

Carrying Emergency Medications

No matter how attentive a person might be to avoiding a food allergen, accidents are bound to happen. In that case, it is important to know how to deal with the symptoms of an allergic reaction. For mild allergy symptoms, such as sneezing or localized hives, usually an antihistamine taken by mouth can do the trick.

However, an allergic reaction also can be extremely serious and cause anaphylaxis. It is important to be able to recognize the symptoms and have an emergency plan in place in case this occurs. Epinephrine is the first line treatment for anaphylaxis and should be administered right away. Any person at risk for anaphylaxis should have an epinephrine autoinjector, EpiPen® or Adrenaclick® or Twinject®, with them at all times.

Cross-contamination

It also is necessary to be aware of the possibility of cross-contamination. Cross-contamination occurs when food from one source accidentally ends up in a supposedly “allergen-free” food. This can happen much more easily than you think. Here are a few examples of things to avoid to make sure your child is safe from cross-contamination.

- Avoid foods that are processed close to or on the same equipment as those that do contain the allergenic food, because the risk of contamination is very high.
- When cooking, be sure to wash your utensils well to avoid contamination with trace amounts that may be left as residue on the utensil.
- Watch for spatulas or serving utensils that may be used between dishes. These can have enough residues from the previous allergen-containing food to trigger a reaction.



PROGNOSIS AND MONITORING OF FOOD ALLERGIES

It is often difficult to know for sure what the prognosis of an individual child's food allergy will be. Most food allergies are acquired in the first two years of life. After diagnosis, RASTs may be helpful in following the progress of a child's food allergy. If RASTs decline to certain levels, a food challenge in an observed medical setting may be considered to evaluate whether the food allergy has been outgrown. In general, allergies to milk, egg, wheat, and soy are more likely to be outgrown during childhood or adolescence, than allergies to other foods, such as peanut and tree nuts. Peanut and tree nut allergies typically persist throughout life, as a much smaller percentage of people outgrow these allergies. Shellfish and fish allergies usually present in adulthood and tend to be life-long.

THE FUTURE OF FOOD ALLERGIES: SEARCHING FOR A CURE

As of now, the only treatment that exists for food allergies is strict avoidance of the food allergen. You may have recently heard in the news about exciting research into food allergy treatments. Oral immunotherapy (OIT) and sublingual immunotherapy (SLIT) are now being investigated as potential therapies to help the immune system outgrow peanut, milk and other food allergies. While the initial research is encouraging, it is very preliminary. OIT and SLIT for food allergy are strictly experimental, and should not be pursued outside of a research study.



FOOD ALLERGY PROGRAM

The Food Allergy Program at Children's National Medical Center provides comprehensive services in the evaluation and management of a wide variety of food allergies, including IgE-mediated food allergy, gastrointestinal food allergy, and eosinophilic gastrointestinal disorders.

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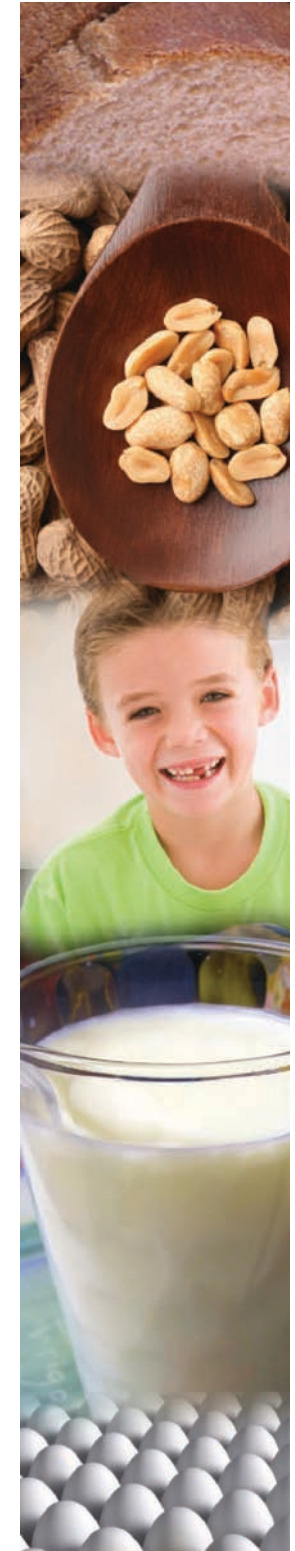
RESOURCES

For more detailed information about food allergies, visit:

- The Food Allergy and Anaphylaxis Network (www.foodallergy.org)
- The Food Allergy Initiative (www.faiusa.org)

www.childrensnational.org
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ALL about FOOD ALLERGIES



FOOD ALLERGIES

A food allergy is a response by the immune system when it mistakenly recognizes a certain food as dangerous. The immune system in someone with food allergy produces immunoglobulin E, an antibody, to fight the food allergen. As a result, when the person is exposed to that food, IgE binds to it and causes the release of a number of chemicals, including histamine. This leads to an allergic reaction.

PREVALENCE OF FOOD ALLERGIES

Your child is definitely not alone. Approximately 13 million people in the United States have food allergies, and these numbers appear to be rising. The rate of food allergy is highest among young children. Approximately 6 percent of kids under 3 years have a food allergy. Overall, 3 to 4 percent of the general population is affected by food allergies.

THE DIFFERENCE BETWEEN A FOOD ALLERGY AND FOOD INTOLERANCE

You may have heard of or know someone with lactose intolerance, for example. This is actually not a food allergy, but a food intolerance. While food allergies are mediated by the immune system, food intolerance is not. Food intolerance usually occurs as a result of the body's inability to digest a certain food. Furthermore, food intolerance is rarely life-threatening.

THE MOST COMMON FOOD ALLERGIES

There are eight food allergens that are responsible for 90% of food allergies. These include:

- 1) Milk
- 2) Eggs
- 3) Peanuts
- 4) Soy
- 5) Wheat
- 6) Tree nuts
- 7) Fish
- 8) Shellfish



DIAGNOSIS

A large part of a food allergy diagnosis is based on medical history, particularly the history of the suspected allergic reaction. If your allergist strongly suspects a food allergy, there are a few tests that may be done:

Skin tests:

A skin prick test is usually done on the back or forearm. A small amount of the allergen is introduced on the skin surface, and the skin is pricked. After 15 minutes, it is noted whether or not a wheal, which is a small reddish bump, is formed. If no wheal appears, it is usually considered a negative skin test. If a wheal appears, it is considered a positive skin test.

Blood tests:

Another test that may be performed is a blood test known as a radioallergosorbent test (RAST). RASTs check the IgE antibody levels in the blood for certain food allergens.

While both of these tests are very good diagnostic tools, neither is 100 percent accurate and false positives and negatives are possible. The only definitive test for a food allergy involves seeing what happens after the suspect food is eaten.

Food challenge:

If the other tests are not conclusive, a food challenge may be recommended by your allergist. This involves eating gradually increasing amounts of the suspect food in a medical setting, and observing for any signs of an allergic reaction.

Elimination diet:

During an elimination diet, suspect foods are removed from the diet for approximately 3 weeks. If the symptoms cease during this time, it is likely that this food is causing the symptoms. The food is then gradually reintroduced to the diet. If the symptoms return, it can be concluded that the child is allergic to that food.

SIGNS AND SYMPTOMS OF AN ALLERGIC REACTION

Now that we know your child has a food allergy, it's important to be able to recognize the signs of an allergic reaction, which can include any of the following:

- **Skin and mucous membranes:** hives, eczema, redness and swelling of the face or extremities, and itching and swelling of the tongue, lips, mouth, and throat
- **Gastrointestinal tract:** nausea, abdominal pain, vomiting, and diarrhea
- **Respiratory system:** runny nose, sneezing, coughing, wheezing, and trouble breathing
- **Cardiovascular system:** a drop in blood pressure, fainting, and dizziness

An allergic reaction can happen with any number of these symptoms. These symptoms can occur within minutes of eating the triggering food or, more rarely, a few hours after. They can go away within an hour after medication, or sometimes take a longer time to disappear.

Anaphylaxis

Anaphylaxis is a severe allergic reaction. It usually happens suddenly and can include a number of symptoms. Signs of an anaphylactic reaction include:

- Trouble breathing,
- Low blood pressure,
- Weak pulse,
- Swelling of the lips, tongue, and/or throat, and
- Severe vomiting.

If your child has symptoms related to two or more body systems, this is an indication that the reaction is widespread and anaphylactic. If you suspect an anaphylactic reaction, it is crucial that you give your child epinephrine and seek medical care immediately. Subsequent reactions, known as biphasic reactions, can occur, and he/she must be closely monitored for 3 to 4 hours after an anaphylactic reaction. An anaphylactic reaction can be a frightening experience so it is important to have an emergency plan and be prepared at all times.

Exposures that can lead to food-allergic reactions

- **Ingestion** of the allergen can lead to a reaction. The severity of the reaction depends on how sensitive a person is to the allergen and how much of it is ingested. This varies for different people, and some people can have a serious reaction from ingesting only a minuscule amount. Because it is impossible to know exactly how much of the allergen can cause a reaction, people with food allergies must be extra careful.
- **Contact** with the food allergen can cause a reaction. If a food allergen touches the skin of an allergic child, it can cause a localized reaction. The more contact the allergen has with the skin, the more serious the reaction can be. If the child then touches his/her eyes or mouth, a more severe reaction can occur.
- **Airborne** exposure to the allergen can cause a reaction, although this is rare and usually only occurs under circumstances in which the food protein is in the air in high concentrations. For example, someone shelling peanuts or frying fish in a closed area could trigger a food-allergic reaction in a susceptible person. It is important to keep in mind that these reactions do not occur in open spaces, or if someone is simply eating the food nearby.

TREATMENT OF FOOD ALLERGIES

Avoidance

The primary and most effective way to treat food allergies is to avoid any foods or drinks containing the allergen. It is important to read the labels of all packaged foods. In 2004, the Food Allergen Labeling and Consumer Protection Act was passed requiring that any food produced after 2006 clearly list the ingredients derived from any of the eight major food allergens. This makes it easier to recognize and steer clear of allergen-containing foods.