

Infant Formula Supplemented with Probiotics Reduces Gastrointestinal Infections' Rate in Day Care Infants.

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Background: Day care infants have higher risk of gastrointestinal (GI) and respiratory (resp.) infections. Probiotic bacteria, which improve the intestinal microbial balance, may beneficially affect the immune response and reduce infections.

Objective: To study prospectively the effect of a formula supplemented with *Bifidobacterium lactis* (Bb-12) or *Lactobacillus reuteri*, on infections in day care infants.

Methods: In a prospective double-blind placebo-controlled trial, full-term healthy infants between 4-10 months of age, were randomly assigned to receive a formula (Materna Primium II, Materna Laboratories, Maabarot, Israel) supplemented with either *Bifidobacterium lactis* or *Lactobacillus reuteri*, or the same diet without probiotics, for 12 weeks. Symptoms, signs, growth, feeding, stooling and behavior were monitored.

Results: All three groups were initially similar with regard to gestational age, birth weight and male/female ratio.

Parameter	Placebo	B. lactis	L.reuteri	p value*
Final number	58	71	65	
Age, mean (months)	6.7±1.5	6.9±1.6	6.8±1.7	0.685
Wt. Final (%ile)	54.2±24.5	45.5±26.9	46.1±29.5	0.215
Febrile episodes	0.41±0.50	0.27±0.45	0.11±0.31	0.0003
GI illnesses	0.31±0.47	0.13±0.34	0.02±0.12	0.0004
Resp. illnesses	0.24±0.43	0.25±0.44	0.17±0.38	0.457

(* placebo vs. B+L)

Infants fed a probiotics-supplemented formula exhibited less febrile episodes and fewer GI illnesses. This effect was more prominent in the *Lactobacillus reuteri* group. There was no significant effect on respiratory illnesses.

No significant differences were noted between groups regarding growth (weight, length, head circumference) or characteristics of feeding, stooling, and behavior. No adverse effects were noticed in all subjects.

Conclusions: In the present study, day care infants fed a formula supplemented with *Bifidobacterium lactis* or *Lactobacillus reuteri* demonstrated a reduced rate of gastrointestinal infections.