

Peanut anaphylaxis declining in children, though overall rate of food-related anaphylaxis still a concern

Canadian study reports the rates of anaphylaxis among kids to 9 common food allergens

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Anaphylaxis to peanut has significantly decreased in children over the past six years, according to a new Canadian study that measured anaphylaxis rates for the nine most common food allergens.

“Of all food allergies, peanut allergy is the one most likely to cause anaphylaxis, a serious and potentially fatal type of allergic reaction,” says lead researcher Dr. Moshe Ben-Shoshan, a pediatric allergist and immunologist at the Research Institute of the McGill University Health Centre (RI-MUHC) and at the Montreal Children’s Hospital, and an assistant professor of Pediatrics at McGill University.

“Our study showed a significant decline in the number of children coming to the hospital with anaphylaxis to peanut. When we looked at these cases closely, we found that the rate of reactions in children with a known peanut allergy did not significantly change over the years; however, there was a significant decline in the rate of reactions for children with no known history of peanut allergy. Therefore, we believe it is possible that the current guidelines recommending early introduction of peanut are responsible for this decrease.”

The researchers collected data from 1,405 food-induced anaphylaxis cases seen at the Montreal Children’s Hospital (MCH) between 2011 and 2017, as part of the nationwide Cross-Canada Anaphylaxis REgistry (C-CARE) – a project of the Allergy, Genes and Environment Network (AllerGen).

Published in the [*Journal of Allergy and Clinical Immunology: In Practice*](#), this study reported on the changes in anaphylaxis rates to peanut, tree nut, milk, egg, soy, fish, shellfish, sesame, and wheat. Anaphylaxis was defined as a reaction affecting at least two organ systems and/or a sudden drop in blood pressure.

In the six-year period, anaphylactic reactions to tree nut significantly increased while anaphylactic reactions to nut – when it was not clear whether the trigger was peanut or tree nut – significantly decreased. There were no significant changes in rates of anaphylaxis over this time interval for other individual food allergens assessed.

“It’s possible that the increase in tree nut-induced reactions could be related to increased consumption of tree nuts in plant-based diets that are widely promoted for health benefits,” said study first-author Bruce Thomas Miles, an Engineering student at McGill University. “The increase may also be due to cross-contamination, which is still common within this food group, because tree nut allergy has not generated the same awareness, safety measures, and precautions as peanut allergy.”

Despite increased public awareness of food allergies, overall rates of food-induced anaphylaxis have not significantly decreased in recent years, the authors noted.

“When comparing the rates of the years 2011 through 2015, one finds no significant increases in all food-induced reactions among Emergency Department visits at the MCH. However, between 2015 and 2017 there was a significant increase of 6.32%,” commented Dr. Ben-Shoshan.

“This is concerning and indicates that ongoing education and vigilance is required to ensure that children, parents and caregivers understand the importance of always carrying an epinephrine autoinjector (EAI), knowing how to correctly use their EAI, and knowing what to do in case of a severe allergic reaction.”

About AllerGen Inc. (Allergy, Genes and Environment Network)

[AllerGen Inc.](#) is a former Networks of Centres of Excellence (NCE) national research network dedicated to improving the quality of life of people suffering from allergic and related immune diseases. Funded by the Government of Canada from 2005 to 2019, AllerGen is hosted at McMaster University in Hamilton, ON.

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