THE UNIVERSITY OF RHODE ISLAND COLLEGE OF THE ENVIRONMENT AND LIFE SCIENCES

Food Allergens

Food Safety Education Program http://web.uri.edu/foodsafety

At least one third of all adults believe they have some sort of a food allergy, but, according to the National Institute of Allergy and Infectious Diseases (NIAID), true food allergies affect about 4% of adults and 5% of children in the United States.

A food allergy is a reaction to a specific protein in an otherwise harmless food that involves the body's immune system. This is caused by the body's reaction to proteins or ingredients derived from them. Every food is different. For those people with food allergies, the same food can produce different degrees of reactions in different people. Additionally, a person can be allergic to one item in one of the 8 major food allergen categories, but not allergic to other food items in that category (e.g., a person can be allergic to salmon, but not cod).

Food allergies can cause a range of symptoms, from mild irritations to severe reactions that can be life-threatening. Symptoms can appear from within a few minutes to a few hours after the food is eaten. Some food allergies can be out-grown. The severity of food allergies can change throughout a person's life, where mild symptoms can become more severe at any time and lead to **anaphylaxis** (see below).

Allergic reactions can include:

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

Anaphylaxis is a life-threatening reaction that can lead to:

- Constricted airways and lungs making it difficult to breath
- Severe lowering of blood pressure and shock
- Rapid, irregular pulse
- Loss of consciousness
- Death

reactions in people with food allergies, regulatory authorities have identified 8 foods that cause 90% of the allergic reactions.

While more than 160 foods can cause allergic

Major Food Allergens

- 1. Milk
- 2. Eggs
- 3. Fish (e.g., bass, flounder, cod)
- Crustacean shellfish (e.g., crab, lobster, shrimp)
- 5. Tree nuts (e.g., almonds, walnuts, pecans)
- 6. Peanuts
- 7. Wheat
- 8. Soybean

A food allergy is different than food intolerance and poses a greater health risk. A person with a food intolerance will have a hard time digesting the food, causing them to feel sick, usually with an upset stomach or gas. A food intolerance does not involve the body's immune system. For example, lactose intolerance is not an allergy to milk, it is an intolerance to the sugar (lactose) in milk.

Some individuals have food sensitivities (a.k.a. food intolerance or other non-allergic food reaction) to foods and food ingredients (e.g., MSG and sulfites). While food sensitivities cause discomfort to individuals with an intolerance, the reaction is not life-threatening.

Research is ongoing. There is no cure for food allergies and foods that cause allergic responses should be avoided. It is important to read and understand food ingredient labels and to know how to recognize the symptoms of allergic reactions to food.

The Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA) requires that all packaged foods regulated by the FDA contain a label clearly identifying the food source names of all ingredients that are or contain protein derived from

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any of the 8 major food allergens (previously listed). This applies to flavorings and colorings. It also extends to foods pre-packaged by a retail/foodservice operation.

Foodservice establishments are responsible for being able to provide information about food items on the menu and providing food allergy awareness training to employees.

In Rhode Island, the Food Allergy Awareness in Restaurants Act of 2012 requires establishments:

- Display a RI Dept. of Health approved food allergy awareness poster in the staff area,
- Include a notice to customers on all menus informing them of their obligation to inform their server of their food allergies,
- Designate restaurant managers to be trained and knowledgeable about food allergies as it pertains to food preparation.

Advice for Consumers

If you have a food allergy, always be prepared for unintentional exposures.

- Wear a medical bracelet or necklace stating you have a food allergy.
- Carry an auto-injector device containing epinephrine (i.e. Epi pen).
- Seek medical help immediately if you are experiencing a food allergic reaction.
- Know how to read food ingredient labels. For more information, visit: www.foodallergy.org/file/tips-avoid-allergen.pdf
- Know how to avoid cross-contact. For more information, visit:

www.foodallergy.org/file/avoid-cross-contact.pdf

 Cross-contact occurs when an allergen is mistakenly transferred from a food containing the allergen to a food that does not contain the allergen.

- Cooking does not reduce or eliminate food allergens.
- Carefully cleaning all surfaces and utensils that have come in contact t with the food allergen using soap and water and manual scrubbing action.
- Sanitizing gels or water alone will not remove an allergen.

Resources Used and for More Information:

National Institute of Allergy and Infectious Disease (NIAID)

www.niaid.nih.gov/diseases-conditions/food-allergy

Food Allergy Research and Education

www.foodallergy.org

FDA Food Allergies: What You Need to Know

www.fda.gov/Food/IngredientsPackagingLabeling/ FoodAllergens/ucm079311.htm

Food Allergen Labeling and Consumer Protection Act of 2004 (Public Law 108-282, Title II)

www.fda.gov/Food/GuidanceRegulation/ GuidanceDocumentsRegulatoryInformation/Allergens/ ucm106187.htm

Rhode Island Food Allergy Awareness in Restaurants Act of 2012

http://webserver.rilin.state.ri.us/PublicLaws/law12/law12414.htm

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