Using probiotics in the paediatric population

Valérie Marchand; Canadian Paediatric Society, Nutrition and Gastroenterology Committee

ABSTRACT
As more is learned about the importance of the intestinal microbiome to human health there is increasing interest in the potential benefits of probiotics. Probiotics are live micro-organisms which, when consumed in adequate amounts, confer a health effect on the host by altering its microflora. Probiotics have been administered both prophylactically and therapeutically for various conditions. This statement defines the development and role of intestinal microflora, and examines the evidence supporting the use of different probiotics to treat common paediatric conditions, such as diarrhea, atopy, functional intestinal disorders and necrotizing enterocolitis.

Key Words: Bifidobacteria; Diarrhea; Lactobacilli; Microflora; Probiotics; Saccharomyces

RECOMMENDATIONS

For physicians
1. Keeping in mind that the effect of probiotics is both strain- and disease-specific, physicians should consider recommending probiotics to:
   • prevent antibiotic-associated diarrhea.
   • shorten the duration of acute infectious viral diarrhea.
   • prevent necrotizing enterocolitis in preterm infants who are at risk of necrotizing enterocolitis.
   • decrease the symptoms of colic.
   • decrease some symptoms of irritable bowel syndrome.
2. Based on current evidence, the use of probiotics cannot yet be recommended for the treatment or prevention of atopic diseases.
3. Physicians should be aware of the small risks of invasive infections with using some strains of probiotics in immunocompromised patients, and more rarely in the healthy child.
4. Physicians should advocate for further research to define which strains and dose of probiotics should be used in specific conditions.

For government
The federal government should require manufacturers of probiotics and products containing probiotics to provide high quality products with precise and informative labelling.

ACKNOWLEDGEMENTS: This statement was reviewed by the Fetus and Newborn, and Infectious Diseases and Immunization Committees of the Canadian Paediatric Society.

CPS NUTRITION AND GASTROENTEROLOGY COMMITTEE

Members: Dana L Boctor MD; Jeffrey N Critch MD (Chair); Manjula Gourishankar MD; Daniel Roth MD; Sharon L Unger MD; Robin C Williams MD (Board Representative)

Liaisons: Jatinder Bhatia MD, American Academy of Pediatrics; Genevieve Courant NP, MSc, The Breastfeeding Committee for Canada; A George F Davidson MD, Human Milk Banking Association; Tanis Fenton, Dietitians of Canada; Jennifer McCrea, Health Canada; Jae Hong Kim MD (Past member); Lynne Underhill MSc, Bureau of Nutritional Sciences, Health Canada

Principal author: Valérie Marchand MD (past Chair)

The recommendations in this statement do not indicate an exclusive course of treatment or procedure to be followed. Variations, taking into account individual circumstances, may be appropriate. All Canadian Paediatric Society position statements and practice points are reviewed on a regular basis. Please consult the Position Statements section of the CPS website (www.cps.ca) for the full-text, current version.

Correspondence: Canadian Paediatric Society, 2305 St Laurent Boulevard, Ottawa, Ontario K1G 4J8. E-mail info@cps.ca