

Correspondence and Replies

Peanut allergy prevention: A mother's perspective



To the Editor:

A recent review by Chua et al¹ highlights the benefits of oral immunotherapy (OIT) for infants who fail primary prevention. In 2015, the Learning Early About Peanut Allergy (LEAP) study revolutionized recommendations for peanut ingestion in early life.² Infants 4 to 11 months of age were advised to ingest 2 g of peanut protein (PP) 3 times weekly with Bamba puffs (Osem Food Industries, Shoham, Israel).² Early introduction followed by regular ingestion significantly lowered the likelihood of peanut allergy in later childhood.² Following this study, the 2017 National Institute of Allergy and Infectious Diseases (NIAID) addendum guidelines advised the introduction of peanut as early as 4 to 6 months of age.³ Peanut feeding guidelines provided recipes containing either 2 teaspoons of peanut butter (PB) or 21 Bamba (each 2 g of PP), and full portions were encouraged.³ Although more flexible infant feeding guidelines were updated in 2021, parents were still encouraged to offer 1 to 2 g of PP with PB or peanut flour at least once weekly.⁴ This PP dose remains well above the average eliciting dose in peanut allergy.⁵

Infant feeding guidelines may not be congruent with the actual LEAP methodology. In the treatment arm, infants were advised to ingest 6 g of PP weekly. However, compliance was defined as consumption of only 3 g of PP weekly, and this was required for only 50% of the weeks enrolled in the study. Infants needed to ingest 2 g of PP only once in the first and second years of life.² With this flexible definition of compliance, infants may have diverged significantly from the recommended early doses of PP. Current guidelines may set unrealistic targets for what early doses of PP are necessary to prevent peanut allergy in infancy and could paradoxically raise the risk of allergy through a domino effect. With large early doses, the risk of a dose-dependent reaction may increase, which in turn may result in avoidance during a critical window of life for active intervention.

Chua et al¹ highlight that despite early introduction, peanut allergy among 12-month-olds has not decreased in some studies.^{6,7} Although Chua et al¹ defined the problem, they did not hypothesize why LEAP is falling short in a real-world setting. Infant feeding guidelines could be partially culpable. Both the 2017 NIAID and 2021 feeding guidelines encourage doses of PP for young infants that do not necessarily reflect the actual LEAP methodology. Early infant feeding behavior is often exploratory, starting with tiny bites of solid food such as Bamba. From a mother's perspective, babies naturally eat much smaller doses of PP when ingesting Bamba relative to PB. As the infant's eating skills progress, they gradually consume higher doses of PP in Bamba over time. PB is starkly different. It is easy to give high doses of PP quickly at very young ages. Why does the mother's perspective matter? Well, we feed infants constantly. Smaller doses of PP for early ingestions may be more congruent with peanut allergy prevention, akin to the gradual approach of OIT and thus provide an opportunity for inadvertent desensitization in infants who develop early IgE sensitization. Starting low and going slow may also enhance parental comfort with home introductions

and thus increase adherence to primary prevention. It is time for a change.

Hannah Wangberg, MD

Division of Allergy, Asthma, and Immunology, Scripps Clinic, San Diego, Calif.

No funding was received for this work.

Conflicts of interest: The author declares that she has no relevant conflicts of interest.

Received for publication January 12, 2023; accepted for publication February 7, 2023.

Corresponding author: Hannah Wangberg, MD, Division of Allergy, Asthma, and Immunology, Scripps Clinic, 3811 Valley Centre Dr, San Diego, CA 92130. E-mail: Wangberg.Hannah@scrippshealth.org.

REFERENCES

1. Chua GT, Greenhawt M, Shaker M, Soller L, Abrams EM, Cameron SB, et al. The case for prompt salvage infant peanut oral immunotherapy following failed primary prevention. *J Allergy Clin Immunol Pract* 2022;10:2561-9.
2. Du Toit G, Roberts G, Sayre PH, Bahnson HT, Radulovic S, Santos AF, et al. Randomized trial of peanut consumption in infants at risk for peanut allergy. *N Engl J Med* 2015;372:803-13.
3. Togias A, Cooper SF, Acebal ML, Assa'ad A, Baker JR Jr, Beck LA, et al. Addendum guidelines for the prevention of peanut allergy in the United States: report of the National Institute of Allergy and Infectious Diseases-sponsored expert panel. *J Allergy Clin Immunol* 2017;139:29-44.
4. Fleischer DM, Chan ES, Venter C, Spergel JM, Abrams EM, Stukus D, et al. A consensus approach to the primary prevention of food allergy through nutrition: guidance from the American Academy of Allergy, Asthma, and Immunology; American College of Allergy, Asthma, and Immunology; and the Canadian Society for Allergy and Clinical Immunology. *J Allergy Clin Immunol Pract* 2021;9:22-43.e4.
5. Purington N, Chinthrajah RS, Long A, Sindher S, Andorf S, O'Laughlin K, et al. Eliciting dose and safety outcomes from a large dataset of standardized multiple food challenges. *Front Immunol* 2018;9:2057.
6. Soriano VX, Peters RL, Ponsonby AL, Dharmage SC, Perrett KP, Field MJ, et al. Earlier ingestion of peanut after changes to infant feeding guidelines: the EarlyNuts study. *J Allergy Clin Immunol* 2019;144:1327-35.e5.
7. Mullins RJ, Dear KBG, Tang MLK. Changes in Australian food anaphylaxis admission rates following introduction of updated allergy prevention guidelines. *J Allergy Clin Immunol* 2022;150:140-5.e1.

<https://doi.org/10.1016/j.jaip.2023.02.011>

Reply to "Peanut allergy prevention: A mother's perspective"



To the Editor:

We appreciate the correspondence from Wangberg¹ and her interest in our rostrum on management options for failed primary peanut allergy prevention. Our rostrum article discussed the rationale, latest evidence, and the benefits and risks of prompt infant oral immunotherapy (OIT) as a salvage for infants who fail primary food allergy prevention.²

The majority of countries with prevention guidelines permit a more open and fluid process,^{3,4} without a fixed quantity or frequency of particular allergens. Most do not specify a necessity for introduction to be emphasized more in any particular risk group, including the 2021 American Academy of Allergy, Asthma & Immunology; American College of Allergy, Asthma, and Immunology; and Canadian Society of Allergy and Clinical Immunology trisociety endorsed guidelines.⁴ Recent data from PreventADALL show that prevention effects can even be seen