

# Probiotics Offer a Novel Approach in Managing Digestive Diseases

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## Description

Probiotics have gained considerable attention in recent years as a potential therapeutic tool for managing various digestive diseases. These live microorganisms, when administered in adequate amounts, confer health benefits to the host, primarily by enhancing the gut microbiota balance. This article explores the role of probiotics in the management of several digestive disorders, their mechanisms of action, and the current state of research. Probiotics are defined as live microorganisms that, when consumed in sufficient quantities, provide health benefits to the host. The human gut is home to trillions of microbes, which play a crucial role in digestion, immune function, and overall health. Disruptions to this microbiota, caused by factors like antibiotics, poor diet, and stress, can lead to various digestive issues.

IBS is a prevalent functional gastrointestinal disorder characterized by symptoms such as abdominal pain, bloating, and altered bowel habits. Probiotics have been shown to alleviate these symptoms by restoring gut flora balance and enhancing gut barrier function. A systematic review indicated that probiotics significantly improve overall symptoms, making them a promising adjunct therapy for IBS management. IBD, which includes Crohn's disease and ulcerative colitis, involves chronic inflammation of the gastrointestinal tract. Probiotics may offer a complementary approach to standard treatments. Research indicates that certain strains can help maintain remission and reduce relapse rates. For instance, the probiotic formulation VSL#3, which contains multiple strains, has demonstrated efficacy in maintaining remission in ulcerative colitis. However, while probiotics can support treatment, they are not a replacement for conventional therapies, such as anti-inflammatory medications. Antibiotics disrupt the normal gut microbiota, often leading to diarrhea. Probiotics can help prevent and treat AAD by restoring microbial balance. Studies have shown that probiotics significantly reduce the incidence of AAD when taken alongside antibiotics. The World Health Organization (WHO) recommends probiotics for preventing AAD, highlighting their importance in clinical practice. CDI is a serious condition characterized by

severe diarrhea and colitis, often following antibiotic use. Probiotics may serve as an adjunct therapy to restore gut microbiota and inhibit growth. Clinical trials have demonstrated that specific probiotic strains can reduce recurrence rates of CDI when used alongside conventional treatments. However, while promising, probiotics should not replace standard care but rather complement it. While probiotics are generally considered safe for healthy individuals, certain populations, such as immunocompromised patients or those with severe underlying health conditions, may be at risk for infections related to probiotic use. It's essential to choose high-quality, well-researched probiotic strains tailored to specific health conditions. Consulting healthcare professionals before starting probiotics is advisable, especially for individuals with pre-existing digestive disorders. Despite promising findings, more robust clinical trials are needed to better understand the specific roles of different probiotic strains in digestive diseases. Research is also exploring the potential of synbiotics (combinations of probiotics and prebiotics) and personalized probiotic therapies based on individual microbiota profiles.

## Conclusion

Probiotics offer a novel and promising approach to managing various digestive diseases, from IBS to IBD and antibiotic-associated complications. While current evidence supports their benefits, especially in symptom management and microbiota restoration, they should be integrated into a broader treatment plan that includes conventional therapies. Continued research will undoubtedly uncover more about the intricate relationship between probiotics and digestive health, potentially leading to more targeted and effective interventions for those affected by these common yet challenging conditions.

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None.

## Conflict of Interest

The author has no potential conflicts of interest.

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