

SPECIAL EDITION

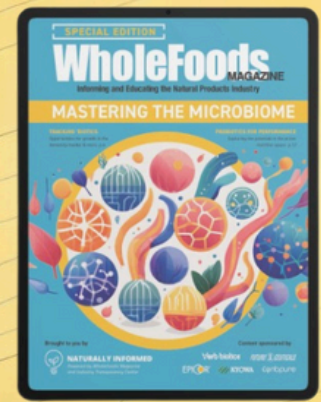
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MICROBIOME
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MASTERING
THE
MICROBIOME



#GUTTOK IS TRENDING FOR A REASON: 69% OF U.S. CONSUMERS REPORT GUT HEALTH SYMPTOMS

Enhancing gut microbiome health; the role of Postbiotics in shelf-stable food and beverages.

A consumer gut health survey conducted in 2023 by Verb Biotics found that 69% of U.S. consumers experience gut issues and 40% of this population have symptoms affecting their daily life (1).

While not everybody consults with a physician for gut issues, the annual total number of hospitalizations (4.5 million), mortality (236,000), and the resulting medical bills (almost \$100 billion) is quite shocking (2,3)! Amidst the COVID-19 pandemic, the focus on digestive health, gut microbiome, probiotics, and healthy eating surged. This trend catapulted the social media hashtag #GutTok to over one billion views, highlighting consumer interest in maintaining and improving their gut health.

Decades of research have consistently shown that maintaining a healthy gut is essential for our overall well-being. In the early 2000s, NIH's human microbiome project (HMP) added new vigor to gut microbiome research. The outcomes of their research have significantly reformed our understanding of the role of the gut microbiome on overall human health (4). This latest science shows us that a balanced and diverse gut microbial population is not only important for digestive health, but also for our cardiac, hormonal, mental, autoimmune health, and more.

The microbial population and its diversity in our gut are heavily influenced by food, age, genetics, immune systems, environmental factors, geographic location, personal habits (e.g., smoking and drinking), medications, etc. (5). These factors collectively create an environment to host thousands of species of bacteria, viruses, fungi, and parasites. Typically, an individual has about one trillion microbes in their gut, and the abundance of specific microbial groups constantly fluctuates due to the above-mentioned factors' interaction (6). If one factor has a drastic change, it disrupts the microbial balance and causes what many scientists call "dysbiosis." A microbial imbalance in the gut microbiome can cause intestinal lining inflammation, which contributes to the various adverse gut issues affecting consumers in the U.S.

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POSTBIOTICS ARE THE LATEST INNOVATION IN THE “BIOTICS” SPACE.

Like probiotics, postbiotics help restore microbial balance in the gut microbiome, yet this type of biotic is “inactivated,” meaning the beneficial bacteria are not live organisms like a probiotic. This distinction enables postbiotics to easily incorporate into shelf-stable food and beverage products, enabling greater accessibility for consumers to improve their gut health.

Postbiotics provide beneficial metabolites produced from the probiotic fermentation of prebiotics. This means you don’t have to wait for a probiotic to colonize the gut and ferment the available fibers, as the metabolites from postbiotics are readily available to support your gut microbiome. Since the gut environment varies uniquely from person to person; not everyone may derive the same benefit from fibers and probiotic supplements.

PREBIOTIC AND PROBIOTIC SYNERGY

Utilizing the concept of prebiotic and probiotic synergy, Verb Biotics developed Keystone Postbiotic™, a fusion of selected probiotic strains fermented alongside oats. Oats are naturally gluten-free and have prebiotic and bioactive components, such as β -glucan, protein, vitamin E, lysin, flavonoids, and phenolics. The two Lactobacillus strains in Keystone Postbiotic™, are well known for their ability to modulate human health through various metabolites. The combination of the strains and grains in Keystone Postbiotic™ delivers specific inflammation-reducing short chain fatty acids (SCFAs) in the GI tract, and supports the growth of good gut bacteria, promoting their diversity, and improving overall digestive health.

For food and beverage products, Keystone Postbiotic™ offers the health benefits associated with probiotics and prebiotics but with greater stability and ease of use. For #GutTok consumers, Keystone Postbiotic™ offers an easy to access gut health solution for their #wellnessjourney towards #totalhealth.

References:

1. 2023 Consumer Gut Health Survey Highlights Need to Educate Consumers on the Gut Microbiome. Verb Biotics. <https://verbbiotics.com/2023-u-s-consumer-gut-health-survey-highlights-need-to-educate-consumers-on-the-gut-microbiome-for-overall-health/> (accessed 2024-04-03).
2. RD, E. Q. 8 Gut Health Statistics and Facts [2023 Update]. Health Reporter. <https://healthreporter.com/gut-health-statistics-and-facts/> (accessed 2024-05-01).
3. Digestive Diseases Statistics for the United States - NIDDK. National Institute of Diabetes and Digestive and Kidney Diseases. <https://www.niddk.nih.gov/health-information/health-statistics/digestive-diseases> (accessed 2024-05-01).
4. NIH Launches Human Microbiome Project. National Institutes of Health (NIH). <https://www.nih.gov/news-events/news-releases/nih-launches-human-microbiome-project> (accessed 2024-05-02).
5. Bajinka, O.; Darboe, A.; Tan, Y.; Abdelhalim, K. A.; Cham, L. B. Gut Microbiota and the Human Gut Physiological Changes. *Annals of Microbiology* 2020, 70 (1), 65. <https://doi.org/10.1186/s13213-020-01608-2>.
6. de Vos, W. M., Tilg, H., Van Hul, M. & Cani, P. D. Gut microbiome and health: mechanistic insights. *Gut* 71, 1020–1032 (2022).