

Introducing peanuts and eggs early can prevent food allergies in high risk infants

4 December 2019



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Research undertaken by King's College London and St George's, University of London has found that introducing certain foods early to infants can prevent them from developing an allergy despite low adherence to an introduction regime.

In a series of papers published today in the *Journal of Allergy and Clinical Immunology*, researchers found that despite low adherence, early introduction to allergenic foods (those that may cause an allergic reaction), including egg and peanut, was found to be effective in preventing the development of food allergies in specific groups of infants. The research additionally highlights barriers to following the early introduction process.

The research is a continuation from The Enquiring About Tolerance (EAT) study where over 1300 three-month old infants were recruited in England and Wales and placed into one of two groups. One group was introduced to six allergenic foods (including peanut and egg) from three months of age alongside breastfeeding and was called the Early Introduction Group (EIG). The other group was exclusively breastfed for six months and was

termed the Standard Introduction Group (SIG).

Results showed that:

- Among children with any food sensitisation at study enrolment, 34.2% of children in the SIG developed food allergy in comparison to 19.2% of children in the EIG.
- Among infants sensitised to peanut at enrolment, 33.3% of infants in the SIG developed a peanut allergy versus the 14.3% in the EIG.
- Among infants sensitised to egg at enrolment, 48.7% developed an egg allergy in the SIG compared to 20.0% in the EIG.
- The early introduction of allergenic foods to infants who were not at a high risk of developing food allergies was not associated with an increased risk of developing food allergy.
- There were no significant differences in food allergy rates between the two groups of infants with no sensitisation to any food at the time of enrollment.

The results were still evident despite only 42% of the EIG group achieving the per-protocol adherence of sustained, high dose consumption of five or more early introduction foods. Low adherence to the protocol, appeared to be most prominent among populations of increased maternal age, non-white ethnicity and lower maternal quality of life.

EAT Study Principal Investigator Gideon Lack, Professor of Paediatric Allergy, School of Life Course Sciences at King's College London said: "These results have significant implications and are informative when it comes to infant feeding recommendations concerning allergies and the development of new guidelines. If early introduction to certain allergenic foods became a part of these recommendations, we also have data that tells us what populations may need extra support when it

comes to implementing the recommendations."

One paper dove deeper into what factors influenced non-adherence in a qualitative analysis. Three major themes emerged including children refusing allergenic foods, caregiver reported concern about the foods causing allergic reactions and practical lifestyle constraints. These three challenges all contributed significantly to non-adherence and would need to be addressed if infant feeding recommendations were updated.

"The EAT study has provided us with a wealth of data that is still being analysed. As more research about early introduction of specific food allergens continues, we will get closer to new early introduction recommendations that will hopefully help to prevent [food](#) allergies in the future," said Professor Lack.

EAT Study Co-Principal Investigator, Dr. Michael Perkin, from St Georges, University of London said: "We have shown that the early introduction of foods that causes allergies can significantly reduce the chances of high-risk [infants](#) developing peanut and egg allergy. Our research adds to the body of evidence that [early introduction](#) of [allergenic foods](#) may play a significant role in curbing the [allergy](#) epidemic."

Provided by King's College London

APA citation: Introducing peanuts and eggs early can prevent food allergies in high risk infants (2019, December 4) retrieved 25 April 2021 from <https://medicalxpress.com/news/2019-12-peanuts-eggs-early-food-allergies.html>

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