



Food Allergy Tips for Healthcare Providers

What do we know?

Healthcare providers can play a major role in food allergy prevention, support and education. A food allergy is when a person's immune system overreacts to something in a certain food. Usually, the part of the food the body reacts to is a protein. This part of the food that causes the reaction is called an allergen.

An allergic reaction happens because the immune system thinks the allergen is a threat and tries to attack it. This response causes a range of symptoms, including itching, hives, difficulty breathing, a drop in blood pressure, and digestive problems.

- Food allergies are common. Around 33 million people in the United States have at least 1 food allergy.
- About 40% of children with food allergies have multiple allergies, and food allergies in children have been increasing for decades.
- In the U.S., over 170 foods are known to cause an allergic reaction.
- Peanuts, milk, shellfish, and tree nuts are the most common allergy triggers for children.
- Shellfish, milk, peanuts, and tree nuts are the most common allergy triggers for adults.
- Allergies to peanuts, tree nuts, and shellfish are generally lifelong.
- As of 2021, the U.S. requires foods that contain the top 9 food allergens to declare these ingredients on the label. These allergens are milk, egg, wheat, soy, peanut, tree nuts, fish, crustacean shellfish, and sesame.

Signs and symptoms of immune-mediated (IgE) food allergies

There are 2 general types of food allergies:

- Immune-mediated: This means the immune system overreacts to a specific food. Immunoglobulin E-mediated (IgE) food allergies are the most common immune-mediated food allergies.
- Not immune-mediated: This type of condition is often called food intolerance.

Symptoms of an IgE food allergy will begin within 2 hours of eating the trigger food. Many people develop symptoms in minutes. It's also possible to experience a contact reaction on the skin after touching a trigger food.

Symptoms may affect the skin, respiratory system, and GI tract. They can include:

- Itchiness in the mouth and throat
- Swelling

- Sneezing
- Coughing and wheezing
- · Chest tightness
- · Nausea and vomiting
- Hives
- Low blood pressure
- Increased heart rate
- · A feeling of doom

This type of allergy can lead to anaphylaxis. This is a life-threatening allergic reaction that can lead to a drop in blood pressure, difficulty breathing, and shock.

People of any age can have a severe or fatal reaction, but teenagers and young adults with food allergies have the highest risk of fatal food-related anaphylaxis.

Health care providers can check for allergic antibodies using skin prick testing or serum IgE testing. Having these antibodies doesn't always mean someone has a clinical allergy. A monitored oral food challenge can help pinpoint specific food allergies.

What is a Registered Dietitian's role?

Registered dietitians and other healthcare providers play an important role in preventing food allergies and providing support and education to those who need it. It's essential for a registered dietitian to adopt a person-centered approach and treat all patients with compassion and respect.

Physicians can diagnose food allergies, but dietitians focus on diet management by guiding patients on which foods to avoid and how to get enough nutrition from other sources.

The goal is to avoid unnecessary restrictions and not limit an individual's diet. Recent research indicates that avoiding certain foods, like eggs and peanuts, can increase the risk of developing severe allergies to those foods. Restricting foods can also lead to nutritional deficiencies and a lower quality of life.

Dietitians can assess things like:

- Growth
- Dietary habits like what to eat and what to avoid
- Appetite and eating behaviors
- Food aversions or dislikes
- Use of dietary supplements for nutritional gaps

Avoidant-Restrictive Food Intake Disorder (ARFID)

Important: Children with food allergies are more at risk of developing ARFID. This disorder may be more present in people with food allergies: <u>Understanding Eating Disorders in Adolescents</u>.

They can also:

- Refer families to <u>find an allergist</u> (IgE-mediated) or an allergy-specialist dietitian through the Nutrition Network.
- Work with other health care professionals to make sure families receive accurate information and follow treatment plans.

Questions to ask patients and their families

- What type of symptoms do you have? How severe are those symptoms, and how long do they last?
- How long do symptoms begin after you eat the suspected trigger food?
- How much of the food do you eat?
- Have you ever been exposed to that food before?
- Have you received any treatment for this allergy? Did it help?
- How was the suspected trigger food prepared?
- Can you link your symptoms to a particular food, or are you unsure what foods cause the allergic reaction?
- Are there any outside factors that may affect your immune system, like alcohol use, infection, illness, lack of sleep, stress, or medication?
- Ask about unintended changes in weight

How do eczema and hives factor into food allergies?

People living with eczema (atopic dermatitis) may be more likely to develop anaphylaxis to foods. But food allergens don't cause eczema. Avoiding specific foods that aren't allergy triggers won't help improve eczema and could increase the chances of developing a food allergy.

Foods aren't the only triggers for hives. Hives likely aren't caused by a food trigger if they don't develop every time that food is eaten or within the typical timeframe for an allergic reaction. Chronic hives last longer than 6 weeks aren't caused by food triggers. Mild eczema is showing us that the immune system is working, treat the skin first and keep the food trigger in.

Eosinophilic Esophagitis (EoE) and diet therapy

Eosinophilic esophagitis is a gastrointestinal (GI) disorder that is a chronic immune condition caused by one or more food triggers. It affects the GI tract and causes swelling in the esophagus, making it difficult to swallow.

Common symptoms of EoE in children include:

- Feeding difficulties
- Failure to grow
- Vomiting
- · Abdominal pain
- Difficulty swallowing solid food. This condition is more common in boys.

Common symptoms of EoE in adolescents and adults include:

- Difficulty swallowing solid food
- Slow eating
- · Avoidance of solid food
- Avoidance of social eating
- · Chest pain
- Heartburn

Clinical practice tips for starting an elimination diet or an elemental diet

Elimination or elemental diets can be difficult to follow. They typically involve removing food from 1 or more common allergen groups: milk, egg, wheat, and soy. These 4 allergen groups are recognized to be the most common triggers of EoE.

What is an elemental or elimination diet?

It is a special liquid diet with nutrients broken down into simple forms so your body can absorb them easily. This diet is used when digestion needs to rest and is typically a formula based on amino acids. The common formula brands are Neocate, EleCare, or PurAmino.

It's important to talk to the patient and their family about their willingness and motivation to try an elimination diet and learn how far they're willing to go with diet therapy.

It can also help to consider other factors, like the degree of difficulty they have with eating and swallowing food and their age. Young people may prefer medication over diet therapy.

Before recommending a special diet, ask the patient and their family:

- If they have the right food preparation tools and space to prepare food
- If they can afford to purchase the foods needed
- If they can find a specialty grocer who sells the food products they need
- If they have the skills to prepare the meals needed

It's also important to make sure the patient and their family understand how long diet therapy will take and the potential need for serial endoscopies. An endoscopy is a procedure where a doctor uses a thin, flexible tube with a camera to look inside your digestive system.

Healthcare providers should consider an elemental diet only when all other options, including aggressive medical therapy, have failed. Use an elemental diet only for a short period of time to help symptoms improve while slowly adding new foods.

Food Protein Induced Enterocolitis Syndrome (FPIES)

FPIES is a non-immune mediated IgE allergy. This condition causes vomiting for 1-4 hours after eating a trigger food. Extreme lethargy may follow vomiting. The patient may also appear very pale.

Common trigger foods include:

- Cow's milk
- Soy
- Rice
- Oats
- Certain fruits and vegetables, including sweet potatoes and bananas

This condition usually develops in the first year of life, and it's more common in boys. Most children outgrow it by the time they reach school age.

Epinephrine and antihistamines will not help improve FPIES symptoms, and children with this condition can become dehydrated. Management involves avoiding the trigger foods.

Many infants react to one food only. FPIES reactions to solid foods also tend to be less severe when the food is eaten in small amounts and the child is regularly exposed to the food.

You can compare a supervised in-office food challenge with the gradual home introduction of new foods.

Management approaches:

- Let caregivers know why it's important to introduce solid foods
- Recommend lower-risk foods for initial food introductions. Lower-risk foods like beef, pork,

bison, tree nuts, quinoa, millet, broccoli, cauliflower, blueberries, raspberries, strawberries, plum, peach and watermelons.

- Keep in mind known cross-reactive foods. These foods have similar proteins to the trigger food, so the immune system considers them the same. These foods may cause an allergic reaction or a positive allergy test, but they don't in all cases. Cow's milk and goat's milk are cross-reactive foods.
- Schedule frequent follow-up visits to check on progress and guide caregivers on the food introduction process.
- Explain to caregivers how to manage acute FPIES reactions at home with rehydration and medication to prevent nausea and vomiting.

Food Protein-Induced Allergic Proctocolitis (FPIAP)

This condition causes blood-tinged stools in an otherwise healthy and thriving infant. FPIAP generally shows up within the first few months of life. It's a non-IgE mediated food reaction and is more common than FPIES.

Cow's milk is often the cause of FPIAP. Other common triggers include soy, egg, and wheat.

Health care providers can identify FPIAP with a guaiac test for blood in the stool.

To manage FPIAP symptoms, caregivers can switch to human milk or a hypoallergenic formula. More recently, many healthcare providers recommend a "wait and watch" approach if the infant is thriving as the stools may resolve on their own.

Galactose- α -1,3-Galactose (Alpha-Gal) Syndrome in Washington

Alpha-gal syndrome is an emerging allergic condition linked to tick bites, most commonly the Lone Star tick. It causes a delayed reaction to an oligosaccharide (carbohydrate made up of simple sugars) found in most mammalian meat and meat products. Beef, pork, lamb, venison, goat, and bison can all cause this rection. Poultry, fish, and shellfish do not contain alpha-gal.

People with alpha-gal syndrome will generally have symptoms for about 3-6 hours after eating meat containing alpha-gal. These symptoms can be life-threatening and may include hives, swelling, wheezing and shortness of breath, itchy skin, and anaphylaxis.

This condition is serious and does pose a cause for concern. But most cases have developed in the southern, midwestern, and mid-Atlantic United States, where the Lone Star tick lives. Check out the <u>Tick Dashboard</u> from the Washington State Department of Health to learn about the tick

surveillance across our state.

Treatment involves avoiding all foods that cause symptoms. Care providers should also prescribe an epinephrine autoinjector device (EpiPen).

Improved education about alpha-gal syndrome for health care providers can lead to a faster diagnosis, improve patient care, and support public health understanding of this condition.

Peanut Allergies

According to the <u>Learning Early About Peanut Allergy (LEAP)</u> study, the age when a child first eats peanut and the frequency of peanut in their diet can influence whether they develop a peanut allergy. Children who eat peanuts early in life and regularly over time are much less likely to develop a peanut allergy.

In 2017, findings from LEAP and related studies led to the release of new guidelines for the introduction of peanuts.

These findings recommend:

- Introducing infant-safe foods with peanuts as early as 4-6 months of age.
- Providing these foods in an infant-safe form (no chunky peanut butter or whole peanuts).
- Offering peanuts <u>early and often</u> so the immune system knows it's safe

Food Allergy Management and Prevention Tips

- Strict avoidance of relevant food allergens and early recognition and management of allergic reactions to food are important measures to prevent serious health consequences in individuals with food allergies.
- Delaying introduction of allergenic foods does not provide protection against food allergies.
- Diet diversity is **very important**. Eat a variety of different foods to expose your body to them.
- Because children with food allergies have a higher risk of developing avoidant restrictive food intake disorder (ARFID), it's important to monitor for signs of this condition.
- People with food allergies can avoid serious health consequences by identifying trigger foods early and completely avoiding those foods.

That said, unnecessary dietary restrictions can have serious health consequences. Recent research has linked unnecessary food avoidance to a higher risk of developing anaphylaxis to the avoided food, especially egg and peanut. Food avoidance can also lead to nutritional deficits, stunting, and

reduced quality of life. Diet diversity is key. Eating a variety of different foods will expose the body to them. Delaying the introduction of specific foods will not prevent food allergies.

Resources:

- 1. Home FoodAllergyPrevention.org
- 2. National Peanut Board
- 3. AAAAI | American Academy of Allergy, Asthma & Immunology
 - a. Ages and Stages handouts
 - b. Ask the Expert
- 4. FARE (Food Allergy Research & Education): FoodAllergy.org
- 5. National Eczema Association | Symptoms, Support, Treatment & Research
- 6. Homepage International FPIES Association (I-FPIES)
- 7. Home | Kids with Food Allergies

Reference:

Venter, C., Groetch, M., James, J., & Sicherer, S. (Eds.). (2023). *Health Professional's Guide to Nutrition Management of Food Allergies*. Academy of Nutrition and Dietetics.



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