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## **UPCOMING EVENTS**

### **CELI-ACT SUPPORT GROUP MEETING**

**NOVEMBER 15, 2010 • 6:00 – 7:00PM**

**OUTBACK STEAKHOUSE  
N. PETERS ROAD • KNOXVILLE, TN**

**Dr. Youhanna Al-Tawil  
will be the guest speaker!**

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Gastroenterology and Nutritional Services  
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**East Tennessee Children's Hospital  
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Fall 2010

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Volume 3 Issue 3

## **Friends and Colleagues,**



Fall is here. The air is getting cooler, the leaves are changing colors, school is back in session, and football season is in full swing. While this is a great time of year, it is also a time when many allergies seem to flare up. In particular, food and environmental allergies can have a detrimental effect on a child's gastrointestinal tract. Various GI disorders can be negatively affected by allergies including GERD, eosinophilic esophagitis, constipation, diarrhea, bloody stools, and abdominal pain.

Our staff, including physicians and psychologists, is available to help a child who is suffering from GI issues related to allergies. Our dietitians have become certified as food allergy specialists to help parents and children manage food allergies more effectively. Our goal is to partner with each of you to help our children fight allergies and live the healthiest life possible. Together we can make a difference.

Regards,

*Al-Tawil*

Youhanna Al-Tawil, M.D.  
Medical Director, GI for Kids, PLLC

## **Got Food Allergies? Food Allergy Management Services**



GI for Kids, PLLC is proud to congratulate Sandy Altizer, R.D., LDN and Ashley Rogers, MS, R.D., LDN on passing the intensive educational program to become certified as Food Allergy Specialists. The Eating and Educating, Living Life Foundation (ELL) sponsors the food allergy and intolerance management dietary consultant training program called PAC®; Protect Allergic Children. The ELL is a national, non-profit organization that advocates for more complete and accurate allergen ingredient food labeling and manages a nationwide program of training

services on food allergy safety. If you have patients with food allergies, let us help them! Call our office for an appointment with one of our food allergy specialists at 865.546.3998.



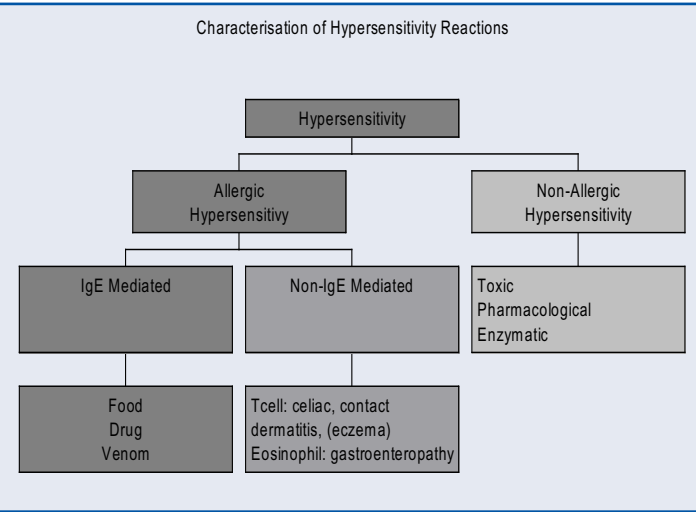
# Food Allergy Facts

By Youhanna Al-Tawil, M.D.



Food allergy is an immune reaction to food. It affects an estimated 6 to 8 percent of children and approximately 4 percent of adults. There has been a significant increase in the prevalence of allergic disorder in the past two decades. This could be related to a complex gene-environment interaction.

It is easy to confuse food allergy with food intolerance; both are hypersensitivities to food and can cause similar symptoms. Food intolerance however, is less serious, and is not an immune response. It is usually related to lactose intolerance, monosodium glutamate, which is used to enhance food flavor, contamination with microbes or toxins, or the pharmacologic activity of food.



We are gaining increasing understanding of the pathophysiology of food allergic disorder. There is well-recognized acute allergic reactions and anaphylaxis triggered by IgE antibody-mediated response to food protein, and increasing recognition of cell-mediated disorder such as eosinophilic gastroenteropathies and food-induced enterocolitis.

Food antigens may provoke respiratory, skin, or gastrointestinal symptoms. Behavior manifestations (ADD, ADHD, autistic behavior, etc) have been described, but are controversial. GI manifestations include nausea, vomiting, GER, eosinophilic esophagitis, abdominal pain, diarrhea, constipation, and GI bleeding.

In children, approximately 90 percent of all allergic reactions to food are caused by 8 primary foods including: milk, eggs, peanuts, tree nuts, fish, soy, wheat, and shellfish.

### Diagnosis

Diagnostic workup begins with a detailed history and physical examination. Food allergy is suspected when the above-mentioned symptoms occur with introduction to specific food. Food intolerance of non-allergic mechanisms should be ruled out first.

Elimination diets are the gold standard for diagnosis of food allergy. Suspected foods should be avoided for a minimum of two to four weeks

Skin prick test or radioallergosorbent test (RAST) can be useful in determining an IgE allergic reaction in the case of food allergy. Limitations to these tests include: high sensitivity (generally >90%) but only moderately specific (~50%). These tests are most useful when the index of suspicion is high based on a detailed history.

### Treatment

The only proven effective treatment for a food allergy is an elimination diet. It might take a few days to several weeks before most gastrointestinal manifestations resolve. A child with severe and life-threatening IgE-mediated reactions needs injectible epinephrine and an antihistamine.

At least 30 percent of infants with cow's milk allergy also have allergy to soy protein. Generally, these infants improve with protein hydrolysate formula. When cow's milk is re-introduced, it should be offered in small amounts (one teaspoon or less), then progressively increased amounts over several days as tolerated.

Eighty-five percent of infants with non-IgE-mediated food allergy recover by three years of age. While symptoms from IgE-mediated allergy to peanuts, tree nuts, and fish might not resolve, thus allergy referral is indicated.

Allergy and intolerance to a variety of foods are common problems in childhood and can present with a wide range of clinical manifestations. Diagnosis can be a challenge, and presently, elimination diet is the only good treatment. Future management of food allergies requires better testing and new, novel therapies. Until then, cooperative management of the child's food allergies between his/her pediatrician or primary care physician, allergist, dietician, and GI physician can help the child live a healthy and happy life.

*\*Multiple sources and journals were used in this article. A reference list is available upon request.*

## Coping With Food Allergies

By Regina Hummel, PhD



In this issue we are looking at some of the ways we can identify children with food allergies. Once it is determined that a child has a food allergy the adjustment process begins. Parents of allergic kids face many practical challenges in creating action plans with schools and daycares, educating caregivers about emergency treatment, reading labels, and balancing

kids' everyday social activities with the need to keep their children safe from allergens.

Kids with food allergies face their own unique challenges because socialization in the U.S. often revolves around food and eating. Birthday parties, slumber parties, holiday gatherings, and school are all occasions when a child must confront their food allergy and make choices to avoid exposure. While a child may understand that they should not eat certain foods, it can be difficult to pass up items “everyone” is eating or items they still enjoy despite being allergic. The following are tips for kids to use as they navigate social situations involving food:

1. Eat ahead of the event if possible. If you are unsure of food options available, plan on eating your meal before and just enjoy a beverage while with your friends.
2. Bring along food for you to eat and share with others. This ensures that there will be safe choices for you at the event. If someone criticizes what you've brought you can make light of it and say, “I didn't say you could have any.” This type of assertive statement can help the child feel more in control of the situation.
3. Before engaging in a social situation, think about how the child will respond when offered allergic foods. Address the issue of refusing food with responses like, “Thank you, but I am stuffed.” or “I don't really care for ....” Or, you can tell the real reason and say, “I am allergic to...” Be willing to follow this statement with a simple explanation of what happens if you eat a certain food.

Practicing these skills will instill confidence in our children with regard to living with this health issue. In this way, they can enjoy socializing with their family and friends without undue concern about their food allergy.

## Food Allergies In Children Affect Growth and Intake of Nutrients

By Sandy Altizer, RD, LDN



Six percent to eight percent of children develop food allergies within the first 3 years of life, which is also a critical period of growth. Ninety percent of children with food allergies involve tree nuts, soy, fish, cow's milk, egg, peanut and wheat. Fortunately, most children will outgrow the soy, wheat, milk and egg allergens by 3 to 5 years of age, and 20% of infant will eventually be able to tolerate a peanut or products containing peanuts.

Because the above-mentioned foods are rich in nutrients, it is possible that a moderate degree of malnutrition may develop due to the elimination of whole foods and/or food groups. Consequences of inappropriate exclusion diets and inadequate follow-up after diagnosis can lead to vitamin and mineral deficiencies such as kwashiorkor and failure to thrive.

At this time, an elimination diet is the only available treatment for a child diagnosed with a food allergy. Children with multiple food allergies benefit from a nutrition assessment within 1 month of diagnosis to include adequate education on how to properly eliminate the allergen as well as ensure the remaining foods consumed in the diet are nutritionally adequate to promote growth. At the minimum, a nutrition follow-up should occur on a semi-annual basis, sooner if needed.

Energy intake and portion sizes have dramatically increased since the 1970's thus contributing to an increased shift in energy intake from home to restaurant dining. The trend of eating outside the home has prompted restaurants to improve the foods offered to the allergenic customer. Gluten-free/wheat-free menus are appearing at many major restaurant chains and many schools are enacting peanut-free policies.

Early childhood and the social environment in which children are fed are widely assumed to be critical to the establishment of life-long eating habits. Parents can influence children's dietary preferences in many areas to include: availability of food within the home, meal structure and environment, food socialization practices and food-related parenting styles. The types of foods provided by the parents can improve or diminish the healing process during the diet elimination phase. It is extremely important for parents to realize the negative impact that poor food choices have on their allergenic child.

### Nutrient Intake with Allergen Elimination

#### Milk

Milk allergy is one of the most common food allergies among children. Milk provides essential nutrients needed for bone mineralization and growth. These nutrients include: calcium, protein, Vitamin D, riboflavin, phosphorus, Vitamin B12 and Vitamin A. Soy milk, fortified rice milk, and nut milks (such as almond milk)

can be substituted to help meet calcium needs. Be sure to review the nutrition information on the package to check the amount of protein, which should be 8 grams per 8 ounce serving. Calcium fortified juices will provide additional calcium but are not a good source of other nutrients.

**Hidden sources of milk include:** casein, curds, ghee, lactoalbumin, lactoglobulin, lactose, lunch meats, sodium caseinate, and whey.

#### Eggs

Eggs provide a source of quality protein as well as iron, biotin, folacin, pantothenic acid, riboflavin, selenium, and vitamins A, D, E and B12. Other protein sources must be consumed so that the child will get adequate amounts of protein. Good sources of protein include: milk, fish, meat, nuts and legumes.

**Hidden sources of egg include:** albumin, silici albuminate, ovomucin, meringue, simplesse, vitellin, lysozyme, ovotransferrin, globulin and livetin.

#### Soybeans

Soybeans are one of the highest quality proteins out there. They also contain thiamin, riboflavin, iron, phosphorus, magnesium, calcium, zinc and vitamin B6. In order to maximize the nutritional benefits, one must consume whole soy foods (ie: soy milk, soy yogurt, etc.).

**Hidden Sources of soy include:** edamame, miso, shoyu sauce, soya, tamari, tempeh, textured vegetable protein (TVP), tofu.

#### Peanut/Nut Allergy

Since only about 20% of children outgrow a peanut/nut allergy, it is important to monitor this allergen closely. Although peanuts also provide a source of niacin, magnesium, vitamins E and B6, manganese, pantothenic acid, chromium, folacin, copper and biotin, a child can obtain these vitamins and nutrients by consuming a variety of foods from other food groups.

**Hidden sources of peanuts include:** marzipan, prepared soups, dried soup mixes, Thai/Chinese dishes, baked goods, cookies, chocolate bars, vegetable oil, vegetable shortening.

#### Wheat

Grains contain protein, and when fortified, a good variety of vitamins and minerals, including B vitamins and iron. Be sure to choose fortified and enriched grains as the milling process can strip away nutrients and fiber.

**Hidden sources of wheat include:** bread crumbs, cake flour, cereal binding, edible starch, gum base, hydrolyzed proteins, modified food starch, triticale, vegetable gums and starches.

#### Fish

Another good source of protein is fish, which contains the nutrients niacin, vitamins B6, B12, A and E, as well as phosphorus, selenium, magnesium, iron and zinc. If your child must avoid fish, you can find the same nutrients in other protein sources such as meats, grains and legumes.

*\*Multiple sources and journals were used in this article. A reference list is available upon request.*