



# MIDDLEBORO PEDIATRICS

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## INFORMATION ABOUT ANAPHYLAXIS

### Commonly Asked Questions About Anaphylaxis

What is anaphylaxis?

Anaphylaxis is a sudden, severe, potentially fatal, systemic allergic reaction that can involve various areas of the body (such as the skin, respiratory tract, gastrointestinal tract, and cardiovascular system). Symptoms occur within minutes to two hours after contact with the allergy-causing substance, but in rare instances may occur up to four hours later. Anaphylactic reactions can be mild to life-threatening. The annual incidence of anaphylactic reactions is about 30 per 100,000 persons, and individuals with asthma, eczema, or hay fever are at greater relative risk of experiencing anaphylaxis.

#### Common causes of anaphylaxis include:

- Food
- Medication
- Insect stings
- Latex

#### Less common causes include:

- Food-Dependent Exercise-Induced Anaphylaxis
- Idiopathic Anaphylaxis (Anaphylaxis of unknown cause)

#### Anaphylaxis to Food

Peanuts, tree nuts (walnuts, cashews, etc.), shellfish, fish, milk, and eggs commonly cause anaphylactic reactions. Only a trace amount of a problem food can cause a reaction in some individuals.

Food-induced anaphylaxis is believed to cause about 30,000 trips to the emergency room and between 150 to 200 deaths each year. Individuals who are allergic to foods and have asthma are believed to be at a higher risk for developing an anaphylactic reaction.

A recent study of 32 cases of fatal food-allergy induced anaphylaxis showed that adolescents who have peanut and tree nut allergy and asthma and don't have quick access to epinephrine, EpiPen®, during a reaction, are at highest risk for a fatal reaction.

Strict avoidance of the allergen is necessary for avoiding a severe reaction. Read food labels for every food each and every time you eat it. Ask questions about ingredients and preparation methods when eating away from home.

#### Anaphylaxis to Medication

Anaphylactic reactions to medication will typically occur within an hour after taking the drug, however reactions may occur several hours later. It is estimated that up to 10 percent of the population may be at risk for allergic reactions to medications.

According to literature from The American Academy of Allergy, Asthma & Immunology, "The chances of developing an allergic reaction may be increased if the drug is given frequently, in large doses, or by injection rather than by pill. The most important factor may be an inherited genetic tendency of the immune system to develop allergies. Contrary to popular myth, however, a family history of allergy to a specific drug does not mean that a patient has an increased chance of reacting to the same drug."

If you experience symptoms of an allergic reaction after taking medication, speak to your doctor. If symptoms are severe, or resemble anaphylaxis, get emergency medical help immediately.

For additional information about medication allergy, visit The American Academy of Allergy, Asthma & Immunology's website at <http://www.aaaai.org/public/publicedmat/tips/adversereactions.stm>

### **Anaphylaxis to Insect Sting**

Honeybees, bumblebees, yellow jackets, hornets, wasps, fire ants, and harvester ants are the most common causes of insect stings in the United States. The symptoms of anaphylactic reactions to insect stings usually occur within minutes of the sting.

Insect sting reactions can range from local to mild to life threatening. Local reactions can involve swelling of an area larger than the sting site; i.e., the entire arm can be swollen after a sting on the hand. This type of reaction may also include nausea and low-grade fever. Insect stings account for about 50 deaths each year.

To minimize the risk of an insect sting, avoid brightly colored clothing and/or scented cosmetics, perfumes, etc., avoid walking barefoot, use caution when cooking outdoors, and keep insecticide handy when working outdoors.

### **Anaphylaxis to Latex**

Latex allergy is most commonly diagnosed in individuals who are exposed to latex frequently, such as those employed in the health care or rubber industry fields, and in children with spina bifida and other congenital diseases requiring multiple surgeries. An estimated one percent of the U.S. population has latex allergy. Approximately 10 to 17 percent of those employed in the health care occupations have this allergy.

Some individuals with latex allergy will also develop reactions when eating foods that cross react with latex. These foods commonly include bananas, kiwi, avocados, and European chestnuts; and less commonly include potatoes; tomatoes; and peaches, plums, cherries, and other pitted fruits.

For additional information about latex allergy, visit:  
<http://www.aaaai.org/public/fastfacts/latex.stm>

### **Food-Dependent Exercise-Induced Anaphylaxis**

Food-dependent exercise-induced anaphylaxis is very rare and occurs only when an individual eats a specific food and exercises within three to four hours after eating. Individuals experiencing this type of reaction typically have asthma and other allergic conditions. Although any food may contribute to this form of anaphylaxis, foods that have been reported include wheat, shellfish, fruit, milk, celery, and fish. Food-dependent exercise-induced anaphylaxis appears to be twice as common in females than in males and is common in individuals who are in their late teens to thirties.

## **Idiopathic Anaphylaxis**

Idiopathic anaphylaxis is a severe reaction in which no cause can be determined. It can affect individuals of all ages although females are affected much more frequently than males. As with other forms of anaphylaxis, idiopathic anaphylaxis can be life threatening. Prophylactic daily treatment with a combination of medications can control the symptoms, and most episodes of idiopathic anaphylaxis subside spontaneously after several months or years.

## **Who is at risk for having an anaphylactic reaction?**

Anyone with a previous history of anaphylactic reactions is at risk for another severe reaction. Individuals with food allergies (particularly shellfish, peanuts, and tree nuts) and asthma may be at increased risk for having a life-threatening anaphylactic reaction. A recent study showed that teens with food allergy and asthma appear to be at highest risk for a reaction because they are more likely to dine away from home; they are less likely to carry medications, and may ignore or not recognize symptoms.

## **What are the symptoms of an anaphylactic reaction?**

An anaphylactic reaction may begin with a tingling sensation, itching, or metallic taste in the mouth. Other symptoms can include hives, a sensation of warmth, asthma symptoms, swelling of the mouth and throat area, difficulty breathing, vomiting, diarrhea, cramping, a drop in blood pressure, and loss of consciousness. These symptoms may begin in as little as five to 15 minutes to up to two hours after exposure to the allergen, but life-threatening reactions may progress over hours.

Some individuals have a reaction, and the symptoms go away only to return two to three hours later. This is called a bi-phasic reaction. Often the symptoms occur in the respiratory tract and take the individual by surprise.

If you have an anaphylactic reaction, seek professional medical help quickly. Stay in the hospital for four to six hours to be sure you can get help if you have a bi-phasic reaction. More than one individual's life has been saved because he or she was in the hospital when this second reaction occurred. If the hospital staff discharges you, sit in the lobby and read a magazine. Do not leave and assume you can get back to the hospital on time.

## **What medication is used to treat an anaphylactic reaction?**

Epinephrine is the drug of choice for treating an anaphylactic reaction. It works to reverse the symptoms of an anaphylactic reaction and helps prevent the progression of it. It is available via prescription as an EpiPen® or EpiPen® Jr. Epinephrine Auto-Injector. It is important to administer epinephrine as soon as one detects the symptoms of anaphylaxis. Individuals who have been prescribed epinephrine must carry it with them at all times because accidents are never planned.

Antihistamines, such as Benadryl®, and steroids are often used to further improve the recovery of a person with an anaphylactic reaction. Antihistamines and asthma medications may be administered with epinephrine, but never instead of epinephrine because they cannot reverse many of the symptoms of anaphylaxis.

## **3 R's for treating anaphylaxis**

- \* Recognize symptoms
- \* React quickly
- \* Review what happened and be sure to prevent it from reoccurring

## Steps for treating an anaphylactic reaction:

If you suspect an anaphylactic reaction is occurring, don't lose precious time! Do the following:

- \* Act quickly!
- \* Follow your physician's instructions for treatment.
- \* Call Emergency Medical Services (or 911) and request epinephrine.

Do not attempt to drive yourself to a medical facility. Get to a hospital as soon as possible and plan to stay at least four to six hours in case symptoms return.

## How You Can Protect Yourself

\* Speak to your doctor or allergist if you've had a severe reaction to a food, insect sting, medication, latex, or after exercising.

\* If prescribed, carry a supply of epinephrine (EpiPen®) at all times. Teach yourself and others how to use it. Practice with an expired EpiPen® by injecting it into an orange. Additionally, EpiPen®s are available in Twin Paks™ that include an EpiPen® trainer, the same device as the EpiPen® without the needle or medication. Practice using the EpiPen® until it becomes second nature.

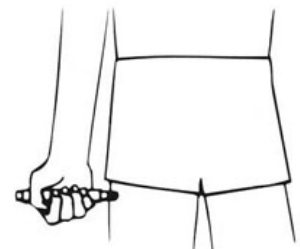
\* Educate others about your allergy; i.e., what you need to avoid, the symptoms of an allergic reaction, and how others can help during an allergic emergency.

\* Wear a MedicAlert® bracelet or necklace noting your allergy.

## How to use an EpiPen® (Epinephrine Auto-Injector)

1. Pull off gray safety cap
2. Place black tip on outer thigh (always apply to thigh)

3. Using a swing and jab motion, press hard into thigh until Auto-Injector mechanism functions. Hold in place and count to 10. The EpiPen® unit should then be removed and discarded. Massage the injection area for 10 seconds.



## How to Dispose an EpiPen®

After using an EpiPen®, throw away the gray cap. Place a penny in the bottom of the plastic tube, slip the EpiPen® into the tube, and close it. Return the used EpiPen® to your doctor for disposal.

## **Resources Available from FAAN (Food Allergy & Anaphylaxis Network)**

You can visit the FAAN website at <http://www.foodallergy.org/>

The following educational resources may be ordered online, or by calling FAAN at (800) 929-4040.

### **FAAN Anaphylaxis Flashback**

The Flashbacks are a great way to read about what has been previously published in the Food Allergy News newsletter that are specific to anaphylaxis.

### **Just One Little Bite Can Hurt: Important Facts About Anaphylaxis**

This booklet covers topics such as what is anaphylaxis, who is at risk, and what should be done if a reaction occurs. A great basic reference tool.

### **Caring for the Child with Severe Food Allergies by Lisa Cipriano Collins, M.A., M.F.T.**

Informative book offers facts and will help families cope with the emotional aspects of raising a severely allergic child. Learn how to reduce risks while encouraging normal emotional development.

### **The Parent's Guide to Food Allergies by Marianne S. Barber**

This book extensively explores all aspects of food allergy management in day-to-day life. A must-have resource for those struggling with a new diagnosis.

## **Additional information**

### **American Academy of Allergy, Asthma & Immunology**

800-822-ASMA

[www.aaaai.org](http://www.aaaai.org)

### **American College of Allergy, Asthma & Immunology**

800-842-7777

[www.allergy.mcg.edu](http://www.allergy.mcg.edu)

### **American Academy of Pediatrics**

800-433-9016

[www.aap.org](http://www.aap.org)

The preceding information has been reprinted from the FAAN (Food Allergy & Anaphylaxis Network) website.