ProBifido-50

Probiotic Formula for Adults 50+: Longevity and Regularity

A review explored the multifaceted roles of *Bifidobacterium* species in promoting health and longevity, emphasizing their potential in aging populations and the evolving landscape of probiotic science.^[1] **ProBifido-50** features 5 strains of *Bifidobacterium* probiotics, totaling 50 billion CFU, benefiting adults over the age of 50.

HIGHLIGHTED FEATURE: *Bifidobacterium animalis* ssp. *lactis* HN019 is a well-characterized probiotic strain with documented clinical efficacy and a favourable safety profile. It has been studied in over 180 scientific publications, including approximately 68 human clinical studies.^[2] It demonstrates excellent survivability through the gastrointestinal tract in both short-term (2–4 weeks) and long-term (> 6 months) applications, making it a viable candidate for ongoing therapeutic use.^[3]

Gut Motility and Transit Time

B. lactis HN019 has demonstrated efficacy in improving gut motility and reducing colonic transit time, particularly in elderly populations and individuals with functional constipation. Clinical trials consistently show increased stool frequency and improved stool consistency with both short-term and long-term supplementation.^[4], ^[5], ^[6], ^[7], ^[8], ^[9], ^[10], ^[11]

Microbiota Modulation and Pathogen Exclusion

B. lactis HN019 supports a healthy and balanced intestinal microbiota in aging individuals by enhancing levels of beneficial bacteria and competitively inhibiting gut pathogens, including *Enterococci.*^[12] A large review also determined that supplementation with probiotics in healthy adults over the age of 60 effected consistently improved microbiota composition.^[13]

Intestinal Barrier Integrity

In vitro studies show that cell-free supernatant (CFS) from *B. lactis* HN019 may enhance tight-junction (TJ)



strength, as indicated by increased transepithelial electrical resistance (TEER). This suggests the potential for reducing intestinal permeability, a contributor to systemic inflammation.^[14]

SCFA Production and Mucosal Support

Bifidobacterium spp., including *B. lactis* HN019, are known to increase production of short-chain fatty acids (SCFAs) such as acetate and butyrate, which nourish colonocytes, support epithelial integrity, and may play a role in motility via the serotonergic pathway.^[15]

Cytokine Modulation in Longevity

B. longum has been associated with favorable cytokine modulation in centenarians, suggesting a role in immune homeostasis and reduced inflammaging.^[16]

Cognitive Support in MCI

B. breve supplementation has shown promising effects in individuals with mild cognitive impairment (MCI).

One study reported reduced brain atrophy and improved cognitive subdomains including time orientation, writing, and spatial awareness.^[17]

Another randomized controlled trial demonstrated statistically significant improvements (p < 0.0001) in immediate memory, visuospatial/constructional skills, and delayed memory after 16 weeks of supplementation versus placebo.^[18]

Periodontal disease

B. lactis HN019 is a clinically studied probiotic strain that has shown promise as an adjunctive therapy in the management of periodontal disease.

The first company in the industry to have invested in an ISO 17025–accredited laboratory to test for identity, potency, oxidation, disintegration, purity, and more.



In a double-blind, placebo-controlled study investigating the effects of probiotic on plaqueinduced gingivitis, *B. lactis* HN019 (2 billion CFU twice per day) demonstrated a greater number of patients without generalized gingivitis than the control group (20 and 11 patients, respectively; p < 0.05).^[19] The probiotic group had significantly lower levels of IL-1a, IL-1 β , and MCP-1 in gingival fluid than the control group at the end of the study (p < 0.05).^[20]

In another study examining the same strain and dose, *B. lactis* HN019 supplementation showed a decrease in probing pocket depth and gain in clinical attachment after 90 days in 21 patients with periodontitis undergoing adjunctive scaling and root planning.^[21]

Implications in Geriatric and Preventive Care

Given that approximately 75% of aging-related decline is modifiable by environmental factors,^[22] including diet and microbiota composition, *B. lactis* HN019 offers a targeted, evidence-based approach to support gastrointestinal and immune health in older adults. It may also serve as an adjunctive strategy in the prevention or mitigation of age-associated conditions such as low-grade inflammation, dysbiosis, and impaired motility.

Integrating these strains into clinical protocols may support healthy aging, particularly where GI and cognitive concerns overlap.

References

- 1 Ku, S., M.A. Haque, M.J. Jang, J. Ahn, D. Choex, J.I. Jeon, and M.S. Park. "The role of *Bifidobacterium* in longevity and the future of probiotics." *Food Science and Biotechnology*, Vol. 33, No. 9 (2024): 2097–2110.
- 2 International Flavors & Fragrances Inc. Product Information: HOWARU[®] HN019[™]. https:// healthsciences.iff.com/our-products/howaru/howaru-signature-strains/howaru-hn019 -Accessed 2025-05-21.
- 3 Cheng J, Laitila A, Ouwehand AC. "Bifidobacterium animalis subsp. lactis HN019 effects on gut health: A review." Frontiers in Nutrition, Vol. 8 (2021): 790561.
- 4 ibid.
- 5 Hemalatha, R., A.C. Ouwehand, M.T. Saarinen, U.V. Prasad, K. Swetha, and V. Bhaskar. "Effect of probiotic supplementation on total lactobacilli, bifdobacteria and short chain fatty acids in 2-5-year-old children." *Microbial Ecology in Health and Disease*, Vol. 28, No. 1 (2017): 1298340.
- 6 Ahmed, M., J. Prasad, H. Gill, L. Stevenson, and P. Gopal. "Impact of consumption of different levels of *Bifidobacterium lactis* HN019 on the intestinal microflora of elderly human subjects." *The Journal of Nutrition, Health and Aging*, Vol. 11, No. 1 (2007): 26–31.
- 7 Gopal, P.K., J. Prasad, and H.S. Gill. "Effects of the consumption of Bifdobacterium lactis HN019 (DR10^m) and galacto-oligosaccharides on the microflora of the gastrointestinal tract in human subjects." Nutrition Research, Vol. 23, No. 10 (2003): 1313–1328.
- 8 Putaala, H., T. Salusjärvi, M. Nordström, M. Saarinen, A.C. Ouwehand, E.B. Hansen, and N. Rautonen. "Effect of four probiotic strains and *Escherichia coli* 0157:H7 on tight junction integrity and cyclo-oxygenase expression." *Research in Microbiology*, Vol. 159, No. 9–10 (2008): 692–698.
- 9 Waller, P.A., P.K. Gopal, G.J. Leyer, A.C. Ouwehand, C. Reifer, M.E. Stewart, and L.E. Miller. "Dose-response effect of *Bifdabacterium lactis* HN019 on whole gut transit time and functional gastrointestinal symptoms in adults." *Scandinavian Journal of Gastroenterology*, Vol. 46, No. 9 (2011): 1057-1064.
- 10 Neto, J.V., T.P. Chella, D.P. Rudnik, and S.M.L. Ribeiro. "Effects of synbiotic supplementation on gut functioning and systemic inflammation of communitydwelling elders-Secondary analyses from a randomized clinical trial." Arquivos de Gastroenterologia, Vol. 57, No. 1 (2020): 24-30.
- 11 Waitzberg, D.L., L.C. Logullo, A.F. Bittencourt, R.S. Torrinhas, G.M. Shiroma, N.P. Paulino, and M.L. Teixeira-da-Silva. "Effect of synbiotic in constipated adult

Each PH⁵D water-based, enteric-coated vegetable capsule protects contents from stomach acid and delivers 100% potency of the following live, whole cells to the intestines:

Bifidobacterium longum ssp. infantis UB5660	25 billion CFU
Bifidobacterium bifidum UB4925	7.5 billion CFU
Bifidobacterium breve UB3917	7.5 billion CFU
Bifidobacterium longum ssp. longum UB6897	7.5 billion CFU
Bifidobacterium animalis ssp. lactis HN019	2.5 billion CFU
Vitamin C (ascorbic acid)	6 mg

Nonmedicinal ingredients: Potato starch, tapioca maltodextrin, mono- and dipotassium phosphate, sucrose, and vegetable magnesium stearate in a non-GMO PH⁵D vegetable capsule (medium-chain triglycerides, sodium alginate, oleic acid, stearic acid, ethylcellulose, hypromellose, and purified water).

Directions of use: Adults, adolescents and children 6 years and over: Take 1 capsule daily or as directed by your healthcare practitioner. If you are taking antibiotics, take this product at least 2–3 hours before or after them.

Cautions and warnings: Consult a health-care practitioner prior to use if you have fever, vomiting, bloody diarrhoea, or severe abdominal pain. Discontinue use and consult a health-care practitioner if symptoms of digestive upset (e.g., diarrhea) occur, worsen, or persist beyond 3 days. Do not use this product if you are taking tetracycline.

Contraindications: Do not use this product if you have an immune-compromised condition (e.g., AIDS, lymphoma, or patients undergoing long-term corticosteroid treatment).

Product #3041 · 30 vegetable capsules · NPN 80112651 · V0755-R2

women—A randomized, double-blind, placebo-controlled study of clinical response." *Clinical Nutrition*, Vol. 32, No. 1 (2013): 27–33.

- 12 Hemalatha et al, op. cit.
- 13 Ahmed et al, op. cit.
- 14 Putaala et al, op. cit.
- 15 Cheng, Laitila, and Ouwehand, op. cit.
- 16 Nicola, S., A. Amoruso, F. Deidda, M. Pane, S. Allesina, L. Mogna, M. Del Piano, and G. Mogna. "Searching for the perfect homeostasis: Five strains of Bifdobacterium longum from centenarians have a similar behavior in the production of cytokines." Journal of Clinical Gastroenterology, Vol. 50, Suppl. 2 (2016): S126-S130.
- 17 Asaoka, D., J. Xiao, T. Takeda, N. Yanagisawa, T. Yamazaki, Y. Matsubara, H. Sugiyama, et al. "Effect of probiotic bifidobacterium breve in improving cognitive function and preventing brain atrophy in older patients with suspected mild cognitive impairment: Results of a 24-week randomized, double-blind, placebo-controlled trial." Journal of Alzheimer's Disease, Vol. 88, No. 1 (2022): 75-95.
- 18 Xiao, J., N. Katsumata, F. Bernier, K. Ohno, Y. Yamauchi, T. Odamaki, K. Yoshikawa, K. Ito, and T. Kaneko. "Probiotic Bifdobacterium breve in improving cognitive functions of older adults with suspected mild cognitive impairment: A randomized, double-blind, placebocontrolled trial." Journal of Alzheimer's Disease, Vol. 77, No. 1 (2020): 139–147.
- 19 de Almeida Silva Levi, Y.L., M.C. Ribeiro, P.H.F. Silva, G.A. Silva, S.L. de Souza Salvador, S.L.S. de Souza, R. Casarin, et al. "Effects of oral administration of Bifidobacterium animalis subsp. lactis HN019 on the treatment of plaque-induced generalized gingivitis." *Clinical Oral Investigations*, Vol. 27, No. 1 (2023): 387–398.
- 20 *ibid*.
- 21 Invernici, M.M., S.L. Salvador, P.H.F. Silva, M.S.M. Soares, R. Casarin, D.B. Palioto, S.L.S. Souza, et al. "Effects of *Bifidobacterium* probiotic on the treatment of chronic periodontitis: A randomized clinical trial." *Journal of Clinical Periodontology*, Vol. 45, No. 10 (2018): 1198–1210.
- 22 Sepp, E., I. Smidt, T. Rööp, J. Štšepetova, S. Kõljalg, M. Mikelsaar, I. Soidla, et al. "Comparative analysis of gut microbiota in centenarians and young people: Impact of eating habits and childhood living environment." Frontiers in Cellular and Infection Microbiology, Vol. 12 (2022): 851404.

3405, F.-X.-Tessier street, Vaudreuil-Dorion (Québec), J7V 5V5 · 1 888 863 9274 · vitazan.com