

Different Types of Allergic Reactions to Foods



If your child has symptoms after eating certain foods, he or she may have a food allergy.

A **food allergy** occurs when the body's immune system sees a certain food as harmful and reacts by causing symptoms. This is an **allergic reaction**. Foods that cause allergic reactions are **allergens**.

Two Categories of Food Allergies

1 Immunoglobulin E (IgE) mediated. Symptoms result from the body's immune system making antibodies called Immunoglobulin E (IgE) antibodies. These IgE antibodies react with a certain food.

2 Non-IgE mediated. Other parts of the body's immune system react to a certain food. This reaction causes symptoms, but does not involve an IgE antibody. Someone can have both IgE mediated and non-IgE mediated food allergies.

IgE Mediated Food Allergies

The IgE mediated food allergies most common in infants and children are eggs, milk, peanuts, tree nuts, soy and wheat. The allergic reaction can involve the skin, mouth, eyes, lungs, heart, gut and brain. Some of the symptoms can include:

- Skin rash, itching, hives
- Swelling of the lips, tongue or throat
- Shortness of breath, trouble breathing, wheezing
- Stomach pain, vomiting, diarrhea
- Feeling like something awful is about to happen

Sometimes allergy symptoms are mild. Other times they can be severe. Take all allergic symptoms seriously. Mild and severe symptoms can lead to a serious allergic reaction called anaphylaxis (anna-fih-LACK-sis). This reaction usually involves more than one part of the body, and can get worse fast. **Anaphylaxis must be treated right away to provide the best chance for improvement and prevent serious, potentially life-threatening complications.**

Treat anaphylaxis with **epinephrine**. This medicine is safe and comes in an easy-to-use device called an auto-injector. You can't rely on antihistamines to treat anaphylaxis. The symptoms of an anaphylactic reaction occur shortly after contact with an allergen. In some individuals, there may be a delay of two to three hours before symptoms first appear.

Cross Reactivity and Oral Allergy Syndrome

Having an IgE mediated allergy to one food can mean your child is allergic to similar foods. For example, if your child is allergic to shrimp, he or she may be allergic to other types of shellfish, such as crab or crayfish. Or if your child is allergic to cow's milk, he or she may also be allergic to goat's and sheep's milk. The reaction between different foods is called **cross-reactivity**. This happens when proteins in one food are similar to the proteins in another food.

Cross-reactivity also can occur between latex and certain foods. For example, a child who has an allergy to latex may also have an allergy to bananas, avocados, kiwis or chestnuts.

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Page 1 of 2
Rev. April 2017



Some people who have allergies to pollens, such as ragweed and grasses, may also be allergic to some foods. Proteins in the pollens are like the proteins in some fruits and vegetables. So, if your child is allergic to ragweed, he or she may have an allergic reaction to melons and bananas. That's because the protein in ragweed looks like the proteins in melons and bananas. This condition is **oral allergy syndrome**.

Symptoms of an oral allergy syndrome include an itchy mouth, throat or tongue. Symptoms can be more severe and may include hives, shortness of breath and vomiting. Reactions usually occur only when someone eats raw food. In rare cases, reactions can be life-threatening and need epinephrine.

If your child has any food allergy symptoms, see your child's doctor or allergist. Only a doctor can make a proper diagnosis whether your child has an IgE-or non-IgE food allergy. Both can be present in some children.

Non-IgE Mediated Food Allergies

Most symptoms of **non-IgE mediated food allergies** involve the digestive tract. Symptoms may be vomiting and diarrhea. The symptoms can take longer to develop and may last longer than IgE mediated allergy symptoms. Sometimes, a reaction to a food allergen occurs up 3 days after eating the food allergen.

When an allergic reaction occurs with this type of allergy, epinephrine is usually not needed. In general, the best way to treat these allergies is to stay away from the food that causes the reaction. Below are examples of conditions related to non-IgE mediated food allergies.

Eosinophilic Esophagitis (EoE)

Eosinophilic (ee-uh-sin-uh-fil-ik) esophagitis is an inflamed esophagus. The esophagus is a tube from the throat to the stomach. An allergy to a food can cause this condition.

With EoE, swallowing food can be hard and painful. Symptoms in infants and toddlers are irritability, problems with eating and poor weight gain. Older children may have reflux, vomiting, stomach pain, chest pain and a feeling like food is "stuck" in

Not all children who react to a certain food have an allergy. They may have **food intolerance**. Examples are lactose intolerance, gluten intolerance, sulfite sensitivity or dye sensitivity. Staying away from these foods is the best way to avoid a reaction. Your child's doctor may suggest other steps to prevent a reaction.

their throat. The symptoms can occur days or even weeks after eating a food allergen.

EoE is treated by special diets that remove the foods that are causing the condition. Medication may also be used to reduce inflammation.

Food Protein-Induced Enterocolitis Syndrome (FPIES)

FPIES is another type of food allergy. It most often affects young infants. Symptoms usually don't appear for two or more hours. Symptoms include vomiting, which starts about 2 hours or later after eating the food causing the condition. This condition can also cause diarrhea and failure to gain weight or height. Once the infant stops eating the food causing the allergy, the symptoms go away. Rarely, severe vomiting and diarrhea can occur which can lead to dehydration and even shock. Shock occurs when the body is not getting enough blood flow. Emergency treatment for severe symptoms must occur right away at a hospital. The foods most likely to be a problem are dairy, soy, rice, oat, barley, green beans, peas, sweet potatoes, squash and poultry.

Allergic Proctocolitis

Allergic proctocolitis is an allergy to formula or breast milk. This condition inflames the lower part of the intestine. It affects infants in their first year of life and usually ends by age 1 year.

The symptoms include blood-streaked, watery and mucus-filled stools. Infants may also develop green stools, diarrhea, vomiting, anemia (low blood count) and fussiness. When properly diagnosed, symptoms resolve once the offending food(s) are removed from the diet.

FOR MORE INFORMATION

For more information about different types of allergic reactions to foods, please visit:

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Page 2 of 2
Rev. April 2017

