Mattel Children's Hospital UCLA

Diagnosing and treating a growing number of children with food allergies

Over the past 15 years, food allergies and associated anaphylaxis in children have risen by as much as 50 percent. About 6 million — or 8 percent — of children in the United States have some form of food allergy, with children 4 years of age or younger affected the most. Eight types of foods account for about 90 percent of all food-allergic reactions: milk, eggs, peanuts, tree nuts (including walnuts, almonds, cashews, pistachios and pecans), wheat, soy, fish and shellfish.

A food allergy is an abnormal immune response to certain foods, in which the immune system produces IgE antibodies that are not naturally present in the body. The allergic response can range from a minimal reaction, such as hives, to itching in the mouth, trouble breathing, stomach pains, vomiting and diarrhea. Anaphylaxis is among the most severe allergic reactions. It can cause respiratory, gastrointestinal and cardiovascular symptoms and can result in death.

Food allergy is not the same as food intolerance, which is often less serious and is usually limited to digestive symptoms. Food allergies are caused by an immune response to the allergen — all other reactions to foods are considered to be food intolerances. Adverse food reactions should be accurately diagnosed to define the health risk involved and avoid needless restrictions of the child's diet.

Early testing and careful management are vital

"While avoidance of food allergens has long been the standard approach to caring for children with food allergies, desensitization continues to be studied as an immunotherapeutic treatment," states Maria I. Garcia-Lloret, MD, interim chief of the Division of Pediatric Allergy & Immunology and director of the UCLA Food Allergy Clinic. "UCLA is committed to remaining at the forefront as new food-allergy treatments enter the clinical arena."

Early, accurate testing and careful management are among the keys to producing better outcomes in children with food allergies. UCLA is one of the few centers to offer double-blind, placebo-controlled food challenge testing and the program includes dietitians who are available to offer guidance in maintaining nutritional balance despite dietary restrictions.

"Food allergies are definitely on the rise, and the diagnosis and management of food allergies are complex," says Dr. Garcia-Lloret. "Patients need a devoted team of specialists with broad expertise to provide optimal treatment."

Physicians at the UCLA Food Allergy Clinic offer consultative, diagnostic and therapeutic services for children with food allergy and related problems. The clinic brings together allergists, gastroenterologists, immunologists and dietitians to diagnose and treat all disorders, from common food allergies to highly challenging cases. This treatment team works collaboratively to develop individualized care plans to meet each child's medical needs.

The gold standard in diagnosis: double-blind placebo-controlled food challenge

Misdiagnosis of allergies is a common problem, and blood tests are often a better indication to rule out allergies than to confirm one.

In addition to frequently used skin, blood and diet-elimination testing, the allergy team at UCLA uses the double-blind placebo-controlled food challenge, the gold standard for diagnosing a food allergy. While other tests can establish increased probability, only the controlled food challenge can confirm or rule out a food allergy with certainty.

At UCLA, the food challenge procedure is performed with strict protocols and under close medical supervision.

Early intervention shown to reduce peanut allergy

In a recent multi-center study in the UK, early exposure to peanuts produced an 81 percent reduction in peanut allergy among high-risk children. Over 600 children between 4 and 11 months of age were randomized to either consume or avoid peanuts until age 5. Of the children who avoided peanut, 17 percent developed peanut allergy by age 5 compared to only three percent in the peanut-consuming group.

UCLA pediatric allergy and immunology specialists offer testing and consultation for high-peanut-allergy-risk babies — such as those with atopic dermatitis (eczema) or a family history of peanut allergy — on beginning an oral immunotherapy program by regularly consuming peanuts. Children under 2 years of age are first evaluated with a skin test and followed up with an oral food challenge when necessary to ensure that the child is not already allergic to the peanut protein.

Cases of eosinophilic esophagitis on the rise

Eosinophilic esophagitis (EoE) is a chronic immune system disease believed to be triggered mainly by food allergens. EoE leads to a buildup of white blood cells that inflames and damages the esophageal tissue. Often confused with acid reflux disease, eosinophilic esophagitis may cause scarring or narrowing of the esophagus and lead to difficulty swallowing or food impaction. A biopsy can provide a definitive diagnosis. At UCLA, allergists work closely with gastroenterologists to diagnose and treat EoE. About 90 percent of children with EoE respond to treatment with an elemental diet (a base liquid usually used for infants). About 65 percent of patients will improve if put on a six-food-elimination diet (dairy, soy, wheat, eggs, peanuts and shellfish), with these foods slowly reintroduced to see which cause an allergic response. Anti-inflammatories and steroids can also be prescribed to ease some symptoms.

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