Preventing Life-Threatening Food Allergy Emergencies at Camp:
A Resource for Camp Nurses and Directors

When camp opens this year, we hope you will be prepared to deal with life-threatening food allergies by taking steps to prevent exposures to foods that cause allergies in any of your campers, and by being prepared to manage an emergency if one occurs. Here are our suggestions for best practices to ensure the safety of food allergic campers. Please call us or visit our website if you would like more information on asthma and allergies.

1. Anaphylaxis is a life-threatening allergic reaction.
Allergies to foods, stinging insects, medications, latex, and even to exercise after eating may result in a severe life-threatening reaction known as anaphylaxis. Because anaphylaxis occurs quickly, sometimes within minutes, it is important to:
- Identify campers at risk
- Have appropriate preventive policies and procedures in place - particularly measures for avoiding the allergen
- Be prepared to manage an emergency quickly and effectively

An estimated 2% - 3% of the general population is at risk for an anaphylactic reaction to foods, insect stings, medications or latex. The rates are even higher in young children.

**Failure to act quickly and treat appropriately may result in permanent disability or death.**

2. What is anaphylaxis?
**Definition:** Anaphylaxis is an immediate systemic hypersensitivity reaction affecting multiple systems of the body, including cardiovascular, respiratory, gastrointestinal and cutaneous tissue.

**Symptoms:** The onset and course of anaphylaxis is variable. Symptoms may include:
- Sense of impending doom
- Generalized warmth or flush, tingling, itching, hives, swelling
- Upper respiratory complaints: lump in throat, a feeling that the throat is closing or tightening, hoarseness, difficulty swallowing, nasal congestion, runny nose, fullness in the ears.
- Lower respiratory symptoms: difficulty breathing in, chest tightness, wheezing or shortness of breath
- Cardiovascular symptoms: lightheadedness, faintness, palpitations, low blood pressure.
- Gastrointestinal symptoms: nausea, abdominal cramps, bloating, , or diarrhea

Swelling of the larynx and cardiovascular collapse are the most frequent causes of death from anaphylaxis.

Patients who do not have life-threatening symptoms initially may progress to life threatening anaphylaxis, with time. Adequate warning signs, such as hives, are not always present before serious reactions develop. The first warning signs may be only "a funny feeling in the mouth" or abdominal discomfort in the case of food allergy.

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The most common causes of anaphylaxis in children include allergies to:
- Foods (Peanuts, tree nuts, fish, shellfish, soy, milk, egg, and wheat are the most common, although any food is a possible allergen.)
- Insect stings (e.g., yellow jackets, bees, wasps and hornets)
- Medications
- Latex (natural rubber products such as latex gloves, balloons, medical tubing)

How can exposures to these allergens occur?
- Tasting
- Ingesting
- Inhaling
- Touching
- Being injected or stung

3. How is allergy with a risk of anaphylaxis diagnosed?
- By a patient's history of reactions and possible causative agents, confirmed with appropriate testing (e.g., skin and/or blood tests, food challenges and/or elimination diets) by a trained allergy specialist.
- Previous mild reactions to allergens do not preclude subsequent life-threatening reactions.

4. How can camps help prevent anaphylaxis emergencies?

The camp needs to develop systems to prevent accidental contact with a life-threatening allergen at camp and conduct a camp-wide food allergy education plan. Protecting a camper from exposure to an offending allergen(s) is the most important way to prevent life-threatening anaphylaxis. Most anaphylactic reactions occur when a child is accidentally exposed to an offending food or is stung by a bee.

- **Identify the Child’s Needs:** Children with existing life-threatening allergies should be identified on a signed medical form. The form should include the child’s name, photo, specific offending allergens (peanuts, bee stings, etc.), warning signs of reactions and emergency treatment. (See sample form attached). It is useful for the child to wear a Medic-Alert bracelet or necklace or carry a card
- **Develop an Individual Health Care Plan (IHCP):** Based on the child’s medical form, the camp nurse should develop a written IHCP for action, including steps to avoid accidental exposures to allergens and steps for emergency treatment.
- **Conduct a Team Meeting to educate and plan with camp staff:** Before camp starts, the camp nurse and camp director should convene a team meeting of all the camp personnel that will have responsibility for the child. The camp nurse should give an overview of food allergies, anaphylaxis, and the child’s Individual Health Care Plan and then discuss prevention and management of life-threatening allergies. The team should include, but not be limited to:
  - Camp administrators (director, head counselor)
  - Bunk and specialty counselors
  - Food service personnel
  - Bus drivers
  - Camp trip planners
  - Life guards

Every camp with a child at risk for anaphylaxis needs a full time camp nurse. The camp nurse should be an advocate for the child at risk for anaphylaxis and work with the child's parents, counselors, food service staff, bus drivers and camp trip planners to provide training and devise avoidance measures and emergency procedures.

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5. Some steps to avoid accidental exposures to foods.
   - Provide a "peanut-free" table in every camp dining hall or other eating area that serves a child with peanut allergy, as this is an extremely potent and often hidden ingredient.
   - Train food service workers to identify all ingredients in foods and identify all the ingredients on food labels.
   - Train food service workers to avoid cross-contamination of foods (e.g., cooking or serving, different foods with the same utensils and dishes – and cleaning up with the same sponges or cloths.)
   - Avoid serving a child any food to which the child is allergic. Provide alternative foods for the child, if necessary.
   - Prohibit sharing of food and utensils
   - Avoid the unnecessary use of latex gloves, such as by food handlers and housekeeping staff, to prevent exposure of latex-sensitive campers and staff.
   - Prohibit the sending of food to camp, or carefully oversee the distribution of food sent or brought to camp.
   - Prohibit food in bunks.
   - Prohibit or avoid the use of foods in activity areas such as arts and crafts, games, and nature. At a minimum, avoid the foods to which a camper is known to be allergic.
   - Educate all campers and their counselors, and other staff about the risk of anaphylaxis.
   - Prohibit foods on camp buses and other vehicles used for transport.
   - Staff members who accompany an allergic camper on camp trips should be trained by the camp nurse and assigned the task of watching out for the camper’s welfare and handling any emergency.

6. What emergency plans for treatment of anaphylaxis should be in place?
   - There should be clear written camp wide policies describing steps to take in an emergency, as well as ready access to each camper’s Individual Health Care Plan.
   - For children known to be at risk for anaphylaxis a physician’s order for epinephrine and at least two doses of the appropriate epinephrine auto-injector should be on hand in case of emergency. Epinephrine devices should be kept secure, unlocked and readily accessible to the child’s location (e.g., counselor backpack, nurse fanny pack, health office, etc.). Camp staff should have a set of written instructions from the physician, also known an emergency care plan, signed by the parents, on file.
   - Discuss with the camp physician/medical advisor the importance of having a standing order and the availability of stock epinephrine to enable the immediate emergency use of epinephrine for any child or staff member with no previous history of anaphylactic reaction.
   - Plan to call 911 as soon as anaphylaxis is identified and/or epinephrine is administered. (In some anaphylactic reactions, the initial symptoms are followed by a delayed wave of symptoms later. Therefore, it is imperative that the child be transported by emergency medical services to the nearest emergency department, even if symptoms appear to have resolved.)
   - Conduct an emergency drill. (e.g., Do local EMTs carry epinephrine? Is the epinephrine in the camp quickly available for use - not locked in a cabinet? Are appropriate staff members adequately trained to use it?)
   - Make certain that a functioning communication device (walkie-talkie or cell phone) is available for use wherever there is a child at risk for anaphylaxis (e.g., bunk, dining hall, all activities and trips).

"Epinephrine is the first drug that should be used in the emergency management of a child having a potentially life-threatening allergic reaction...There are no contraindications to the use of epinephrine for a life-threatening allergic reaction."

"All individuals receiving emergency epinephrine should immediately be transported to a hospital even if symptoms appear to have resolved... Further treatments may be required, and therefore observation in a hospital setting is necessary. Additional epinephrine should be available during transport."

From American Academy of Allergy, Asthma and Immunology (AAAAI) Position Statement: Treatment Strategies.

All individuals responsible for the care of children (including counselors, camp nurses, bus drivers, coaches, lifeguards, etc.) need to have familiarity with basic first aid and resuscitative techniques. This should include additional formal training on how to use epinephrine devices. (AAAAI Position Statement).
7. **Other issues to plan for, e.g.:**
- Re-entry to camp after a traumatic incident
- Peer education to avoid endangering, isolating, stigmatizing, bullying or harassing children with food allergies.
- Confidentiality concerns

Review your existing policies and procedures and create new ones if necessary.

For additional information and training tools, see: [www.AllergyHome.org/camps](http://www.AllergyHome.org/camps)

“Management of Food Allergies in Camps – What Staff Need to Know”

Disclaimer: AAFA New England Chapter will not be held responsible for any action taken by readers as a result of their reading of this resource. Readers are encouraged to discuss medical treatment with the camp physician and the campers’ physicians.

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Asthma and Allergy Foundation of America, New England Chapter
(AAFA New England)
109 Highland Ave., Needham, MA 02494
Ph: 781-444-7778 Toll-free: 1-877-2-ASTHMA
email: aafane@aafane.org
website: www.asthmaandallergies.org