

Transcript Details

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Asked & Answered: Top Challenges in Food Allergy Management

Announcer: This is ReachMD. The following episode in the series, Cracking the Code on Peanut Allergies, is brought to you through an independent educational grant from Aimmune Therapeutics. Here is your host, Dr. Jennifer Caudle

Dr. Caudle: Whether it's featured on the news or becoming increasingly prominent in your own practice, peanut allergies are very much in the public eye now, and that is no coincidence. In children, peanut allergies have increased by 21% since 2010, and the trend is even rising. So, how can physicians stay ahead of the curve and overcome the special diagnostic and care challenges for these patients?

This is "Cracking the Code on Peanut Allergies," and I am your host, Dr. Jennifer Caudle. Joining me to review the current challenges and opportunities for managing food allergies is Dr. David Stukus, Associate Professor of Pediatrics in the Division of Allergy and Immunology at Nationwide Children's Hospital and The Ohio State College of Medicine. Dr. Stukus, welcome to the program.

Dr. Stukus: Thank you very much, Dr. Caudle. It's a pleasure to be here.

Dr. Caudle: So, why don't we start with the broad scope question that's on a lot of people's minds, which is to explain why food, and, in particular, peanut allergies, are on the rise? You know, how do you approach this question with your colleagues and your patients respectively?

Dr. Stukus: Absolutely. This is a question that I receive pretty much after every talk that I give and with families on a daily basis. I like to start with really defining what a food allergy is because I think that clarifies things for a lot of folks, then we can get into some of the nuances as to why we are seeing a rise, and one of the things I start with is, unfortunately, there is no easy answer. There are a lot of theories as to why we are seeing a rise in food allergy, but it seems like it is probably a very complex connection between genetic predisposition – allergic kids are often born from allergic parents – and then potentially early life exposures or lack of exposures, that are causing this rise in food allergies that we are seeing. One of the prevalent theories is known as the hygiene hypothesis, and what this has shown over the last couple of decades is that infants and young children who grow up in more clean environments tend to have more allergies in general. This can include hay fever and allergies to pollen as well as asthma and eczema, whereas infants and children who grow up in farming environments where they are exposed to lots of viruses, bacteria, and particularly farm animals and all of the microorganisms that surround them, have much lower rates of allergy. So, this has been borne out in Amish societies and various populations throughout the world, but that doesn't explain all of it. Another factor is potentially the timing of introduction and when we feed allergenic foods to young infants. We used to recommend avoidance of highly allergenic foods, such as milk, egg, wheat, soy, peanuts, tree nuts, and shellfish until children were older, greater than a year of age or so, and we have had excellent evidence over the last several years that have actually shown the opposite, and if we feed and introduce foods to infants early and keep it in their diet, that that can dramatically lower their rates of allergy. So, as you can see, there is a complicated sort of milieu of different things that may be going into this equation as to why we are seeing such an increase in allergies.

Dr. Caudle: That's very interesting, and I see exactly what you mean. It's multifactorial, and there are a lot of potential, you know, factors involved in that. You know, moving on, another extension of the why question at a doctor-patient level is, why me? or Why my child? When it comes to discovering a food hypersensitivity. So, how do you counsel your patients and families through that adjustment?

Dr. Stukus: First and foremost, I say very clearly, because the evidence will support this, "It's not your fault." There are so many parents out there, particularly mothers, who carry guilt, unnecessary guilt, that they think something they did, while they were pregnant or breastfeeding or early in life, caused their child to develop a food allergy. That's simply not the case. There have been studies that have shown associations with mothers who potentially eat more nuts and peanut during pregnancy, their infants may have less rates of

allergy, but it certainly is not a causal effect. So, I always start with that, and I tell them, "There's nothing you could have done that would've caused this," and then I walk through some of the genetic tendencies where allergic parents tend to have more allergic children. We talk about how we don't have many answers, and I try to remove all that loaded guilt from them.

Dr. Caudle: Right, I'm sure that's very helpful to parents who may be worrying about some of these issues. You know, we know that this diagnosis carries a pretty heavy burden for patients and families going forward, but how, you know, can you elaborate a little bit on these impacts that patients and families feel?

Dr. Stukus: The burden changes based upon age. When we're dealing with infants and toddlers, they naturally explore the environments with their hands and their mouths, so you have to worry about them accidentally putting things in their mouth and causing a reaction. We talk about adolescents and teenagers - we worry about them, you know, the peer pressure and not speaking up when they're with friends and potentially eating something that they're allergic to because they don't want to speak up or stand out. So, if you have a food allergy, then you need to communicate with all food handlers. So, for young children, that would entail school personnel, caregivers, babysitters, grandparents, anybody who's watching them when parents aren't around. When you're at restaurants, you have to communicate effectively with food handlers, waitresses, waiters, even the chef and the food preparation staff. And then when you're eating products that are packaged, you need to read all of the labels to make sure that you're not accidentally eating the allergen that you're allergic to. This can be extended because cross-contact and even trace amounts can potentially cause even severe reactions in some individuals. There's really no safe amount that people with a food allergy can really eat. There's potentially some individual variances in that, but when we counsel everybody at large, we need to make sure that they're aware when they go to bakeries and even ice cream parlors that they have to use separate scoopers or make sure that the scooper is washed with soap and water to remove any potential cross-contact. So, as you can see just by me describing the burden of trying to avoid this, it can be a very challenging thing for a lot of families to deal with.

Dr. Caudle: So, I want to focus on the challenges clinicians face in diagnosing food allergies, but just to preface, can you walk us through your diagnostic work-up and the signs and symptoms that you look for?

Dr. Stukus: Unfortunately, health care providers and clinicians are somewhat responsible for this increase in food allergy, and the reason for that is the overuse of testing. We will talk about the different testing modalities in a second, but everything starts with a clinical history. If you are eating a food without having any symptoms, you're not allergic to that food, and there's no indication to perform IgE testing. So, a detailed history is the most important test to help determine if somebody has a food allergy, going through specifics such as, "What are your concerns? What are the symptoms that occurred? What was the timing of onset in relation to the food? What foods were eaten at the time that the symptoms occurred? How long do symptoms last for? What treatment was necessary to make the symptoms go away? Has this happened at other times when the food wasn't ingested?" So on and so forth... Then, after a very detailed history, if the clinical history suggests an IgE-mediated food allergy, we have three diagnostic tests that we can do, one of which is in the office setting. It's called an IgE skin prick test where we take a drop of liquid allergy, we apply it to the back or forearm, and we scratch through the top part of the skin to introduce that allergen to the allergy cell, known as mast cells, in the skin. If that person has IgE specific to that allergen, let's say peanuts, within 15 minutes or so they will release histamine, which causes a localized hive. The size of the bump and redness can help indicate the likelihood that they are allergic. In addition, there's also blood testing available where you can measure specific levels of food IgE in the bloodstream. This is just through a routine venipuncture, and you can measure one or several foods at once if you choose, although that has pitfalls with it, and what this does is it offers you a range, essentially from 0 up to about 100. The higher the level helps indicate the likelihood that a food allergy is present. Now, this is where we have pitfalls in our testing. Unfortunately, both the skin prick and the blood IgE tests are associated with high rates of falsely elevated results. This often leads to overdiagnosis, missed diagnosis of food allergy, and overinterpretation. There are a lot of children out there who are avoiding foods without due cause because a test result was misinterpreted as them having a food allergy. I like to half joke that these are not pregnancy tests. The IgE tests are often misinterpreted as a yes or no answer or saying that, "Yes, you have a food allergy," but that's not the case. It only indicates the likelihood. Another common misconception is that the size of the IgE test result indicates the severity of the food allergy, which is not the case. There are many patients out there that have very large IgE results, but they only have mild symptoms, and vice versa, those who have very small IgE results but have life-threatening reactions when they ingest the food. So, these are some of the common misconceptions and pitfalls. And lastly, the gold standard way to determine if somebody has a food allergy is the physician-supervised oral food challenge. This is something as a pediatric allergist that I do on a routine basis, and what happens is, if you feel that somebody, if the history is indeterminate or the testing is indeterminate or if somebody has a prior food allergy diagnosis and subsequent testing indicates that they may now have tolerance, we have them come in the office in a supervised setting, and we give them very small amounts of the food, and we gradually increase it through a series of six to ten steps, and while they're eating that food, they're monitored very closely to see if they have any objective signs of an allergic reaction, and bottom line is if they can ingest one to two servings or about six to ten grams of that food without having any symptoms, it's extremely unlikely that

they're actually allergic to that food.

Dr. Caudle: Wonderful, wonderful. If we now shift over to the management side, do you encounter any common limitations or awareness gaps around designing an effective care approach for these patients?

Dr. Stukus: Yeah, I think the most important element of helping patients and families manage food allergy and peanut allergy is to make sure they have proper evidence-based information at the time of diagnosis. There is a lot of misinformation circulating from health care providers, online resources, where patients put undue limitations on themselves based upon their food allergy diagnosis, and they really don't have a good understanding of risks from their exposures. So, for example, our avoidance strategy should really focus on trying to prevent ingestion of the food allergy. The ingestion is going to be associated with the highest risk for having a reaction and particularly a severe reaction known as anaphylaxis. Casual exposure to things like peanut by being in the same room with it, by flying on commercial airlines, by going to school, is very unlikely to cause a severe anaphylactic reaction.

Dr. Caudle: That's very helpful advice, absolutely. You've also given us a clear sense for why prevention of exposure and readiness to respond are so important. What strategies have you found to be most effective for helping patients prepare?

Dr. Stukus: I try my best to provide anticipatory guidance for patients based upon their past history, their concerns that I ask about, and then the age of their child because I think food allergy management really changes based upon age. We need to worry about younger infants and toddlers exploring the environments with their mouths and hands, whereas we need to worry about adolescents not having their epinephrine auto-injector with them and not communicating with food handlers because of peer pressure and things like that, so it really is an individualized approach. I try to break it down as well to talk about the true risks from reaction and focus most efforts on avoidance of ingestion. Casual exposures to things like peanut occur in the environment on a regular basis with people with allergies, and it rarely causes a reaction, especially something severe like anaphylaxis, so I want families to know that, "Yes, your child can play Little League and go to the movie theaters and go to the ball park and attend sleepovers," but in order to help prepare them to avoid accidental ingestion, it really breaks down to communication and then preparation. With communication, I walk them through scenarios, such as discussing a food allergy with food handlers at restaurants and bakeries and ice cream parlors as well as with caregivers at school, babysitters, even relatives who may be watching a child overnight or for any period of time. And then when it comes to preparation, I talk about having medications available, particularly epinephrine auto-injectors, because accidental ingestions do occur, and a family should be prepared to recognize the signs and symptoms of anaphylaxis and then treat it properly should it occur, and unfortunately we know through multiple different studies that families oftentimes don't have their epinephrine with them at the time of a reaction, so that's something I counsel on at all times.

Dr. Caudle: Wonderful, quite excellent. You know, this has really been a great way to round out our discussion on the challenges physicians face when tackling the growing prevalence of peanut allergies, and I'd like to thank you, Dr. Stukus, for joining me today. It was really great having you on the program. Thank you for joining us.

Dr. Stukus: Oh, it was my pleasure. Thank you so much.

Announcer: The preceding program was brought to you through an independent educational grant from Aimmune Therapeutics. To access other episodes in this series, visit ReachMD.com-slash-PeanutAllergies. This is ReachMD. Be Part of the Knowledge.

Aimmune is a clinical-stage biopharmaceutical company developing desensitization treatments to help protect people with food allergies from the potentially life-threatening consequences of accidental exposure. For more information, visit www.aimmune.com