

## Probiotics in gastrointestinal health and disease

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Probiotics have special characteristics, which together with prebiotics constitute the synbiotics. The probiotics have multiple potentials to confer health benefits to the host. The effectiveness of probiotics is strain specific, and each strain may contribute to host health through different mechanisms. However the most usual application of probiotic microorganisms is for the prevention or therapy of gastrointestinal (GI) disorders. Probiotics have been reported to have several health benefits in GI infections and other GI disorders by varied mechanism of action. Probiotics appear to be a useful adjunct to rehydration therapy for the management of acute and persistent diarrhea in both adults and children. Several different probiotics used for the evaluation and the treatment of *Clostridium difficile* diarrhea in adults and children have found them to be safe, though sufficient evidence to recommend their use for prevention of the disease is yet not available. Probiotics have also shown some efficacy in decreasing the bacterial load of *Helicobacter pylori* in controlled trials. However probiotics have an equivocal benefit in the management of acute pancreatitis and should not be made a part of routine management for the disease. Probiotics have also been used as an alternative or complementary therapy in combating other GI disorders such as inflammatory bowel disease, irritable bowel syndrome, general surgery and intensive care sepsis, lactose intolerance, colon cancer and dental health with diverse outcomes.

### Biography

Chetana Vaishnavi is Chief of the GE Microbiology Division at PGIMER, Chandigarh, India where she has actively participated in teaching and research for over 33 years. She is presently working in the area of gastrointestinal infections, particularly on *Clostridium difficile*, *diarrheagenic Escherichia coli*, *Salmonella Typhi*, *Campylobacter*, *Shigella*, *Clostridium perfringens*, *Staphylococcus aureus*, and other foodborne pathogens. She was the President of Gastrointestinal Infections Society of India ((2010-13) and is the Editor of book 'Infections of the Gastrointestinal System' She has received several awards and honours and has travelled globally for academic purposes. She has published 141 research papers and 20 chapters in books both nationally and internationally.