

Molecular-based Allergy Diagnostics

...could it change your life?

It did for Eric...

“It was December 22, 1996 – I remember the date exactly,” said Eric’s Mom Cindy. “Eric was just five years old.”

It started with a reaction to cashews and a visit to the emergency room, the end result was a diagnosis of allergy to cashew nuts, but with risk for anaphylaxis to other nuts including peanuts at the age of 5. Eric was sent home with an EpiPen® and told to avoid all nuts and peanuts. The anxiety for both Eric and his family was immense; this diagnosis meant always being on the lookout for potential allergy risks, careful examination of food labels, anxiety eating out at restaurants and incessant worry when Eric would stay with family or friends.

And so began Cindy’s personal quest to learn everything she could about peanut and nut allergies. “I read anything I could get my hands on, and did lots of research,” said Cindy.


Since Eric’s initial anaphylactic reaction that brought him to the emergency room at age five was only to cashew, Eric’s parents always questioned whether Eric actually had a “true” allergy to all nuts and peanuts. Some years later, Eric’s mother Cindy heard about Molecular-based Allergy Diagnostic testing and after researching this new type of serum-based allergy testing, Eric had his blood drawn. The results revealed that Eric was positive for the peanut components of Ara h 8, a component cross reactive with birch and while the specific components to peanut, the stable storage proteins of peanut Ara h 1, Ara h 2 and Ara h 3 were negative. This led them to an Allergist who, after seeing Eric’s Molecular-based Allergy test results decided to proceed with an oral food challenge to the peanut in a controlled medical environment. Eric passed the oral challenge and the doctor concluded that Eric did not have a true peanut allergy.



For 17 years, Eric had been living with what was thought to have been life-threatening allergies to peanuts as well as tree nuts. “While he continues to avoid all tree nuts, having an accurate peanut result has been life altering,” said Cindy.

“Eric is able to go to a ballgame without worry. He no longer needs to worry if people on flights are eating peanuts. He can relax when his roommates enjoy their peanut butter toast. When we travel in the U.S. where peanut oil is prevalent for frying, he can eat those foods”.

“I’m no longer worried about peanuts,” said Eric.



The World Allergy Organization 2013 consensus document* states:

Molecular-based allergy (MA) diagnostics allows for an increased accuracy in allergy diagnosis and plays an important role in three key aspects of allergy diagnosis:

- Resolving genuine versus cross-reactive sensitization, thereby improving the understanding of triggering allergens;
- Assessing, in selected cases, the risk of severe, systemic versus mild, local reactions in food allergy, thereby reducing unnecessary anxiety for the patient and the need for food challenge testing;
- Identifying patients and triggering allergens for specific immunotherapy (SIT).

* 2013 WAO-ARIA-GA2LEN Consensus Document on Molecular-based allergy diagnostics

The diagnostic tools of tomorrow are already here.

Allergic reactions are in response to individual proteins that make up the allergen source such as the peanut. Some of these proteins create more severe reactions than others. It is now possible to test for sensitization to these individual proteins, called “allergen components”.

Component testing offers improved patient assessment by helping the doctor to differentiate “true” allergies from symptoms that are due to cross-reactivity and can aid in making an assessment of the risk for systemic reactions. Cross reactivity takes place because some proteins are very similar in structure.

A patient that has been exposed to cross-reactive components may suffer from symptoms, and they could be severe as well as mild depending on what kind of protein the component is. However, since sensitization to a cross-reactive component does not indicate the primary sensitizer, it should always be further sought for.

This powerful diagnostic tool will allow physicians to determine if lifestyle changes are necessary. Avoidance advice will be well founded and restricted to patients who really need it.

Component testing can be used to test for a broad range of allergy causing molecules. Consult your doctor regarding the benefits of ImmunoCAP Molecular-based Allergy testing. To learn more or for further information on testing facilities, contact Somagen Diagnostics at ImmunoCAP@somagen.com.

