

## **Tapescript**

### ***Why are food allergies on the rise and is a cure on the horizon? (Interview with Kari Nadeau)***

(I=Interviewer; KN=Kari Nadeau)

**I:** Doctor Kari Nadeau, you're chair of the Department of Environmental Health at Harvard School of Public Health and you practice allergy, asthma and immunology in children and adults. You're also the author of the book, "The End of Food Allergy". First of all, can we distinguish between a food allergy and a food sensitivity? What's the difference there?

**KN:** So, a food allergy is a disease in which when you bite into a food within two hours, you can get hives or stomach ache or, or breathing issues. And the reason behind that allergy, you have a preformed molecule in your body called IgE. That is like the match that lights the fire that within two hours after eating a food, no matter what dose really, you can actually have a reaction. What's causing that to happen is a protein and these proteins are typically in items like shrimp or milk or nuts or seeds. And at any point in life, if you eat that food, you will have a reaction with the food sensitivity that's different. When you eat a food, you could have bloating, or you can have a headache or you can have a stomach ache that can happen at any point in time, not within two hours. And in addition, a food sensitivity can vary over someone's lifetime and it's not caused by a specific molecule called IgE in your body.

**I:** What is going on with peanuts? Why are they such common allergy?

**KN:** We think that in certain countries, peanut is definitely more frequently the food allergen in that population, for example, in Australia, the UK as well as the States. However, in other countries like Italy or like Norway, their allergies are to hazelnut or walnut. And then in other countries, their major allergen is milk, for example, in China or in Japan. Why is there this country to country-to-country

difference? My colleagues in King's College, London and Guy's and St Thomas' actually found that when they dusted up and when they vacuumed up homes, they could find the peanut dust in the air and the more peanut dust in the air and the more skin breakdown there was in that family, the increased risk of peanut was in that family. So, we think that to some degree, the environment and the exposures are inducing peanut allergies in those countries. However, in other countries, they have different things on the breakfast table, for example. And so, their dust might have hazelnut in it.

**I:** Do we know what proportion of people suffer from allergies like this? And, and perhaps it changes country to country.

**KN:** So, for example, in the States, it's about one in 12 children in every classroom have a doctor's definition of food allergy in adults. We think that approximately one in 31 in 40 adults have a doctor's diagnosis with food allergies and that's probably due to two things. One is that it's less likely now that children will outgrow their food allergies. So, more adults have them. But in addition, more adults compared to, let's say, 10 years ago are acquiring new food allergies for which they did not have before.