

Anaphylaxis



Anaphylaxis is a serious allergic reaction. It comes on quickly and can be fatal. It often affects many body systems. This type of reaction is a medical emergency and *immediate* medical attention is important. Children with asthma and allergies to certain foods, stinging insects, or medicines are at highest risk, though anaphylaxis may occur in anyone. Your pediatrician may refer you to an allergist. An allergist has specialized training in diagnosing the cause of anaphylaxis and providing additional treatment. Parents should know the symptoms of anaphylaxis and what to do in case it happens to their child.

What are the symptoms of anaphylaxis?

Anaphylaxis includes a wide range of symptoms that often happen quickly. The most severe symptoms restrict breathing and blood circulation. Combinations of symptoms may occur. The most common symptoms may affect the following:

- **SKIN:** itching, hives, redness, swelling
- **NOSE:** sneezing, stuffy nose, runny nose
- **MOUTH:** itching, swelling of lips or tongue
- **THROAT:** itching, tightness, difficulty swallowing, hoarseness
- **CHEST:** shortness of breath, cough, wheeze, chest pain, tightness
- **HEART:** weak pulse, passing out, shock
- **GUT:** vomiting, diarrhea, cramps
- **NEUROLOGIC:** dizziness, fainting, feeling that you are about to die

What causes anaphylaxis?

Anaphylaxis occurs when the immune system overreacts to normally harmless substances called allergens. The following are the most common allergens that can trigger anaphylaxis:

- **Food such as**
 - Peanuts
 - Nuts from trees (such as walnuts, pistachios, pecans, cashews)
 - Shellfish (such as shrimp, lobster)
 - Fish (such as tuna, salmon, cod)
 - Milk
 - Eggs

In rare cases, anaphylaxis may be related to a certain food followed by exercise.

- **Insect stings** such as from
 - Bees
 - Wasps
 - Hornets
 - Yellow jackets
 - Fire ants

- **Medicines.** Antibiotics and antiseizure medicines are some of the more common medicines that cause anaphylaxis. However, any medicine, even aspirin and other nonsteroidal anti-inflammatory drugs, have the potential to cause severe reactions.

What should I do if my child has an anaphylactic reaction?

For anyone experiencing anaphylaxis, **epinephrine should be given right away** followed by a call to 911 for further treatment and transfer to a hospital. The main medicine to treat anaphylaxis is epinephrine. This is a medicine given by an injection. The best place to inject it is in the muscles of the outer part of the thigh. If the symptoms do not improve very quickly, the injection should be given again in 5 to 30 minutes.

Children who are old enough can be taught how to give themselves epinephrine if needed. The medicine comes in auto-injector syringes (EpiPen or Twinject) to make this easier. Epinephrine should be prescribed for anyone who has ever had an anaphylactic attack and for children at high risk for anaphylaxis. They are available in 2 different doses based on the weight of the child. You should always have at least 2 doses with you at all times. School-aged children also need one at school with instructions from their doctor about how and when to use it.

During a reaction, an oral antihistamine may also be given, but not as a substitute for epinephrine. Also helpful in case of an emergency is medical identification jewelry that includes information about your child's allergy. This should be worn at all times. Your doctor should also give you a written action plan outlining the steps to take in the event of an emergency. It is important to share this action plan with anyone who cares for your child.

How can I prevent another anaphylactic attack?

After an anaphylactic attack, your child needs to be seen by a doctor. Even if the cause seems obvious, it may be more complicated than you think. An evaluation by an allergist is often needed to identify the cause(s). A customized care plan for prevention and treatment can be created once the causes are known.

In most cases, the only way to prevent it from happening again is to avoid the cause. However, your child's care plan can help provide safe alternatives without unnecessary restriction of safe foods, medicines, or activities. An emergency action plan describing the allergies, symptoms, and treatments can help prepare you if your child has another attack.

Can anaphylaxis be outgrown or cured?

Although children's allergies are often outgrown, anaphylaxis frequently lasts for many years or even for life. Periodic reevaluation may be needed to see if your child is still allergic and to review how to avoid triggers and treat reactions. In the case of anaphylaxis caused by stinging insects, immunotherapy (also called allergy injections or shots) can help prevent anaphylaxis from future stings, but is currently not available for other types of anaphylactic allergies.

To find out more

- American Academy of Pediatrics—Section on Allergy and Immunology: www.aap.org/sections/allergy
- American Academy of Allergy Asthma & Immunology: www.aaaai.org/patients/gallery
- American College of Allergy, Asthma & Immunology: www.acaai.org/public
- Food Allergy & Anaphylaxis Network (FAAN): www.foodallergy.org

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From your doctor

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