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Probiotic effects on cold and influenza-like symptom incidence and duration in children

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Abstract

Objective: Probiotic consumption effects on cold and influenza-like symptom incidence and duration were evaluated in healthy children during the winter season.

Methods: In this double-blind, placebo-controlled study, 326 eligible children (3-5 years of age) were assigned randomly to receive placebo (N = 104), Lactobacillus acidophilus NCFM (N = 110), or L acidophilus NCFM in combination with Bifidobacterium animalis subsp lactis Bi-07 (N = 112). Children were treated twice daily for 6 months.

Results: Relative to the placebo group, single and combination probiotics reduced fever incidence by 53.0% (P = .0085) and 72.7% (P = .0009), coughing incidence by 41.4% (P = .027) and 62.1% (P = .005), and rhinorrhea incidence by 28.2% (P = .68) and 58.8% (P = .03), respectively. Fever, coughing, and rhinorrhea duration was decreased significantly, relative to placebo, by 32% (single strain; P = .0023) and 48% (strain combination; P < .001). Antibiotic use incidence was reduced, relative to placebo, by 68.4% (single strain; P = .0002) and 84.2% (strain combination; P < .0001). Subjects receiving probiotic products had significant reductions in days absent from group child care, by 31.8% (single strain; P = .002) and 27.7% (strain combination; P < .001), compared with subjects receiving placebo treatment.

Conclusion: Daily dietary probiotic supplementation for 6 months was a safe effective way to reduce fever, rhinorrhea, and cough incidence and duration and antibiotic prescription incidence, as well as the number of missed school days attributable to illness, for children 3 to 5 years of age.

Trial registration: ClinicalTrials.gov NCT00599430.

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