General Overview: ANAPHYLAXIS (Severe Allergy reaction)

What is anaphylaxis?

Anaphylaxis is an immediate, intense and often life-threatening allergic reaction. Also known as anaphylactic shock, anaphylaxis is an excessive reaction by the body to combat a foreign substance that has been ingested, injected, inhaled or absorbed through the skin.

When a foreign substance is detected by the body, the immune system responds by producing antibodies – proteins created by white blood cells to fight foreign substances. These antibodies attack the substance, but also cause cells to release potentially harmful chemicals.

Common allergic reactions such as, difficulty breathing, itching, rashes and low blood pressure are the result of these chemicals. Anaphylaxis is a “worst case”, severe, allergic reaction. The drastic changes in blood circulation and lung function are similar to those experienced in shock. As with shock, they are life-threatening and must be treated immediately.

Signs and symptoms

The symptoms of anaphylaxis can vary. Initial signs of an anaphylactic episode can be mild - a skin rash or a nondescript “strange feeling.” These symptoms can rapidly progress to include difficulty breathing, swelling, dizziness or unconsciousness.

Serious symptoms:

- **Skin:** Widespread hives, flushing or swelling.
- **Mouth:** Swelling of the tongue.
- **Throat:** Itching, tightness, hoarseness. A hacking cough.
- **Stomach:** Vomiting, nausea, cramps, diarrhea.
- **Lungs:** Repetitive coughing, wheezing, trouble breathing.
- **Heart:** Rapid heart rate, lightheadedness, dizziness, loss of consciousness.
Emergency treatment

Epinephrine is the most commonly used emergency treatment for anaphylaxis. The EpiPen™ is an example of an easy, user-friendly device for the injection of epinephrine.

Epinephrine quickly widens air passages to make breathing easier. It also constricts blood vessels and raises blood pressure. When administered as early as possible, it is very effective. Allergic reactions usually improve within seconds after the injection. Even so, epinephrine’s effects are short-lived.

In all allergic reaction cases, emergency medical services (9-1-1) must be contacted. Besides transport to the hospital, they might also administer intravenous fluids, oxygen or other treatments. Occasionally, these patients stay overnight at the hospital.

Managing your child’s allergic reactions

- Work with an allergy specialist to identify what triggers your child’s allergic reaction. The specialist can help you develop strategies to avoid future allergic reactions.
- Develop an emergency plan with your physician and share that plan with all those who have contact with your child.
- Always have emergency medications available for your child, and train caregivers to properly administer your child’s medication.
- Have your child wear a medical bracelet indicating anaphylactic triggers. These bracelets provide life-saving information to caregivers, emergency crews and hospital staff.
OVERVIEW: COMMON TRIGGERS FOR ANAPHYLAXIS

Food Allergies

Peanuts, tree nuts and shellfish, milk, eggs, soy and wheat are the typical foods that cause the majority of allergic reactions. A child’s allergy to one food might also extend to related foods. For example, an allergy to peanuts may mean an allergy to all members of the legume family. This family contains foods such as soy, peas and certain beans.

Not all adverse reactions to foods are due to an allergy. Some reactions to cow’s milk, for example, are related to a deficiency of an enzyme that breaks down sugar in the milk and are considered a digestive disorder.

The first signs or symptoms of an allergic reaction can vary from a few minutes to a few hours after ingestion. The frequency and severity of symptoms vary widely. The most common symptoms of food allergy involve the skin and intestines.

Once the diagnosis of food allergy is confirmed, the most effective treatment is to avoid the food in any form. The child and parent must always check the ingredients of all food products. A medical alert bracelet will provide crucial information in the case of an emergency.

Resources: www.foodallergy.org   www.aaaai.org   www.aafa.org
Local: www.ifast.org

Insect Sting Allergies

Most people are not allergic to insect stings. An allergic reaction is not the same as the localized pain, redness and swelling always associated with a common sting. Swelling may extend beyond the sting site. For example, a sting on the forearm may cause the entire arm to swell. Although alarming in appearance, if no signs of allergic reaction are noted, the condition is treated as a normal sting. If in doubt, consult with a physician.

In those with true allergic reactions to insect stings, future reactions can be prevented by venom immunotherapy. This treatment involves multiple visits to a physician. Increasing doses of venom are administering gradually to stimulate the child’s own immune system. Over time, the child becomes resistant to reactions.

Resources: www.aaaai.org   www.aafa.org
Latex allergies

Allergic reactions to latex have become more common in recent years because of an increased use of latex in medical products. Latex allergies are usually caused by natural latex derived from the *Hevea brasiliensis* tree, rather than by synthetic latex. While latex is found in many consumer products such as shoes, underwear waistbands and rubber toys, these uses seem to cause problems only with those who are very allergic to latex.

Latex sensitive people frequently demonstrate allergic sensitivity to avocado, banana, chestnut, kiwi, raw potato, tomato, stone fruits (peach, plum, cherry), hazelnut, melons, celery, carrot, apple, pear, papaya and almonds.

The best treatment for latex allergy is avoidance. Inform health care providers of latex allergies prior to any dental or medical visits. Wear a medical alert bracelet identifying a latex allergy.

Resources:  www.aaaai.org  www.sbaa.org  www.latexallergyresources.org

Drug allergies

People who have had an anaphylactic reaction to a drug in the past should avoid this medication in the future. They must get a medical alert bracelet identifying this allergy. Besides identifying medications to avoid, a physician can help determine safe alternative medications.

Drug allergies are *generally not* considered “life-threatening” in the school setting because medications are not prescribed or recommended by school staff. All medication administered at school must be authorized in writing by both the physician and parent.

Resource:  www.aaaai.org