

Real-World Data Confirms that Introducing Peanuts Early Prevent Allergies

Researchers investigated whether new [public health](#) guidelines (2015 and 2017) issued in the United States (US), specifically those recommending the early introduction of peanuts in childhood diets, were associated with changed real-world rates of food allergies in children.

The study leveraged [electronic health record](#) data from tens of thousands of US children to compare allergy diagnoses before and after the 2015 and 2017 guidelines were published. Study findings revealed a significant decrease in the incidence of both peanut-specific and overall food allergies following the implementation of the new recommendations, providing real-world evidence supporting these policies' intended protective effect.



Study

The present study aims to address this knowledge gap and bolster public health efforts by leveraging electronic health record (EHR) data from the American Academy of Pediatrics Comparative Effectiveness Research through Collaborative Electronic Reporting (CER²), an extensive, multistate network of US pediatric [primary care](#) practices.

The study focused on data from children between the ages of zero to three years, subdividing participants into three distinct cohorts based on when children entered the [medical system](#) for primary care and using different minimum observation periods: 1. Preguidelines cohort – Entry between September 2012 and August 2014 with 2-year observation (n = 38,594), 2. Postguidelines cohort – Entry between September 2015 and August 2017 (after the initial 2015 guidelines, with 2-year observation, n = 46,680), and 3. Post-addendum guidelines cohort: Entry between February 2017 and January 2019 (after the 2017 addendum guidelines, which provided more specific dietary advice, using 1-year observation, n = 39,594).

Subsequent analyses compared the cumulative incidence (the rate of new [food allergy](#) diagnoses) of immunoglobulin E-mediated food allergy (IgE-FA), the most common type of food allergy identified across all investigated periods.

Study analyses included [univariable logistic regressions](#) (to compare the frequency of allergic reactions between subgroups before and after new guidelines), Cox proportional hazards modeling (to estimate allergy risk before and after new guidelines), and interrupted time series analysis (ITS, to evaluate the impact of new policies on IgE-FA-associated food allergy outcomes).

Results

The present study revealed a significant association between guideline publication and reduced frequency of IgE-FA-associated food allergies. Comparing the pre-guidelines cohort to the post-

addendum guidelines cohort (using the 1-year observation window), the cumulative incidence of peanut IgE-FA was observed to decline from 0.79% to only 0.45%, corresponding to an ~45% reduction in the risk of [diagnosis](#) (Hazard Ratio [HR] 0.55, $p < 0.0001$)

Notably, study outcomes demonstrated that these findings were not limited to only peanuts, with the incidence of any (pooled data across all [allergies](#)) IgE-mediated food allergy also falling from 1.46% (pre-guidelines) to 0.93% (post-addendum), equating to a 37% reduction in risk for developing any food allergy (HR 0.63, $p < 0.0001$).

However, when examining children with prior atopic dermatitis (a high-risk group), researchers found no significant reduction in [peanut allergy](#) risk. Unexpectedly, while the cumulative incidence of cow's milk allergy decreased, egg allergies demonstrated no such decline. On the contrary, as peanut allergies declined, egg allergy surpassed it to become the most commonly documented ("prevalent") food allergen in the post-guideline cohorts.

Concurrently, the diagnosis of [atopic dermatitis](#) (AD), a known risk factor for food allergies, was significantly observed to increase during the study period ($p < 0.0001$), an observation possibly reflecting earlier recognition of at-risk infants by pediatricians. The study also noted demographic shifts, with decreased representation of Black, Asian/Pacific Islander, and Hispanic children among those diagnosed with food allergies in post-guideline periods.

The [interrupted time](#) series analysis confirmed a significant decline in any food allergy diagnosis, but did not reach statistical significance for peanut allergy alone.

Conclusion

The present study is one of the first to provide methodologically robust, real-world evidence suggesting the public [health benefits](#) of the US's national shift in pediatric food allergy-associated advice may be occurring.

Study findings highlight that the early introduction guidelines of 2015 and 2017 were followed by a measurable and significant association with reduced new diagnoses of peanut and overall food allergies in US infants. However, researchers caution that this [observational evidence](#) shows association rather than proven causation.

The authors note these findings support the guidelines as a valuable step towards a healthy and [allergy-free childhood](#). Reductions were more modest than the 81% decrease in the controlled LEAP trial, suggesting an opportunity to strengthen real-world implementation efforts. Notably, the study period ended before the potential impacts of the 2021 guidelines could be assessed.

Source:

<https://www.news-medical.net/news/20251022/Can-introducing-peanuts-early-prevent-allergies-Real-world-data-confirms-it-helps.aspx>