



What is blocking early peanut introduction?



Peanut allergy affects up to 2% to 4% of US children,^{1,2} and prevalence appears to be increasing.³ Most (approximately 75–80%) retain peanut allergy and risk for anaphylaxis into adulthood.⁴ Recognizing the burden of peanut allergy, professional societies advised dietary interventions in infants and young children to lower risk of developing peanut allergy. Based on a changing body of evidence during the past 2 decades, guidelines have shifted from delayed introduction of allergenic foods to early and sustained ingestion of peanut.^{5,6} In the Learning Early About Peanut allergy (LEAP) trial published in 2015, Du Toit et al⁷ reported that among at-risk infants, early and sustained ingestion of peanut reduced the prevalence of peanut allergy at 5 years of age from 17.2% to 3.2%. Subsequently, the Enquiring About Tolerance (EAT) study demonstrated a lower risk of peanut and egg allergy among exclusively breastfed infants who successfully ingested these foods from 3 months of life.⁸ These landmark studies motivated publication of the Addendum Guidelines from the National Institute of Allergy and Infectious Disease (NIAID), which advise sustained ingestion of peanut starting from as young as 4 to 6 months of age, with allergy testing and oral food challenge (OFC) as indicated for at-risk infants with severe eczema and/or egg allergy.⁶

Successful implementation of the 2017 NIAID guidelines will rely on their acceptance by new and expectant parents and by pediatricians and other primary care practitioners. Because parents will carry the burden of food introductions, it is critical to understand what concerns they might have in the face of flip-flopping professional guidelines. Do parental attitudes concerning the timing and medicalization of food introductions represent barriers for implementation of the new guidelines?

The article from Greenhawt et al⁹ in this issue of the *Annals* tackles this important question. They conducted an online survey of 1,000 expectant caregivers and 1,000 new caregivers with infants no older than 12 months who were nationally representative other than their age (mean age 30.1 years), sex (99.6% female), and marital status (79% married). Approximately half (54%) the new and expectant caregivers felt that timing of introduction had a moderate or strong influence on food allergy development. However, only one-third (31%) expressed willingness to introduce peanut before or at approximately 6 months of life, with nearly 40% preferring to wait until after 11 months of life. Timing of food introductions might be less relevant for most infants who are at low risk for food allergy

and the NIAID guidelines do not specifically recommend early introduction of peanut for infants without risk factors. This preference for delaying peanut introduction would represent a specific barrier to guideline implementation if parents of at-risk infants expressed this sentiment.

One might expect that recently delivered caregivers would be better informed of food introduction guidelines than those expecting and thus more willing to introduce allergenic foods before 6 months. Greenhawt et al⁹ reported just the opposite: pregnant participants had higher odds of being willing to introduce allergenic foods before 6 months of life than those who had recently delivered (odds ratio 3.1, 95% confidence interval 2.1–4.5, $P < .001$). This finding highlights a possible need for improved effort on the part of pediatricians to communicate and strongly promote the protective effect of the early introduction of peanut.

Although most respondents (58%) supported medicalization of food introduction with in-office risk assessment, more than half were unwilling to allow skin testing or OFC before 11 months of age.⁹ Hesitation concerning medicalization of food introduction might be appropriate in this unselected group; allergy evaluation is specifically indicated for only at-risk infants in the NIAID guidelines. However, openness to medicalization of food introduction only at older ages highlights persistent misunderstandings that allergy testing and OFC are more appropriate in older infants. Not only is younger age at introduction of peanut protective, it also appears to be safe, with reported reactions to OFC in the LEAP trial limited to cutaneous symptoms⁷; older age is an independent risk factor for more severe anaphylaxis during food challenges.^{10,11} With the NIAID guidelines encouraging allergy evaluation for infants with severe eczema and/or egg allergy at 4 to 6 months of age, a hesitation to allow for these evaluations before 11 months specifically interferes with implementation of the new guidelines.

Although not intended by design, the surveyed sample was enriched with individuals who reported personal (14%) or family (53%) history of food allergy, with 30% of those with another child reporting at least 1 child with food allergy. Although family history of food allergy was associated with concern for the child developing food allergy (odds ratio 2.5, 95% confidence interval 1.8–3.5, $P < .001$), family history did not influence responses to other questions regarding attitudes toward timing or medicalization of food introductions.⁹ Even this group who might be at increased risk for food allergy seemed to lack awareness and/or willingness to allow timely interventions to decrease the risk of food allergy.

We now have the opportunity to reverse the course of peanut allergy in the United States. Greenhawt et al suggest that parent attitudes toward food introduction and allergy testing are likely to be a barrier to implementation of the NIAID guidelines. Most surveyed parents expressed apprehension about early peanut

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introduction within what appears to be a window of opportunity to prevent peanut allergy. To address parental concerns in a timely manner, pediatricians and general practitioners will need to discuss peanut introduction with or without testing during office visits for at-risk infants in the first months of life. We, as allergists, have a responsibility to increase awareness of the guidelines among primary care practitioners, help address parental concerns, and provide timely allergy testing and OFC. Convincing parents that consistent consumption of peanut from a few months of life is safe and protective against peanut allergy will likely be an uphill battle. Success will require coordinated efforts among primary care practitioners and allergists and developing an effective support system for parents and caregivers. It takes a village to save a child from peanut allergy!

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