

Is it a peanut or a tree nut? Half of those with allergies aren't sure

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Adults and children in a recent study could correctly identify, on average, fewer than half of an assortment of the peanuts and tree nuts that are among the most common food allergens in the United States.

Parents of children with peanut and tree-nut allergies did no better at identifying the samples in the survey than did parents of children without this [food allergy](#). And only half of participants with a peanut or tree-nut allergy correctly identified all forms of the nuts to which they were allergic.

The 19 samples included various nuts in and out of the shell, and some were chopped, sliced or diced just as they appear on grocery store shelves.

The findings suggest that education about the appearance of all forms of peanuts and tree nuts is an important follow-up to the diagnosis of any kind of nut allergy, researchers say. An estimated 1.2 to 1.4 percent of Americans are allergic to peanuts or tree nuts.

"When we ask patients to avoid peanuts and tree nuts, we shouldn't assume patients know what they're looking for, because they may not. It's worthwhile to do some education about what a tree nut is, what a peanut is, and what they all look like," said Todd Hostetler, assistant professor of pediatrics and internal medicine at Ohio State University and lead author of the study.

The study included samples of peanuts as well as cashews, Brazil nuts, pistachios, almonds, [pecans](#), walnuts, hazelnuts, Macadamia nuts and pine nuts.

The research is published in a recent issue of the journal *Annals of Allergy, Asthma & Immunology*.

Nuts are the leading cause of death from food-induced allergic reactions, so avoiding eating them is the primary way to manage this allergy.

Though many people might experience disagreeable symptoms when they eat peanuts or tree nuts, those diagnosed with the allergy are susceptible to life-threatening anaphylaxis if they ingest these foods. Anaphylaxis most commonly involves itchy hives on the skin but can rapidly progress to include coughing, wheezing, shortness of breath and swelling of the airway as well as cardiovascular problems and abnormally low blood pressure.

People who are diagnosed with an allergy to one kind of nut are generally advised to avoid eating all nuts because of their similar appearance and the likelihood that they will be mixed together, said Hostetler, an allergist/immunologist who treats patients at Nationwide Children's Hospital and Wexner Medical Center at Ohio State.

A total of 1,105 people – 649 adults and 456 children – participated in the study, which was set up for eight days outside a popular exhibit at the Columbus science museum COSI in the spring of 2010.

Participants completed questionnaires about their demographic information and any personal history of an allergy to peanuts or tree nuts. Those age 15 or older were asked to complete family histories of this food allergy and document any current or previous jobs in child care or teaching, food preparation or serving, or in a patient-care setting.

Participants then were asked to visually identify each of 19 nuts in a display box by writing the name of the food in a corresponding area on an answer sheet.

On average, the participants correctly identified 8.4, or 44.2 percent, of the nuts. Adults did better than children, averaging 11.1 correct answers compared to 4.6 correct, respectively. And the older the participant, the better the outcome: Those age 51 or older got the most right, with an average correct number of 13 out of the 19 nuts displayed.

Peanuts were the most commonly identified item, and the shell made a significant difference: Almost 95 percent of participants correctly identified peanuts in a shell, compared to 80.5 percent who could identify a peanut outside the shell. Among tree nuts, cashews without a shell were the most commonly recognized, and hazelnuts in the shell were the least identifiable.

Only 21 participants, or 1.9 percent of the study population, correctly identified all 19 forms of nuts.

Twenty-seven, or 2.4 percent, of participants reported that they had a peanut or tree-nut allergy. There was no statistical difference between their average number of correct answers vs. correct answers by those who did not have allergies. Though being a parent was associated with better overall performance on the survey, parents of allergic children did not perform any better than did parents of nonallergic kids.

Participants who had backgrounds in child care, food preparation or a medical field did not do significantly better than others at identifying the nuts.

"Overall, this study found that both adults and children are not reliable at visually identifying most nuts. Although adults performed better than

children, they still answered only an average of 58 percent correct," Hostetler said.

"On the one hand, you'd like to think adults would be better at this, but I look at myself before the study and realize I didn't know all of them, either. Perhaps the more familiar people are with what peanuts and tree nuts look like, the better they'll be at successfully avoiding them when needed."

Provided by The Ohio State University

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