

Prevention of Peanut Allergy

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Peanut allergy has increased significantly over the last several decades. Peanut is often severe and not outgrown. It is difficult to avoid because it is common to find peanut in baked goods, candy, ethnic food and even hidden in soups and flavorings. Peanut is the food most often responsible for a severe allergy reaction

or anaphylaxis and triggers most of the 150 food allergy deaths each year.

Good news for prevention of food allergy came along in 2015 when researchers from the U.K. published a landmark study about peanut allergy prevention titled “Randomized Trial of Peanut Consumption in Infants at Risk for Peanut Allergy” in the New England Journal of Medicine. Prior to the study, the researchers of the LEAP (Learning Early About Peanut) Study Team took note of a previous study suggesting infants in Israel had less peanut allergy than their counterparts in the U.K. The babies in Israel ate Bamba, a corn puff product made with peanut; the U.K. babies didn’t.

In the LEAP study, 640 infants age 4 to 11 months who came to an allergy clinic in the U.K. with severe eczema, egg allergy or both were randomized to avoid peanut or consume the equivalent of a teaspoon of peanut protein (2 grams) three times a week. Infants were stratified into two study cohorts based on either a negative peanut skin test wheal or a 1-4 mm wheal. Children with a wheal 5 mm or greater were excluded and assumed allergic. Infants randomized to consume peanut underwent a peanut challenge.

When the study participants turned 5 years of age, the peanut consumers stopped peanut for a month. A peanut challenge was then performed for consumers and non-consumers. The consumption group infants had significantly lower peanut allergy at 5 years of age. The skin test negative group had a relative risk reduction of peanut allergy prevalence of 86% ($p < 0.001$) and the skin test positive group had relative risk reduction of 70% ($p=.004$).

Over the next year, a second study was done, “Effect of Avoidance on Peanut Allergy after Early Peanut Consumption” and was referred to as the LEAP-on Study. The peanut consumers and avoiders all avoided peanut for a full year. A peanut challenge was then repeated in all and the peanut consumers had maintained tolerance.

This has led to the Addendum Guidelines for the Prevention of Peanut Allergy in the United States: Report of the NIAID, which the AAP also endorses.

Addendum Guideline 1 is for infants with severe eczema, egg allergy or both. Allergy testing is strongly advised prior

to peanut introduction. A board-certified allergist that evaluates and treats infants can perform skin testing and advise avoidance, supervised feeding in an office or graded office food challenge in a hospital setting. (Refer to guidelines on next page.)

Addendum Guideline 2 recommends for infants eating solid food with mild to moderate eczema, introduce age-appropriate peanut-containing food around 6 month of age at home.

Addendum Guideline 3 recommends for an infant with no eczema or food allergy, introduce -age-appropriate peanut-containing food in accordance of family preference and cultural practices.

By following these guidelines, an estimated 70 to 80 percent of peanut allergy could be prevented. This would cause a significant decrease in the morbidity and mortality of a medical condition that affects 1 to 2 percent of children in the U.S. Watch for further studies looking at cow milk and egg allergy prevention.

As Benjamin Franklin said, “An ounce of prevention is worth a pound of cure.”

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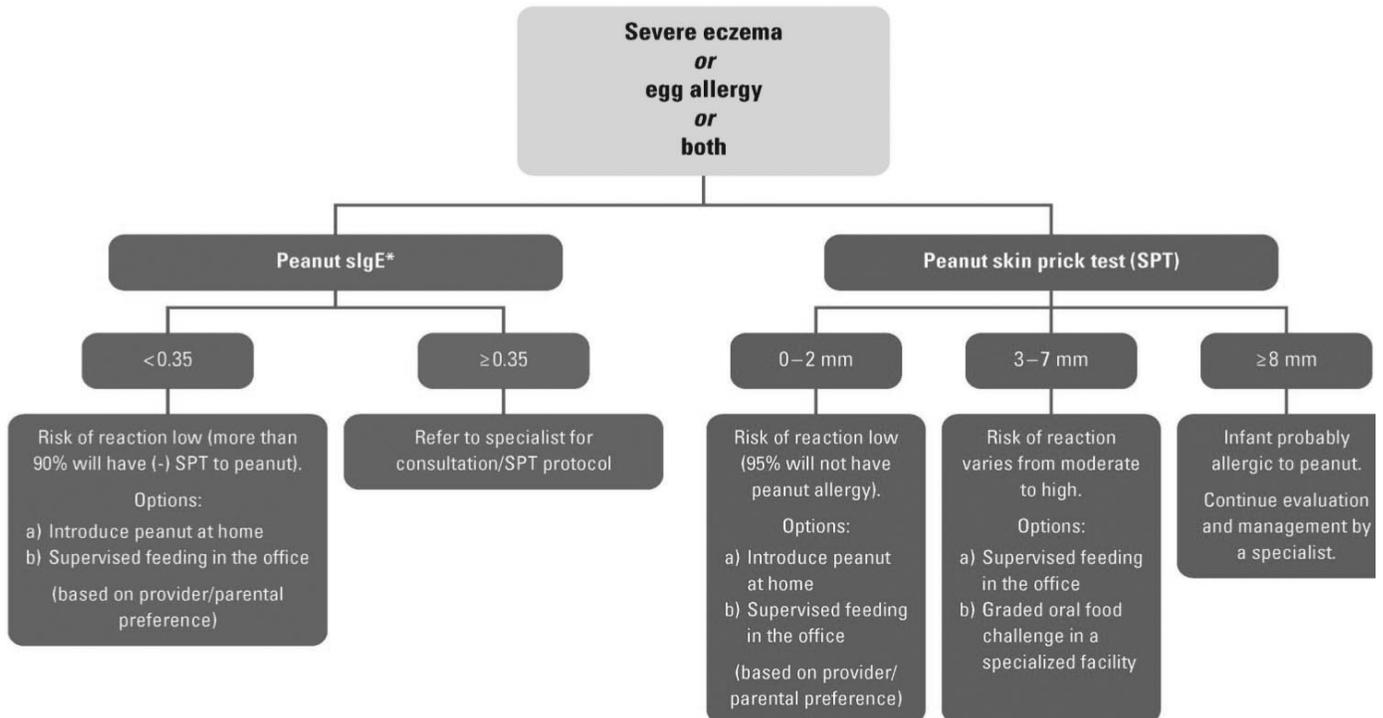
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Summary of Addendum Guidelines

Addendum Guideline	Infant Criteria	Recommendations	Earliest Age of Peanut Introduction
1	Severe eczema, egg allergy, or both	Strongly consider evaluation with peanut-specific IgE and/or skin prick test and, if necessary, an oral food challenge. Based on test results, introduce peanut-containing foods.	4 to 6 months
2	Mild to moderate eczema	Introduce peanut-containing foods.	Around 6 months
3	No eczema or any food allergy	Introduce peanut-containing foods.	Age-appropriate and in accordance with family preferences and cultural practices

Recommended Approaches for Evaluation of Children With Severe Eczema and/or Egg Allergy Before Peanut Introduction



*To minimize a delay in peanut introduction for children who may test negative, testing for peanut sIgE may be the preferred initial approach in certain healthcare settings. Food allergen panel testing or the addition of sIgE testing for foods other than peanut is not recommended due to poor positive predictive value.

View the guidelines at [http://www.annallergy.org/article/S1081-1206\(16\)31164-4/fulltext](http://www.annallergy.org/article/S1081-1206(16)31164-4/fulltext)