



About Food Allergies

While an estimated 40 to 50 million Americans have allergies, only 1 percent to 2 percent of all adults are allergic to foods or food additives. Eight percent of children under age 6 have adverse reactions to ingested foods; only 2 percent to 5 percent have confirmed food allergies. The following information addresses commonly asked questions regarding food allergy.

What Are Symptoms of Food Allergy?

Allergic reactions to foods typically begin within minutes to a few hours after eating the offending food. The frequency and severity of symptoms vary widely from one person to another. Mildly allergic persons may only suffer a runny nose with sneezing, while highly allergic persons may experience severe and life-threatening reactions, such as asthma or swelling of the tongue, lips or throat.

The most common symptoms of food allergy involve the skin and intestines. Skin rashes include hives and eczema. Intestinal symptoms typically include vomiting, nausea, stomach cramps, indigestion and diarrhea. Other symptoms can be asthma, with cough or wheezing; rhinitis, often including itchy, stuffy, runny nose and sneezing; and rarely, anaphylaxis, a severe allergic reaction that may be life threatening.

Because these symptoms can be caused by a number of different diseases other than food allergy, your allergist-immunologist may want to examine you to rule them out as the source of your problem.

What Causes My Symptoms?

A food allergy is the result of your body's immune system overreacting to food proteins called allergens. Normally, your immune system and defense mechanisms keep you healthy by fighting off infections and inactivating proteins such as food allergens, which could potentially cause allergic reactions. Therefore, the majority of people develop a tolerance to a wide variety of different foods in their diet.

In the individual with food allergy, the immune system produces increased amounts of immunoglobulin E antibody, or IgE. When these antibodies battle with food allergens, histamine and other chemicals are released as part of the body's immune reaction to these substances. These chemicals can cause blood vessels to widen, smooth muscles to contract, and affected skin areas to become red, itchy and swollen. These IgE antibodies can be found in different body tissues - skin, intestines and lungs - where specific allergy symptoms, such as hives, vomiting, diarrhea and wheezing are observed.

Not all adverse reactions to foods are due to allergy. Some reactions to cow's milk, for example, are related to a deficiency of an enzyme (lactase) that normally breaks down a sugar in milk (lactose). When individuals with lactase deficiency drink cow's milk or eat other dairy products, they may experience intestinal symptoms, including stomach cramping, gas and diarrhea. This is sometimes misinterpreted as a food allergy.

Why Me? Why Have I Developed Food Allergy?

Heredity seems to be the prime reason some people have allergies and others don't. If both your parents have allergies, you have approximately a 75 percent chance of being allergic. If one parent is allergic, or you have relatives on one side with allergies, you have a 30 percent to 40 percent chance of developing some form of allergy. If neither parent has apparent allergy, the chance is 10 percent to 15 percent.

Although food allergy occurs most often in infants and children, it can appear at any age and can be caused by foods that had been previously eaten without any problems. Finally, excessive exposure to a particular food may affect the overall rate of allergy to that food, as testified to by the high prevalence of fish allergy among Scandinavians and of rice allergy among the Japanese.

Which Foods Are Most Likely To Cause Allergy?

Eggs, cow's milk, peanuts, soy, wheat, tree nuts, fish and shellfish are the most common foods causing allergic reactions, but almost any food has the potential to trigger an allergy. Foods most likely to cause anaphylaxis are peanuts, tree nuts and shellfish.

Keep in mind that, if you are allergic to a particular food, you might be allergic to related foods. For example, a person allergic to walnuts may also be allergic to pecans and persons allergic to shrimp may not tolerate crab and lobster. Likewise, a person allergic to peanuts may not tolerate one or two other members of the legume family, such as soy, peas or certain beans. Clinical research of individuals with food allergy, however, has demonstrated that the overwhelming majority of patients with food allergy are only allergic to one or two different foods. Complete restriction of all foods in one botanical family based on an allergy to one of its members is rarely necessary. Discuss these issues with your allergist.

How Do Allergists Determine Which Foods Make Me Sick?

Some people know exactly what food causes their allergic symptoms. They eat peanuts or a peanut-containing product and immediately break out with hives. Other individuals need their allergist's help in determining the "culprit," especially when the specific food cannot be identified or when the symptoms show up many hours after ingesting an offending food.

Your allergist-immunologist will typically begin by taking a comprehensive medical history. Specifically, you'll be asked about the symptoms you experience following the food ingestion, how long after the food ingestion they occurred, how much of the offending food was ingested, how often the reaction has occurred and what type of medical treatment, if any, was required. Moreover, you will be asked about your overall diet, your family's medical history and your home environment.

These questions are necessary because your allergist wants to eliminate the possibility that another problem or allergic condition may be causing or adding to your symptoms. For example, a patient's allergy to inhalant pollen such as ragweed may be related to allergic symptoms in the mouth and throat following the ingestion of certain melons, such as watermelon, cantaloupe or honeydew.

What Is Allergy Testing?

You may be asked to undergo some allergy testing. Your allergist-immunologist may employ skin testing, in which a diluted amount of the appropriate food extract is placed on the skin and the skin is then lightly punctured. This procedure is safe and generally not painful. Within 15 to 20 minutes, a positive reaction typically appears as a raised bump surrounded by redness, similar to a mosquito bite, and indicates the presence of allergic, or IgE, antibodies to the particular food. In some cases, an allergy (IgE) blood test can be used to provide similar information to that obtained by the skin test. The IgE blood test is generally more expensive than skin testing and the results are usually not available for one to two weeks.

If properly performed and interpreted, skin tests or IgE blood tests to foods are reliable and good screening tests for food allergy. However, it's entirely possible to test "allergic" to a food (by skin testing or IgE blood testing) and yet have no symptoms when that food is eaten. Thus, confirmation requires appropriately designed oral challenge testing with each suspected food.

How Do Special Diets Help Pinpoint the Problem?

With the information gained from your history, physical exam and testing, your allergist may further narrow down the suspected foods by placing you on a special diet. If your symptoms occur only occasionally, the culprit is likely a food that is eaten infrequently. Your allergist-immunologist may ask you to keep a daily food diary listing all food and medication ingested, along with your symptoms for the day. By reviewing and comparing "good days" with "bad days," you and your allergist may be able to determine which food is causing your reaction.

If only one or two foods seem to be causing allergic reactions, it may be necessary for the patient to go on a food elimination diet. The suspect food must be completely eliminated in any form for a short time - one to two weeks. If the allergic symptoms subside during abstinence and flare up when the food is ingested again, the likelihood of identifying the problem food can be increased.

If several foods appear to cause problems and/or the diagnosis of food allergy is equivocal, your allergist may want to confirm the role of each suspected food by oral food challenge testing. Not all positive skin tests and/or IgE blood tests equal a definite food allergy. With this in mind, food challenges are the best way to determine whether or not a food allergy really exists.

During an oral food challenge test the patient will eat or drink small portions of a suspected food in gradually increasing portions over a given period of time, usually under a physician's supervision, to see if an allergic reaction occurs.

Once My Allergy Is Identified, How Is It Treated?

Once the diagnosis of food allergy is confirmed, the most effective treatment is not eating the offending food in any form. Therefore, the patient must be vigilant in checking ingredient labels of food products and learning other names of identification of the responsible food or food additive to make sure it is not present. When you eat in a restaurant, you must be particularly vigilant and you should take emergency medicines with you if you have a history of severe reactions. Waiters (and sometimes the kitchen chef) are not always aware of the exact ingredients of each item on the restaurant's menu.

All patients with food allergies must make some changes in the foods they eat. Special food-allergy cookbooks, patient support groups and registered dietitians can provide valuable assistance regarding your diet. Your allergist can direct you to these resources.

What if I Accidentally Eat a Food I'm Allergic to?

Individuals with food allergy should have a clearly defined plan of action for handling situations in which they accidentally ingest a food allergen. Have a list of symptoms and your doctor's instructions for treatment posted in a prominent place in your kitchen. Oral antihistamines can be very useful in treating many of the early symptoms of a mild allergic reaction to a food.

Persons with histories of severe reactions need to be instructed in when and how to give themselves a shot of epinephrine (adrenaline) in the event of a severe allergic reaction. This medication is available in easy-to-use injectable devices and should be carried by persons with histories of severe allergic reactions. You should be taken to the hospital or call 911 and arrange for follow-up medical care for a severe reaction. Bracelets or necklaces may be worn to quickly alert medical personnel or other caretakers about food allergies.

Will I Ever Be Able To Eat These Foods Again?

In some cases, particularly in children, strict adherence to an elimination diet appears to promote the process of outgrowing a food allergy. For example, the vast majority of patients with documented allergic reactions to eggs, cow's milk and soy eventually become tolerant to these foods. Allergies to peanuts, tree nuts, fish and shellfish, however, typically last a lifetime and are not outgrown. Overall, approximately one-third of children and adults will eventually be free of their allergic reactions to foods after rigorously following appropriate diets free of the offending food allergens.

After you have eliminated foods responsible for allergic reactions for a period of at least six months, your allergist may recommend that you undergo an oral food challenge under observation to reassess your symptoms. If you have no reaction and can ingest a normally prepared portion of the food, you will be able to safely reintroduce this food into your diet. If any symptoms of an allergic reaction do occur, the dietary restriction will need to be continued.

If you have had a severe immediate-type allergic reaction to a certain food, such as an anaphylactic reaction to peanuts, your allergist-immunologist may recommend that you never again eat this food and rarely would a food challenge be needed to confirm the history. Remember, in some very allergic persons a very small quantity of an allergenic food can produce a life-threatening reaction.

Patients who use caution and carefully follow an allergist's advice can bring food allergy under control. Please contact your allergist-immunologist with further questions and concerns about food allergy.

Updated March 2000

© Copyright 2000 American College of Allergy, Asthma and Immunology