

J Hum Nutr Diet. 2006 Feb;19(1):51-8.

Growth during the first 6 months of life in infants using formula enriched with *Lactobacillus rhamnosus* GG: double-blind, randomized trial.

[Vendt](#) N, Grünberg H, Tuure T, Malminiemi O, Wuolijoki E, Tillmann V, Sepp E, Korpela R.

Source

Department of Pediatrics, University of Tartu, Tartu, Estonia. neve.vendt@kliinikum.ee

Abstract

BACKGROUND:

Probiotic bacteria have beneficial effects on the immune system and gastrointestinal tract, but the impacts of their long-term consumption on health and growth in early infancy are not well documented. The aim of this study was to evaluate the influence of *Lactobacillus rhamnosus* GG (LGG)-enriched formula on growth and faecal microflora during the first 6 months of life in normal healthy infants.

MATERIALS AND METHODS:

One hundred and twenty healthy infants (up to 2 months) received LGG-supplemented formula or regular formula in a double-blind, randomized manner until the age of 6 months. Weight, length and head circumference were measured monthly and transformed into standard deviation scores (SDS). Faecal samples were obtained from a random sample of infants (n=25) at entry and at the end of the study.

RESULTS:

One hundred and five infants (51 in the LGG group) completed the study. Children receiving LGG-supplemented formula grew better: their changes in their length and weight SDS (DeltaSDS) at the end of the study were significantly higher than those receiving regular formula (0.44+/- 0.37 versus 0.07+/- 0.06, $P < 0.01$ and 0.44+/- 0.19 versus 0.07+/- 0.06, $P < 0.005$, respectively). The LGG group had a significant, higher defecation frequency 9.1+/-2.06 versus 8.0+/- 2.8 ($P < 0.05$). More frequent colonization with lactobacilli was found in the LGG group, 91% versus 76% ($P < 0.05$) at the end of the study. **CONCLUSIONS** Infants fed with LGG-enriched formula grew better than those fed with regular formula. Further studies are necessary to clarify the mechanism of LGG in infant growth.

Comment in

The results of a randomized controlled trial to evaluate the effect of *Lactobacillus rhamnosus*. [J Hum Nutr Diet. 2006]

PMID: 16448475 [PubMed - indexed for MEDLINE]