



Responding to Life Threatening Allergic Reactions in the Child Care Setting



More children are being diagnosed with life-threatening allergies and child care programs that care for these children must be prepared for allergic emergencies. Some child care programs refuse to accept children with life threatening food allergies or refuse to administer epinephrine because they are fearful of the responsibility. But, Federal law makes both of these actions illegal. Children with allergies are protected from discrimination by the Americans with Disabilities Act and the Rehabilitation Act of 1973, section 504.

What is Anaphylaxis?

Anaphylaxis is a serious allergic reaction that happens quickly and may cause death. Anaphylaxis is most commonly caused by allergies to foods, insect stings, medications and latex. The most common food allergies are peanuts, tree nuts (pecans, walnuts, almonds etc.), milk, eggs, fish, and shellfish. Food allergies are most common in children under five. Allergies tend to get worse with repeated exposure to the allergen (the allergy-causing substance).

Anaphylaxis can develop within seconds of exposure to the allergen. When a child is exposed, the body releases chemicals to “protect” itself from the allergen. These chemicals can cause itching, hives, wheezing or difficult breathing, or swelling of the lips or face. Children may also faint, or vomit. Within moments, the throat may begin to close, choking off breathing and leading to death. Because death can occur within minutes, anaphylaxis requires immediate attention.

Treating a Child Who is Experiencing Anaphylaxis

The drug used to treat anaphylaxis is called epinephrine and it is given in auto-injectable forms that are prescribed by a health care provider and must be available to the child at all times. The State of California Child Care Licensing regulations per-

mit the administration of epinephrine by child care providers in a life threatening emergency when it is prescribed by a health care provider, when a special health care plan is in place and staff members have been trained to administer it.

Epinephrine must be given promptly to prevent death. Fatal anaphylaxis in children is associated with failure to administer epinephrine promptly. Severely allergic children who also have asthma are at greater risk for anaphylaxis. Side effects of epinephrine are short term, and generally not serious, and it is always safer to administer epinephrine if you suspect anaphylaxis than to wait.

Epinephrine is provided for use outside of the hospital in a disposable, pre-filled auto-injection system (EpiPen and Twinject are two brands). It should be kept at room temperature and out of direct sunlight. The solution should be clear and colorless. If it turns color, or is past its expiration date, it should be replaced. Sometimes, a child will need a second injection of epinephrine so it is best to keep two injectors on hand. Epinephrine is best given in the outside of the thigh. The needle should be inserted, through clothing if necessary, into the thigh all the way to get the fastest blood levels of the drug. Hold it there for 10 seconds. Remove the needle and massage the area for 10 seconds more. If a child has a life threatening allergic reaction, 911 should be called immediately, in addition to giving epinephrine. Give the used auto-injector to paramedics to take to the hospital.

Planning for a Child with Life-threatening Allergies in the Child Care Setting:

The most effective strategy for calming fears about enrolling a child with a life threatening allergy is advance planning.

- Meet with the child’s parents and develop a special health care plan and have it reviewed by the child’s health care provider.

- Include in the plan strategies for avoiding exposure of the child to the allergen and a description of the child's particular experience of anaphylaxis; for instance, what words does he use to describe it and what are his typical symptoms?
- Determine which staff will learn how to use the auto-inject epinephrine, and how the medication will be handled so that it is always available to the child, even on field trips away from the program site.
- Determine how to ensure there is a staff member available who is properly trained to administer medications during the school day regardless of time or location
- Copy the Allergy Action Plan on brightly colored paper so it is easy to find and attach a copy of the child's picture to it. Keep a copy of the plan with the child's epinephrine auto-injector.

An Action Plan protects the child as well as the child care program. The Food Allergy and Anaphylaxis Network has a model Food Allergy Action Plan and is a great resource for information and training materials (see Resources).

References

Sicherer, S. H. and F. E. Simons (2007). "Self-injectable epinephrine for first-aid management of anaphylaxis." *Pediatrics* 119(3): 638-46.

Resources

The Food Allergy & Anaphylaxis Network Child Care and Preschool Guide to Managing Food Allergies, available from: <http://www.foodallergy.org/>

School Guidelines For Managing Students With Food Allergies

www.foodallergy.org/school/SchoolGuidelines.pdf

By Vickie Leonard, RN, FNP, PhD

DIRECTIONS FOR USE OF EPINEPHRINE AUTO-INJECTOR

- Never put thumb, fingers, or hand over black tip.
- Do not remove gray safety release until ready to use.
- Do not use if solution is discolored or red flag appears in clear window.
- Do not place patient insert or any other foreign objects in carrier with auto-injector, as this may prevent you from removing the auto-injector for use.

1. Unscrew the yellow or green cap off of the carrying case and remove the auto-injector from its storage tube.
2. Grasp unit with the black tip pointing downward.
3. Form fist around the unit (black tip down).
4. With your other hand, pull off the gray safety release.
5. Hold black tip near outer thigh.
6. Swing and jab firmly into outer thigh until it clicks so that unit is perpendicular (at a 90° angle) to the thigh. (Auto-injector is designed to work through clothing.)
7. Hold firmly against thigh for approximately 10 seconds. (The injection is now complete. Window on auto-injector will show red.)
8. Remove unit from thigh and massage



injection area for 10 seconds.

9. Call 911 and seek immediate medical attention.
10. Carefully place the used auto-injector (without bending the needle), needle-end first, into the storage tube of the carrying case that provides built-in needle protection after use. Then screw the cap of the storage tube back on completely, and take it with you to the hospital emergency room.

Note: Most of the liquid (about 90%) stays in the auto-injector and cannot be reused. However, you have received the correct dose of the medication if the red flag appears in window.

