Probiotics and Gut Microbiota
*The Underlying Helpers of Health*

Andrew Binger*

Group of Microbiology, Division of Biology and Chemistry (DBC), The BASE, Chapel Hill, NC 27510, USA

* All correspondence should be sent to: Dr. Andrew Binger.

Author’s Contact: Andrew Binger, PhD, E-mail: andrew.binger@basehq.org

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As per the amount of time that bacteria spend living and growing in the intestine, we can divide them into two categories: long-term (also called permanent residents) and transitory (also called alien). According to the findings of previous research, a dysbiosis of the microbiota in the gut may be linked to a wide variety of human illnesses. Microorganisms that are considered to be living, such as bacteria, are known as probiotics. When given to a host in adequate quantities, probiotics can be beneficial. There is compelling evidence that probiotics have a positive impact on health, but this area of research has to be expanded.

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butyric acid, and short-chain fatty acids. These acids can acidify the intestinal environment, inhibit the proliferation of harmful bacteria, regulate the balance of flora, and enhance digestion. Increase the synthesis of vitamins, enzymes, and interferon; increase bowel motility; enhance immunity; prevent allergies and infections; enhance the prevention of allergies and infections. Lactobacilli, bifidobacteria, yeast, and various cocci and bacilli are prevalent. Prebiotics are substances that promote the growth of beneficial bacteria (bacteria) in the colon via dietary supplements, such as oligosaccharides (oligosaccharides), dietary fibers (water-soluble, water-insoluble), and certain Chinese herbal remedies (5). Synbiotics are preparations containing both probiotics and prebiotics. Prebiotics (Biogenic), also known as lactic acid bacteria-producing substance extracts, are produced by culturing a variety of symbiotic lactic acid bacteria (ALBEX). Prebiotics are substances that contain probiotics, prebiotics, or both.

According to prior studies, dysbiosis of gut microbiota may be associated with a variety of human disorders (6). (i) Digestive tract: antibiotic-associated diarrhea (pseudomembranous colitis), traveler’s diarrhea, inflammatory bowel disease (ulcerative colitis, Crohn’s disease), irritable bowel syndrome, colorectal polyps, diverticulosis, hemorrhoids, colorectal cancer, leaky gut syndrome, lactose intolerance, celiac disease, pylori infection. (ii) Nonalcoholic hepatitis, alcoholic hepatitis, cirrhosis, hepatic encephalopathy, gallstones. (iii) Obesity, diabetes, metabolic syndrome, excessive cholesterol, and aging are all metabolic conditions. (iv) Autoimmunity, food, pollen, rheumatoid arthritis, and asthma are examples of allergy immunity. (v) Cardiovascular conditions include hypertension, coronary heart disease, and atherosclerosis. (vi) Skin conditions include atopic dermatitis, eczema, and acne. (vii) Urogenital: urogenital tract inflammation, bacterial or Candida albicans vaginitis, and breast cancer. (viii) Neuropsychiatry: Down syndrome, depression, anxiety, dry depression, dementia, autism, anorexia, memory loss, schizophrenia, Parkinson’s disease, and multiple sclerosis.

There is a close relationship between gut microbiota and disorders of the digestive tract and beyond. Due to the fact that each human’s gut microbiota is unique and diverse, it will vary with age and external and internal environmental influences, despite the similarity of each individual. In recent years, the so-called “personalized” medical paradigm has also been utilized to treat gut flora. Early treatment of recurrence of pseudomembranous colitis or inflammatory bowel disease was improved, and then oral therapy of fecal bacteria capsules (pour pill) was introduced (7). Utilize healthy individuals’ flora to alter the gut microbiota of patients, ultimately improving their condition. According to studies, using the fecal bacteria of thin mice to feed fat mice can lead to the weight loss of fat ones (8). It is known that the gut microbiota influences the eating habits of the host, which in turn affects the metabolic function, resulting in weight loss (9). Recently, psychobiotics research, development, and application have been on the rise, combining the domains of gastrointestinal tract and neuropsychological medicine (10, 11). I look forward to demonstrating future success.

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