

Food Allergies: Reducing the Risks

Food allergies can range from merely irritating to life-threatening. Approximately 30,000 Americans go to the emergency room each year to get treated for severe food allergies, according to the Food Allergy and Anaphylaxis Network (FAAN). It is estimated that 150 to 200 Americans die each year because of allergic reactions to food.

Food allergies affect about two percent of adults and four to eight percent of children in the United States, and the number of young people with food allergies has increased over the last decade, according to a recent report by the Centers for Disease Control and Prevention (CDC). Children with food allergies are more likely to have asthma, eczema, and other types of allergies.

Some food allergies can be outgrown. Studies have shown that the severity of food allergies can change throughout a person's life.

"There is no cure for food allergies," says Stefano Luccioli, M.D., senior medical advisor in the Food and Drug Administration's (FDA) Office of Food Additive Safety (OFAS). "The best way for consumers to protect themselves is by avoiding food items that will cause a reaction." OFAS is part of FDA's Center for Food Safety and Applied Nutrition (CFSAN).

To reduce the risks from allergic reactions, FDA is working to ensure that major allergenic ingredients in food are accurately labeled in accordance with the Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA). Allergenic ingredients are substances that are capable of causing an allergic reaction.

In addition, there has been widespread use of allergen advisory labels

on products that may have allergenic ingredients that were introduced by way of cross contact during the manufacturing process. Cross contact occurs when a residue or other trace amount of an allergenic food is unintentionally incorporated into another food.

Because FALCPA does not require the declaration of allergenic ingredients introduced through cross contact, FDA is developing a long-term strategy that will help manufacturers use voluntary allergen advisory labeling that:

- Is not misleading
- Conveys a clear and uniform message
- Adequately informs food-allergic consumers and their caregivers

What is a Food Allergy?

A food allergy is a specific type of adverse food reaction involving the immune system. The body produces what is called an allergic, or immunoglobulin E (IgE), antibody to a food. Once a specific food is ingested and binds with the IgE antibody, an allergic response ensues.

A food allergy should not be confused with a food intolerance or other nonallergic food reactions. Various epidemiological surveys have indicated that almost 80 percent of people who are asked if they have a food allergy respond that they do



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when, in fact, they do not have a true IgE-mediated food allergy.

Food intolerance refers to an abnormal response to a food or additive, but it differs from an allergy in that it does not involve the immune system. For example, people who have recurring gastrointestinal problems when they drink milk may say they have a milk allergy. But they really may be lactose intolerant.

"One of the main differences between food allergies and food intolerances is that food allergies can result in an immediate, life-threatening response," says Luccioli. "Thus, compared to food intolerances, food allergic reactions pose a much greater health risk."

Signs and Symptoms

Symptoms of a food allergy usually develop within about an hour after eating the offending food. The most common signs and symptoms of a food allergy include:

- Hives, itching, or skin rash
- Swelling of the lips, face, tongue and throat, or other parts of the body
- Wheezing, nasal congestion, or trouble breathing
- Abdominal pain, diarrhea, nausea, or vomiting
- Dizziness, lightheadedness, or fainting

In a severe allergic reaction to food—called anaphylaxis—you may have more extreme versions of the above reactions. Or you may experience life-threatening signs and symptoms such as:

- Swelling of the throat and air passages that makes it difficult to breathe
- Shock, with a severe drop in blood pressure
- Rapid, irregular pulse
- Loss of consciousness

Major Food Allergens

FALCPA, a comprehensive food labeling law, has been in effect since January 1, 2006.

Under FALCPA, food labels are required to state clearly whether the food contains a major food allergen.

A major food allergen is defined as one of the following foods or food groups, or is an ingredient that contains protein derived from one of the following foods or food groups:

- Milk
- Eggs
- Peanuts
- Tree nuts such as almonds, walnuts, and pecans
- Soybeans
- Wheat
- Fish
- Shellfish such as crab, lobster, and shrimp

“These foods or food groups account for 90 percent of all food allergies in the United States, and FALCPA focuses on IgE-related food allergies,” according to Luccioli. “This law does not protect everyone with a food allergy, but should protect the majority of people who may have severe allergic responses to foods,” he says.

More than 160 different foods have been reported to cause allergies; the list of major allergens in the United States is limited to eight foods. “Other countries may have different foods on their lists because food allergies reflect patterns of consumption,” Luccioli says. “For example, in

Europe there is a high prevalence of allergies to mustard and celery.”

FDA Public Hearing on Labeling

FDA held a public hearing on September 16, 2008, to help the agency determine how manufacturers use advisory labeling for food allergens.

FDA is also evaluating how consumers interpret different advisory labeling statements, as well as what wording is likely to be most effective in communicating the likelihood that an allergen may be present in a food.

“The public hearing was held in part to address labeling that manufacturers voluntarily use because of cross contact concerns,” says Felicia Billing-slea, director of the Food Labeling and Standards Staff in FDA’s Office of Nutrition, Labeling and Dietary Supplements.

Cross contact may occur during:

- Harvesting
- Transportation
- Manufacturing
- Processing
- Storage

Many food manufacturers may try to prevent cross contact through the use of dedicated facilities or dedicated production lines. Also, a variety of advisory statements are used on package labels to indicate possible cross contact. For example, a label might indicate: “Produced in a plant that processes wheat.”

FDA asked twelve questions at the public hearing that related to the use of specific advisory statements and advisory labeling in general.

Some of the questions asked were:

- What specific advisory statements adequately inform consumers of the potential risk of cross contact with allergenic materials?
- What advisory statements most accurately communicate to consumers and their caregivers the potential risk of the presence of an allergen? Why?

Advice for Consumers

If you have food allergies, you must be prepared for unintentional exposures. To protect yourself, the National Institute of Allergies and Infectious Diseases (NIAID) recommends that you:

- Wear a medical alert bracelet or necklace stating that you have a food allergy and are subject to severe reactions.
- Carry an auto-injector device containing epinephrine (adrenaline) that you can get by prescription and give to yourself if you think you are experiencing a food allergic reaction.
- Seek medical help immediately if you experience a food allergic reaction, even if you have already given yourself epinephrine, either by calling 911 or getting transportation to an emergency room. [FDA](#)

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For More Information

CFSAN Food Labeling and Nutrition page
www.foodsafety.gov/label.html

CFSAN Information About Food Allergies
www.cfsan.fda.gov/~dms/wh-alrgy.html

The Food Allergy and Anaphylaxis Network
www.foodallergy.org/

CDC Press Release: Study on Food Allergies in Children
www.cdc.gov/media/pressrel/2008/r081022.htm