

# Managing Life-Threatening Allergies in Schools



MAY 2016





This document was prepared by the Massachusetts Department of Elementary and Secondary Education.  
Mitchell D. Chester, Ed.D., Commissioner

---

### BOARD OF ELEMENTARY AND SECONDARY EDUCATION MEMBERS

**Mr. Paul Sagan**, Chair, Cambridge  
**Mr. James Morton**, Vice Chair, Boston  
**Ms. Katherine Craven**, Brookline  
**Dr. Edward Doherty**, Hyde Park  
**Dr. Roland Fryer**, Cambridge  
**Ms. Margaret McKenna**, Boston

**Mr. Michael Moriarty**, Holyoke  
**Dr. Pendred Noyce**, Malden  
**Mr. James Peyser**, Secretary of Education, Milton  
**Ms. Mary Ann Stewart**, Lexington  
**Mr. Donald Willyard**, Chair,  
Student Advisory Council, Revere

**Mitchell D. Chester**, Commissioner  
Secretary to the Board

---

### USDA NONDISCRIMINATION STATEMENT

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, sex, religious creed, disability, age, political beliefs, or reprisal or retaliation for prior civil rights activity in any program or activity conducted or funded by USDA.

Persons with disabilities who require alternative means of communication for program information (e.g. Braille, large print, audiotape, American Sign Language, etc.), should contact the Agency (State or local) where they applied for benefits. Individuals who are deaf, hard of hearing or have speech disabilities may contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English. To file a program complaint of discrimination, complete the [USDA Program Discrimination Complaint Form](http://www.ascr.usda.gov/complaint_filing_cust.html), (AD-3027) found online at: [http://www.ascr.usda.gov/complaint\\_filing\\_cust.html](http://www.ascr.usda.gov/complaint_filing_cust.html), and at any USDA office, or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by:

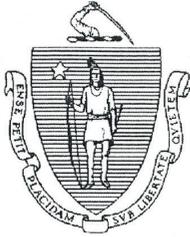
- (1) mail: U.S. Department of Agriculture  
Office of the Assistant Secretary for Civil Rights  
1400 Independence Avenue, SW  
Washington, D.C. 20250-9410;
- (2) fax: (202) 690-7442; or
- (3) email: [program.intake@usda.gov](mailto:program.intake@usda.gov).

This institution is an equal opportunity provider.

© 2016 Massachusetts Department of Elementary and Secondary Education  
Permission is hereby granted to copy any or all parts of this document for non-commercial educational purposes.  
Please credit the "Massachusetts Department of Elementary and Secondary Education."

*This document is printed on recycled paper.*

Massachusetts Department of Elementary and Secondary Education  
75 Pleasant Street, Malden, MA 02148-4906  
Phone 781-338-3000 TTY: N.E.T. Relay 800-439-2370  
[www.doe.mass.edu](http://www.doe.mass.edu)



## Massachusetts Department of Elementary and Secondary Education

75 Pleasant Street, Malden, Massachusetts 02148-4906

Telephone: (781) 338-3000  
TTY: N.E.T. Relay 1-800-439-2370

Mitchell D. Chester, Ed.D.  
Commissioner

May 15, 2016

Dear Superintendents and Other Interested Parties:

School districts and early childcare settings have the challenge of being ready for students entering their doors with life-threatening allergies and for a reaction in those who have yet to be diagnosed. The number of students in our schools with life-threatening allergies has risen substantially and since 2004, as reported by the Massachusetts Department of Public Health, approximately 23 percent of epinephrine administrations in schools were given to individuals who did not have a previously recognized or diagnosed allergy. In an effort to keep all students safe at school from life-threatening allergic reactions and to allow all students full access to their education, it is important to standardize policies and procedures to protect them.

To assist schools in the development and implementation of policies and comprehensive protocols to care for students with life-threatening allergies, the Massachusetts Department of Elementary and Secondary Education convened a taskforce to review and revise the 2002 *Managing Life-Threatening Food Allergies in Schools* document. The taskforce members are professionals in the area of life-threatening allergies including a pediatric allergist, school personnel, school nutrition staff, school nurses, early childhood nurses, early childhood educators, parents, and staff from the departments of Elementary and Secondary Education, Public Health, and Early Education and Care. Collectively, this group worked diligently to review and provide recommendations based on current best practice in order to update our guidance to schools in the Commonwealth.

This manual, *Managing Life-Threatening Allergies in Schools*, provides you with guidance to create (or revise) written policy, manage situations as they arise, and foster dialogue for supporting students with life-threatening allergies in your buildings. In addition, this guidance provides an overview and introduction to life-threatening allergies and anaphylaxis, strategies for training staff, and special considerations when planning classroom activities and school-wide events.

This document has specialized sections devoted to both the K-12 setting and the early education and care environment. Recognizing that each school district and child care is unique, you are encouraged to use this guide as a part of your conversation to identify and address the needs of students. I hope this guidance provides answers to your questions and offers helpful strategies as you work to protect students with life-threatening allergies while providing them with a quality education in a safe environment.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mitchell D. Chester".

Mitchell D. Chester, Ed.D.  
Commissioner of Elementary and Secondary Education

## ACKNOWLEDGMENTS

---

The Massachusetts Department of Elementary and Secondary Education would like to thank the following individuals for their time, dedication, and hard work during the revision of the *Managing Life-Threatening Allergies in Schools* manual.

**Project Consultant:** Christanne Smith Harrison, MPH, RD

**ESE Project Manager:** Holly Alperin, EdM, MCHES, Nutrition Education & Training Coordinator

### Advisory Board

Sonia Carter, MS, LDN  
Nutrition Coordinator  
ABCD Head Start

Joanne Cavanaugh  
Ashland Public Schools (formerly)

Mary Ann Gapinski, MSN, RN, NCSN  
Director, Essential School Health Services  
MA Department of Public Health

Maria Hall, MSRD, LDN, SNS  
Director of School Nutrition  
Walpole Public Schools

Karen Hughes, RN, MS  
Early Childhood Health Specialist  
MA Department of Public Health

Robert Leibowitz, PhD  
Epidemiologist  
MA Department of Public Health

Karen McGrail, MEd, RD, LDN  
Director  
John C. Stalker Institute for Food and Nutrition  
Framingham State University

Dr. Michael Pistiner, MD, MMSc  
Pediatric Allergist  
Harvard Vanguard Medical Associates

### Office for Food and Nutrition Programs

Robert Leshin, MPA  
Acting Director

Linda Fischer, MEd, RD, LDN  
Education Specialist

Irene Sedlacko, RD  
Special Nutrition Programs Coordinator

Amy Socolow, RD  
Education Specialist

Diane Sylvia, MAT, SNS  
School Nutrition Programs Coordinator

The Department of Elementary and Secondary Education would like to extend its thanks to staff at the Department of Public Health for their additional contributions and review of this document.

*Edited and designed by JSI Research & Training Institute, Inc. in Boston.*

# Table of Contents

Glossary .....	5
Managing Life-Threatening Allergies in Schools.....	7
Background .....	7
Epinephrine Administration Reporting, 2004-2010 data .....	7
Goal of the Guidelines .....	9
Overview of Life-Threatening Allergies .....	10
Allergic Triggers .....	10
Food Allergy Prevalence .....	10
Characteristics of Food Allergy Reaction in Children .....	11
What is a Food Allergy? .....	11
Anaphylaxis .....	12
Emotional Impact on Children with Food Allergies and Their Parents .....	14
Life-Threatening Allergies in K-12 Schools .....	17
Role of the School .....	17
Education .....	19
Planning .....	20
<i>Individual Health Care Plan and Anaphylaxis Emergency Care Plan</i> .....	20
<i>Allergy Management and Prevention Plan</i> .....	22
Implementation .....	25
Emergencies .....	30
Life-Threatening Allergies in Early Education and Care Programs .....	35
Necessary Steps .....	35
<i>Create an Allergy Management and Prevention Plan</i> .....	35
<i>Create a Medical Emergency Response Plan</i> .....	36
<i>Individual Health Care Plan and Anaphylaxis Emergency Care Plan</i> .....	37
Essential Education .....	38
Special Considerations .....	38
References .....	40
Appendices .....	43

# Appendices

Appendix A: Reading Food Labels.....	43
Appendix B: Food Handling.....	46
Appendix C: School District Allergy Management and Prevention Plan.....	48
Appendix D: Sample Anaphylaxis Emergency Care Plan.....	51
Appendix E: Sample Extracurricular Emergency Medical Information Form.....	53
Appendix F: Individual Health Care Plan for Early Education and Care .....	55
Appendix G: Sample Food Allergy Letters.....	57
<i>for Classmates and Parents</i> .....	57
<i>for Substitute Teachers</i> .....	58
Appendix H: Roles for Managing Life-Threatening Allergies in Schools .....	59
<i>Student with Allergies</i> .....	59
<i>School Administration</i> .....	59
<i>Parents/Guardians of a Student with Allergies</i> .....	60
<i>School Nurse</i> .....	61
<i>School Physician</i> .....	61
<i>Classroom Teachers/Specialists</i> .....	62
<i>School Nutrition Director/Manager/Staff</i> .....	63
<i>Coaches and Other Before- and After-School Activity Supervisors</i> .....	64
<i>School Bus Company</i> .....	64
Appendix I: Regulations Governing Administration of Epinephrine .....	65
Appendix J: Administration of Epinephrine, 105 CMR 210.100 .....	66
Appendix K: Laws Related to Students with Food Allergies .....	69
Appendix L: Allergy Resources .....	73

## Glossary

**Allergen** Anything that causes an allergic reaction.

**Allergic reaction** An immune system response to something that the body mistakes as harmful.

**Allergy management and prevention plan (AMPP)** A plan developed by schools regarding the care of students with life-threatening allergies. It should address a) measures to reduce exposure to allergens, and b) procedures to treat allergic reactions.

**Anaphylaxis** A potentially life-threatening medical condition occurring in children with allergies after exposure to their specific allergen(s).

**Anaphylaxis emergency care plan (AECp)** A document that outlines the recommended treatment in case of an allergic reaction. It is signed by a health care provider.

**Biphasic reaction** Also known as secondary response. It is a recurrence of symptoms within 72 hours with no further exposure; there is a continued presence of antigens in the body.

**Cross-contact** When one food comes into contact with another food and their proteins mix. As a result, each food then contains small amounts of the other food.

**Epinephrine** Also called adrenaline. It is a self-injectable medicine and is the first-line treatment for a severe or life-threatening allergic reaction (anaphylaxis).

**Food Allergy Labeling and Consumer Protection Act (FALCPA)** A federal law that took effect January 1, 2006. It requires that the labels of foods containing major food allergens (milk, eggs, fish, crustacean shellfish, peanuts, tree nuts, wheat and soy) note the allergen in plain language.

**Food allergy** When the immune system mistakes a food protein as a threat and creates an antibody to that food protein. When the food is eaten again, the immune system releases histamine and other chemicals that cause an allergic reaction.

**Individual health care plan (IHCP)** A plan based on the information provided by the primary care provider or allergist, as well as the nurse's assessment. The plan includes: the student's name, method of identifying the student, specific offending allergens, warning signs of reactions and emergency treatment. The individual health care plan should be signed by the parent(s) and the school nurse.

**Intolerance** A reaction to a food that does not involve the immune system. For example, people with lactose intolerance lack an enzyme needed to digest milk sugar.



# Managing Life-Threatening Allergies in Schools

## BACKGROUND

In 2002, the Massachusetts Department of Education was one of the first states in the country to release guidelines for managing life-threatening food allergies in schools. This document was a result of a collaborative effort between the Massachusetts Department of Education, the Asthma and Allergy Foundation of America Foundation: New England Chapter, the Massachusetts School Nurse Organization, the Massachusetts Food Service Association, the Massachusetts Committee of School Physicians, and parents of children with food allergies. Information and advice on this project was provided by School Health Services Unit within the Massachusetts Department of Public Health.

This collaborative effort was continued during revision of these guidelines. The goal of this revised document is to update the guidelines to reflect the most current data, laws and policies, terminology, and protocols. Current Massachusetts regulations, as well as the Voluntary Guidelines for Managing Food Allergies in Schools and Early Education and Care Programs from the Centers for Disease Control and Prevention, were used to guide the recommendations in this document.

These revised guidelines are broader in scope to include specific guidance for programs, such as early education and care ones, outside the school setting. At the time of the original release of these guidelines, the Massachusetts Department of Public Health started collecting data from the mandated reporting of anaphylaxis and treatment in schools. Information gathered from these data has been important to understanding life-threatening anaphylactic reactions in schools throughout Massachusetts. No data are currently collected on early education and care programs.

## EPINEPHRINE ADMINISTRATION REPORTING 2004-2010 DATA

Reporting of epinephrine administration in schools began in the 2003–2004 school year. The number of reported administrations (to students, staff, and visitors) increased over those years, from 133 in 2004 to 225 in 2010, but it is not possible to determine if this is the result of a real increase in epinephrine administrations, an increased awareness of and compliance with the reporting requirements, or a combination of both factors. However, the increase is consistent with recent national survey data showing a statistically significant increase in the rate of food allergy in children 0–17 years old.<sup>1</sup> Although each administration is reported separately and basic demographic information is collected, unique identifiers are not collected. As a result, the number of unique individuals receiving epinephrine or the number of individuals receiving multiple administrations during the school year could not be definitively determined.

During the period between 2004 and 2010, a considerable percentage of epinephrine administrations involved individuals without a known allergy or with an allergy that had never been reported to the school nurse. On average, 23 percent of epinephrine administrations involved individuals who did not have a previously recognized or reported allergy (range: 17–27 percent). These facts led to the following conclusions:

- Stock supplies of epinephrine auto-injectors should be available in the school to administer to those individuals who have no previous history of allergies.
- Parents should be encouraged to provide information about their children’s allergies with the school nurse and ensure that epinephrine is available at the school.
- School staff should share any information on their own life-threatening allergies with the school nurse to ensure a prompt emergency response should an unintended exposure occur.

Although the most common trigger was food (between 42 and 46 percent of the reactions between 2004 and 2010), exposure to the food allergen frequently occurred outside of the school cafeteria or lunchroom. Symptoms developed more frequently in a classroom than in the lunchroom or any other location. A classroom location was 46 percent (range: 39–54 percent) of the time versus 15 percent for the lunchroom location. As a result:

- Controlling exposure to food allergens must extend beyond the lunchroom.
- School staff must be trained to recognize the signs of anaphylaxis on the playground, bus, or at other locations.

Other ongoing recommendations include:

- Ensure that all students with life-threatening allergies have an individualized health care plan and a 504 plan to ensure appropriate accommodations for preventing prevent exposure to known allergens.
- Ensure that all individuals who have experienced a life-threatening allergic event are transported via an emergency medical vehicle to an emergency care facility. This requires education of parents/guardians, all school staff, and emergency medical personnel about the potential for a repeat of the symptoms or a biphasic reaction. This reaction (also known as secondary response) is a recurrence of symptoms within 72 hours with no further exposure; there is a continued presence of antigens in the body.
- Ensure that school policy and *individual health care plans* follow the American Academy of Allergy, Asthma & Immunology position statement that epinephrine is the first drug that should be used in the emergency management of a child having a potentially life-threatening allergic reaction.<sup>2</sup>
- Be aware that individuals have a history of asthma are at greater risk of having a life-threatening allergic reaction.
- Consider these guidelines, as you work to meet the needs of students in your school and district.

## GOAL OF THE GUIDELINES

The guidelines are presented to assist Massachusetts school districts, non-public schools, early education and care programs, and summer feeding programs to develop and implement policies and comprehensive protocols for the care of children with life-threatening allergic conditions. The guidelines address:

- Scope of the problem of childhood allergies
- Types of detailed plans that should be in place to help prevent allergic reaction emergencies and deaths from anaphylaxis
- Systematic planning and multidisciplinary team approach needed prior to entry into a school or program by the child with life-threatening allergies
- School or program role in preventing exposure to specific allergens
- Emergency management during a life-threatening allergic event
- Roles of specific staff members in the care of the child with a life-threatening allergic condition

While the prevention portions of this document focus on food allergies, the treatment of anaphylaxis (a life-threatening allergic reaction) and the *anaphylaxis emergency care plan* are the same whether caused by food, latex, insect venom, medication, exercise, or cold.

There are other types of food-related conditions and diseases, ranging from the problem of digesting lactose in milk that can result in gas, bloating, and diarrhea, to reactions caused by gluten (celiac disease) that can result in severe malabsorption and a variety of other serious health problems. These conditions and diseases may be serious but are not immediately life-threatening and are not addressed in these guidelines.

# Overview of Life-Threatening Allergies

Life-threatening allergies are increasing and present challenges for schools and early education and care programs. These guidelines are designed to help both schools and early education and care programs create plans for how they will respond effectively to children with allergies. Although they do not focus specifically on the early education and care setting, the recommendations listed for schools may apply to both settings, as many are universal in their application.

## ALLERGIC TRIGGERS

Triggers are things that cause an allergic reaction. Life-threatening allergies (anaphylaxis) can be triggered by:

- Food
- Latex
- Insect venom
- Medication
- Exercise
- Cold

Food triggers are the most common cause of anaphylaxis at school. But the response to a life-threatening reaction is the same regardless of the trigger.

## FOOD ALLERGY PREVALENCE

- Food allergies affect an estimated 4–8 percent of children in the United States.<sup>1,3</sup>
- Food allergy prevalence among children increased 50 percent during 1997–2011.<sup>3</sup>
- In 2006, about 88 percent of schools had at least one student with food allergies.<sup>3</sup>
- Sixteen to 18 percent of students with food allergies have had a reaction at school.<sup>4</sup>
- Respiratory allergies (such as hay fever) are the most common type of allergy among children (estimated prevalence: 17 percent), followed by skin allergies (12.5 percent).<sup>5</sup>
- Other than food allergies, allergies that are commonly associated with anaphylaxis are bee sting allergies (prevalence in Massachusetts Essential School Health Services-affiliated schools: 0.5 percent) and latex allergies (prevalence in Massachusetts Essential School Health Services-affiliated schools: 0.3 percent).<sup>5</sup>
- Twenty-five percent of epinephrine administrations in schools are to students with no previous diagnosis of food allergy.<sup>6</sup>

## CHARACTERISTICS OF FOOD ALLERGY REACTION IN CHILDREN

- Allergic reactions to foods vary among children and can range from mild to severe, life-threatening anaphylactic reactions. For some children even very small amounts of allergen can cause severe reactions.
- Eight foods (peanut, tree nut, milk, egg, soy, wheat, fish, and shellfish) account for 90 percent of total food allergies, although any food has the potential to cause an allergic reaction.
- Most, but not all, childhood allergies to milk, egg, soy and wheat are outgrown by age five.
- Although the majority of severe reactions are caused by peanuts and tree nuts, other allergens can cause severe reactions, including fatal and near-fatal ones. Effective policies need to address all allergens, not just nuts.

## WHAT IS A FOOD ALLERGY?

People with allergies have overreactive immune systems that target otherwise harmless elements of our diet and environment. During an allergic reaction to food, the immune system recognizes a specific food protein as a target. This initiates a sequence of events in the cells of the immune system resulting in the release of chemical mediators such as histamine and leukotrienes. These chemical mediators trigger inflammatory reactions in the tissues of the skin (itching, hives, rash), the respiratory system (cough, difficulty breathing, wheezing), the gastrointestinal tract (vomiting, diarrhea, abdominal pain), and the cardiovascular system (decreased blood pressure, heartbeat irregularities, shock). Symptoms can happen within a few minutes or up to a few hours of being exposed to the allergen and can be seen or felt in different parts of the body. When the symptoms are widespread and systemic, the reaction is termed anaphylaxis, a potentially life-threatening event.

## ANAPHYLAXIS

Anaphylaxis is a potentially life-threatening medical condition occurring in children with allergies after exposure to their specific allergen(s). Anaphylaxis refers to a collection of symptoms affecting multiple systems in the body. These symptoms may include:

- Hives
- Vomiting
- Itching (of any body part)
- Diarrhea
- Swelling (of any body part)
- Stomach cramps
- Red, watery eyes
- Change of voice
- Runny nose
- Coughing
- Difficulty swallowing
- Wheezing
- Difficulty breathing, shortness of breath
- Throat tightness or closing
- Sense of doom
- Itchy scratchy lips, tongue, mouth and/or throat
- Fainting or loss of consciousness
- Dizziness, change in mental status
- Flushed , pale skin, cyanotic (bluish) lips and mouth area

The most dangerous symptoms include breathing difficulties and a drop in blood pressure or shock, which are potentially fatal. Life-threatening allergic reactions may occur to food, latex, insect venom, medication, exercise, or cold.

Anaphylaxis can occur within moments to up to two hours following allergen exposure. In about a third of anaphylactic reactions, the initial symptoms are followed by a delayed wave of symptoms two to four hours later. This combination of an early phase of symptoms followed by a late phase of symptoms is defined as a biphasic reaction. While the initial symptoms respond to epinephrine, the delayed biphasic response may not respond at all to epinephrine and may not be prevented by steroids. Therefore, it is imperative that following the administration of epinephrine, the child be transported by emergency medical services (EMS) to the nearest hospital emergency department even if the symptoms appear to have resolved. Children experiencing anaphylaxis should be observed in a hospital emergency department for a minimum of four to six hours after the initial symptoms subside, to observe for a possible biphasic reaction. In the event a biphasic reaction occurs, intensive medical care could then be provided.



***When in doubt, it is better to give an epinephrine auto-injector and seek medical attention. Fatalities occur when epinephrine is withheld.***

For those students at risk for anaphylaxis, prevention should be the most important aspect of their management in the school setting. In the event of an anaphylactic reaction, epinephrine is the treatment of choice and should be given immediately. If nursing staff cannot be available immediately, this may require the training of unlicensed personnel. Studies show that fatalities are frequently associated with not using epinephrine or delaying the use of epinephrine treatment.<sup>7</sup>

***In some fatal reactions the initial symptoms of anaphylaxis were mistaken for asthma. This delayed appropriate treatment with epinephrine.***



Every allergic reaction has the potential of developing into a life-threatening event. Several factors may also increase the risk of a severe or fatal anaphylactic reaction: concomitant asthma; a previous history of anaphylaxis; peanut, tree nut, seed and/or shellfish allergies; and delay in the administration or failure to administer epinephrine.

The severity and explosive speed of anaphylaxis emphasizes the need for an effective emergency plan that includes recognition of the symptoms of anaphylaxis, rapid administration of epinephrine, and prompt transfer of the student by the emergency medical system to the closest hospital.

## **FOOD ALLERGY SYMPTOMS IN CHILDREN**

Children with food allergies might communicate their symptoms in the following ways:

- It feels like something is poking my tongue.
- My tongue (or mouth) is tingling (or burning).
- My tongue (or mouth) itches.
- My tongue feels like there is hair on it.
- My mouth feels funny.
- There's a frog in my throat; there's something stuck in my throat.
- My tongue feels full (or heavy).
- My lips feel tight.
- It feels like there are bugs in there (to describe itchy ears).
- It (my throat) feels thick.
- It feels like a bump is on the back of my tongue (throat).

Source: The Food Allergy & Anaphylaxis Network. Food Allergy News. 2003;13(2).

## EMOTIONAL IMPACT ON CHILDREN WITH FOOD ALLERGIES AND THEIR PARENTS

Studies have shown that having food allergies significantly affects the psychological well-being of children and their parents.<sup>3</sup> Some parents may be fearful of a life-threatening allergic reaction, and they work hard to find the balance between what is safe and what is normal when meeting the needs of their child with food allergies.

When a child goes to an early education and care program or school, parents should work in partnership to create plans that will keep their child safe. When this partnership is done well, children learn they can be safe outside their homes.

Children with allergies may have fears of a life-threatening allergic reaction or of being a burden to others because of their allergies. These fears may lead them to limit social and daily activities. They may also face the emotional burden of teasing, taunting, harassment, or bullying by peers, teachers, or other adults. A recent study showed that one third of children and teens were bullied because of their food allergies.<sup>8</sup> These issues must be addressed when developing a plan for managing food allergies.

Schools and early education and care programs can provide invaluable resources to children with food allergies and their families by helping children feel accepted within the school community. They can teach children to:

- Keep themselves safe
- Ask for help
- Trust others
- Develop healthy and strong friendships
- Acquire social skills
- Accept more responsibility
- Improve their self-esteem
- Increase their self-confidence

# K-12 Schools



# Life-Threatening Allergies in K-12 Schools

## ROLE OF THE SCHOOL

Adequate plans and staff, who are knowledgeable regarding preventive measures and well prepared to handle severe allergic reactions, can save the life of a child. Total avoidance of the substance to which the student is allergic is the only means to prevent allergic reactions.

- School districts should develop a plan regarding the care of students with life-threatening allergies. This **allergy management and prevention plan (AMPP)** should address: a) measures to reduce exposure to allergens, and b) procedures to treat allergic reactions. District policy should require adherence to this **allergy management and prevention plan** (see Appendix C, page 48).
- The school nurse should oversee development of an **individual health care plan (IHCP)** for each student with the diagnosis of a life-threatening allergy. The school nurse should be responsible for organizing and conducting a meeting with the student's parent(s), the student (if appropriate), the classroom teacher, school nutrition director/manager, and other personnel as determined by the student's needs. The **individual health care plan** must be developed before the student begins school or immediately after diagnosis of a life-threatening condition and should include a **Massachusetts anaphylaxis emergency care plan (AECPP)** (see Appendix D, page 51).
- Schools should ensure that all staff entrusted with the care of students receive basic education concerning life-threatening allergies and have training in the prevention and management of allergic conditions. All staff should be trained and know their roles in their school's emergency protocol. Administration should ensure that adequate time is provided for this education.
- An effective, life-threatening allergy plan needs the cooperation of parents, teachers, counselors, school nutrition staff, administrators, school nurses, school physicians, primary care physicians, extracurricular advisors, bus/transportation personnel, and any staff that might be present where children can be exposed to the allergens that can trigger their extreme reactions (see Appendix G, page 57).

- Schools should be prepared to manage an anaphylactic emergency by:
  1. Having responsible school personnel designated and trained to respond (see Appendix I, page 65).
  2. Identifying the student's needs clearly.
  3. Having the physician's orders on file.
  4. Maintaining a current supply of epinephrine auto-injector in secure but unlocked location(s) (more than one location may be necessary) to allow for immediate availability and/or carried by the student when appropriate. The school nurse assesses whether a student is able to self-carry and/or self-administer an epinephrine auto-injector. Even with students who self-carry/self-administer, staff is ultimately responsible for ensuring the ***anaphylaxis emergency care plan*** is being followed.
  5. Having available a municipal emergency response team prepared to respond to a 911 call with epinephrine. It is important to know what the local EMS can provide, as some ambulance services may not be permitted to administer epinephrine.
- Schools should be ready to respond to severe allergic reactions in children with no history of anaphylaxis or no previously diagnosed allergies. At a minimum, schools should establish a protocol for contacting the school nurse immediately when any allergic reaction is suspected. If the school nurse is not immediately available, there should be a protocol for contacting emergency services.
- The school doctor or nurse should stock their emergency medical kits with epinephrine auto-injectors to be used for anaphylaxis emergencies.



***All staff should be trained and know their roles in their school's emergency protocol.***

## EDUCATION

Schools should provide education and training to all school staff, parents, and students about life-threatening allergies.

- Provide general training about food and other life-threatening allergies to all staff, parents, and students. Information about the district *allergy management and prevention plan* should be given. Everyone should know the signs and symptoms of anaphylaxis and how to activate the *medical emergency response plan*. The importance of not bullying or teasing those with allergies should be emphasized.
- Provide more in-depth training to staff in frequent contact with students who have life-threatening allergies. In this training, the school personnel authorized to administer epinephrine by auto-injector are trained and tested for competency by the designated school nurse leader or responsible school nurse, or school nurses designated by this person, in accordance with standards and a curriculum established by the Massachusetts Department of Public Health (see Appendix J, page 66).

The training, at a minimum, shall include:

1. Procedures for risk reduction
  2. Recognition of the symptoms of a severe allergic reaction
  3. The importance of following the medication administration plan
  4. Proper use of the auto-injector
  5. Requirements for proper storage and security, notification of appropriate persons following administration, and record keeping
- All contracted staff (e.g., bus drivers and school nutrition staff) should receive the same life-threatening allergy training as permanent school staff.
  - Volunteers and substitutes should be trained, as appropriate.
  - School nutrition staff must also receive food allergy training compliant with the Massachusetts Food Allergy Awareness Act.
  - All parents should receive information to increase their awareness and understanding of food allergies, policies, and practices that protect children with food allergies, outline the roles of all staff members in protecting children with food allergies, along with the measures parents of children with and without food allergies can take to help ensure this protection.
  - Educate students about food allergies. Encourage the inclusion of information about food allergies in the district's health education or other curricula to raise students' awareness.



**For more information** on training compliant with the MA Food Allergy Awareness Act, visit: [www.bit.ly/MA-SHmanual](http://www.bit.ly/MA-SHmanual)



**For additional allergy resources**, see Appendix L (page 73).

## PLANNING

### Individual Health Care Plan and Anaphylaxis Emergency Care Plan

Prior to entry into school (or for a child who is already in school, immediately after the diagnosis of a life-threatening allergic condition), the parent/guardian should meet with the school nurse assigned to the student's building to develop an *individual health care plan*.



**Individual health care plan samples** can be found in chapter seven of the *Massachusetts Comprehensive School Health Manual*.

[www.bit.ly/MA-SHmanual](http://www.bit.ly/MA-SHmanual)



For **additional allergy resources**, see Appendix L (page 73).

#### The school nurse will:

- Initiate an *individual health care plan* based on the information provided by the primary care provider or allergist, as well as on the nurse's assessment. The plan shall include the student's name, method of identifying the student, specific offending allergens, warning signs of reactions, and emergency treatment. The plan must include, but not be limited to, risk reduction and emergency response at the following times: a) travel to and from school, b) the school day, c) before- and after-school programs, and (d) field trips. The *individual health care plan* should be signed by the parent(s) and the school nurse.
- Initiate an *anaphylaxis emergency care plan*. This plan should be signed by the parent(s), the physician, and the school nurse (see Appendix D, page 55) and is covered by the Family Education Rights and Privacy Act as an "education record." Ensure that the privacy or confidentiality of a student with allergies is protected. The *anaphylaxis emergency care plan* should not be posted but instead stored in an accessible, secure, but unlocked, location(s) for all staff that need to have access. The plan should clearly state where the student's auto-injectors are stored/being carried (when necessary, this may be in multiple locations).
- Complete a medication administration plan, which should include the names of individuals trained to administer epinephrine auto-injectors, plans for field trips or short-term special events, where the epinephrine auto-injectors will be stored (including back-up storage), and how they will be monitored for currency. The medication administration plan shall be in accordance with 105 CMR 210.000 (see Appendix J, page 66).
- Based on the student's age, class, etc., identify who will be part of the multidisciplinary team for the student. These may include, but not be limited to, the principal or designee, classroom teacher, student, school nutrition director/manager, counselor, school physician, physical education teacher, custodian, bus driver, local emergency medical service, etc. This team will be trained on the student's *anaphylaxis emergency care plan* and any other information that the school nurse deems appropriate.
- Determine the appropriateness for the student to self-carry his/her epinephrine. Students who can manage their own allergies should have quick (within a few minutes) access to an epinephrine auto-injector, both at school and during school-related events. Massachusetts allows students to carry prescribed epinephrine auto-injectors (e.g., in their pocket, backpack, or purse) at school when assessed as appropriate by the school nurse.

- Assess the student for his/her ability to self-administer epinephrine. Criteria may include the student's capabilities and the safety of other students. It is important that students assume more responsibility for their allergies as they grow older and are more developmentally ready.
- Provide information on the availability of a medical alert device.

### The parent/guardian shall provide the following:

- Licensed provider documentation of life-threatening allergy by completing and signing an *individual health care plan* and *anaphylaxis emergency care plan*.
- Licensed provider order for an epinephrine auto-injector as well as other medications needed. Medication orders must be renewed at least annually, and it is recommended that the order be from an asthma and allergy specialist.
- Parent/guardian's signed *individual health care plan* and *anaphylaxis emergency care plan*.
- Parent/guardian's signed consent to share information with other school staff.
- A minimum of two up-to-date epinephrine auto-injectors. More may be necessary based on the student's activities and travel during the school day.
- The type of allergies (milk, tree nuts, etc.).
- Description of the student's past allergic reactions, including triggers and warning signs.
- A description of the student's emotional response to the condition and need for support.
- Name/telephone number of the student's primary care provider and allergist.
- Method (e.g., home or cell phone) to reach parent/parent designee should an emergency occur.
- Age-appropriate ways to include a student in planning for care and implementing the plan.
- Assessment for self-administration. It is important that students take more responsibility for their allergies as they grow older and are developmentally ready to accept responsibility.
- Parent/guardian's interest in participating in the training/orientation in the student's classroom.
- A completed Extracurricular Emergency Medical Information Form (see Appendix E, page 53) if the student is participating in any before- or after-school programs.

### Multidisciplinary team members will:

- Be able to recognize the student with life-threatening allergies.
- Attend training provided by the school nurse, which should include an overview of the life-threatening allergies, anaphylaxis, and the student's *anaphylaxis emergency care plan*.
- Know where epinephrine auto-injector is located and be trained on how to administer it.
- Understand their unique responsibilities for maintaining a safe environment for all students with allergies (see Appendix H, page 59).
- Know how to report and document any administration of epinephrine during any school event.

### **A Multidisciplinary Team Approach to Allergy Safety: Allergy Management and Prevention Plan**

A team led by the school nurse, and including the administration, school physician, teachers, school nutrition director/manager, other school staff, and parents/guardians, shall determine the best way to promote a multidisciplinary approach to plan for the care of students with life-threatening allergies. School nurses may meet individually with staff members to assist in preparing for their responsibilities. The nurse will share the sections of this document that pertain to each staff member.

The team may include but is not limited to:

- Administrative representative
- School nutrition director/manager/staff
- Teachers and specialists (in art, music, science, physical education, computer technology, family and consumer sciences)
- School counselor
- Coaches and club advisors
- After-school program staff
- Custodian
- Bus driver
- Local EMS
- Other learning support staff and aides

The school nurse may meet individually with staff members to help them prepare for their responsibilities.

1. The school nurse gives an overview of allergies, anaphylaxis, and review of each student's anaphylaxis emergency care plan.
2. The team should discuss the prevention and management of life-threatening allergies. (See Appendix C, page 48.)

**The following questions should be considered and responsibility for implementation assigned:**

### **Cafeteria Protocols/Guidelines**

- What is the process for identifying students with life-threatening allergies?
- Is there a need for an allergen-free table? Who will monitor the table?
- Which personnel will have the responsibility for cleaning the tables, trays, etc.?
- What type of cleaning solution should be used?
- Who will provide training for school nutrition staff?
- Have the cafeteria monitors been informed?

### **Classroom Protocols/Guidelines**

- Have all teachers, aides, volunteers, substitutes, and students been educated about allergies?
- Have all parents/guardians of students in the school been notified that there is a student with a life-threatening allergy and what items must not be brought to school?
- Are there guidelines for allowable foods for lunch, snacks, parties, etc.? If not, who shall establish these guidelines?
- Is there an allergen-free table/desk in the student's classroom?
- What are the cleaning protocols for this area?
- What type of cleaning solution should be used?
- Is there an understanding that classroom project materials containing the allergen cannot be used?
- Have students been taught proper hand-washing techniques for before and after eating?

### **Environmental Protocols/Guidelines**

- What is the school policy for the presence of animals?
- Is there an awareness of multiple and related allergies (e.g., latex)?
- What are the cleaning protocols for various areas of the school where allergens may be found?

### Field Trip/School Bus Protocols/Guidelines

- How will the school nurse be notified about field trips in a timely manner?
- How will the *anaphylaxis emergency care plan* be communicated to responsible personnel on field trips, school buses, and after-school programs?
- Is the location of the field trip assessed to be safe for the student with allergies?
- Who will be trained to administer the epinephrine auto-injector should an emergency occur? Is there a need for a registered nurse or aide to accompany the student?
- Should the student with allergies be seated near the driver, teacher, or advisor?
- Is there a no-food policy for the bus? Is it enforced?
- Do personnel have a system for communicating (e.g., cell phone, walkie-talkies, etc.)?

### Custodial Protocols/Guidelines

- What cleaning solution is used?
- How often are the areas cleaned?

### Emergency Response Protocols/Guidelines

- Is there a *medical emergency response plan* for the school as required by the Emergency Medical Treatment & Labor Act?
- Have all school personnel received education on life-threatening allergic conditions and the *medical emergency response plan*?
- Has the school registered with the Massachusetts Department of Public Health to train unlicensed personnel on administering epinephrine by auto-injector?
- What specific personnel will be trained on the administration of epinephrine?
- Which school nurse will do the training? (A school nurse **must** provide this training.)
- Will the parents be involved in the training?
- When will this training occur?
- What is the content of the training?
- How often will it be repeated during the school year? (The Massachusetts Department of Public Health regulations require auto-injector training twice a year at a minimum.)
- Where will the list of trained personnel be kept?
- Has the local EMS been informed and has planning occurred to ensure the fastest possible response?
- Does the local EMS carry epinephrine and does it have permission to use it?

- When and how often are drills a part of the district-wide *medical emergency response plan*?
- In what unlocked area will epinephrine be stored?
- Where is the back-up supply?
- Is it appropriate for this student to carry his/her auto-injector?

The team should see Appendix C (page 48) to further develop questions for the team meeting. Each district should have a written plan that is distributed to all staff and posted on its website.

## IMPLEMENTATION

### *Settings for Prevention*

Accidental contact or ingestion of the offending allergen occurs most often at school. This is understandably a high-risk setting due to factors such as a large number of students, increased exposure of the allergic student to allergens, as well as cross-contact with tables, desks, and other surfaces.

High-risk areas and activities for the student with food and other life-threatening allergies include: the cafeteria; food sharing; hidden ingredients; craft, art and science projects; bus transportation; fundraisers; bake sales; parties and holiday celebrations; field trips; recess; and substitute teaching staff being unaware of the allergic student. Success in managing allergies depends on allergen avoidance techniques.

Procedures should be in place at school to address allergy issues in (or during):

- Classrooms
- School field trips
- Physical education and recess
- After-school activities
- School nutrition services/cafeteria
- Summer food service program

***Protecting a student from exposure to offending allergens is the most important way to prevent life-threatening anaphylaxis.***

***Most anaphylactic reactions occur when a child is accidentally exposed to a substance to which he/she is allergic, such as foods, medicines, insects, or latex.***



## Classrooms

- Teachers must be familiar with the *individual health care plan* of students in their classes and respond to emergencies by following the emergency protocol documented in the *anaphylaxis emergency care plan*.
- In the event of an allergic reaction (where there is no known allergic history), the school nurse should be called and the school's *medical emergency response plan* activated. EMS should be called immediately.
- The classroom should have easy communication with the school nurse through a functioning intercom, walkie-talkie, or cell phone.
- Information about students' allergies should be kept in the classroom. If the student is allergic to specific foods, they should not be used for class projects, parties, holidays and celebrations, arts and crafts, science experiments, cooking, snacks, or other purposes.
- All students and their parents, teachers, aides, substitutes, and volunteers should be educated about the risk of allergies.
- Non-food items should be used as rewards.
- For birthday parties, consider a once-a-month celebration with a non-food treat.
- If a student inadvertently brings a restricted food to the classroom, he or she will not be allowed to eat it in the classroom.
- Tables should be washed with soap and water or an all-purpose cleaning agent in the morning if an event has been held in the classroom the night before.
- Sharing or trading food in the class should be prohibited.
- Proper hand-washing techniques by adults and children should be taught and required before and after the handling/consumption of food. This procedure should emphasize the use of soap and water. Hand sanitizers are not effective in removing food allergens.
- Classroom animals can be problematic on many levels. If animals are present in the classroom, pay special attention to the ingredients in their food, as many animal feeds contain peanuts.
- In classrooms used for meals in schools with no central cafeteria, create a procedure that prevents cross-contact.

## School Field Trips

- The school nurse should be responsible for determining the appropriateness of each field trip and for the safety of students with life-threatening allergies. This requires consideration of the field trip location and which students are participating.
- Protocols for field trips should include timely notification to the nurse as determined by district procedures. It is essential that the school nurse be notified in advance, so that adequate planning for emergency response, if needed, is completed before the students leave school grounds.
- Whenever students travel on school field trips, the name and phone number of the nearest hospital must be part of the chaperone's emergency plan.
- Medications, including an epinephrine auto-injector and a copy of the student's *anaphylaxis emergency care plan*, must accompany the student.
- A cell phone or other communication device must be available on the trip for emergency calls.
- In the absence of an accompanying parent/guardian or nurse, another individual must be trained and assigned the task of watching out for the student's welfare and for handling any emergency. The adult carrying the epinephrine should be identified and introduced to the student as well as to the other chaperones (see Appendix I, page 65).
- Field trips need to be chosen carefully; no student should be excluded due to risk of allergen exposure.
- Hand wipes should be used by students and staff before and after consuming food. Hand sanitizers do not remove allergens effectively.

## School Bus

- Eating food should be prohibited on school buses.
- School bus drivers shall be trained by appropriate personnel on risk reduction procedures, recognition of allergic reaction, and implementation of bus emergency plan procedures, including the administration of epinephrine (per 540 CMR 8.00 [Registrar of Motor Vehicles] pursuant to M.G.L. c. 90, § 8A). Drivers must receive training relative to administration of an epinephrine auto-injector. Drivers with contracted bus companies should receive the same allergy training as permanent staff.
- With parental permission, school bus drivers must be provided with the *anaphylaxis emergency care plan* for all students with life-threatening allergies (see Appendix D, page 51).
- The school bus must have a cell phone or other means of communication for emergency calls.

## Physical Education and Recess

- A current epinephrine auto-injector should be readily accessible, and an adult staff member onsite should be trained on its use by personnel registered with the Massachusetts Department of Public Health.
- Teachers and staff responsible for physical education or recess should be trained by appropriate personnel to recognize and respond to exercise-induced anaphylaxis, as well as to anaphylaxis caused by other allergens.
- Staff in the gym, playground, and other sites used for physical education or recess should have a walkie-talkie, cell phone, or other device for emergency communication.
- If for safety reasons medical alert identification (e.g., bracelet or necklace) needs to be removed during a specific activity, the student should be reminded to put it back on immediately after the activity is completed.

## After-School Activities

- Post instructions for accessing EMS in all activity areas.
- After-school activities sponsored by the school must be consistent with school policies and procedures regarding life-threatening allergies.
- Identify who is responsible for keeping an epinephrine auto-injector during sporting events.
- If for safety reasons medical alert identification (e.g., bracelet) needs to be removed during a specific activity, the student should be reminded to replace this identification immediately after the activity is completed.
- The parent/guardian will provide the adult staff member (or coach) in charge with an *anaphylaxis emergency care plan* (Appendix D, page 51) and an Extracurricular Emergency Medical Information Form (Appendix E, page 53) for children with life-threatening allergies.
- A current epinephrine auto-injector should be readily accessible, and an adult staff member onsite should be trained on its use, for previously diagnosed students in schools registered with the Massachusetts Department of Public Health.
- A staff member (or his/her designee) should maintain a current, properly labeled, epinephrine auto-injector in the first aid kit, to be used by designated trained school personnel for previously diagnosed students.
- If bake sales are held on school grounds, consideration should be given to students with life-threatening allergies. Food should be tightly wrapped or sealed. The display table should be properly washed after use.

## School Nutrition Services/Cafeteria

### Responsibilities of the School Nutrition Director/Manager

- Be prepared to discuss: menus (breakfast, lunch, and after-school snack); a la carte items; vending machines; recipes; food products and ingredients; food handling practices; cleaning and sanitation practices; and responsibility of various staff (or additional contract employees at individual schools).
- Make appropriate food/meal substitutions for the student with food allergies.
- Establish communications and training for all school nutrition staff and related personnel at the student's school.
- Be prepared to make lists of all ingredients used in food production and service available.
- Read all food labels carefully and regularly as product formulations may change. Food labels must be maintained as a component of the United States Department of Agriculture school meals program; for the purposes of food allergies, labels should be on hand for a minimum of 24 hours following meal service in case of an allergic reaction.
- Maintain contact information with vendors and purveyors to access food content information.
- Understand the laws protecting students with food allergies as they relate to school nutrition (see Appendix K, page 69).
- Establish guidelines for proper food label reading and food handling (see Appendix A, page 43, and Appendix B, page 46).
- Establish protocol for using point-of-sales systems as a tool to manage allergies. Use precautions and safe-guards to protect the privacy and confidentiality of students with allergies.

### Summer Food Service Program

- Use good food handling practices to prevent cross-contact during all aspects of food service: preparation, service, and clean-up. If meals are vended, discuss food handling practices with the vendor and find out what allergens the meals contain.
- Train site staff to recognize the signs and symptoms of anaphylaxis.
- Create a communication plan that staff can initiate during an emergency. Walkie-talkie, cell phone, or similar communication device should be available to staff for emergency communication.
- Consider posting a sign with a warning that meals may contain allergens and are not prepared in an allergen-free facility.
- If the summer food service program is part of a summer camp (or program) that collects medical information for participants, see *Early Education and Care Programs* (page 35) for guidance on creating an *allergy emergency and prevention plan*.

## EMERGENCIES

### Emergency Response

Every school's *allergy management and prevention plan* should include a written *medical emergency response plan* (as required by M.G. L. c. 69 § 8A), outlining procedures for managing life-threatening allergic reactions. This plan should identify personnel who will:

- Remain with the student.
- Administer the epinephrine auto-injector.
- Assess the emergency at hand.
- Activate the emergency response team (building-specific, system-wide).
- Follow to the student's *anaphylaxis emergency care plan*.
- Notify school nurse.
- Notify EMS.
- Notify the parent/guardians.
- Notify school administration.
- Notify student's primary care provider and/or allergy specialist.
- Attend to student's classmates.
- Manage crowd control.
- Meet emergency medical responders at school entrance.
- Direct emergency medical responders to site.
- Accompany student to emergency care facility.
- Assist student's reentry into school.
- Practice drills should be conducted periodically as part of the district's *emergency response plan*.

### Special Consideration for the Student

Students who have experienced an allergic reaction at school need special consideration upon their return to school. The approach taken by the school is dependent upon the severity of the reaction, the student's age, and whether their classmates witnessed it. A mild reaction may need little or no intervention other than speaking with the student and parent(s) and reexamining the student's individual health care plan.

The student and parent(s) should meet with the nurse/staff who were involved in the allergic reaction and be reassured about the student's safety, what happened, and what changes will be made to prevent another reaction. If a student demonstrates anxiety about returning to school, checking in with the student on a daily basis would be indicated until his/her anxiety is alleviated. If a child has a prolonged response to an anaphylactic event, strategies should be reviewed and clinical intervention may be recommended. Collaboration with the student's medical provider would be indicated to address any medication changes.

It is important to keep in mind that a student will need help if another allergic reaction occurs; make sure all students feel comfortable seeking help if needed. You do not want any student to withhold information out of embarrassment or because of intimidation. Other students with food allergies may need extra support when a classmate experiences a reaction.

**In the event that a student has a moderate to severe reaction, the following actions should be taken.**

- Obtain as much accurate information as possible about the allergic reaction.
- Identify those who were involved in the medical intervention and those who witnessed the event.
- Meet with the adults to discuss what was seen and dispel any rumors.
- Provide factual information. Although the school may want to discuss this with the parents, information that does not identify the individual student can be provided to the school community without parental permission (e.g., a letter from the principal to parents and teachers that doesn't name names but reassures them that the crisis is over, if appropriate.)
- If an allergic reaction is thought to be from a food provided by the school nutrition service, request assistance from the school nutrition director/manager to ascertain what food items were served/consumed. Review food labels with the school nutrition director/manager and staff.
- Agree on a plan to disseminate factual information and review knowledge about food allergies to schoolmates who witnessed or were involved in the allergic reaction, after both the parents and student consent.
- Provide age-appropriate explanations.
- Review the *anaphylaxis emergency care plan* described in the *individual health care plan*. If a student does not have an individual plan, consider initiating one.
- Amend the student's *anaphylaxis emergency care plan* and/or *medical emergency response plan* to address any changes that need to be made.
- Review what changes need to be made to prevent another reaction; do not assign blame.

**In the Event of a Fatal Allergic Reaction**

In the rare, but possible, event of a fatal reaction, the school's crisis plan for dealing with the death of a student should be implemented. Adults with knowledge of allergies should be on hand to answer questions. Organizations such as Asthma and Allergy Foundation of America and Food Allergy Research & Education may be able to provide resources.



# Early Education and Care Programs



# Life-Threatening Allergies in Early Education and Care Programs

Managing life-threatening allergies in the early education and care setting is similar to management within the K-12 school setting with a few considerations. This section highlights key steps for creating an early childhood environment that is safe and ready to respond should an anaphylaxis emergency occur.

Within the early education and care setting, there are four key plans to consider. Each plan described below has a specific function, but works in consort with the others to create policy and protocols intended to keep children in your care safe.

## NECESSARY STEPS

### 1. Create an Allergy Management and Prevention Plan

The *allergy management and prevention plan* is created by staff at the early education and care site and may also include the parent/guardian of a child with life-threatening allergies. This plan identifies the overarching procedures and protocols followed at the site. This may include items such as where epinephrine is kept, field-trip procedures, prevention of allergen exposure, and/or classroom parties. Take the steps below:

- Bring together key staff members, including the center's food service staff, who will work as team to create a plan. If possible, invite a parent of a child with life-threatening allergies to participate. Determine the staff position that will be responsible for coordinating and managing life-threatening allergies in your early education and care program.
- Include a *medical emergency response plan* in case of anaphylaxis.
- Early education and care programs should be ready to respond to severe allergic reactions in children with no history of anaphylaxis or no previously diagnosed allergies. At a minimum, early education and care programs should establish a protocol for contacting emergency services when an allergic reaction is suspected and follow this protocol immediately when a child exhibits signs of anaphylaxis. It is not permitted to use another child's epinephrine auto-injector.
- Include a procedure for field trips, playground time, and time spent outside.
- Include procedures to reduce exposure of the allergen to the child with life-threatening allergies.
- Coordinate with the parents to determine situations when the school will share information about a child with life-threatening allergies. Periodically remind team members about the importance of keeping medical information confidential.

- Create and enforce plans for families and staff regarding food brought from outside the facility, as they relate to food allergies. Encourage non-food celebrations.
- Understand the laws protecting participants with food allergies, as they relate to food services (see Appendix K, page 69).
- Be prepared to discuss: menus, vending machine items, recipes, food products and ingredients, food handling practices, cleaning and sanitation practices, and responsibility of various staff.
- Involve vendors in the process of developing an *allergy management and prevention plan* if meals are vended to the center.

## **2. Create a Medical Emergency Response Plan (part of the Allergy Management and Prevention Plan)**

The *medical emergency response plan* outlines how to respond in a medical emergency. This plan should be readily available to all staff, provide step-by-step guidance in the case of an emergency, and be activated in the case of anaphylaxis. All staff supervising children with allergies should have access to a cell phone or walkie-talkie. This plan should identify personnel who will carry out the following:

- Administer the epinephrine auto-injector.
- Notify EMS.
- Remain with the child.
- Assess the emergency at hand.
- Activate the emergency response team (building specific, system-wide).
- Follow to the student's anaphylaxis emergency care plan.
- Notify the parent/guardians.
- Notify administration.
- Attend to child's classmates.
- Manage crowd control.
- Meet emergency medical responders at program entrance.
- Direct emergency medical responders to site.
- Accompany child to emergency care facility via ambulance.
- Assist child's reentry into school.

All staff should be trained on and understand the early education and care program's *medical emergency response plan*. Conduct practice drills periodically as part of this plan.

### 3. Obtain an Individual Health Care Plan and an Anaphylaxis Emergency Care Plan for each child with a life-threatening allergy

The *individual health care plan* is required by the Massachusetts Department of Early Education and Care. This plan is created by a team and includes specific instructions pertaining to a specific child's medical needs, and the appropriate treatment as indicated by a health care provider.

The *anaphylaxis emergency care plan* is specifically tailored to the needs of each child. This plan, often developed in relationship with the *individual health care plan*, is used in the case of an anaphylaxis emergency. It gives detailed information on treatment and emergency response.

- A team (including early education and care program staff, the family/caregiver, and a health care provider) should agree on a plan that provides safe care for the child with life-threatening allergies. If additional support is needed, the early education and care program can work with child care health consultants, the regional health advisor nurses, or nurses who work with specialized pediatric practices. Documentation should include an *individual health care plan* (see Appendix F, page 55); a *Massachusetts anaphylaxis emergency care plan* (see Appendix D, page 51); and all currently required documents from the Massachusetts Department of Early Education and Care. Any changes to the documents should be put in writing.
- Parents and staff should arrange to have necessary and sufficient medication on hand, and staff should know how to administer it. Keep the medication in a safe and secure, but unlocked, location.
- Discuss with parents the accommodations the early education and care program can reasonably make for a child with life-threatening allergies.
- Keep a copy of each document in an easily accessible location and have staff refer to them as needed. Be mindful of confidentiality when placing and displaying documents.
- Meet with parents and food preparation staff to ensure that meals are safe for the child with food allergies. If the program receives vended meals, discuss any allergies with the vendor.



For **additional allergy resources**, see Appendix L (page 73).



The **Massachusetts Food Allergy Awareness Act** requires that certain food establishments comply with regulations developed by the Massachusetts Department of Public Health.

For more information, visit [www.bit.ly/105CMR590](http://www.bit.ly/105CMR590)



**Additional allergy training** may be part of quality rating and improvement system criteria.

For more information: [www.bit.ly/MA\\_QRIS](http://www.bit.ly/MA_QRIS)

## ESSENTIAL EDUCATION

- All staff (including teachers, substitutes, janitors, drivers, etc.) should receive training on the basics of allergies and become familiar with the *allergy management and prevention plan*.
- Staff should be able to identify children with life-threatening allergies and be aware of all symptoms of a reaction.
- In the event of a reaction, staff should promptly follow instructions in the *anaphylaxis emergency care plan* and follow the *medical emergency response plan*. Staff who comes into contact with children with life-threatening allergies should be trained to administer epinephrine auto-injector.
- Parents of children with allergies, health care professionals from the community, and state agency staff can all be resources for staff training.
- Educate parents and other children about life-threatening allergies. Teasing or bullying children with life-threatening allergies should be addressed immediately in developmentally appropriate ways.
- See Appendix L (page 73) for training and educational materials for staff, parents, and children.

## SPECIAL CONSIDERATIONS

1. Train staff, volunteers, and administrators to carefully read food labels for allergens (see Appendix A, page 43).
2. Follow proper procedures for cleaning and avoiding cross-contact (see Appendix B, page 46).
3. If food is served family style, take extra precautions with utensils and serving containers to prevent cross-contact. Children with food allergies should serve themselves first. Children should not be allowed to share food or utensils.
4. Children should not trade or share food, food utensils, or food containers.
5. Do not use foods or other items containing allergens (e.g., peanut butter for bird feeder pine cone crafts or modeling clay that contains wheat) in art projects, cooking play, or crafts.
6. Follow the early education and care program plan regarding food brought from outside the facility.
7. Plan appropriately for food during field trips.
8. Ensure handwashing before and after eating. It is especially important that children with food allergies wash their hands before eating and children without food allergies wash their hands after eating.

## ELEMENTS TO CONSIDER WHEN DEVELOPING ALLERGY MANAGEMENT AND PREVENTION PLANS FOR EARLY EDUCATION AND CARE PROGRAMS

### Training/Education

#### (general life-threatening allergy education)

- Who is trained
  - *What information is given*
  - *Frequency of training*
  - *Parent involvement in training*
  - *Responsibility for scheduling training*
  - *Who does the training*

### Student Education

- No food sharing
- Personal hygiene (hand washing)
- Bullying

### Individual Health Care Plan and Anaphylaxis Emergency Care Plan Development

- Process for development/review
  - *Plan for team meeting*
  - *Membership of team*
  - *Frequency of reviewing IHCP*
- Parent involvement
- Information to be included
- Where anaphylaxis emergency care plan is located
- How information is communicated for field trips

### Meal Service Protocols

#### (including training and communication with vendors)

- Avoiding cross-contact during all aspects of food preparation and serving
- Staff responsible for cleaning meal service location
- Cleaning protocol
- Accurately read labels for food allergens
- Keep labels for at least 24 hours after meal service
- Provide appropriate substitutions to avoid food allergens

### Cleaning Protocols

- Frequency, type of cleaning solution
- Equipment to be cleaned (food preparation and storage equipment: cambros, holding cabinets, refrigerators, etc., and playground equipment, toys, strollers, buggies, ropes children hold on to when walking, etc.)

### Classroom Protocols

- Parties/snacks/classroom projects (guidelines for allowable foods)
- Cleaning protocol
- Student hygiene practices
- Communication with parents of other children
- Guidelines for the presence of animals
- Outside food

### Field Trip Management

- Planning process
  - *Location safe for children with life-threatening allergies*
  - *Location of nearest medical facility*
- Guidelines for storage/administration of epinephrine
- Plan for activating EMS and parents
- Availability of anaphylaxis emergency care plan

### Emergency Response

- Staff responsibility
- Communication procedures
- Emergency drills

### Epinephrine Administration

- Who is trained
- Who conducts training
- Frequency of training
- Contents of training
- Locations of epinephrine (storage should be in a secure but accessible location)
- Documentation/reporting
- Mechanism to review expirations dates of epinephrine
- Plan for undiagnosed/first-time reactions. Epinephrine can only be administered by a licensed medical professional if anaphylaxis occurs in a child not previously diagnosed by a physician. Ensure that the *emergency response plan* is activated and that emergency services (911) is called.

## References

1. Branum AM, Lukacs SL. Food Allergy Among Children in the United States. *Pediatrics*; 2009;124(6):1549-1555. doi:10.1542/peds.2009-1210.
2. Position Statement: Anaphylaxis in schools and other child-care settings, American Academy of Allergy, Asthma and Immunology, *J Allergy Clinical Immunology* 1998; Vol.102, No. 2 , 173-175.
3. Gupta, R.S., Springston. E.E., Warrier, M.R., Smith, B., Kumar, R., Pongracic, J., & Holl, J.L. (2011). The prevalence, severity, and distribution of childhood food allergy in the United States. *Pediatrics*, e9-e17. doi: 10.1542
4. Centers for Disease Control and Prevention. (2013). Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs. Retrieved from: [www.bit.ly/CDC\\_foodallergies](http://www.bit.ly/CDC_foodallergies)
5. Jackson, K.D., Howie, L.D., & Akinbami, L.J. (2013). Trends in allergic conditions among children: United States, 1997-2011. *NCHS Data Brief*, 121, 1-8.
6. Food Allergy Research & Education. Food Allergy Facts and Statistics for the U.S. Retrieved from: [www.bit.ly/FARE\\_facts-stats](http://www.bit.ly/FARE_facts-stats)
7. McIntyre, C.L., Sheetz, A.H., Carroll, C.R., & Young, M.C. (2006). Administration of epinephrine for life-threatening allergic reactions in school settings. *Pediatrics*, 116(5),1134-40.
8. FARE Blog (2014). A New Look at Food Allergy Bullying. Retrieved from: [www.bit.ly/FARE\\_bullying](http://www.bit.ly/FARE_bullying)

# Appendices

# Appendices

Appendix A: Reading Food Labels.....	43
Appendix B: Food Handling.....	46
Appendix C: School District Allergy Management and Prevention Plan.....	48
Appendix D: Sample Anaphylaxis Emergency Care Plan.....	51
Appendix E: Sample Extracurricular Emergency Medical Information Form.....	53
Appendix F: Individual Health Care Plan for Early Education and Care .....	55
Appendix G: Sample Food Allergy Letters.....	57
<i>for Classmates and Parents</i> .....	57
<i>for Substitute Teachers</i> .....	58
Appendix H: Roles for Managing Life-Threatening Allergies in Schools .....	59
<i>Student with Allergies</i> .....	59
<i>School Administration</i> .....	59
<i>Parents/Guardians of a Student with Allergies</i> .....	60
<i>School Nurse</i> .....	61
<i>School Physician</i> .....	61
<i>Classroom Teachers/Specialists</i> .....	62
<i>School Nutrition Director/Manager/Staff</i> .....	63
<i>Coaches and Other Before- and After-School Activity Supervisors</i> .....	64
<i>School Bus Company</i> .....	64
Appendix I: Regulations Governing Administration of Epinephrine .....	65
Appendix J: Administration of Epinephrine, 105 CMR 210.100 .....	66
Appendix K: Laws Related to Students with Food Allergies .....	69
Appendix L: Allergy Resources .....	73

## APPENDIX A

# Reading Food Labels

***Read all food labels and recheck with each purchase for potential food allergens. Manufacturers may change ingredients without notice.***

***All school nutrition staff should be trained on how to read product labels and recognize food allergens.***



There are eight major food allergens: milk, eggs, peanuts, tree nuts (such as walnuts and almonds), soy, wheat, fish and shellfish. These eight foods are the most common food allergens and cause more than 90 percent of all food allergic reactions. Peanuts and tree nuts alone account for 92 percent of severe and fatal reactions. Some children may be allergic to more than one food.

While only eight foods account for more than 90 percent of all food-allergic reactions, a person can be allergic to virtually any food. It is important that all allergies be taken seriously. Refer to the diet order if a student has a food allergy not included in the top eight allergens. Because these allergens are not required to be in plain language or in a “contains” statement, they may be more difficult to locate on the label. The diet order should list the foods and ingredients to avoid, so follow it carefully and ask a supervisor or manager if you have any questions.

Reading food labels to identify these ingredients in the products used by a school’s nutrition department is an essential and ongoing process in prevention. Most food labels list the major eight food allergens using their common name (milk, eggs, peanuts, tree nuts, wheat, soy, fish, and crustacean shellfish). As food manufacturers continuously refine and improve food products, the food label on every product must be read each time it is purchased. Avoid items with advisory statements unless otherwise noted in the *anaphylaxis emergency care plan*.

In the school cafeteria, personnel should know their products and ingredients by carefully reading labels. Some students may react to a minute trace of these ingredients, so complete elimination is essential.

Many food manufacturers have consumer response departments to provide information about their products. If there are any questions about a product ingredient, call the consumer hotline number listed on most products food labels. Be specific. (For example, “Does your product include peanuts? Is there a risk of cross-contact with peanuts in your food manufacturing process?”) Knowing how to read a food label helps avoid problems caused by ingredients in foods.

## LABELING FOODS FOR ALLERGENIC INGREDIENTS

On January 1, 2006, the Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA) became effective. This law requires manufacturers to clearly identify on their food labels if a food product has any ingredients that contain protein derived from any of the eight major allergenic foods and food groups: milk, eggs, fish, crustacean shellfish, tree nuts, peanuts, wheat, or soybeans. These eight foods and food groups account for 90 percent of all food allergies. Other allergenic foods (e.g., sesame) are not required to be declared in accordance with FALCPA.

Food manufacturers must comply with the law by identifying in plain English on their product labels the food source of any ingredient that is or contains protein from one of the eight foods or food groups mentioned above. FALCPA also requires the type of tree nut (e.g., almonds, pecans, walnuts); the type of fish (e.g., bass, flounder, cod); and the type of crustacean shellfish (e.g., crab, lobster, shrimp) to be declared.

A food product may be subject to recall if it contains a major food allergen as an ingredient that is not declared on the food label in accordance with FALCPA requirements.

### FOOD LABELS MAY LOOK DIFFERENT

Food manufacturers are required to label foods in one of two ways, if allergenic foods are present:

1. In the list of ingredients, put the name of the food source of the major food allergen in parenthesis after the common or usual name of the ingredient when that name does not already appear in the ingredient statement.

**For example (bold text is for illustration purposes only):**

**Ingredients:** Enriched flour (**wheat** flour, malted barley, niacin, reduced iron, thiamin mononitrate, riboflavin, folic acid), sugar, partially hydrogenated soybean oil, and/or cottonseed oil, high fructose corn syrup, whey (**milk**), **eggs**, vanilla, natural and artificial flavoring, salt, leavening (sodium acid pyrophosphate, monocalcium

2. Immediately after or adjacent to the list of ingredients, put the word “contains,” followed by the name of the food for each of the major food allergens present in the food’s ingredients.

**For example:**

Contains wheat, milk, egg, and soy

## **What Does This Mean For USDA Foods Offerings?**

Due to the variability in vendor formulations, allergen information is not currently included on the USDA foods product information sheets. Additionally, per Food and Drug Administration (FDA) labeling requirements, allergen labeling is not required for institutional size foods. However, most vendors do provide this information on the interior or exterior packaging or through the product information sheet provided. It is recommended that school districts contact the manufacturer directly to obtain allergen information for any products in question.

## **Food Allergen “Advisory” Labeling**

FALCPA’s labeling requirements do not apply to the potential or unintentional presence of major food allergens in foods resulting from “cross-contact” situations during manufacturing (e.g., shared equipment or processing lines). In the context of food allergens, “cross-contact” occurs when a residue or trace amount of an allergenic food becomes incorporated into another food not intended to contain it. FDA guidance for the food industry states that food allergen advisory statements (e.g., “may contain [allergen]” or “produced in a facility that also uses [allergen]”) should not be used as a substitute for adhering to current good manufacturing practices. Food allergen advisory statements must be truthful and not misleading. FDA is considering ways to manage manufacturers’ use of these types of statements to better inform consumers.

## **Some Foods are Exempt from FALCPA**

Raw agricultural commodities (including fresh fruits and vegetables) are exempt, as are highly refined oils (or ingredients derived from them) made from one of the eight foods or food groups identified in the law.

**Knowing how to read a food label helps avoid problems caused by ingredients in foods.**



## APPENDIX B

# Food Handling



*Cross-contact of a food allergen poses a serious risk to a child with food allergies.*

*Training for all school nutrition staff about cross-contact should be part of the regularly scheduled sanitation program.*

### CROSS-CONTACT

One of the most important precautionary steps school nutrition staff can take to ensure that food is safe for children with food allergies is preventing cross-contact. Cross-contact occurs when any food is inadvertently contaminated with an allergen during food preparation, storage, or service.

#### *Preventing Cross-Contact in Food Storage Areas*

- Find products that do not contain a specific allergen. Find out about the vendor's production, manufacturing, and transportation procedures to determine if a certain product is safe for children with a specific food allergy. Also verify that transportation vehicles used by the vendor are free of contaminants.
- Read all food labels carefully and regularly as product formulations may change. Food labels must be maintained as a component of the USDA meals program; for the purposes of food allergies, labels should be on hand for a minimum of 24 hours following meal service in case of an allergic reaction.
- Store specialty items that are allergen-free (for example, wheat-free flours) in marked or color-coded containers. Make sure containers are covered (or kept in original packaging) and only used when making an allergen-free recipe or meal.
- Store allergen-free containers and food products in a separate storeroom (or in a specific area in the storeroom when space is limited) to prevent items from inadvertent contact with allergen-containing foods.
- Clean containers thoroughly with warm soapy water each time they are emptied to remove any residue. Sanitize after washing and rinsing.

#### *Preventing Cross-Contact in Food Preparation Areas*

- Follow strict hygiene procedures. Wash hands with warm soapy water before and after each task. Neither water alone nor hand sanitizer is effective in removing allergens. Hands should still be washed even if gloves are worn, and new gloves should be used each time a new food is handled.
- Prepare allergen-free foods first, then allergen-containing foods.
- Wash all utensils, bowls, pots, and pans thoroughly with warm soapy water and sanitize before and after each use when preparing food for children with food allergies.

- Clean food preparation surfaces and equipment following standard operating procedures to remove allergens. Some equipment may need to be disassembled and washed thoroughly to remove all allergen residues. Sanitizing alone will not effectively remove allergens. Surfaces should be cleaned before, during, and after food preparation.
- Designate safe work zone areas of the kitchen to be used for preparing allergen-free products. Color-coded cutting boards, utensils, and equipment should be used in this area.
- Designate serving utensils to be used for allergen-free foods or use disposable utensils. Simply wiping utensils will not remove allergens.
- Color-code and label cutting boards for different allergens. Never use them for allergen-containing foods. Consider using plastic cutting boards as they are easier to clean and sanitize than wooden ones.
- Wash trays and cookie sheets with warm soapy water after each use.

### **Preventing Cross-Contact in Food Serving Areas**

- Clean all serving areas and utensils following standard operating procedures before and after each use. Utensils are not to be mixed or used for other foods.
- Prepare salads for children with food allergies from ingredients before they are taken to the salad bar. Serving spoons in salad bars are easily used for several different items, and foods frequently mix together causing cross-contact to occur.

### **Preventing Cross-Contact in the Cafeteria/Dining Area**

- Encourage children to wash their hands before and after lunch. It is especially important for children with food allergies to wash their hands before eating and for children without food allergies to wash their hands after eating. Proper hand washing techniques should be taught to children. Use soap and water or hand wipes; hand sanitizing gels do not work to eliminate allergens.
- Discourage children from sharing food and/or utensils.
- Ensure that tables and chairs are cleaned thoroughly before and after each meal period using standard operating procedures. Most household and commercial cleaners remove allergens from hard surfaces. Sanitizing alone will not effectively remove allergens.
- If serving food family style, children with food allergies should be served first.

### **Food for Field Trips**

- Clearly specify any special meals needed before the field trip.
- Avoid meals that may have food allergens.
- Package meals appropriately to avoid cross-contact.
- Provide two hand wipes with each meal (for cleaning hands before and after meals). It is especially important for children with food allergies to wipe their hands before eating and for children without food allergies to wipe their hands after eating.

## APPENDIX C

# School District Allergy Management and Prevention Plan

It is recommended that school districts develop system-wide plans that outline the requirements of a program to manage students with life-threatening allergies. The following content should be included:

- Registration with the Massachusetts Department of Public Health if the school nurse plans to train unlicensed personnel to administer epinephrine by auto-injector to students with diagnosed life-threatening allergic conditions, consistent with 105 CMR 210.000
- Provision of education and training for school personnel on managing students with life-threatening allergies.
- Development of a system-wide plan for addressing life-threatening allergic reactions
- Development of an *individual health care plan* and *anaphylaxis emergency care plan* for every student with a life-threatening allergy
- Inclusion of an *emergency response plan*
- Development of protocols to prevent exposure to allergens
- Standing orders/protocols for licensed personnel (school nurses) to administer epinephrine to individuals with undiagnosed allergies

## SUGGESTED COMPONENTS

### Training/Education on Life-threatening Allergies

- Who is trained (e.g., teachers, aides, volunteers, substitutes, students, parents of students, school nutrition staff, custodial staff, transportation personnel). Assistance and information on training can be obtained through the Massachusetts Department of Public Health's School Health Services Unit.
  - What information is important to include?
  - Frequency of training
  - Parent involvement in training
  - Responsibility for scheduling

### Student Education

- Food sharing
- Personal hygiene (handwashing)

## **Individual Health Care Plan/Anaphylaxis Emergency Care Plan Development**

- Process for development/review
  - Plan for team meeting
  - Membership of team
  - Frequency of reviewing individual health care plan
  - Parent involvement
  - Information to be included
  - Where *anaphylaxis emergency care plan* is posted
  - How information communicated for field trips, school bus personnel, after-school activities, etc.

## **Cafeteria Protocols**

- Process for identifying students with life-threatening allergies
- Allergen aware tables, as appropriate
- Personnel responsibilities (e.g., seating, cleaning)
- Cleaning protocols (e.g., frequency, type of cleaning solution, etc.)
- Written policies and procedures for identifying, documenting, and accommodating students with food allergies
- Documentation verifying participation in food allergen training recognized by the Massachusetts Department of Elementary and Secondary Education and Department of Public Health

## **Classroom Protocols**

- Lunches/snacks/parties/classroom projects (guidelines for allowable foods)
- How are guidelines for allowable foods determined
- Allergen-free table if required
- Cleaning protocols (e.g., frequency, type of cleaning solution, etc.)
- Student hygiene practices
- Education of classmates
- Communication with parents of other children
  - What information is communicated?
  - Who is responsible for notifying parents?
  - Guidelines on presence of animals in the classroom

## **Custodial Protocols**

- Cleaning protocols (e.g., frequency, type of cleaning solution, etc.)
- Communication with classroom teacher

### **Field Trip Management**

- Planning process
- Location of field trip safe for student
- Location of nearest medical facility
- Guidelines for storage/administration of epinephrine auto-injector
- Plan for activating EMS and notifying parent
- Availability of *anaphylaxis emergency care plan*

### **School Bus Management**

- Communication systems (e.g., cell phones)
- Driver training
- Student placement
- Availability/location of epinephrine auto-injector
- Food policy on bus

### **Emergency Response Protocols**

- Personnel responsibilities
- Communication procedures
- Emergency drills

### **Coordination with Emergency Services**

- Availability of epinephrine

### **Epinephrine Auto-Injectors**

- Who is trained
- Who conducts training
- Frequency of training (specified by the Department of Public Health)
- Content of training (determined by the Department of Public Health)
- Location of auto-injectors
- Location of list of trained personnel
- Standing orders/protocols for licensed personnel (school nurse) to administer epinephrine to individuals with undiagnosed allergies
- Mechanism to review expiration dates of auto-injectors

### **Policies Regarding Student's Self-Administration**

- What criteria determine a student's ability to self-administer?
- Does the policy comply with other local, state, or federal regulations?

# Sample Anaphylaxis Emergency Care Plan



## Anaphylaxis Emergency Action Plan

Patient Name: \_\_\_\_\_ Age: \_\_\_\_\_

Allergies: \_\_\_\_\_

Asthma  Yes (*high risk for severe reaction*)  No

Additional health problems besides anaphylaxis: \_\_\_\_\_

Concurrent medications: \_\_\_\_\_

	<b>Symptoms of Anaphylaxis</b>
<b>MOUTH</b>	itching, swelling of lips and/or tongue
<b>THROAT*</b>	itching, tightness/closure, hoarseness
<b>SKIN</b>	itching, hives, redness, swelling
<b>GUT</b>	vomiting, diarrhea, cramps
<b>LUNG*</b>	shortness of breath, cough, wheeze
<b>HEART*</b>	weak pulse, dizziness, passing out

*Only a few symptoms may be present. Severity of symptoms can change quickly.  
\*Some symptoms can be life-threatening. ACT FAST!*

### Emergency Action Steps - DO NOT HESITATE TO GIVE EPINEPHRINE!

1. Inject epinephrine in thigh using (check one):
- |   |   |
|---|---|
| <input type="checkbox"/> Adrenaclick (0.15 mg)                      | <input type="checkbox"/> Adrenaclick (0.3 mg) |
| <input type="checkbox"/> EpiPen Jr (0.15 mg)                        | <input type="checkbox"/> EpiPen (0.3 mg)      |
| <b>Epinephrine Injection, USP Auto-injector- authorized generic</b> |   |
| <input type="checkbox"/> (0.15 mg)                                  | <input type="checkbox"/> (0.3 mg)             |
| <input type="checkbox"/> Other (0.15 mg)                            | <input type="checkbox"/> Other (0.3 mg)       |

Specify others: \_\_\_\_\_

**IMPORTANT: ASTHMA INHALERS AND/OR ANTIHISTAMINES CAN'T BE DEPENDED ON IN ANAPHYLAXIS.**

2. Call 911 or rescue squad (before calling contact)

3. Emergency contact #1: home \_\_\_\_\_ work \_\_\_\_\_ cell \_\_\_\_\_

Emergency contact #2: home \_\_\_\_\_ work \_\_\_\_\_ cell \_\_\_\_\_

Emergency contact #3: home \_\_\_\_\_ work \_\_\_\_\_ cell \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_  
Doctor's Signature/Date/Phone Number

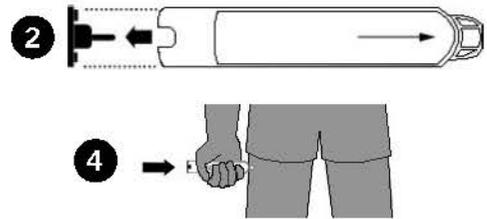
\_\_\_\_\_  
Parent's Signature (for individuals under age 18 yrs)/Date

# Anaphylaxis Emergency Treatment

- Inject epinephrine immediately
- Call 911

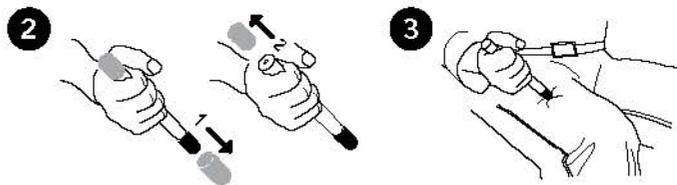
## EPIPEN® (EPINEPHRINE) AUTO-INJECTOR DIRECTIONS

1. Remove the EpiPen Auto-Injector from the plastic carrying case.
2. Pull off the blue safety release cap.
3. Swing and firmly push orange tip against mid-outer thigh.
4. Hold for approximately 10 seconds.
5. Remove and massage the area for 10 seconds.



## ADRENACLICK®/ADRENACLICK® GENERIC DIRECTIONS

1. Remove the outer case.
2. Remove grey caps labeled "1" and "2".
3. Place red rounded tip against mid-outer thigh.
4. Press down hard until needle penetrates.
5. Hold for 10 seconds. Remove from thigh.



Graphic provided courtesy of Food Allergy Research & Education (FARE) ([www.foodallergy.org](http://www.foodallergy.org)) 3/2016



### For additional sample anaphylaxis emergency care plans, visit:

- Food Allergy Research & Education (FARE)  
<http://www.foodallergy.org/file/emergency-care-plan.pdf>
- American Academy of Allergy, Asthma & Immunology (AAAAI)  
<http://www.aaaai.org/Aaaai/media/MediaLibrary/PDF%20Documents/Libraries/Anaphylaxis-Emergency-Action-Plan.pdf>

## APPENDIX E

# Sample Extracurricular Emergency Medical Information Form

\_\_\_\_\_ Public School

Note: The school nurse is not present during before- or after-school programs.

Activity/Sport: \_\_\_\_\_ Adult supervisor: \_\_\_\_\_

Student: \_\_\_\_\_

Address: \_\_\_\_\_ Home phone: \_\_\_\_\_

Parent/Guardian cell phone: \_\_\_\_\_ Work phone: \_\_\_\_\_

Parent/Guardian cell phone: \_\_\_\_\_ Work phone: \_\_\_\_\_

My child has the following medical condition that may require immediate attention (**911**) at after-school athletics.

- |  |                                       |
|--|---------------------------------------|
| <input type="checkbox"/> Allergy to: _____<br>requires Epi-Pen or Epi-Pen Junior (please circle) | <input type="checkbox"/> Diabetes     |
| <input type="checkbox"/> Asthma  | <input type="checkbox"/> Seizures     |
|  | <input type="checkbox"/> Other: _____ |

## ACTION PLANS

### Allergic Reaction

(examples of some of the symptoms include) Difficulty breathing, shortness of breath, wheezing, difficulty swallowing, hives, itching, swelling of any body part.

**Action plan:** Call **911** and assist child in using Epi-Pen if prescribed and available.

### Asthma

Student has difficulty breathing, wheezing, and shortness of breath.

**Action plan:** If the student has their inhaler, allow them to use it. If no relief of symptoms in 5 minutes, **call 911**.

**If no inhaler available, call 911 immediately.**

### Diabetes

Low blood sugar reaction—hunger, sweaty, pallor, headache, feels shaky.

**Action plan:** Allow student to drink a juice box or regular soda, or eat glucose tablets or a snack from their emergency snack pack. Have student test their blood glucose level and record number. If not change in symptoms in 5 minutes, **call 911** and have child repeat all of the above.

### Seizure

Altered consciousness, involuntary muscle stiffness or jerking movements, drooling/foaming at the mouth, temporary halt in breathing, loss of bladder control.

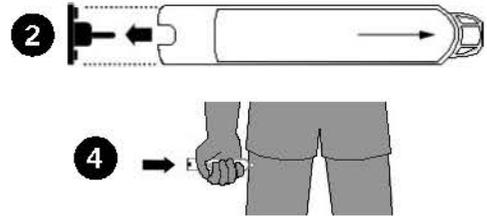
**Action plan:** Protect student from falling. **Call 911**. Never put anything in the student's mouth.

**Parent/Guardian child-specific instructions:**

Parent/Guardian signature: \_\_\_\_\_ Date: \_\_\_\_\_

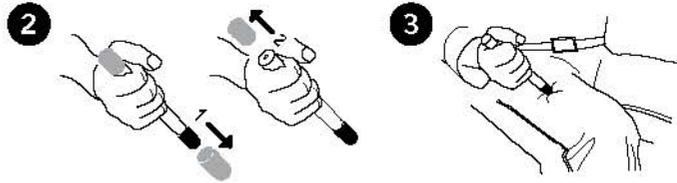
### EPIPEN® (EPINEPHRINE) AUTO-INJECTOR DIRECTIONS

1. Remove the EpiPen Auto-Injector from the plastic carrying case.
2. Pull off the blue safety release cap.
3. Swing and firmly push orange tip against mid-outer thigh.
4. Hold for approximately 10 seconds.
5. Remove and massage the area for 10 seconds.



### ADRENACLICK®/ADRENACLICK® GENERIC DIRECTIONS

1. Remove the outer case.
2. Remove grey caps labeled "1" and "2".
3. Place red rounded tip against mid-outer thigh.
4. Press down hard until needle penetrates.
5. Hold for 10 seconds. Remove from thigh.



Graphic provided courtesy of Food Allergy Research & Education (FARE) ([www.foodallergy.org](http://www.foodallergy.org)) 3/2016

## APPENDIX F

# Individual Health Care Plan for Early Education and Care

## Individual Health Care Plan Form

Name of child: \_\_\_\_\_ Date: \_\_\_\_\_

Plan must be renewed annually or when child's condition changes (*check all that apply*).

**Plan was created by:**

- Parent/Guardian
- Doctor or Licensed Practitioner
- Older school age child
- Other: \_\_\_\_\_

**Plan is maintained by:**

- Director
- Assistant Director
- Child's Educator
- Other: \_\_\_\_\_

**Any change to the child's health care plan?**

- Yes (*indicate changes below*)     No (*updated physician/parental signatures required*)

Name of chronic health care condition: \_\_\_\_\_

Description of chronic health care condition: \_\_\_\_\_

Symptoms: \_\_\_\_\_

Medical treatment necessary while at the program: \_\_\_\_\_

Potential side effects of treatment: \_\_\_\_\_

Potential consequences if treatment is not administered: \_\_\_\_\_

Name of educators that received training addressing the medical condition: \_\_\_\_\_

Person who trained the educator (child's health care practitioner, child's parent, program's health care consultant): \_\_\_\_\_

Name of licensed health care practitioner (please print): \_\_\_\_\_

Licensed health care practitioner authorization: \_\_\_\_\_ Date: \_\_\_\_\_

Parent/Guardian consent: \_\_\_\_\_ Date: \_\_\_\_\_

## For Older Children ONLY

as permitted by the Massachusetts Department of Early Education and Care regulation 606 CMR 7.11 (3)(b)(c)

With written parental consent and authorization of a licensed health care practitioner, this individual health care plan permits older school-age children to carry their own inhalers and/or epinephrine auto-injectors and use them as needed without the direct supervision of an educator.

The educator is aware of the contents and requirements of the child's *individual health care plan* specifying how the inhaler or epinephrine auto-injector will be kept secure from access by other children in the program. Whenever an *individual health care plan* provides for a child to carry his or her own medication, the licensee must maintain a back-up supply of the medication onsite for use as needed.

Age of child: \_\_\_\_\_ Date of birth: \_\_\_\_\_

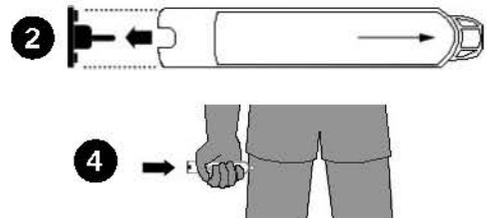
Back-up medication received?  Yes  No

Parent/Guardian Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Administrator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

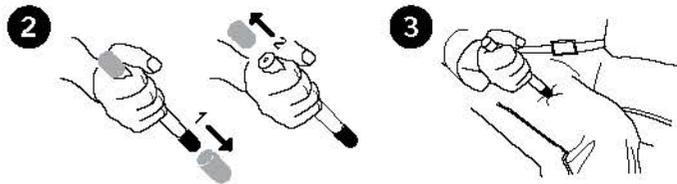
### EPIPEN® (EPINEPHRINE) AUTO-INJECTOR DIRECTIONS

1. Remove the EpiPen Auto-Injector from the plastic carrying case.
2. Pull off the blue safety release cap.
3. Swing and firmly push orange tip against mid-outer thigh.
4. Hold for approximately 10 seconds.
5. Remove and massage the area for 10 seconds.



### ADRENACLICK®/ADRENACLICK® GENERIC DIRECTIONS

1. Remove the outer case.
2. Remove grey caps labeled "1" and "2".
3. Place red rounded tip against mid-outer thigh.
4. Press down hard until needle penetrates.
5. Hold for 10 seconds. Remove from thigh.



Graphic provided courtesy of Food Allergy Research & Education (FARE) ([www.foodallergy.org](http://www.foodallergy.org)) 3/2016

## APPENDIX G

# Sample Food Allergy Letters

### FOR CLASSMATES AND PARENTS

- If the parent/guardian agrees, as food allergies are a confidential health condition, a letter should be sent home with classmates to inform families of the allergy policy. No student should be singled out or overtly identified and the letter should provide a positive tone. *Note: letters may be sent at any time to all families reminding them of school-wide allergy policy and protocols.*
- The letter should be written on school stationery by the school nurse, teacher, and/or principal. Parents may help compose the letter, but it must come from the school.
- The school nurse, teacher(s), and/or principal should sign the letter.
- Include a cut-off portion for parents/guardians of classmates to return to the school, so that staff is aware that the parents/guardians of classmates have received the information.

Dear Parents,

Like most schools in the United States, we have a number of students that have potentially life-threatening allergies. Students with food allergies can have life-threatening reactions with exposures to even tiny amounts of allergen. In an effort to provide a safe space for all children to learn, we would like to share with you the school policies that are intended to decrease their chance of allergic reactions in our building. Please see the attached plan outlining our specific school rules that relate to food allergy management and prevention. *(Insert or attach your school plan or provide a website address.)*

It is our goal to ensure that every student in our school can learn in a safe and supportive environment. We appreciate your support of these procedures. Please complete and return this form so that we are certain that every family has received this information. If you have any questions, please contact me.

---

SIGNATURE OF PRINCIPAL/TEACHER/NURSE

-----  
*I have read and understand the peanut/nut free classroom procedures. I agree to do my part in keeping the classroom peanut and nut free.*

---

CHILD'S NAME

---

PARENT/GUARDIAN SIGNATURE

---

DATE

## FOR SUBSTITUTE TEACHERS

Substitute teachers are an important link in the school staff. They must be included in the information chain regarding safety measures designed to protect the students with allergies that they supervise.

Substitute teachers must receive written information regarding students with allergies in their class, information about allergen-free tables or other special modifications, and the resources available if a student has an allergic reaction. The substitute teacher must be familiar with the *emergency response plan* for the school in case there is an anaphylactic event. The following is a sample letter that teachers can leave with their lesson plans for a substitute.

This letter can be adapted for volunteers or other classroom visitors.

Dear Substitute Teacher,

The students listed below have severe life-threatening allergies. Please maintain the food allergy avoidance strategies that we have developed to protect these students. While it is important to protect these (and all students), be sure not to single out students related to their allergy and keep this list secure.

Should a student ingest, touch or inhale the substance to which they are allergic, (the allergen), a severe reaction (anaphylaxis) may follow requiring the administration of an epinephrine auto-injector. The *anaphylaxis emergency care plan*, which states who has been trained to administer epinephrine, is located \_\_\_\_\_.  
Epinephrine is a life-preserving medication and should be given in the first minutes of a reaction.

### **Students with Allergies**

- 1.
- 2.
- 3.

Please treat this information confidentially to protect the privacy of the students. Your cooperation is essential to ensure their safety. Should you have any question please contact the school nurse \_\_\_\_\_, or the principal \_\_\_\_\_.

## APPENDIX H

# Roles and Responsibilities for Managing Life-Threatening Allergies in Schools

The following roles are crucial to managing and supporting students with life-threatening allergies. Consider all accompanying responsibilities seriously.

### RESPONSIBILITIES OF THE STUDENT WITH ALLERGIES

- Participate in developmentally appropriate ways in allergy management.
- Do not trade or share foods.
- Wash hands before and after eating.
- Learn to recognize symptoms of an allergic reaction.
- Promptly inform an adult as soon as accidental exposure occurs or symptoms appear.
- Take more responsibility for allergies as get older (refer to parent responsibilities, page 60).
- Develop a relationship with the school nurse and/or another trusted adult in the school to help identify issues related to managing the allergy in school.

### RESPONSIBILITIES OF THE SCHOOL ADMINISTRATION (OR DELEGATE)

- Include in the school's emergency response plan a written plan outlining emergency procedures for managing life-threatening allergic reactions. Modify the plan to meet special needs of individual students. Consider risk reduction for life-threatening allergies.
  - Participate in the multidisciplinary team to develop and implement the *allergy management and prevention plan*.
  - Support faculty, staff, and parents in implementing all aspects of the life-threatening allergy program.
  - Support special training for school nutrition staff.
  - Provide emergency communication devices (two-way radio, intercom, walkie-talkie, cell phone) for all school activities, including transportation, that involve a student with life-threatening allergies.
  - Ensure that a full-time nurse is available in every school with students with life-threatening allergies.
  - Inform parent/guardian if any student experiences an allergic reaction for the first time at school.
  - Make sure a contingency plan is in place in case of a substitute teacher, nurse, or school nutrition staff.
  - Have a plan in place when there is no school nurse available, including on field trips, before and after school, and during other school-sponsored events.
  - Ensure that the student is placed in a classroom where the teacher is trained to administer an epinephrine auto-injector, if needed.
- Ensure that adequate time is provided for training and education for faculty and staff regarding:**
- Awareness of signs and symptoms of anaphylaxis
  - Foods, insect stings, medications, latex allergies
  - Risk reduction prevention and procedures
  - Emergency procedures
  - How to administer an epinephrine auto-injector in an emergency

## RESPONSIBILITIES OF THE PARENTS/GUARDIANS OF A STUDENT WITH ALLERGIES

- Inform the school nurse of your child's allergies prior to the opening of school (or as soon as possible after a diagnosis).
- Provide the school with a way to reach you (cell phone).
- Consider providing a medical alert bracelet for your child.
- Provide the school nurse with medication orders (*anaphylaxis emergency care plan*) from the licensed provider.
- Participate in developing an individual health care plan with the school nurse.
- Provide the school nurse with at least annual updates on your child's allergy status.
- Provide the school with two up-to-date epinephrine auto-injectors.
- Discuss with the school nurse the possibility of keeping the epinephrine auto-injector in the classroom with instructions. It can also be taken on a class field trip, but confirm that staff trained to administer epinephrine will accompany the class.
- Decide if additional epinephrine auto-injectors will be kept in the school, aside from the one in the nurse's office, and, if so, where.
- Provide the school nurse with the licensed provider's statement if student no longer has allergies.

### **Participate in team meetings or communicate with all staff members who will be in contact with the child (preferably before the opening of school) to:**

- Discuss implementation of *individual health care plan* and *anaphylaxis emergency care plan*.
- Establish prevention plan (*allergy management and prevention plan*).
- Periodically (halfway through the year) review prevention and emergency action plans with the team.

### **Periodically teach your child in an age-appropriate way to:**

- Recognize the first symptoms of an allergic/anaphylactic reaction.
- Know where the epinephrine auto-injector is kept and who has access to the epinephrine.
- Communicate clearly as soon as he or she feels a reaction is starting.
- Carry his/her own epinephrine auto-injector when appropriate.
- Not share snacks, lunches, or drinks.
- Understand the importance of handwashing before and after eating. It is especially important that children with food allergies wash their hands before eating.
- Report teasing, bullying, and threats to an adult authority.
- Learn to gradually increase developmentally appropriate participation in their food allergy management.

### **It is important that children take on more responsibility for their food allergies as they grow older and are developmentally ready. Consider teaching them to:**

- Communicate to others that they have a food allergy.
- Recognize symptoms and report/communicate to staff.
- Read labels.
- Carry own epinephrine auto-injector.
- Administer own epinephrine auto-injector and be able to train others on its use.



### **REMEMBER:**

***The ultimate goal is that our children eventually learn to keep themselves safe.***

## RESPONSIBILITIES OF THE SCHOOL NURSE

- Prior to entry into school (or, for a student who is already in school, immediately after the diagnosis of a life-threatening allergic condition), meet with the student's parent/guardian and develop an *individual health care plan* for the student.
- Ensure that the *anaphylaxis emergency care plan* includes the student's name, photo, allergens, symptoms of allergic reactions, risk reduction procedures, emergency procedures, and required signatures.
- Arrange and convene a team meeting (preferably before the opening of school) to develop the plan with all staff who will be in contact with the student with allergies, including principal, school physician, teachers, specialists, school nutrition staff, aides, physical education teacher, custodian, bus driver, local EMS, etc.
- Familiarize teachers with their students' *individual health care plans* and *anaphylaxis emergency care plans* by the opening of school, or as soon as the plans are written. Other staff members who have contact with students with life-threatening allergies should be familiar with these plans on a need-to-know basis.
- After the team meeting, remind the parent to review prevention plans, symptoms, and emergency procedures with their child.
- Take lead of the multidisciplinary team to develop and implement the *allergy management and prevention plan*.
- Provide information about students with life-threatening allergies and their photos (if consent given by parent) to all staff, including bus drivers, on a need-to-know basis.
- Consider providing awareness and education to the parents and students without allergies.
- Implement a periodic anaphylaxis drill similar to a fire drill as part of the periodic refresher course.
- Educate new personnel as necessary.
- Conduct in-service training and education for all staff regarding life-threatening allergens, symptoms, risk reduction procedures, emergency procedures, and how to administer an epinephrine auto-injector (see Appendix I, page 65) for appropriate staff members.
- Track in-service attendance of all involved parties to ensure that they have been trained.
- Introduce yourself to the student and show him/her how to get to the nurse's office.
- Post school district's emergency protocol and make all *individual health care plans* and *anaphylaxis emergency care plans* available in the nurse's office. Post location of epinephrine auto-injectors.
- Periodically check medications for expiration dates and arrange for them to be current.
- Discuss with parents the possibility of keeping an epinephrine auto-injector (with necessary instructions) in the classroom; help to arrange, if appropriate. This auto-injector can be taken on field trips.
- Arrange periodic follow-up on semi-annual basis, or as often as necessary, to review effectiveness of the *individual health care plan*.
- Make sure there is a contingency plan in the case of a substitute school nurse.
- Meet with parents on a regular basis to discuss issues relating to plan implementation.
- Communicate with local EMS about location of student and type of allergy. Confirm that the local EMS carry epinephrine and have permission to use it.

## RESPONSIBILITIES OF THE SCHOOL PHYSICIAN

- Participate in the multidisciplinary team to develop and implement the *allergy management and prevention plan*.
- Ensure the daily management of allergies for individual students.
- Prepare for and respond to life-threatening emergencies.
- Provide allergy education to staff and parents.
- Work with the school nurse to ensure that all students with life-threatening allergies have *individual health care plan* and *anaphylaxis emergency care plans*.
- As permitted by state laws, write a prescription or standing order for non-patient-specific epinephrine for administration by a licensed nurse in the case of anaphylaxis in an undiagnosed individual.

## RESPONSIBILITIES OF CLASSROOM TEACHERS/SPECIALISTS

- Review and understand the *anaphylaxis emergency care plan* of any student(s) in your classroom with life-threatening allergies.
- Participate in the multidisciplinary team to develop and implement the *allergy management and prevention plan*.
- Request that the classroom has a functioning intercom, walkie-talkie, or other communication device for communication with the school nurse.

### Participate in team meetings for the student and in-service training regarding:

- Allergens that cause life-threatening allergies (such as foods, insect stings, medications, latex).
- Steps to take to prevent life-threatening reactions and accidental exposures to allergens while allowing full participation in school-related activities.
- How to recognize symptoms of the student's life-threatening allergic reaction.
- Steps to manage an emergency.
- How to administer an epinephrine auto-injector.
- Keep the student's *anaphylaxis emergency care plan* (with photo) accessible in classroom or keep with lesson plan.
- Be sure volunteers, student teachers, aides, specialists, and substitute teachers are informed of the student's food allergies and necessary safeguards (see Appendix H, page 59).
- Leave information in an organized, prominent, and accessible format for substitute teachers.
- Coordinate with parent on providing a lesson plan about food allergies for the class and discuss anaphylaxis in age-appropriate terms, with student's permission.
- Educate classmates to avoid endangering, isolating, stigmatizing, or harassing students with food allergies. Be aware of how the student with allergies is being treated; enforce school rules about bullying and threats.
- Work with the school nurse to educate other parents about the presence and needs of the child with life-threatening allergies in the classroom. If specific allergen restrictions are appropriate, enlist their help in keeping certain foods out of the classroom (see Appendix H, page 59).

- Inform parents of any school events with food.
- Participate in the planning for student's reentry in school after an anaphylactic reaction.
- Never question or hesitate to act if a student reports signs of an allergic reaction. Implement the *emergency plan*, which includes alerting the school nurse.

### Snacks/ Lunchtime

- In the classroom, establish procedures to ensure that the student with life-threatening food allergies eats only what s/he brings from home.
- Prohibit students from sharing or trading snacks.
- For the student's safety, encourage the student to take advantage of an eating area in the classroom that is free of the food to which s/he is allergic.
- Avoid cross-contact of foods by wiping down eating surfaces with soap and water or all-purpose cleaner before and after eating. Tables should also be washed in the morning if an after-school event has been held in the classroom the day before.
- Reinforce handwashing before and after eating.

### Classroom Activities

- Avoid use of foods for classroom activities (e.g., arts and crafts, counting, science projects, parties, holidays and celebrations, or cooking).
- Welcome parental involvement in organizing class parties and special events. Consider non-food treats.
- Use stickers, pencils, or other non-food items as rewards.

### Field Trips

*Continued on next page* ►

## RESPONSIBILITIES OF CLASSROOM TEACHERS/SPECIALISTS

### Field Trips

Collaborate with the school nurse, before a field trip, to:

- Ensure epinephrine auto-injectors and instructions are taken on field trips.
- Ensure that functioning two-way radio, walkie-talkie, cell phone, or other communication device is taken on field trip.
- Review plans for field trips; avoid high-risk places. Consider eating situations on field trips and plan for prevention of exposure to the student's life-threatening foods.
- Know where the closest medical facilities are located, 911 procedures, and if the ambulance carries epinephrine.
- In addition to the chaperone, invite parents of a student at risk for anaphylaxis to accompany their child on school trips. However, the student's safety or attendance must not be conditioned on the parent's presence.
- One to two people on the field trip should be trained on recognizing symptoms of life-threatening allergic reactions, trained to use an epinephrine auto-injector, and trained in emergency procedures.
- Consider ways to wash hands before and after eating (e.g., provision of handwipes, etc.).

## RESPONSIBILITIES OF THE SCHOOL NUTRITION DIRECTOR/MANAGER/STAFF

- Attend the team meeting with appropriate members at the time of the student's registration for entry into school.
- Post the student's *anaphylaxis emergency care plan* with consent of parent(s) in a non-public location.
- Partner with the school nurse, and participate in the development of the *allergy management and prevention plan*. Take the lead for the school nutrition team to implement this plan and specific students' *anaphylaxis emergency care and individual health care plans*.
- Work with school health/school nurse to coordinate documentation from a licensed physician (as defined by the Commonwealth), identifying the food-related disability and indicating the required meal accommodation (*anaphylaxis emergency care plan*).
- Understand the legal protections for a student with life-threatening allergies.
- Read all food labels accurately and recheck routinely for potential food allergens.
- Train all school nutrition staff and substitutes to read product food labels and recognize food allergens.
- Provide approved allergy awareness training and maintain documentation of training.
- Maintain contact information for manufacturers of food.
- Review and follow sound food handling practices to avoid cross-contact with potential food allergens.
- Follow cleaning and sanitation protocols strictly to avoid cross-contact.
- Establish cafeteria policies regarding students with food allergies.
- Train monitors.
- Encourage handwashing for all students.
- Clean all tables, chairs, and floors thoroughly after every meal.
- Using documentation obtained from the physician, make appropriate substitutions or modifications for meals served to students with food allergies.
- Plan ahead to have safe meals for field trips.
- Avoid the use of latex gloves by school nutrition staff. Use non-latex gloves instead.
- Provide advance copies of the menu to parents/guardians and notification if menu is changed.
- Have at least two people in the eating area trained to administer an epinephrine auto-injector.
- Have an epinephrine auto-injector readily accessible.
- Have a functioning intercom, walkie-talkie, or other communication device to support emergencies.
- Take all complaints seriously from any student with a life-threatening allergy.
- Be prepared to take emergency action, and ensure that staff know and understand the school's *emergency response plan*.

## RESPONSIBILITIES OF COACHES AND OTHER BEFORE- AND AFTER-SCHOOL ACTIVITY SUPERVISORS

- Participate in team meetings to learn how to implement a student's *anaphylaxis emergency care plan*.
- Conduct activities in accordance with all school policies and procedures regarding life-threatening allergies.
- With parent's consent, keep a copy of the *anaphylaxis emergency care plan* and photo of students with life-threatening allergies.
- Make certain that emergency communication device (e.g., walkie-talkie, intercom, cell phone) is always present.
- One to two people should be present who have been trained to administer epinephrine auto-injector.
- Maintain a current epinephrine auto-injector in the first aid kit.
- Establish emergency medical procedures with EMS.
- Identify who is responsible for keeping the epinephrine auto-injector.
- If for safety reasons the medical alert identification needs to be removed during an activity, the student should be reminded to replace this identification immediately after the activity is completed.

## RESPONSIBILITIES OF THE SCHOOL BUS COMPANY

- Provide a representative from the bus company for team meetings to discuss implementation of a student's *anaphylaxis emergency care plan* and the school's *allergy management and prevention plan*.
- Provide school bus drivers with training by appropriate personnel in risk reduction procedures, recognition of allergic reaction, and implementation of bus emergency plan procedures, including the administration of epinephrine (per 540 CMR 8.00 [Registrar of Motor Vehicles] pursuant to M.G.L. c. 90, § 8A). Drivers must receive training on administering an epinephrine auto-injector. Drivers with contracted bus companies should receive the same allergy training as permanent staff.
- Provide functioning emergency communication device (e.g., cell phone, two-way radio, walkie-talkie).
- Know local EMS procedures.
- Maintain policy of no food eating allowed on school buses.

## APPENDIX I

# Regulations Governing Administration of Epinephrine

In 1996, recognizing the need for prompt response to an anaphylactic emergency, the Massachusetts Department of Public Health amended the regulations governing the Administration of Prescription Medications in Public and Private Schools (105 CMR 210.000) to include a section on administration of epinephrine (see Appendix J, page 66). *“Epinephrine is the first medication that should be used in the emergency management of a child having a potentially life-threatening allergic reaction. There are no contraindications for use of epinephrine for a life-threatening allergic reaction.”*<sup>2</sup>

The amended regulations state that, “A school or school district may register with the Department for the limited purpose of permitting properly trained school personnel to administer epinephrine by auto injector in a life-threatening situation, when a school nurse is not immediately available,” provided that certain conditions outlined in 105 CMR 210.000 are met. To register to permit unlicensed personnel to administer the epinephrine, the school nurse should request an application in writing from the School Health Services Unit, Massachusetts Department of Public Health, 250 Washington Street, Boston, MA 02108.

The Department will then send an application, including the training curriculum (see page 31 of Medication Administration and Delegation in Massachusetts Schools Training Manual: [www.bit.ly/MDTmanual-MA](http://www.bit.ly/MDTmanual-MA)).

The school nurse completes the application, obtains the appropriate signatures, and returns it to: MA Department of Public Health, School Health Services Unit, 250 Washington St., Boston, MA 02108. After review and approval, the Department issues the registration. The school nurse who requests this application must also attend the Massachusetts Department of Public Health conference on Medication Administration and Delegation in the School Setting once every five years.

***The Massachusetts Department of Public Health and the Department of Elementary and Secondary Education strongly recommend that all schools and school districts, public and private, register with the Department of Public Health to train non-licensed personnel to administer epinephrine by auto-injector to students with diagnosed life-threatening allergic conditions.***



## APPENDIX J

# Administration of Epinephrine

## 105 CMR 210.100

(A) A public school district or non-public school, as defined by the Massachusetts Department of Education, may register with the Department for the limited purpose of permitting properly trained school personnel to administer epinephrine by auto injector in a life-threatening situation during the school day when a school nurse is not immediately available, including field trips, provided that the following conditions are met:

(1) the school committee or, in the case of a non-public school, the chief administrative officer, approves policies developed by the designated school nurse leader or, in the absence of a school nurse leader, a school nurse with designated responsibility for management of the program (“responsible school nurse”) governing administration of epinephrine by auto injector. This approval must be renewed every two years;

(2) the school committee or chief administrative officer, in consultation with the nurse leader or responsible school nurse, provides a written assurance to the Department that the requirements of the regulations will be met;

(3) in consultation with the school physician, the designated school nurse leader or responsible school nurse manages and has final decision making authority about the program. This person, or school nurses designated by this person, shall select the individuals authorized to administer epinephrine by auto injector. Persons authorized to administer epinephrine shall meet the requirements of section 210.004(B)(2);

(4) the school personnel authorized to administer epinephrine by auto injector are trained and tested for competency by the designated school nurse leader or responsible school nurse, or school nurses designated by this person, in accordance with standards and a curriculum established by the Department.

(a) The designated school nurse leader or responsible school nurse, or school nurses designated by this person, shall document the training and testing of competency.

(b) The designated school nurse leader or responsible school nurse, or a designee, shall provide a training review and informational update at least twice a year.

(c) The training, at a minimum, shall include:

(i) procedures for risk reduction;

(ii) recognition of the symptoms of a severe allergic reaction;

(iii) the importance of following the medication administration plan;

(iv) proper use of the auto-injector; and

(v) requirements for proper storage and security, notification of appropriate persons following administration, and record keeping.

(d) The school shall maintain and make available upon request by parents or staff a list of those school personnel authorized and trained to administer epinephrine by auto injector in an emergency, when the school nurse is not immediately available;

(5) epinephrine shall be administered only in accordance with an individualized medication administration plan satisfying the applicable requirements of 105 CMR 210.005(E) and 210.009(A)(6), updated every year, which includes the following:

(a) a diagnosis by a physician that the child is at risk of a life threatening allergic reaction and a medication order containing proper dosage and indications for administration of epinephrine;

- (b) written authorization by a parent or legal guardian;
- (c) home and emergency number for the parent(s) or legal guardian(s), as well as the names(s) and phone number(s) of any other person(s) to be notified if the parent(s) or guardian(s) are unavailable;
- (d) identification of places where the epinephrine is to be stored, following consideration of the need for storage:
  - (i) at one or more places where the student may be most at risk;
  - (ii) in such a manner as to allow rapid access by authorized persons, including possession by the student when appropriate; and
  - (iii) in a place accessible only to authorized persons. The storage location(s) should be secure, but not locked during those times when epinephrine is most likely to be administered, as determined by the school nurse;
- (e) a list of the school personnel who would administer the epinephrine to the student in a life threatening situation when a school nurse is not immediately available;
- (f) a plan for comprehensive risk reduction for the student, including preventing exposure to specific allergens; and
- (g) an assessment of the student's readiness for self-administration and training, as appropriate.

(6) when epinephrine is administered, there shall be immediate notification of the local emergency medical services system (generally 911), followed by notification of the student's parent(s) or guardian(s) or, if the parent(s) or guardian(s) are not available, any other designated person(s), the school nurse, the student's physician, and the school physician, to the extent possible;

(7) there shall be procedures, in accordance with any standards established by the Department, for:

- (a) developing the medication administration plan;
- (b) developing general policies for the proper storage of medication, including limiting access to persons authorized to administer the medication and returning unused or outdated medication to a parent or guardian whenever possible;
- (c) recording receipt and return of medication by the school nurse;
- (d) documenting the date and time of administration;
- (e) notifying appropriate parties of administration and documenting such notification;
- (f) reporting medication errors in accordance with 105 CMR 210.005(F)(5);
- (g) reviewing any incident involving administration of epinephrine to determine the adequacy of the response and to consider ways of reducing risks for the particular student and the student body in general;
- (h) planning and working with the emergency medical system to ensure the fastest possible response;
- (i) disposing properly of a used epinephrine injector;
- (j) submitting a written report to the Department of Public Health each time epinephrine is administered to a student or staff, on a form obtained from the Department;
- (k) permitting the Department of Public Health to inspect any record related to the administration of epinephrine without prior notice, to ensure compliance with 105 CMR 210.100.

(B) Epinephrine may be administered in accordance with these regulations in before and after school programs offered or provided by a school, such as athletic programs, special school events and school sponsored programs on week-ends, provided that the public school district or non-public school is registered with the Department pursuant to section 210.100(A) and meets the requirements set forth in section 210.000(B).

(1) Epinephrine may be administered in such before and after school programs and special events, to students attending the school where the epinephrine is to be administered, provided that the following requirements are met:

(a) the school committee or chief administrative officer in a non-public school approves, in the policy developed in accordance with section 210.100(A)(1), administration of epinephrine in such programs. The policy shall identify the school official(s), along with a school nurse for each school designated by the school nurse leader or responsible nurse, responsible for determining which before and after school programs and special events are to be covered by the policy;

(b) the designated school nurse approves administration of epinephrine in that program and selects the properly trained person(s) to administer the epinephrine;

(c) the school complies with the requirements of 105 CMR 210.100 (A), including immediate notification of emergency medical services following administration of epinephrine, but need not comply with the requirement of section 210.004(B)(3); and

(d) the program is not licensed by another state agency, in which case the regulations promulgated by that state agency will apply.

(2) Epinephrine may be administered in such before and after school programs and special events to students from another school or school district if approved in the school policy developed pursuant to section 210.100(A)(1) and in accordance with the following requirements.

(a) The school complies with the requirements of sections 210.100(A) and 210.100(B)(1), including immediate notification of emergency medical services following administration of epinephrine, except as provided in subsection 210.100(B)(2)(d).

(b) In the event the student is accompanied by school personnel from the sending school, such personnel, whenever possible, shall assume responsibility for ensuring that the epinephrine is brought, properly stored and administered as necessary, in accordance with the medication administration plan developed by the sending school in accordance with subsection 210.100(A)(5).

(c) In the event the student is not accompanied by school personnel from the sending school or such personnel are not trained in the administration of epinephrine, the receiving school may, in its discretion, assume responsibility for administering epinephrine, provided that:

(i) the designated school nurse in the receiving school is provided with adequate prior notice of the request, which shall be at least one week in advance unless otherwise specified by the designated school nurse;

(ii) the designated school nurse in the receiving school approves administration of epinephrine for that student;

(ii) the designated school nurse selects properly trained person(s) to administer the epinephrine; and

(iii) the student provides the designated school nurse or the person(s) selected by the designated school nurse to administer epinephrine with the medication to be administered.

(d) If the receiving school assumes responsibility for administering epinephrine, whenever possible, the student shall provide the designated school nurse in the receiving school with a copy of the medication administration plan developed in accordance with section 105 CMR 210.005(E). The plan shall be provided to the designated school nurse in timely fashion in accordance with procedures established by the nurse. If no medication administration plan is provided, the student at a minimum shall provide to the designated school nurse in the receiving school:

(i) written authorization and emergency phone numbers from a parent or guardian;

(ii) a copy of a medication order from a licensed provider; and

(iii) any specific indications or instructions for administration.



For more information, refer to the *Medication Administration and Delegation in Massachusetts Schools Training Manual*: [www.bit.ly/MDTmanual-MA](http://www.bit.ly/MDTmanual-MA)

## APPENDIX K

# Laws Related to Students with Food Allergies

### SCHOOL RESPONSIBILITY TO MAKE ACCOMMODATIONS

#### Section 504 - Rehabilitation Act of 1973

Section 504 of the Rehabilitation Act of 1973 specifically mandates that

*“...no otherwise qualified individual with a disability shall solely by reason of his or her disability be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”*

This mandate has been incorporated in 7 CFR Part 15b, USDA regulations implementing this law, as well as the Department of Education’s Section 504 regulation at 34 CFR Part 104. Thus, schools receiving Federal funding must make accommodations to enable students with disabilities to participate in the child nutrition programs.

### INDIVIDUALS WITH DISABILITIES EDUCATION ACT

The Individuals with Disabilities Education Act (IDEA) assists States and school districts in making a **“free appropriate public education”** available to eligible students.

Under IDEA, a “free appropriate public education” means special education and related services provided under public supervision and direction, in conformity with an individualized education program, at no cost to parents.

A student who has a life-threatening allergy and who is making effective educational progress in the regular education program, does not need a special education evaluation, an individualized education program, or special education services. Whether such a student is in regular education or special education, however s/he has the right to have the school make reasonable accommodations for his/her disability, under section 504 and the Americans with Disabilities Act (ADA).

#### American with Disabilities Act : Title II

Title II of the ADA, enacted in 1990, prohibits discrimination against qualified individuals with disabilities in state and local government programs and services, including public schools.

In this respect, the ADA tracks the requirements of Section 504, prohibiting discrimination on the basis of disability by programs receiving Federal funding, such as reimbursement under the school meal programs.

Title II of the ADA does not impose any major new requirements on school districts because the requirements of Title II and Section 504 are similar. Virtually all school districts receive Federal financial assistance and have been required to comply with Section 504 since the 1970's.

### **Americans with Disabilities Act: Title III**

Title III of the ADA extends requirements for public accommodations to privately owned facilities. Thus, all private schools participating in the federally funded child nutrition programs must make accommodations to enable children with disabilities to receive school meals.

### **USDA Federal Regulation: 7 CFR 210.10**

(1) *Exceptions for medical or special dietary needs.* Schools must make substitutions in lunches and afterschool snacks for students who are considered to have a disability under 7 CFR part 15b and whose disability restricts their diet. Schools may also make substitutions for students who do not have a disability but who cannot consume the regular lunch or afterschool snack because of medical or other special dietary needs. Substitutions must be made on a case by case basis only when supported by a statement of the need for substitutions that includes recommended alternate foods, unless otherwise exempted by FNS. Such statement must, in the case of a student with a disability, be signed by a physician or, in the case of a student who is not disabled, by a recognized medical authority.

### **USDA Memo: Guidance to the ADA Amendments Act**

In a March 30, 2015 memo (code: SP 32-2015) the US Department of Agriculture provided clarification regarding accommodations for children with disabilities in Child Nutrition Programs. Clarification included:

*The purpose of this memorandum is to expand the list of acceptable medical professionals that may sign a medical statement for meal accommodations in the Child Nutrition Programs and recommend alternate foods for children whose disability restricts their diets. A broader list of medical providers will improve access to meal accommodations for children with special dietary needs while balancing the administrative burden placed on program operators and participants requesting meal accommodations.*

*Current regulations and guidance require program operators to provide reasonable accommodations for children whose disability restricts their diet for all meals and snacks when supported by a medical statement signed by a licensed physician. However, in many States, laws permit specific State-recognized medical professionals to treat patients and write medical prescriptions. With this in mind, FNS has determined that along with licensed physicians and at the discretion of a State agency, it is reasonable to also permit other recognized medical authorities to complete and sign a medical statement for meal accommodations in the Child Nutrition Programs and recommend alternate foods for children whose disability restricts their diet. A State recognized medical authority for this purpose is a State licensed health care professional who is authorized to write medical prescriptions under State law. This update is effective immediately.*

In a memo, dated April 26, 2013 (code: SP-36-2013) the US Department of Agriculture provided clarification regarding the ADA Amendments Act. Clarification included:

*The purpose of this memorandum is to provide schools, institutions, facilities, sites, and sponsors participating in the Child Nutrition Programs (CNP) with additional clarifications on making dietary accommodations for children with disabilities as required under Section 9(a) of the Richard B. Russell National School Lunch Act, 42 USC 1758(a), CNP regulations and in accordance with the Americans with Disabilities Act Amendments Act of 2008 (ADAAA), P.L. 110-325. The ADAAA, as explained in further detail in the next paragraph below, amended the Federal definition of disability, broadening it to cover additional individuals. Because of this broader definition, it is reasonable that CNP operators may see more children identified by their licensed physician as having a food-related disability than were identified previously. Program operators should note, however, that the process for identifying children with disabilities requiring an accommodation has not changed. The CNPs continue to require that participants seeking an accommodation for a disability that is food-related must provide a statement from a licensed physician (as defined by the State) identifying the food-related disability and indicating the required meal accommodation.*

*The ADAAA broadened the list of “Major Life Activities” for purposes of identifying individuals with disabilities and added a new category called “Major Bodily Functions”, 42 USC 12102(2)(B). This law continues to include as “Major Life Activities”: “caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating and working.” As amended by the ADAAA, Major Life Activities now also includes “Major Bodily Functions” such as: “functions of the immune system, normal cell growth, digestive, bowel, bladder, neurological, brain, respiratory, circulatory, cardiovascular, endocrine, and reproductive functions.” It is important to point out that individuals who take mitigating measures to improve or control any of the conditions recognized as a disability, are still considered to have a disability and require an accommodation.*

### **Massachusetts General Laws Chapter 71, Section 55A**

No public school teacher and no collaborative school teacher, no principal, secretary to the principal, nurse or collaborative school employee who, in good faith, renders emergency first aid or transportation to a student who has become injured or incapacitated in a public school building or collaborative school building or on the grounds thereof shall be liable in a suit for damages as a result of his acts or omissions either for such first aid or as a result of providing emergency transportation to a place of safety, nor shall such person be liable to a hospital for its expenses if under such emergency conditions he causes the admission of such injured or incapacitated student, nor shall he be subject to any disciplinary action by the school committee, or collaborative board of such collaborative for such emergency first aid or transportation. Added by St.1938, c.265, s.3: amended by St.1973, c.660; St.1983, c.114; St.1984, c.328; St.1985, c.111.

## **Massachusetts Food Allergy Awareness Act (2009)**

Public and private schools, educational institutions, summer camps, child-care facilities, and other child care programs approved to participate in US Department of Agriculture (USDA) Child Nutrition Programs (CNP) may qualify for an exemption to this law.

This act responds to increased concerns/ incidence of severe allergies in the general population, especially among children. The purpose of the Act is to minimize risk of illness and death due to accidental ingestion of food allergens by increasing food industry and consumer awareness of regulations and best practices with respect to major food allergens. This regulation applies to food establishments that cook, prepare, or serve food intended for immediate consumption either on or off the premises.

There are three components to the regulation:

1. Display of an approved food allergen awareness poster,
2. Menu notices advising customers to inform the server before placing an order, about the customer's allergy to a major food allergen,
3. Food allergen awareness training.

Enforcement will take place in two stages. The first phase, beginning October 1, 2010, will include in food safety inspections the review of poster display and menu notice as compliance with Allergen Awareness in a similar fashion to Anti-choking and Tobacco requirements. After February 1, 2011, completion of food allergen awareness training will be included in the inspection. Non-compliance with this component of the regulation will be included as part of Food Protection Management (Knowledgeable PIC) in the area of critical violations.

The exemption of any CNP program is contingent upon:

1. Written policies and procedures for identifying, documenting, and accommodating students with food allergies, and
2. Documentation verifying participation in food allergen training recognized by the Massachusetts Department of Elementary and Secondary Education (ESE) and the Massachusetts Department of Public Health (MDPH).

## APPENDIX L

# Allergy Resources

### STATE CONTACTS

**Massachusetts Department of Elementary and Secondary Education  
Nutrition, Health and Safety**

[nutrition@doe.mass.edu](mailto:nutrition@doe.mass.edu)

[www.doe.mass.edu/cnp](http://www.doe.mass.edu/cnp)

**John C. Stalker Institute of Food and Nutrition  
Framingham State University**

[www.johnstalkerinstitute.org](http://www.johnstalkerinstitute.org)

**Massachusetts Department of Public Health  
Bureau of Community Health and Prevention  
School Health Services Unit**

Mary Ann Gapinski, Director

[mary.gapinski@state.ma.us](mailto:mary.gapinski@state.ma.us)

[www.bit.ly/MA-DPH-schoolhealth](http://www.bit.ly/MA-DPH-schoolhealth)

### ORGANIZATIONS AND INDUSTRY

**American Academy of Allergy, Asthma, and Immunology**

[www.aaaai.org](http://www.aaaai.org)

**American Academy of Pediatrics**

[www.aap.org](http://www.aap.org)

**Asthma and Allergy Foundation of America/New England Chapter  
(AAFA/New England)**

[www.asthmaandallergies.org](http://www.asthmaandallergies.org)

**Dey Laboratories**

Manufacturer of Epi-Pen auto-injectors

[www.deyinc.com](http://www.deyinc.com)

**Food Allergy Research and Education (FARE)**

[www.foodallergy.org](http://www.foodallergy.org)

**MedicAlert**

[www.medicalert.org](http://www.medicalert.org)

## EDUCATIONAL OPPORTUNITIES

### John C. Stalker Institute of Food and Nutrition Framingham State University

- Food Allergies Workshops to Go  
[www.johnstalkerinstitute.org/profdev/workshops-to-go.htm](http://www.johnstalkerinstitute.org/profdev/workshops-to-go.htm)
- Online Food Allergies  
[www.johnstalkerinstitute.org/profdev/online.htm](http://www.johnstalkerinstitute.org/profdev/online.htm)

### Institute for Child Nutrition

[www.theicn.org](http://www.theicn.org)

- Food Allergy Resources Page  
[www.bit.ly/24A3Ik5](http://www.bit.ly/24A3Ik5)
- Food Allergy Fact Sheets  
[www.bit.ly/24A3M3p](http://www.bit.ly/24A3M3p)

### AllergyHome

[www.AllergyHome.org](http://www.AllergyHome.org)

- Food Allergy Tools for Schools  
[www.allergyhome.org/schools](http://www.allergyhome.org/schools)
- Cross Contact with Food Allergens  
[www.allergyhome.org/cross-contact-handout](http://www.allergyhome.org/cross-contact-handout)
- Food Allergen Exposure in the School Setting: Evidence, challenges, and interventions  
[www.allergyhome.org/allergens-in-schools](http://www.allergyhome.org/allergens-in-schools)
- Food Allergy Tips for PTA Leaders  
[www.allergyhome.org/PTAtips](http://www.allergyhome.org/PTAtips)
- Label Reading Essentials  
[www.allergyhome.org/label-reading-handout](http://www.allergyhome.org/label-reading-handout)
- Living Confidently with Food Allergy: A guide for parents and families  
[www.allergyhome.org/handbook](http://www.allergyhome.org/handbook)
- School Food Allergy Education Table: Contents Tailored to Specific Groups  
[www.allergyhome.org/school-education-table](http://www.allergyhome.org/school-education-table)
- School Staff Training Module  
[www.allergyhome.org/stafftraining](http://www.allergyhome.org/stafftraining)

## SAMPLE ANAPHYLAXIS EMERGENCY CARE PLANS

- Food Allergy Research & Education (FARE)  
<http://www.foodallergy.org/file/emergency-care-plan.pdf>
- American Academy of Allergy, Asthma & Immunology (AAAAI)  
<http://www.aaaai.org/Aaaai/media/MediaLibrary/PDF%20Documents/Libraries/Anaphylaxis-Emergency-Action-Plan.pdf>

## JOURNAL ARTICLES

- Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs, Centers for Disease Control and Prevention  
[http://www.cdc.gov/healthyyouth/foodallergies/pdf/13\\_243135\\_A\\_Food\\_Allergy\\_Web\\_508.pdf](http://www.cdc.gov/healthyyouth/foodallergies/pdf/13_243135_A_Food_Allergy_Web_508.pdf)
- Clinical Report Management of Food Allergy in the School Setting, *Pediatrics*  
<http://www.aaaai.org/Aaaai/media/MediaLibrary/PDF%20Documents/Practice%20and%20Parameters/AAP-managing-food-allergy-in-schools-2010.pdf>
- The Role of Pediatricians in School Food Allergy Management, *Pediatric Annals*  
[http://www.healio.com/~media/Journals/PedAnn/2013/8\\_August/10\\_3928\\_00904481\\_20130723\\_14/10\\_3928\\_00904481\\_20130723\\_14.pdf](http://www.healio.com/~media/Journals/PedAnn/2013/8_August/10_3928_00904481_20130723_14/10_3928_00904481_20130723_14.pdf)





