

Anaphylaxis

Anaphylaxis is the most serious type of allergic reaction. It can develop suddenly after your child is exposed to something he or she is allergic to. Symptoms include hives (welts), difficulty breathing, and shock (very low blood pressure). If your child has any of the symptoms of anaphylaxis, get emergency help immediately. (Call 911 or another emergency number.)

What is anaphylaxis?

Anaphylaxis is a severe reaction of your child's body to something he or she is allergic to. Certain immune system cells suddenly release substances that can affect almost every organ or body system, including the skin, lungs and breathing tubes, heart and blood vessels, and stomach and intestines.

If your child has had serious allergic reactions in the past, he or she may be at risk of developing anaphylaxis if exposed to the substance causing the reaction. You should have a written emergency plan to follow in case of serious future reactions. You should keep a self-injectable epinephrine kit (EpiPen) handy and know how to use it.

What does it look like?

Symptoms of anaphylaxis may occur within seconds to minutes after your child is exposed to something he or she is allergic to. He or she may not have all of the symptoms mentioned.

! *Get medical help immediately* if your allergic child has any of the following symptoms after being exposed to an allergen (for example, inhaling or eating something, getting a shot, being stung by an insect):

- Tingling or numbness around the mouth.
- Difficulty breathing.
- Coughing or wheezing (high-pitched sounds coming from the lungs).
- Severe swelling, often around the face or hands.
- Tightness in the throat and chest.
- Difficulty breathing or feeling anxious.
- Stomach cramps, vomiting, and diarrhea.
- Itching all over, often accompanied by hives (itchy, red blotches on the skin).
- Pounding heart.
- Fainting.

What causes anaphylaxis?

Anything that your child had an allergic reaction to in the past could cause an anaphylactic reaction if he or she is exposed to it again. Anaphylaxis can even be caused by substances your child has never had a reaction to. The most common allergens are:

- Foods, especially peanuts and shellfish. Allergies to milk and eggs are common causes of anaphylaxis in infants.
- Stings or bites by bees or insects related to bees (wasps, yellow jackets, hornets, and ants).
- Medications, including antibiotics. This is a more likely cause when the medications are injected, rather than taken by mouth.
- Pollen.
- Exercise.

Some causes of anaphylaxis occur in the hospital:

- Latex allergy is common in children who have undergone several surgical procedures, such as those with spina bifida or cystic fibrosis. Outside the hospital, these children may "cross-react" to foods containing proteins related to latex, for example, bananas or kiwi fruit.
- Injected drugs or other chemicals, including dyes used in some x-ray tests.

What puts your child at risk of anaphylaxis?

- If your child has had allergic reactions to these or other allergens, he or she may be at risk of anaphylaxis if exposed again. The risk is higher if your child has had more severe allergic reactions in the past.
- If your child has other allergic conditions, such as eczema, asthma, or hay fever, he or she may be at increased risk of anaphylaxis.

Can anaphylaxis be prevented?

Avoiding allergens is the best way to prevent anaphylaxis. For example:

- If your child is allergic to peanuts or other foods, be careful that he or she avoids those foods.
- If your child is allergic to bees and related insects, wear protective clothing when outside. Immunotherapy (allergy shots) is an effective treatment for allergy to bees and related insects (for example, wasps, yellow jackets, hornets, and ants).

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- If your child is allergic to penicillin or other medications, tell all health care providers about this allergy. Get your child a Medic-Alert bracelet or pendant warning about the allergy. Take the same precautions if your child is allergic to latex.
- *Emergency treatment* for allergic reactions can help keep them from becoming more severe. Keep an emergency kit containing self-injectable epinephrine (EpiPen) handy at all times. Learn how to inject this medication to interrupt severe reactions. Older children can learn to do this for themselves.
- Make sure to tell those who care for your child—such as day-care providers and camp counselors—about your child's allergy. They must also know how and when to use the EpiPen. They should call 911 or another emergency number if your child has any symptoms of anaphylaxis.

What are some possible complications of anaphylaxis?

Anaphylaxis is a life-threatening medical emergency. Keeping an EpiPen and knowing how to use it in an emergency may save your child's life.

How is anaphylaxis treated?

- *Emergency treatment.*
- If your child has symptoms of anaphylaxis, call 911 or another emergency number. Your child needs to go to the emergency room or receive other medical attention immediately.
- Use injected epinephrine (EpiPen) immediately.
- Give oral Benadryl (generic name: diphenhydramine) immediately.
- *Additional treatments.* In the hospital, your child may receive other treatments such as:
 - Oral or intravenous steroids and antihistamines. These treatments may be given for a few days to keep allergic symptoms from coming back.
 - Additional epinephrine or other medications needed to interrupt the allergic reaction.

- Necessary treatments to keep the breathing tubes open, possibly including mechanical ventilation (a machine to help your child breathe).
- *Follow-up treatments* may be needed to reduce the risk of future attacks of anaphylaxis. These may include:
 - Evaluation to find out what your child is allergic to, if you don't already know.
 - Preventive measures, such as obtaining an EpiPen and Medic-Alert tag.
 - Education for you and your child in how to avoid allergens and how to recognize and treat early signs of allergic reactions.
 - Immunotherapy (allergy shots) may be helpful if your child is allergic to specific allergens. A visit to an allergist/immunologist (a specialist in treatment of allergic diseases) may be recommended.

When should I call your office?

Anaphylaxis is a medical emergency! If your child has symptoms of anaphylaxis, call 911 or another emergency number. Some of the most serious symptoms are: 

- Tightness in the throat and chest.
- Tingling or numbness around the mouth.
- Coughing or wheezing (high-pitched sounds coming from the lungs).
- Severe swelling, often around the face or hands.
- Difficulty breathing or feeling anxious.

Where can I get more information on anaphylaxis?

The Food Allergy and Anaphylaxis Network provides excellent information to help in dealing with the practical and emotional issues surrounding food allergies and other serious allergies. Visit www.foodallergy.org or phone 1-800-929-4040.