The Doctor is in

BY DR. DAVID HILL

Food Allergy: In the Land of Fruits and Nuts

Food allergy is a very real phenomenon that has inspired countless rumors and myths over the years. Parents are inundated with alarming, often conflicting, advice. So before you reach into the refrigerator, here are some things to know.

What is a food allergy?

Many reactions to food are not allergic. Children may experience food poisoning from a Staphylococcal toxin, or they may contract a bacterial infection from poorly washed produce or undercooked meat. Babies may have intolerance to cow's milk or soy proteins. Many older children and adults have trouble digesting lactose. So then, what is a food allergy? A food allergy is an attack by one particular component of the immune system (IgE) against proteins found in a particular food.

What exactly happens?

Many food proteins are broken down during digestion, but tiny quantities of whole protein do find their way into the bloodstream where they can react with an antibody called IgE. This leads to an allergic reaction, usually within minutes.

Digestive tract symptoms include abdominal pain, vomiting, diarrhea. Hives and swelling may affect the skin. Nasal symptoms like congestion and runny nose are common, as well as potentially serious asthma attacks. The "oral allergy syndrome" is a very specific reaction limited to the mouth and throat and occurs only with raw fruits, vegetables, and nuts. The most severe reaction (anaphylaxis) affects the heart and blood vessels, sometimes leading to life-threatening low blood pressure.

How common are food allergies?

Around 6% of children in the US have some type of food allergy. Among children with other allergic diseases (eczema, allergic rhinitis, asthma) the rates are closer to 30 percent. The good news is that many of these children will outgrow their allergies, such that only about 1.5% of adults are affected. Food allergies are the most common cause of allergic shock (anaphylaxis), leading to at least 30,000 reactions and 200 deaths a year

What foods most commonly cause allergies?

The foods that cause allergies change as the immune system matures. Among children, the worst culprits are milk, eggs, peanuts, fish, soybeans, wheat, and tree nuts (pecans, walnuts, etc.). But by age five, 85% of children will outgrow their sensitivity to milk, eggs, soybeans, and wheat. The others often last into adulthood.

What about peanut allergies?

Peanut allergy seems to have become epidemic over the last two decades. Peanut allergy is notorious for causing anaphylaxis, so is especially dangerous. Unlike other food allergies it lasts lifelong, becoming more severe with age.

But I've had this food before. How can I be allergic now?

Allergies result from repeated exposure to a protein, or "allergen." So people usually react to foods they've eaten before. Very little allergen is needed to start a reaction, so people may react to ingredients like peanut oil they don't know are in their food. This problem has led to new, stricter food labeling guidelines.

How is food allergy diagnosed?

Diagnosis always starts with a good history and physical exam. A food diary is often quite helpful. Allergy testing can aid diagnosis but has limits. In skin testing, an allergist pricks or scratches the skin with suspected allergens and looks for a reaction. If no reaction occurs, there's probably no allergy. On the other hand, as many as 60% of skin tests react in the absence of symptomatic food allergy. Blood tests (specific IgE immunoassay, formerly called RAST) may be of limited use, but they're not always accurate. Immunoassays are best used when the risk of anaphylaxis makes skin testing too risky. The "gold standard" in food allergy diagnosis is the double-blind, placebo-controlled food challenge: the patient tastes several unidentified foods and has a reaction when the suspect food is introduced. This test is best performed in a medical setting where severe reactions can be monitored and treated.

What about my infant?

Two to four percent of infants exposed to cow's milk protein will develop diarrhea or vomiting, sometimes quite severe. This reaction (enterocolitis) is not IgE-mediated so is not technically an allergy. Since half these babies will have the same reaction to soy protein, they do best with formulas where the milk protein has been digested into smaller pieces (hydrolyzed). This reaction usually resolves by 12 to 24 months of age. Because human breast milk contains minute amounts of food proteins, even breastfed infants may have this allergy when their mothers drink cow's milk or soymilk.

What about lactose intolerance and celiac disease?

Lactose is the type of sugar found in milk, from both humans and cows. Many older children and adults lose the ability to digest lactose, leading to symptoms of flatulence, bloating, abdominal pain, and diarrhea related to milk consumption. But because lactose is a key ingredient of human breastmilk, lactose intolerance is exceedingly rare among infants (around one in 10,000).

Celiac disease is a complex immune-mediated reaction to wheat protein (gluten), but because it doesn't involve IgE it's not the same as a wheat allergy.

How is food allergy treated?

The only good treatment is food avoidance. Stricter labeling guidelines have made this easier, as has the emergence of a whole industry catering to food allergy sufferers. Anyone who's had anaphylaxis (or any patient with peanut allergy) should have injectable epinephrine (Epi-Pen, Epi-Pen Jr.) available at all times. Milder reactions respond to antihistamines like Benadryl.

Can food allergy be prevented?

Exclusively breastfeeding infants (as opposed to using formula) seems to help. Pediatricians also recommend waiting until at least six months of age to introduce solid foods. Avoid eggs (the whites at least) until two years of age. And don't offer peanut products to a child until he is at least three years old.

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