

## First aid : Anaphylactic shock

### Food Allergy Overview

A food allergy is an immune-mediated adverse reaction to a particular food. For someone with a food allergy, eating or swallowing even a tiny amount of a particular food can cause symptoms such as skin rash, nausea, vomiting, cramping, and diarrhea. Because the body is reacting to something that is otherwise harmless, this type of allergic reaction is often called a hypersensitivity reaction. Rarely, a severe allergic reaction can cause a life-threatening set of symptoms called **anaphylaxis**, or **anaphylactic** shock.

Although a large percentage of people believe they have a food allergy, few adults and children, mainly younger than 6 years, have true food allergies. The rest have what is known as food intolerance, an undesirable reaction to a food that does not involve the immune system.

It is easy to confuse food intolerance with food allergy because they can have similar symptoms. With food intolerance, however, a person usually gets only mild symptoms such as an upset stomach.

- A **common example** of food intolerance is lactose intolerance, a condition in which a person is missing a certain enzyme necessary to digest dairy proteins. The result is loose stools, gas, and nausea after consuming dairy products such as milk or cheese.
- **Another example** of food intolerance is reaction to MSG. MSG, or monosodium glutamate, is a white-colored additive used to enhance the flavor of food. It is a fermented mixture of glutamic acid, sodium, and water and is used mainly in Asian cooking. Over the last decades, side effects from MSG have been related to its use in Chinese food and referred to as the Chinese restaurant syndrome. In this syndrome, MSG was suggested as the cause of the symptoms following a Chinese meal. In 1995, a new term was coined, the MSG symptom complex, to include all the reactions that were reported to be related to MSG. These reactions are not a true food allergy, and the exact cause of the reactions is unknown.

### Food Allergy Causes

An allergic reaction occurs when the body's immune system overreacts to an allergen, in this case a food protein.

- The white blood cells produce an antibody to this allergen, called immunoglobulin E or IgE.
  - When this antibody comes in contact with the particular food protein, it promotes production and release of certain chemicals called "mediators." Histamine is an example of a mediator.
  - These mediators act on various parts of the body, mainly the skin, throat, airways, intestines, and heart.
  - The effects of the mediators on organs and other cells cause the symptoms of the allergic reaction.

Any food has the potential to trigger an allergic reaction, but a few foods account for most food allergies. In fact, most food allergies are triggered by one of these eight foods:

- Eggs
- Milk
- Wheat
- Soy
- Peanuts
- Tree nuts
- Fish
- Shellfish

Generally, people who have allergies react to only a few foods. Occasionally, a person who is allergic to one food also may be allergic to other related foods. This is called cross-reaction. Common examples:

- Allergy to peanuts -- Cross-allergies to soybeans, green beans, and peas
- Allergy to wheat -- Cross-allergy to rye
- Allergy to cow's milk -- Cross-allergy to goat's milk
- Allergy to pollen -- Cross-allergies to foods such as hazelnuts, green apples, peaches, and almonds

## Food Allergy Symptoms

A person with a food allergy can have symptoms beginning as soon as 2 minutes after eating the food, but reactions may take 1 to 2 hours to appear. Occasionally, symptoms abate quickly, only to recur in 3 to 4 hours.

The most common symptoms include the following:

- Itching of the skin followed by hives, a rash of raised, reddish bumps or wheals
- Swelling of the lips and mouth
- Belly cramps
- Nausea

- Vomiting
- Diarrhea

Other symptoms may include the following:

- Itching and watering in the eyes
- Runny or stuffy nose
- Symptoms of a more severe reaction could include the following:
  - Shortness of breath or difficulty breathing
  - Tightness in the chest
  - Feeling of tightness or choking in the throat
  - Rapid or irregular heart beat
  - Feeling dizzy or light-headed
  - Losing consciousness
- A severe allergic reaction can be life threatening. This severe reaction is referred to as anaphylaxis, or anaphylactic shock.
  - The dizziness, lightheadedness, and loss of consciousness are due to dangerously low blood pressure, called "shock."
  - An anaphylactic reaction can begin suddenly, or it may develop gradually with itchiness and swelling of the skin and throat and then progress to a severe reaction over a few hours.
  - Most people get such a reaction immediately after eating the food, but in a few unusual cases the reaction occurs only after exercising following the ingestion of the food.
  - Severe reactions are most often seen with allergies to nuts, fish, and shellfish, although allergy to any food can cause anaphylaxis.
  - People with asthma, childhood allergies, eczema, or prior severe food allergies are especially at risk for having an anaphylactic reaction.

## When to Seek Medical Care

If a person experiences symptoms of food allergy, call a health care professional right away for advice.

- He or she may recommend that you go to a hospital emergency department.
- If the person is unable to reach a health care professional and is concerned about their symptoms, they should go to the emergency department.
- Severe reactions, including symptoms such as difficulty breathing, dizziness or lightheadedness, or tightness or choking in the throat, require treatment in an emergency department.
- Even mild symptoms that are not improving or are getting worse require evaluation in an emergency department.

## Food Allergy Treatment

After getting advice from the health care professional, some mild allergic reactions may be treated at home. Any worsening of symptoms requires medical attention.

# Food Allergy Self-Care at Home

For localized hives or other mild skin reactions:

- Take cool showers or apply cool compresses.
- Wear light clothing that doesn't irritate the skin.
- Take it easy. Keep activity level low.

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