

## ***Lactobacillus reuteri* Protectis reduced diarrhoea in children**

**A double-blind, placebo-controlled study of 494 children showed that supplementation of *Lactobacillus reuteri* Protectis significantly reduced episodes of diarrhoea. *Lactobacillus reuteri* Protectis was particularly effective in children with lower nutritional status. Another probiotic strain, which was also tested, was without effect.**

### **Study design**

The six month long double-blind, placebo-controlled study was performed in Indonesia and included 494 healthy children aged one to six years. The children were randomly assigned to one of the following four groups: They were randomly assigned to receive low-lactose milk with or without *Lactobacillus casei* 431 or *Lactobacillus reuteri* DSM17938.

### **Outcome measures**

Primary outcome of the study was number and duration of acute diarrhoeal episodes. Diarrhoea was measured both according to the World Health Organisation's definition of diarrhoea,  $\geq 3$  loose/liquid stools in 24 hours, and as incidence of all diarrhoea,  $\geq 2$  loose/liquid stools in 24 hours. Secondary outcome was number and duration of acute respiratory infections.

### **Significant results only with *Lactobacillus reuteri* Protectis**

The results showed that the incidence of all diarrhoea episodes was significantly reduced by 32 per cent in the group supplemented by *Lactobacillus reuteri* Protectis compared to placebo. In children with lower nutritional status (below median height and weight for the age group) *Lactobacillus reuteri* Protectis had significant effect on both WHO defined and all episodes of diarrhoea.

None of the other interventions showed any significant effects on either WHO defined or all episodes of diarrhoea and none of the interventions affected incidence or duration of acute respiratory infections. An additional finding was significantly reduced antibiotic use in the *Lactobacillus reuteri* Protectis supplemented children compared to those given placebo.

BioGaia is a biotechnology company that develops, markets and sells probiotic products with documented health benefits. The products are primarily based on the lactic acid bacterium *Lactobacillus reuteri* which has probiotic, health-enhancing effects. The class B share of the Parent Company BioGaia AB is quoted on the Mid Cap list of the NASDAQ OMX Nordic Exchange Stockholm. [www.biogaia.com](http://www.biogaia.com)

The study was conducted independently from BioGaia and the results were announced in a press release by NIZO food research on 21 February 2012:  
<http://www.nizo.com/news/latest-news/56/bovee/>

The study will be published in Journal of Pediatrics. Doctor Rina Agustina will also present the results at the International Symposium of Probiotics and Prebiotics in Pediatrics (IS3P) on 24 February 2012.

### **Diarrhoea and respiratory infections common**

The prevalence of diarrhoea, acute respiratory infections as well as malnutrition is high among children in low socioeconomic areas in Indonesia, as well as in many other countries. In Indonesia diarrhoea contributes to 25 per cent of all deaths among young children whereas acute respiratory infection has a mortality rate of 16 per cent. Infection and malnutrition are interrelated and strategies to increase resistance to infections in this population are needed.

- Especially children in these areas are exposed to a vicious circle of undernutrition and frequent infection episodes. We know now that with the right probiotics this negative spiral can be broken, says Ingeborg Bovee-Oudenhoven, NIZO scientist and project leader, the Netherlands.
- These new and very positive results with *Lactobacillus reuteri* Protectis confirm earlier studies with this probiotic strain in children with acute diarrhoea. As the other probiotic tested in the study did not show any positive effects, this strengthens the importance of using the right strain when choosing a probiotic, says Peter Rothschild, President at BioGaia.

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BioGaia has published this information in accordance with the Swedish Securities Market Act. The information was issued for publication on 22 February 2012, 09:30 am CET.

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