

**UNDERSTANDING
FOOD
ALLERGIES**

a guide to
food & egg
allergies

FOOD ALLERGIES

Food allergies are a serious health threat for some people and can result in severe illness and possible death. A food allergy is the immune system's reaction to a protein in a food that it mistakenly identifies as a harmful substance. When the allergic person eats and absorbs a problem food an immune system reaction occurs to the specific food. Allergies to nearly 175 different types of foods have been documented.

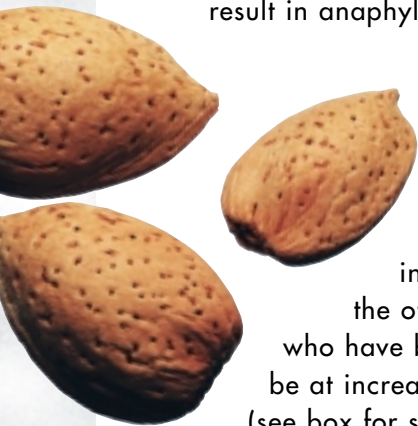
Allergic reactions to a food may be immediate or delayed and can cause a variety of symptoms (see box). In both cases, the antigen (allergen) interacts immediately with the immune system, but the timing of symptoms varies from minutes to 24 hours after consumption of the antigen and can last 48 to 72 hours, or sometimes longer.

Symptoms of a food allergy are highly individualistic, varying in terms of degree, time of onset, location and amount of food eaten. Symptoms can vary within the same person as well as among populations. One type of food can produce vastly different symptoms in different people allergic to the same food. And, different foods can cause different symptoms in the same person. Very sensitive people may experience an allergic reaction by simply touching or smelling a problem food.

An immediate allergic response involving the combination of antigen and IgE antibodies of a sensitive individual can result in anaphylaxis. Anaphylaxis is a severe life-threatening allergic reaction.

Anaphylaxis can be caused by a wide variety of agents, such as food, medications, insect stings, and latex. Any food that someone is allergic to can potentially cause anaphylaxis in an allergic individual and only $\frac{1}{5}$ of a teaspoon of the offending food can cause death. People who have both asthma and food allergies seem to be at increased risk for an anaphylactic reaction (see box for symptoms of anaphylaxis).

To properly diagnose a true food allergy the problem food must be identified. Since allergies always involve antibodies, and can only be diagnosed by testing for antibodies, a



board-certified allergist is essential. Once a food allergy has been diagnosed, strict avoidance of the offending food is the only known treatment since there is no known cure. The allergist will help design a treatment plan for successful management of food allergies and allergic reactions. A registered dietitian can also be helpful in developing a healthful and palatable diet despite food restrictions, and in monitoring food records for hidden sources of offending foods. By taking the necessary precautions, food allergies can be kept under control and allergic reactions can be prevented.



- **The most common food allergens are peanuts, tree nuts (almonds, pecans, and walnuts), cow's milk, soy, wheat, eggs, fish, and shellfish. These foods cause 90 percent of all food allergy reactions.**
- **Symptoms of food allergy include hives, itching (of any part of the body), tingling in the mouth, swelling (of any body parts), red watery eyes, runny nose, vomiting, diarrhea, stomach cramps, change of voice, coughing, wheezing, throat tightness or closing, difficulty swallowing, difficulty breathing, dizziness, fainting or loss of consciousness, change of color, and anaphylaxis.**
- **Symptoms of anaphylaxis include any systemic allergic reaction as well as unconsciousness, drop in blood pressure and even death, and can occur in as little as 5 to 15 minutes or develop over several hours.**

EGGS

Eggs are a nutrient dense source of high quality protein containing a wide variety of vitamins and minerals with few calories. However, if someone has been diagnosed with an egg allergy or is allergic to egg white or egg yolk, eggs must be avoided completely. And, it is impossible to separate the egg white and yolk without having some parts of each combine. Even a tiny amount of egg white or egg yolk may be enough to cause an allergic reaction. Unfortunately, eliminating eggs from ones diet will cause the person to miss out on the many healthful benefits eggs provide.

Because eggs are extremely versatile they are used in a wide variety of food products. They are used to bind and coat, leaven, form emulsions, and as interfering and clarifying agents. Eggs are used to form the custard base in ice creams and yogurts. Egg whites are often used to give rolls, breads, and other baked goods for a shiny appearance. Eggs are used in batters to coat fried foods. Egg whites may be used in soup stocks, consumes, bouillons, and coffees. Eggs are found in mayonnaise, marshmallows, marzipan, divinity, nougats, frostings, meringues, and many other candies and foods.

Many commercially prepared grain products contain eggs, such as breads. A common problem on an egg restricted diet is that egg-free grain products may be hard to locate. This could result in low blood levels of B vitamins and iron, so a daily multivitamin with iron is recommended.



BUYING FOOD

Reading ingredient labels on food packages is required since processed foods may contain amounts of an allergic food. To avoid an allergic reaction for someone who is allergic to eggs it is necessary to read the ingredients labels on all food boxes and cans to find food products made without eggs. The following terms are how eggs can appear on ingredient labels. If any of the following words appear on an ingredient label, that product should be avoided completely by someone with an egg allergy.

Albumin
Egg (white, yolk, dried, powdered, solids)
Egg Substitutes
Eggnog
Globulin
Livetin
Lysozyme (used in Europe)

Mayonnaise
Meringue
Ovalbumin
Ovomucin
Ovomucoid
Ovovitellin
Simplese
Surimi



EASY EGG SUBSTITUTES

Here are easy-to-make egg substitutes to use in recipes. For each egg required in a recipe, substitute one of the following:

1. 1½ tablespoons water, plus 1½ tablespoons oil, plus 1 teaspoon baking powder.
2. 1 teaspoon baking powder, plus 1 tablespoon water, plus 1 tablespoon vinegar.
3. 1 teaspoon yeast dissolved in ¼ cup warm water.
4. Mix 1 packet of unflavored gelatin with 1 cup of boiling water. Substitute 3 tablespoons of this liquid for each egg called for in a recipe. Refrigerate remainder for up to one week, and microwave to liquefy for re-use. Use in recipes with another source of leavening (i.e., baking powder or baking soda) since the gelatin functions as a binder, not a leavening agent.

Source: *Food Allergy Network*

COMMONLY ASKED QUESTIONS

Who is most likely to develop a food allergy?

Infants and toddlers are most likely to develop food allergies since food allergies occur early in life when the immune and digestive systems are not fully matured. Around 8 percent of young children have food allergies and most outgrow their allergy by the time they are five years old.

If I have a food allergy, will my baby?

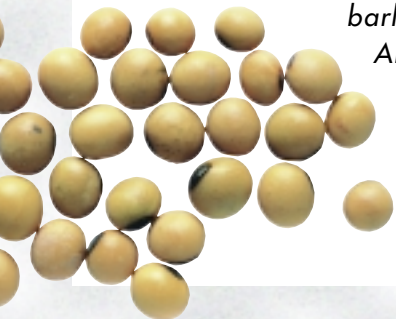
An infant's risk for developing food allergies is strongly influenced by the family history of allergies. Food allergies are mostly inherited, however, anyone can develop a food allergy. Children with an allergic parent have twice the risk of developing a food allergy than children without an allergic parent. If both parents are allergic, a child is four times more likely to develop a food allergy than if neither parent is allergic.

Since the family history of food allergies cannot be changed, delaying the introduction of major food allergens is often recommended. Delaying introduction of these foods may prevent, decrease the severity of, or delay the onset of food allergies by allowing the infants immune system to fully develop before it is exposed to potentially allergic foods.

How do I introduce new foods to my baby?

Pediatricians advise that solid foods not be fed to a baby until it is six months old. To prevent food allergy and to identify one should it occur, it is recommended to introduce single-ingredient foods, one at a time, in small portions, and then waiting four to five days before trying another new food. Introduce the least sensitive types of food first, which is cereal made from rice, follow with non-citrus fruits, vegetables, meat, wheat, oats and barley, soy and eggs. In addition, the

American Academy of Pediatrics recommends that all children, allergy-prone or not, wait until they are 1 year old before consuming milk and milk products because the proteins in cow's milk are especially difficult for babies under age 1 to digest.



What do I do if my infant is at high risk of developing food allergies?

Introducing solid foods to the diets of babies with confirmed food allergies and those babies with a risk of developing allergies should be gradual and conservative. Preventive measures need to be followed in high-risk infants with close supervision from a pediatrician and dietitian. These measures include prolonged breast feeding, use of a proven hypo-allergenic formula as a supplement to breast feeding or after weaning during the first 6 to 12 months, late introduction of solid foods, delaying allergenic foods such as milk or eggs until after the first year, and delaying peanuts (including peanut butter), fish, or nuts until the child is three to four years old since these foods cause the most severe symptoms. This delayed introduction of some foods is recommended because when children get older they are not as likely to become allergic.



What is the difference between a food intolerance and a food allergy?

A food intolerance is an adverse food-induced reaction that does not involve the immune system, like a true food allergy does. Food allergies are rare, whereas food intolerances are more common. For example, lactose intolerance occurs in many individuals. Intolerance reactions are rarely life threatening and the symptoms include stomachaches, headaches, rapid pulse rate, nausea, wheezing, hives, bronchial irritation, coughs, and other such discomforts. These reactions involve symptoms without antibody production.

When do symptoms occur?

To determine if a child has a food allergy rather than another ailment it is important to remember that symptoms set in suddenly, within minutes to hours after a child has eaten and go away within 24 hours. Most kids will experience several symptoms at once. Always let a doctor know if any symptoms occur with the introduction of a new food.

Who do I need to tell about my child's food allergy?

It is important that all parents, day care providers, babysitters, teachers, siblings, and others who are in contact with the child know about a food allergy. This is vital so that these people can become familiar with the early signs of an allergic reaction. While symptoms are usually mild to moderate, in rare cases a child may have extreme difficulty breathing and even lose consciousness. This is called anaphylactic shock and without immediate medical help can be fatal.

What do I do if my child eats an allergic food by mistake?

If by accident a child eats an allergic food, he or she should carry a kit containing epinephrine (adrenalin) at all times and should know how to inject himself in case of an emergency. By taking necessary precautions most infants and children with food allergies are able to stay out of danger.

Where can I get more information on food allergies?

The Food Allergy Network

10400 Eaton Place,
Suite 107
Fairfax, VA 22030-2208
1-800-929-4040
<http://www.foodallergy.org>

International Food Information Council Foundation (IFIC)

1100 Connecticut Ave., NW,
Suite 430
Washington, DC 20036
(202) 296-6540
<http://ificinfo.health.org>



Egg Nutrition Center
1050 17th St., NW, Suite 560
Washington, DC 20036
(202) 833-8850
<http://enc-online.org>

