

# Probiotics use in mothers limits eczema in their babies

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Mothers who drank milk with a probiotic supplement during and after pregnancy were able to cut the incidence of eczema in their children by almost half, a new study published in the *British Journal of Dermatology* has shown.

The randomized, double-blind study, conducted by researchers at the Norwegian University of Science and Technology (NTNU), compared mothers who drank one glass of probiotic milk a day to women who were given a placebo. Use of the probiotic milk - which the mothers drank beginning at week 36 in their pregnancy up through to three months after birth -- reduced the incidence of <a href="eczema">eczema</a> by 40 percent in children up to age two, the researchers found. The study is a part of a larger research project at the university called the Prevention of <a href="Allergy">Allergy</a> Among Children in Trondheim, or PACT, an ongoing population-based intervention study in Norway focused on childhood allergy.

### Random sample of pregnant women

Researchers followed 415 pregnant women and their children from pregnancy until the children were two years old. The participants were randomly selected among <u>pregnant women</u> in Trondheim - and then randomly divided into two groups, one of which was given milk with probiotics, and the other a placebo milk. Mothers in the study did not know whether they were given the probiotic milk or the placebo milk.



"The taste of both products was similar, and the milk was delivered in unmarked milk cartons. This means that neither the participants in the study or the researchers knew who had received probiotic milk or placebo milk," says NTNU researcher Torbjørn Řien, one of the scientists involved in the study. "We can therefore say with great certainty that it was the probiotic bacteria alone that caused the difference in the incidence of eczema between the two groups."

### Eczema incidence lower, or less severe

The children were checked for eczema throughout the period, as well as for asthma and allergy at age two. Afterwards, the incidence of asthma, eczema and allergy was compared in the two groups.

"The results showed that probiotic bacteria reduced the incidence of eczema in children up to age two years by 40 percent. And the kids in 'probiotics group' who did have eczema, had less severe cases," explains Christian Kvikne Dotterud, a student in the Medical Student Research Programme at the Department of Community Medicine at NTNU.

The study did not show any effect from the probiotic milk on asthma or allergies, however.

## More research on allergic diseases

Dotterud and his research colleagues have started a follow-up study of the children to see if they find any preventive effect on allergic diseases, especially asthma, when children have reached six years old.

"Our study is the first to show that certain probiotic bacteria given to the mother during pregnancy and breast-feeding prevents eczema," says Dotterud.



Previous studies have shown that ingestion of some probiotics by children may prevent eczema, but this is the first study to show a preventative effect when the mother alone consumed the probiotics.

#### Via breast milk

"In Norway, there has been some skepticism about giving infants probiotics. Therefore, it is preferable that mothers take probiotics, not children," he said. <u>Probiotics</u> are generally considered safe for healthy people.

To participate in the study mothers had to have planned to breastfeed their children.

"We believe that probiotic bacteria affects breast milk composition in a positive way," Dotterud said.

**More information:** The results of the study have been published in the journal The British Journal of Dermatology.

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