

### Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: <https://reachmd.com/programs/hot-topics-in-allergy/are-the-common-food-allergens-changing/3788/>

### ReachMD

www.reachmd.com  
info@reachmd.com  
(866) 423-7849

---

Are the Common Food Allergens Changing?

### ARE COMMON FOOD ALLERGENS CHANGING

You are listening to ReachMD, The Channel for Medical Professionals. Welcome to Hot Topics in Allergy presented by the American College Of Allergy, Asthma, and Immunology. Your host is Dr. Ketan Sheth, Medical Director of the Lafayette at Allergy and Asthma Clinic in Lafayette at Indiana.

Peanuts, tree nuts, and shellfish are familiar allergens, but there are also new food allergens that are becoming prevalent in American society. Are there ways we can prevent food allergies from developing. Joining us to discuss are the common food allergens changing is Dr. Sami Bahna. Dr. Bahna is Professor of Pediatrics and Medicine as well as Chief of the Allergy and Immunology section at Louisiana State University Health Sciences Center.

#### DR. KETAN SHETH:

Welcome Dr. Bahna.

#### DR. SAMI BAHNA:

Thank you.

#### DR. KETAN SHETH:

Let's start with how is food allergy changing?

#### DR. SAMI BAHNA:

I think it's changing both in quality and the quantity, meaning, in the type as well as in the numbers and the numbers definitely, there are more and more allergies of every type including LF food allergies as well. So this is not surprising. Particularly, people are eating more and we are aware of the pandemic of overweight or obesity, but also people eat outside a mixture of foods. There are many ingredients in it that they may not be aware of the component and mixing of foods and hidden foods and additives, so there is a good reason that they are increasing, this is regarding the quantity. Regarding the quality, people are eating more snacks, so we find peanuts. The

consumption of peanuts in general is increasing year after year. There is more and more popularity about fish and shellfish. It is a delicious food, but also nutritious food and these are strong allergens. Both the seafood and fish, and the peanuts are known to be immunologically strong.

**DR. KETAN SHETH:**

What are some of the other major allergens that cause food allergy?

**DR. SAMI BAHNA:**

Definitely, in infants, milk allergy is still the top, because it is the first foreign protein that enters the body of the baby and also it enters in large quantities. Babies drink a few bottles of a formula a day and milk is known to have at least 4 individual protein fractions that each of them can act as an allergen. So milk is still common in infants. Adults don't drink a lot of milk, so it is not at the top. In younger children, egg comes next right away whereas in adults, you will find the tree nuts and fish and shellfish is more predominant.

**DR. KETAN SHETH:**

What about this idea that in some places in the world, they eat some of the same foods, but they don't have as much allergy and I am thinking peanuts for instance, you know in China, I think it's a large part of the diet, what's the difference, what's going on here in the US.

**DR. SAMI BAHNA:**

Most probably, both genetic or racial differences as well as in the type of the food being consumed. As you mentioned, the typical example is peanuts. In the Far East, they are consuming a lot of peanuts, but primarily boiled and boiling had been shown in the laboratory to reduce the allergenicity or at least to maintain it at the low level whereas roasting increases it by allowing certain hidden allergenic or antigenic determinants, which we call epitopes that were originally hidden in the native of raw food, then become exposed by roasting, so that's one of the reasons, so the method of processing has something to do with it.

**DR. KETAN SHETH:**

What about some of the people who may have an allergen the first time that they eat something. Does that occur or do they have to eat it once before.

**DR. SAMI BAHNA:**

We know that the immune system has to be sensitized first, therefore there must be a previous exposure that made the predisposed person for allergy to produce IgE antibodies, and on reexposure, if there are sufficient antibodies, there would be reaction. But definitely, there are people truthfully, they got a reaction from the first exposure, this means that they were most probably exposed without their knowledge. For example, there are many people who serve food by touching or by being in the neighborhood in a factory and they never eat that and the first time they eat it, they get a reaction. This means they have been sensitized by a route different from eating, by touching or by inhalation. There are also babies who are born already sensitized, meaning their blood has antibodies, and this area

although it is controversial whether the maternal diet affects the newborn, I think it does. I have encountered several instances where the mother is sure she never gave something with egg before that and yet the reaction is severe. I assume that the baby was sensitized in utero or through the mammary gland which is much more known, whatever the mother eats, part of it will be incompletely digested and will go through the circulation and some of it is secreted in the breast milk and the baby may react to that by manipulating the mothers diet, we found the baby became fine.

**DR. KETAN SHETH:**

Are other things being blamed on food allergies, other stomach disorders, GI disorders.

**DR. SAMI BAHNA:**

Oh yes, a lot. Food allergy is the most commonly blamed for our ailments. As you know, allergy in general is a common word among the public. They just throw any undesirable reaction to anything whether it's the food or a drug. They call "I am allergic to that". The typical example is lactose intolerance, which is very common particularly in certain ethnic groups and certain racial groups. The person will not be able to digest the sugar of the milk and will get gases, ballottement, sometimes vomiting, loose bowel movement, and many people think that is allergy whereas it is an enzyme deficiency. This is a benign condition; it would not be life threatening like allergy can. So this is one of the typical manifestations. Another thing is the people who can eat fish that was allowed to accumulate some bacteria before it is frozen immediately and the bacteria can digest the muscle of the fish and change its histidine to histamine, and the person when he eats that food, histamine which is heat resistant can just cause a reaction very similar to a similar release from inside the body, and there are several other examples. People can eat inappropriate food and get vomiting or abdominal pain, and they think it is allergy whereas it is due to irritation for example. People who have gastrointestinal disorders in general whether it is colitis, spastic colon, Crohn's disease, certain foods they cannot eat and it is not due to allergy, but the digestive system is incapable to handle it.

**DR. KETAN SHETH:**

If you are just tuning in, you are listening to Hot Topics in Allergy on ReachMD, The Channel for Medical Professionals. I am your host, Dr. Ketan Sheth, and joining me today to discuss "Are Common Food Allergens Changing" is Dr. Sami Bahna, Professor of Pediatrics and Medicine as well as Chief of the Allergy and Immunology section at Louisiana State University Health Sciences Center.

Well, let's talk a little bit about diagnostic testing or what can people do to figure out if they do have food allergies.

**DR. SAMI BAHNA:**

Thank you. This is a very good question. Since we mentioned that people often misdiagnose food allergy and they claim it more than necessary. First the nature of the manifestation, if the person eats something and within minute is going to get hives or difficulty in breathing or swelling in the face or in the throat or immediate vomiting or diarrhea, most probably this is due to allergy to that food, so the history is very important and some people experience this and can diagnose it right, every time they eat a food, they get a few hives and itching, that's clear. But often the patient does not know that they have food allergy, they come with a rash or with gastrointestinal trouble and they don't know, so the experienced physician can take a detailed history in a way similar to a detective actually to figure out the relationship of circumstances, not just the food they are eating, but some other things, and the nature of the symptoms and the cause. Often this may not yield much, so we have the allergy skin testing or blood testing. Allergy skin testing is with appropriate number of food extracts including those that are suspected and the other possible foods in addition to that or the blood testing. The skin testing in my opinion and from the scientific point of view is much more reliable because it is a biologic test. A drop of extract of the food or even a prick of the food, the natural food, and put it on the skin with a slight prick to expose the mast cells in the skin. If that food

antigen met its specific antibody, the allergy mast cell will produce the histamine and cause vasodilation causing the redness and swelling and irritation of the nerve ending that is the itching in the spot. This is a biologic test mimicking in a way, many would miss it, the biology of the natural event. Whereas the blood test, which is the specific IgE test is a sort of passive test, which is looking for antibodies to foods, but these antibodies are in the serum in the circulation not fixed on the mast cell, so it is not as biologic as the skin test. Of these tests, neither of them is 100% reliable or what they indicate that the person is sensitized, meaning has IgE antibodies; the higher the level of IgE antibody, the more likely that this food will be truly offending allergen. Verification then would come, could the person may be positive to several foods where as in reality the person may be allergic to 1 to 3 foods in most of the cases. So challenge testing cautiously preferably in blind unbiased med way will identify the truly offending food and that the person can be relieved from avoiding some foods that the patient reacted by skin test or the blood test, but not clinically relevant.

**DR. KETAN SHETH:**

I would like to thank my guest from Louisiana State University Health Sciences Center, Dr. Sami Bahna. Dr. Bahna thank you very much for being our guest this week on Hot Topics in Allergy.

**DR. SAMI BAHNA:**

Thank you Dr. Sheth, it was a pleasure for me.

You have been listening to Hot Topics in Allergy. The show has been presented by the American College of Allergy, Asthma, and Immunology. For more information on the ACAAI, please visit [acaai.org](http://acaai.org). For more information about this or any other show, please visit [reachmd.com](http://reachmd.com), which now features on-demand podcasts. Thank you for listening.

You are listening to ReachMD XM 160, The Channel for Medical Professionals. This is Dr. Bruce Bloom, join me and my guest, Dr. Denise Faustman from Harvard Medical School and the Director of the Immunobiology Lab at Mass General Hospital, as we talk about a potential cure for type 1 diabetes. Download complete program information, live streaming, on-demand podcasts, and free CME at [reachmd.com](http://reachmd.com). ReachMD online, on-demand, and on air at XM 160.