

MEDIA RELEASE

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Testing can predict which kids most likely to grow out of peanut allergies

Researchers from Murdoch Childrens Research Institute have identified clinical markers that can accurately predict which children will grow out of their peanut allergy in later childhood.

Researchers recruited 5276 one year old infants involved in the HealthNuts study and skin prick tested them to common food allergens including peanut. Any infant who was sensitised to peanut was invited to have an oral food challenge, to formally diagnose the peanut allergy. Peanut allergy was confirmed in 156 infants. At four years of age these children were invited to undergo another oral food challenge to test for whether they had outgrown their peanut allergy.

Skin prick testing (SPT) and blood tests are commonly used to monitor the course of peanut allergy, although up until now the thresholds for these tests which predict whether peanut allergy has persisted or resolved are unknown.

Using these tests, researchers could pinpoint at one year of age at which levels children were most likely to grow out of their allergy by the time the child turned four.

Researchers found children with higher levels of IgE antibody (via skin prick testing or serum screening) threshold had a greater chance of persistent peanut allergy. Furthermore falling IgE antibody (again either by SPT or serum) levels between ages one and four years was the strongest predictor of the development of peanut tolerance.

Overall, the study found that 22% of children outgrew their peanut allergy by four years of age. Interestingly, despite considering multiple other prognostic factors, including tree nut and house dust mite sensitisation, coexisting food allergies, eczema and asthma, no other predictors of the development of tolerance could be identified.

Lead researcher, Professor Katie Allen said clinical predictors of when and in whom tolerance to peanut will develop are lacking but identifying predictive factors will improve the management and care of children with peanut allergy.

“These thresholds are the first to be generated from a population-based study in which all participants underwent an oral food challenge, skin prick testing and blood tests at both diagnosis and follow-up, and are a valuable tool for the management of peanut allergy. They will be useful in reducing the need for unnecessary oral food challenges in children with a high risk of persistent peanut allergy.”

Peanut allergy affects 3% of children and is the food allergy most often associated with severe and fatal allergic reactions.

The study, which is published in *The Journal of Allergy and Clinical Immunology*, is the first population-based study to investigate the natural history of peanut allergy.

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