

# Prebiotics: Do supplements in baby formula help prevent allergies?

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Prebiotic supplements in infant formula may help to prevent eczema, according to a systematic review published in *The Cochrane Library*. However, the review highlights a lack of high quality evidence for the effects of prebiotics in preventing allergies.

It is thought that bacteria lining the gut may play an important role in a child developing sensitivities to certain foods and [allergens](#), regulating immune responses and determining how they will react to the same substances in later life. Prebiotics are indigestible components of [breast milk](#), fruit and vegetables that stimulate the growth and activity of healthy bacteria in the gut. They are distinct from [probiotics](#), which are cultures of live bacteria such as those added to yoghurts and infant formula. Prebiotics can also be added to infant formula. However, it is unclear exactly what effect these supplements have on the development of allergies.

The researchers drew together data from four studies involving a total of 1,428 children. Children were given formula containing prebiotic supplements or, as a control, standard formula. Studies followed children to between four months and two years of age and reported the number who developed allergies. [Eczema](#) was significantly reduced in children who were fed formula containing prebiotics. Only two studies investigated asthma. The number of children who developed asthma was similar whether they were given formula with added prebiotics or without. In one study looking at urticaria (hives), giving children formula containing prebiotics did not prevent any cases of the allergy.

Only one study assessed the effect of giving formula containing prebiotics to high-risk children, who had close family members with allergies. In this study, prebiotics reduced both eczema and asthma, but there were no significant reductions in allergies overall in high-risk children. "Given these findings, it remains unclear whether the use of prebiotics should be restricted to infants at high risk of allergy or may have an effect in low risk populations," said lead researcher, John Sinn of the University of Sydney in Sydney, Australia.

"Overall, we found some evidence that infant formula containing prebiotic supplements can help prevent eczema in children up to two years of age," said Sinn. "However, the quality of existing evidence is generally low or very low. More high quality research is needed before we can recommend routine use of [prebiotics](#) for prevention of allergy."

**More information:**

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