

Sunshine Heroes Probiotic Power

Stock #3346-7 (90 chewable tablets)



Sunshine Heroes Probiotic Power is a children's probiotic supplement that provides 11 different strains of "friendly" intestinal flora (also known as probiotics) that have been shown to improve digestion and gastrointestinal health and strengthen immune function.¹

Probiotics are used to treat or prevent a variety of diseases in children. Randomized double-blind studies have demonstrated the effectiveness of probiotics for the prevention and treatment of acute infectious diarrhea, antibiotic-induced diarrhea, and also for the prevention of cow milk-induced food allergy in infants and young children. Additional studies indicate that probiotics may be helpful for the prevention of respiratory infections in children, as well as the prevention and treatment of atopic dermatitis, dental caries (cavities), irritable bowel syndrome, and inflammatory bowel disease. For example, a double-blind, placebo-controlled study found that daily probiotic supplementation for 6 months was a safe and effective way to reduce fever, coughs, rhinorrhea (persistent watery mucus discharge from the nose, as in the common cold), and the incidence and duration of antibiotic prescriptions, as well as the

number of missed school days attributable to illness among children 3 to 5 years of age. Furthermore, probiotics have no known interactions with medications.¹⁻¹⁰

Bifidobacterium bifidum is a major bifidobacterial species in the intestinal flora of children that demonstrates immunostimulatory properties. Studies have shown that supplementation with probiotic formulas containing *B. bifidum* and *S. thermophilus* (another probiotic flora) protected against acute infectious diarrhea in chronically sick children less than 2 years of age. *B. bifidum*, combined with other probiotics (*S. thermophilus* and *L. rhamnosus*) have also been proven effective in the treatment of *Clostridium difficile*—a potentially fatal bacterial infection that causes severe diarrhea.¹¹⁻¹⁴

Bifidobacterium infantis has demonstrated antimicrobial activity against *Clostridium difficile*, one of the most common causes of intestinal infection. In addition, oral intake of *B. infantis* and *L. acidophilus* (another probiotic flora) statistically improved the frequency and duration of acute diarrhea in children.^{15,16}

Bifidobacterium longum demonstrates immunoregulatory properties and has been used in the treatment and prevention of antibiotic-associated diarrhea. *B. longum* has also been shown to improve lactose digestion and alleviate symptoms associated with "lactose intolerance".¹⁷⁻²⁰

Lactobacillus rhamnosus, which has proven beneficial effects on intestinal immunity, has been shown to be effective in shortening the duration and severity of acute diarrhea in children, as well as reducing the risk of antibiotic-associated diarrhea in children. In addition, *L. rhamnosus* was shown to be effective in treating children with chronic constipation, providing comparable results as magnesium oxide but with less occurrence of abdominal pain. *L. rhamnosus* also appears to be effective for preventing atopic dermatitis in children.^{4,6,9,13,21-23}

Lactobacillus acidophilus has been used as a safe and effective treatment for reducing the duration of acute diarrhea in children. In addition, daily supplementation with *L. acidophilus* for 6 months has been shown to safely and effectively reduce the incidence and duration of cold and flu-like symptoms in children. Daily supplementation with *L. acidophilus* has also been shown to significantly improve blood levels of vitamin B₁₂ and folate (folic acid) and reduce the prevalence of anemia, thereby improving overall nutritional status in children.^{10,24-26}

Lactobacillus bulgaricus has demonstrated strong immunopotentiating activity and has been shown to inhibit a number of strains of *Helicobacter pylori* (which causes stomach inflammation and ulcers), including antibiotic-resistant strains. *L. bulgaricus* has also been used in the treatment and prevention of antibiotic-associated diarrhea in children.^{18,25,27,28}

Lactobacillus brevis exhibits anti-inflammatory effects and has been shown to improve intestinal health and stimulate immune function. Research also shows that *L. brevis* can inhibit the activity of potentially harmful microorganisms, including *Bacillus cereus* (a bacteria that causes food poisoning).²⁹⁻³²

Lactobacillus plantarum appears to be an effective treatment for irritable bowel syndrome (IBS), as demonstrated by its ability to reduce flatulence and abdominal pain. Preliminary results also indicate that *L. plantarum* has a beneficial effect on the immune response in children with compromised immune systems.³³⁻³⁵

Lactobacillus salivarius has been shown to improve oral health and reduce plaque, as well as reduce inflammation associated with *Helicobacter pylori* infection. In addition, *L. salivarius*, in combination with *L. acidophilus*, has been

shown to significantly inhibit the growth of *Escherichia coli* (a bacteria that can cause acute diarrhea in children).³⁶⁻³⁸

Lactobacillus casei has been shown to significantly reduce the frequency of diarrhea in children. *L. casei* has also been shown to dramatically reduce the development of eczema in infants at risk for allergic disease.^{39,40}

Streptococcus thermophilus - Supplementation with probiotic formulas containing *S. thermophilus* and *B. bifidum* have been shown to protect chronically sick children under the age of 2 against acute infectious diarrhea. *S. thermophilus*, combined with *B. bifidum* and *L. rhamnosus*, has also been proven effective in the treatment of *Clostridium difficile*.^{13,14}

Each chewable tablet of Sunshine Heroes Probiotic Power contains 1 billion friendly cultures from 11 strains of probiotics, in a base containing the Sunshine Heroes Protector Shield—a proprietary blend of whole foods, fruit juice concentrates, and beneficial micronutrients.

The Sunshine Heroes Protector Shield provides important antioxidants, vitamins, minerals and amino acids (the "building blocks" of protein), which promote healthy growth and development and a strong immune system. The Protector Shield contains:

Whole Food Complex (mangosteen, cranberry, broccoli, spinach, asparagus, carrot, tomato, açai and pomegranate) - These fruits and vegetables are rich sources of antioxidants, immune-boosting phytonutrients, minerals and vitamins, including vitamins A, B-Complex, C, E and K.

Fruit Juice Concentrates (white grape, apple, pear, orange, pineapple, cherry, strawberry, and blueberry) - This antioxidant-rich blend of fruit juices provides vitamin C, folic acid, potassium, and other nutrients that promote cardiovascular and immune health and help protect against certain cancers.

Micronutrients Blend (L-leucine, L-lysine, L-valine, Choline, Inositol, L-isoleucine, L-threonine, L-phenylalanine, L-arginine, L-cysteine, L-methionine, and L-tyrosine) - Amino acids are the building blocks of proteins necessary for healthy growth and development and proper functioning of the central nervous system and brain. Choline and inositol are members of the B-complex vitamin and are necessary for healthy brain development, as well as cognitive and memory function.⁴¹

Sunshine Heroes Probiotic Power also contains fructooligosaccharides (FOS), a type of nondigestible fiber that stimulates the growth of probiotic organisms; promotes intestinal absorption of nutrients such as calcium, magnesium and iron; and enhances the innate and adaptive immune response, resulting in fewer occurrences of fever and gastrointestinal and respiratory infections.^{2,42}

References:

- ¹Sanz, Y., et al. "Differences in faecal bacterial communities in coeliac and healthy children as detected by PCR and denaturing gradient gel electrophoresis." *FEMS Immunology and Medical Microbiology*; 2007 Dec;51(3):562-5628.
- ²Veereman, G. "Pediatric applications of inulin and oligofructose." *The Journal of Nutrition*; 2007, 137(11 Suppl):2585S-2589S.
- ³Kligler, B., Cochrane, A. "Probiotics." *American Family Physician*; 2008, 78(9):1073-1078.
- ⁴Ruszczyński, M., et al. "Clinical trial: effectiveness of *Lactobacillus rhamnosus* (strains E/N, Oxy and Pen) in the prevention of antibiotic-associated diarrhoea in children." *Alimentary Pharmacology & Therapeutics*; 2008, 28(1):154-161.
- ⁵Kekkonen, R.A., et al. "The effect of probiotics on respiratory infections and gastrointestinal symptoms during training in marathon runners." *International Journal of Sport Nutrition and Exercise Metabolism*; 2007, 17(4):352-363.
- ⁶Betsi, G.I., et al. "Probiotics for the treatment or prevention of atopic dermatitis: a review of the evidence from randomized controlled trials." *American Journal of Clinical Dermatology*; 2008, 9(2):93-103.
- ⁷Vandenplas, Y., Benninga, M. "Probiotics and functional gastrointestinal disorders in children." *Journal of Pediatric Gastroenterology and Nutrition*; 2009, 48 Suppl 2:S107-109.
- ⁸Goldin, B.R., Gorbach, S.L. "Clinical indications for probiotics: an overview." *Clinical Infectious Diseases*; 2008, 46 Suppl 2:S96-100.
- ⁹Guarino, A., et al. "Probiotics as prevention and treatment for diarrhea." *Current Opinion in Gastroenterology*; 2009, 25(1):18-23.
- ¹⁰Leyer, G.J., et al. "Probiotic effects on cold and influenza-like symptom incidence and duration in children." *Pediatrics*; 2009, 124(2):e172-179.
- ¹¹Jin, H.Z., et al. [Analysis of the probiotic *Bifidobacterium* and *Lactobacillus* community in child intestinal flora]. *Wei Sheng Wu Xue Bao*; 2005, 45(4):567-570.
- ¹²Trois, L., et al. "Use of probiotics in HIV-infected children: a randomized double-blind controlled study." *Journal of Tropical Pediatrics*; 2008, 54(1):19-24.
- ¹³Canani, R.B., et al. "Probiotics for treatment of acute diarrhoea in children: randomised clinical trial of five different preparations." *British Medical Journal (Clinical Research Ed.)*; 2007, 335(7615):340.
- ¹⁴Madsen, K.L. "The use of probiotics in gastrointestinal disease." *Canadian Journal of Gastroenterology*; 2001, 15(12):817-822.
- ¹⁵Lee, Y.J., et al. "Identification and screening for antimicrobial activity against *Clostridium difficile* of *Bifidobacterium* and *Lactobacillus* species isolated from healthy infant faeces." *International Journal of Antimicrobial Agents*; 2003, 21(4):340-346.
- ¹⁶Lee, M.C., et al. "Oral bacterial therapy promotes recovery from acute diarrhea in children." *Acta Paediatrica Taiwanica*; 2001,

- 42(5):301-305.
- ¹⁷Collado, M.C., et. al. "Imbalances in faecal and duodenal Bifidobacterium species composition in active and non-active coeliac disease." *BMC Microbiology*; 2008, 8:232.
- ¹⁸Bergogne-Bérézin, E. "Treatment and prevention of antibiotic associated diarrhea." *International Journal of Antimicrobial Agents*; 2000, 16(4):521-526.
- ¹⁹He, T., et. al. "Effects of yogurt and bifidobacteria supplementation on the colonic microbiota in lactose-intolerant subjects." *Journal of Applied Microbiology*; 2008, 104(2):595-604.
- ²⁰Jiang, T., et. al. "Improvement of lactose digestion in humans by ingestion of unfermented milk containing Bifidobacterium longum." *Journal of Dairy Research*; 1996, 79(5):750-757.
- ²¹Gupta, V., Garg, R. "Probiotics." *Indian Journal of Medical Microbiology*; 2009, 27(3):202-209.
- ²²Fang, S.B., et. al. "Dose-dependent effect of Lactobacillus rhamnosus on quantitative reduction of faecal rotavirus shedding in children." *Journal of Tropical Pediatrics*; 2009, 55(5):297-301.
- ²³Bu, L.N., et. al. "Lactobacillus casei rhamnosus Lcr35 in children with chronic constipation." *Pediatrics International*; 2007, 49(4):485-490.
- ²⁴Salazar-Lindo, E., et. al. "Effectiveness and safety of Lactobacillus LB in the treatment of mild acute diarrhea in children." *Journal of Pediatric Gastroenterology and Nutrition*; 2007, 44(5):571-576.
- ²⁵Sazawal, S., et. al. "Efficacy of probiotics in prevention of acute diarrhoea: a meta-analysis of masked, randomised, placebo-controlled trials." *The Lancet Infectious Diseases*; 2006, 6(6):374-382.
- ²⁶Mohammad, M.A., et. al. "Plasma cobalamin and folate and their metabolic markers methylmalonic acid and total homocysteine among Egyptian children before and after nutritional supplementation with the probiotic bacteria Lactobacillus acidophilus in yoghurt matrix." *International Journal of Food Sciences and Nutrition*; 2006, 57(7-8):470-480.
- ²⁷Nagafuchi, S., et. al. "Strain dependency of the immunopotentiating activity of Lactobacillus delbrueckii subsp. bulgaricus." *Bioscience, Biotechnology, and Biochemistry*; 1999, 63(3):474-479.
- ²⁸Boyanova, L., et. al. "Anti-Helicobacter pylori activity of Lactobacillus delbrueckii subsp. bulgaricus strains: preliminary report." *Letters in Applied Microbiology*; 2009, 48(5):579-584.
- ²⁹Riccia, D.N., et. al. "Anti-inflammatory effects of Lactobacillus brevis (CD2) on periodontal disease." *Oral Diseases*; 2007, 13(4):376-385.
- ³⁰Tasli, L., et. al. "Lactobacilli lozenges in the management of oral ulcers of Behçet's syndrome." *Clinical and Experimental Rheumatology*; 2006, 24(5 Suppl 42):S83-86.
- ³¹Yakabe, T., et. al. "Safety assessment of Lactobacillus brevis KB290 as a probiotic strain." *Food and Chemical Toxicology*; 2009, 47(10):2450-2453.
- ³²Ronka, E., et. al. "Probiotic and milk technological properties of Lactobacillus brevis." *International Journal of Food Microbiology*; 2003, 83(1):63-74.
- ³³Nobaek, S., et. al. "Alteration of intestinal microflora is associated with reduction in abdominal bloating and pain in patients with irritable bowel syndrome." *American Journal of Gastroenterology*; 2000, 95(5):1231-1238.
- ³⁴Niedzielin, K., et. al. "A controlled, double-blind, randomized study on the efficacy of Lactobacillus plantarum 299V in patients with irritable bowel syndrome." *European Journal of Gastroenterology & Hepatology*; 2001, 13(10):1143-1147.
- ³⁵Cunningham-Rundles, S., et. al. "Probiotics and immune response." *The American Journal of Gastroenterology*; 2000, 95(1 Suppl):S22-25.
- ³⁶Shimauchi, H., et. al. "Improvement of periodontal condition by probiotics with Lactobacillus salivarius WB21: a randomized, double-blind, placebo-controlled study." *Journal of Clinical Periodontology*; 2008, 35(10):897-905.
- ³⁷Ryan, K.A., et. al. "Lactobacillus salivarius modulates cytokine induction and virulence factor gene expression in Helicobacter pylori." *Journal of Medical Microbiology*; 2009, 58(Pt 8):996-1005.
- ³⁸Lin, P.P., et. al. "Antagonistic activity of Lactobacillus acidophilus RY2 isolated from healthy infancy feces on the growth and adhesion characteristics of enteroaggregative Escherichia coli." *Anaerobe*; 2009, February 2. [Epub ahead of print]
- ³⁹Pedone, C.A., et. al. "Multicentric study of the effect of milk fermented by Lactobacillus casei on the incidence of diarrhoea." *International Journal of Clinical Practice*; 2000, 54(9):568-571.
- ⁴⁰Yoo, J., et. al. "Microbial manipulation of immune function for asthma prevention: inferences from clinical trials." *Proceedings of the American Thoracic Society*; 2007, 4(3):277-282.
- ⁴¹Dufault, R., et. al. "Mercury exposure, nutritional deficiencies and metabolic disruptions may affect learning in children." *Behavioral and Brain Functions*; 2009, 27:5:44.
- ⁴²Ohta, A. [Prevention of osteoporosis by foods and dietary supplements. The effect of fructooligosaccharides (FOS) on the calcium absorption and bone]. *Clinical Calcium*; 2006, 16(10):1639-1645.