

# Food Allergies

**A** food allergy is an adverse immune response to a food. Your immune system makes **antibodies** to protect you from germs and disease, but it may also sometimes make antibodies to certain food proteins. Some of these antibodies (called IgE) are known to be associated with allergic reactions. When that happens, your immune system treats the food as if it were a harmful substance, resulting in an allergic reaction. The proportion of people with food allergies is not known with precision because of differing definitions, but it is between 2% and 10% and is more common in children than adults. The May 12, 2010, issue of *JAMA* includes a review article about food allergies.

## TRIGGERING A REACTION

Food allergies can cause serious illness or death. The most common food allergies are to proteins in cow's milk, eggs, peanuts, wheat, soy, fish, shellfish, and tree nuts. In people with food allergies, even a tiny amount of the food can trigger an immune response. Peanuts and tree nuts are the leading causes of severe food allergic reactions. In the immune response, IgE antibodies cause **mast cells** (type of immune system cell) to release chemicals into the bloodstream. **Histamine**, one of these chemicals, causes many of the symptoms listed below. **Anaphylaxis** occurs when several of these symptoms occur simultaneously and may include decreased blood pressure, narrowed airways in the lungs, and tongue swelling.

## SYMPTOMS

Allergic reactions to food can be mild to severe. They usually occur within a few minutes of eating a food, though they rarely appear a few hours after ingestion. Symptoms can include runny nose, itchy skin, rash or hives, tingling in tongue or lips, tightness in throat, hoarse voice, wheezing, cough, nausea, vomiting, stomach pain, or diarrhea.

## FOOD ALLERGY VS FOOD INTOLERANCE

Food intolerance is often confused with food allergy. Food intolerance is a less serious condition that does not involve the immune system. It is more common than food allergy and occurs when the digestive system is unable to properly break down food. Lactose intolerance after eating dairy foods is the most common form of food intolerance. Symptoms may include diarrhea, stomach pain, and vomiting, but not hives, airway swelling, or anaphylaxis.

## TREATMENT AND PROGNOSIS

Food allergies, like other allergic conditions, are believed to have a strong genetic component but may develop at any age. The clinical history, use of skin prick tests, and blood tests for antibodies to particular foods all have a role in making a diagnosis. In some cases, oral food challenges are necessary, and these should be done by a qualified **allergist** (a doctor with specialized training in diagnosing and treating allergies). Management typically includes avoidance of the specific foods identified by clinical evaluation and allergy testing and development of an emergency treatment plan in the event of accidental exposure or ingestion. The plan should include what to do, whom to tell, and which medications to take. **Antihistamines** (medications that block histamine effects) are not a substitute for an **epinephrine** autoinjector, which can be self-administered by the patient for a severe allergic reaction. After using epinephrine, you should go to a hospital for evaluation and observation. Read food labels carefully and ask about ingredients before eating food prepared by other persons or restaurants. Some people wear medical alert jewelry. Many children outgrow allergies to milk and eggs, but severe allergies to foods like peanuts, some fish, and shrimp can last a lifetime.

Sources: National Institute of Allergy and Infectious Diseases; American Academy of Allergy, Asthma, and Immunology

Huan J. Chang, MD, MPH, Writer

Alison E. Burke, MA, Illustrator

Richard M. Glass, MD, Editor

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## FOR MORE INFORMATION

- National Institute of Allergy and Infectious Diseases  
[www.niaid.nih.gov/topics/foodallergy](http://www.niaid.nih.gov/topics/foodallergy)
- American Academy of Allergy, Asthma, and Immunology  
[www.aaaai.org/patients/publicedmat/tips/foodallergy.stm](http://www.aaaai.org/patients/publicedmat/tips/foodallergy.stm)

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