

Understanding and Managing Food Allergies

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Introduction

Food allergies affect approximately 11 percent of adults and approximately 8 percent of children in the United States. Over the last decade, the number of young people with food allergies has increased. The Centers for Disease Control and Prevention (CDC) reported an increase in food allergies in children of 50% from 1997 to 2011. Food allergies can be serious and life-threatening; severe reactions kill 100 to 200 Americans per year (University of Nebraska-Lincoln, 2023). The risk of accidental exposure to foods can be reduced if physicians, parents, child care providers, and teachers work to minimize risks and provide a safe environment for children with food allergies. This publication provides general information and guidelines to manage food allergies at home, schools, day care centers, and camps.

Difference between Food Allergy and Food Intolerance

A **food allergy** is an immune system response. It occurs when the body mistakes a food ingredient, usually a protein (allergen), as harmful and creates a defense system (antibodies) to destroy it. Food allergy symptoms develop when the antibodies are battling the “invading” food.

A **Food intolerance** is a digestive system response rather than an immune system response. It occurs when something in a food irritates a person’s digestive system or when a person is unable to properly digest or break down the food. Common food intolerances include lactose and gluten.

An allergy is more serious than a food intolerance (which is usually not life-threatening and usually does not impair the person’s daily activities). The only way to know for sure if you or your child has a

food allergy or food intolerance is to have the symptoms evaluated by a board-certified allergist.

What are the Most Common Food Allergens?

The U.S. Food and Drug Administration recognizes nine common food allergens. These are:

- Soy
- Fish
- Tree nuts (pecans, walnuts, etc.)
- Shellfish (crabmeat, shrimp, lobster)
- Milk
- Eggs
- Peanuts
- Wheat
- Sesame

Allergies develop within the first one to two years of life. For reasons not entirely understood, research has shown that many food allergies are lost or outgrown over time. Because of this, some allergies tend to be more common among children, while others are more common among adults.



Figure 1. U.S FDA 9 major food allergens. Source: fda.gov, 2023.

Allergies in Children

The CDC reports that 1 in 13 children (around 2 students per classroom) have food allergies, and approximately 40% of children that present food allergies are allergic to multiple foods (Gupta et al. 2018).

What are Common Food Allergy Symptoms?

Symptoms can be mild to severe and can occur within minutes to hours after eating the food. They include:

- Tingling mouth, swelling of tongue or throat.
- Hives, itching, skin rash.
- Abdominal cramps, nausea, vomiting, diarrhea.
- Runny nose, nasal congestion, wheezing.
- High blood pressure, trouble breathing (anaphylaxis), death.

Common Symptoms Described by Children When having Food Allergies

- “My tongue is hot.”
- “My mouth itches.”
- “My lips feel tight.”
- “My mouth feels funny.”
- “There is something stuck in my throat.”
- “This food is too spicy.”

Adapted from The Food Allergy & Anaphylaxis Network Website.

How Dangerous are Food Allergies?

When someone has an allergy, the body’s immune system will mistakenly respond to food as something that needs to get out of the system and could cause a severe to a life-threatening episode, such as **anaphylaxis**. Although new treatments for some food allergies show promise, currently, there is no cure. Strict avoidance (do not taste, smell, or touch it) is critical in preventing a reaction. For some people, just one bite can bring on a severe reaction (anaphylaxis) that can be fatal without appropriate medical intervention. The CDC reports that 2 in 5 children with food allergies end up in the emergency department.

Important: Read the Food Labels to Manage Food Allergies

The U.S. Food Allergen Labeling Consumer Protection Act (FALCPA) requires food labels to clearly identify all allergen ingredients by listing food allergens in “plain language.” This means that if a food contains one of the nine major food allergens or any ingredient that contains the protein derived from any of these nine foods, the label must be written in language that is easy to understand.

Sesame was added to the FDA list in January 2023, and it is likely there are still products that do not list sesame on the label as an allergen.

An example of a proper label is if whey, a product derived from milk, is used as a food ingredient, then the food label must include the word “milk” next to the ingredient. This plain-language declaration has made it easier for parents, children, and caregivers to read a food label and recognize if one of the nine allergens is present and must be avoided.

Food manufacturers can label food products that are made with an ingredient from the food allergen list in **one** of two options (see Figure 2 below).

Option 1
Ingredients: Enriched flour (<u>wheat</u> flour, malted barley, niacin, reduced iron, thiamin mononitrate, riboflavin, folic acid), sugar, partially hydrogenated cottonseed oil, high fructose corn syrup, whey (<u>milk</u>), <u>eggs</u> , vanilla, natural and artificial flavoring, salt, leavening (sodium acid pyrophosphate, monocalcium phosphate), lecithin (<u>soy</u>), mono- and diglycerides.
Option 2
Ingredients: Enriched flour (flour, malted barley, niacin, reduced iron, thiamin mononitrate, riboflavin, folic acid), sugar, partially hydrogenated cottonseed oil, high fructose corn syrup, whey, eggs, vanilla, natural and artificial flavoring, salt, leavening (sodium acid pyrophosphate, monocalcium phosphate), lecithin, mono- and diglycerides. Contains: <u>Wheat</u> , <u>milk</u> , <u>eggs</u> , and <u>soy</u> .

Figure 2. Two options for food manufacturers to label food products that contain allergens.



Food Allergies and the American with Disabilities Act

Food allergies are considered disabilities under the Americans with Disabilities Act (ADA). Civil rights laws prohibit discrimination on the basis of disability in employment and education in agencies, programs, and services that receive federal money. For example, a public school that receives federal funding cannot discriminate against children with food allergies.

Guidelines for Managing Food Allergies

At home

- Always read labels, even on foods that you consume regularly. Ingredients may have changed.
 - Remember, sesame could not be labeled as an allergen in products that were packed before January 2023.
- Avoid keeping allergens at home. If this is not possible, wash all utensils and contact surfaces, such as cutting boards, knives, cups, tables, etc., with hot, soapy water to remove any food allergen residue.
- Be Aware of how “cross-contact” can happen. **Cross-contact** is when a food containing the allergen touches or is transferred to another food that does not contain it. For example:
 - When eating out, ask about the ingredients used and how foods are cooked. If allergen-containing foods, such as fish, are cooked in the same oil with a non-allergen-containing food. Allergen particles could remain in the oil after cooking. These particles may be transferred to the chicken or any other foods fried in the same oil and can cause the person who consumes the cross-contacted food to have an allergenic reaction.
 - Meat slicers, bulk bins, and salad bar utensils can be a source of allergen because they could have been shared with allergen-containing foods.

At Schools, Camps, and Day Care Centers

There are several parties that have responsibilities when talking about management of food allergies.

Family’s Responsibility

- Notify the child’s allergies to the school, day care center, or camp.
- Fill out an application or health form identifying food allergies, foods allergic to, and symptoms.
- Provide a physician’s statement that identifies allergens, medications and dosage, and what to do in case of emergency.
- Make sure that all personnel are informed of the allergy.
- Provide a photo of the child to the center (optional).

Child’s Responsibility (age dependent)

- Be familiar with foods that can cause allergy or contain the allergen.
- Do not share food or drinks with others.
- Tell someone if you are having a reaction.
- Carry an EpiPen.

School, Camp, or Day Care Center’s Responsibility

- Establish a written policy on parent and caregiver responsibilities.
- Maintain a physician’s statement describing each child’s allergies, food restrictions, and substitutions.
- Have a prepared food allergy action plan or emergency plan that includes written emergency instructions and policies, location and administration instructions for medications, and a list of important phone numbers. The plan should be easily accessible.
- Secure authority to give medication to children with life-threatening reactions to food.
- Make a list of children with allergies and their “forbidden” food(s). Post this list or make it available to all staff.

Educating and Training Staff

- Understand the seriousness of food allergies and learn to recognize the symptoms.

- Learn to read food labels for the presence of allergens and hidden ingredients. For example, if a child is allergic to milk, the child is also allergic to yogurt, cheese, ice cream, butter, and anything made with milk.
- Recognize common foods and the names of hidden allergens (e.g., lecithin is derived from eggs or soybeans – both allergens).
- Be familiar with the food allergy action plan or emergency plan, including how to use EpiPen.

Training Food Preparation Staff

- Prevent food cross-contact during handling and preparation. For example, cross-contact can happen during food preparation of a peanut butter sandwich if the same knife is then used to prepare another type of sandwich.
- Wash contact surfaces, utensils, and hands after handling foods that contain allergens.

Additional Suggestions

- Provide an allergy-free area in cafeteria/lunch rooms, if possible.
- Eliminate the use of food allergens in educational tools, arts, and crafts projects.
- Wash your hands after working with arts and crafts projects.
- Project a calm, matter-of-fact attitude toward food allergy management.
- Be willing to accommodate those with food allergies.

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