials are needed to confirm these findings and further characterize the role of polyphenol-rich plant extracts in NAD+ homeostasis.*

OptiNMN™ combines SIRTality® NMN, a direct precursor to NAD+, with BluNADBooster®, a polyphenol-rich botanical blend that provides complementary support for NAD+ production and maintenance.*

***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.**

Energy

OptiNMN™ Supplement Facts

Serving Size: 2 Capsules

	Amount Per Serving	%Daily Value
Proprietary Blend[S1] Pomegranate Extract (*Punica granatum*)(fruit) (1.35% punicalagins) and Marigold Extract (*Tagetes erecta*) (flower)(3.6% quercetagetin)	500 mg	**
NMN (Nicotinamide Mononucleotide)[S2]	250 mg	**

Other Ingredients: Capsule (hypromellose and water), microcrystalline cellulose, ascorbyl palmitate, and silica.

DIRECTIONS: Take 2 capsules twice daily, or use as directed by your healthcare professional.

Consult your healthcare professional before use. Individuals taking medication should discuss potential interactions with their healthcare professional. Do not use if tamper seal is damaged.

STORAGE: Keep closed in a cool, dry place out of reach of children.

FORMULATED TO EXCLUDE: Wheat, gluten, corn, yeast, soy, animal and dairy products, fish, shellfish, peanuts, tree nuts, egg, sesame, ingredients derived from genetically modified organisms (GMOs), artificial colors, and artificial sweeteners.

BluNADBooster® S1. BluNADBooster® is a registered trademark of Blue Helix Health AS.

SIRTALITY S2. SIRTality® is a registered trademark of SyncoZymes (Shanghai) Co. Ltd.

VEGETARIAN CAPS

References

1. Covarrubias AJ, Perrone R, Grozio A, et al. *Nat Rev Mol Cell Biol*. 2021;22(2):119-141. doi:10.1038/s41580-020-00313-x
2. Verdin E. *Science*. 2015;350(6265):1208-1213. doi:10.1126/science.aac4854
3. Bandi VK, Chundru VK, Yarasani A, et al. *J Funct Foods*. 2025;135:107115. doi:10.1016/j.jff.2025.107115
4. Alegre GFS, Pastore GM. *Curr Nutr Rep*. 2023;12(3):445-464. doi:10.1007/s13668-023-00475-y
5. Okabe K, Yaku K, Uchida Y, et al. *Front Nutr*. 2022;9:868640. doi:10.3389/fnut.2022.868640
6. Yi L, Maier AB, Tao R, et al. *Geroscience*. 2023;45(1):29-43. doi:10.1007/s11357-022-00705-1
7. Igarashi M, Nakagawa-Nagahama Y, Miura M, et al. *NPJ Aging*. 2022;8(1):5. doi:10.1038/s41514-022-00084-z
8. Mills KF, Yoshida S, Stein LR, et al. *Cell Metab*. 2016;24(6):795-806. doi:10.1016/j.cmet.2016.09.013

7 22537 51388 3

All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

***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.**

© XYMOGEN

DRS-376
Rev. 10/06/26