The Food Allergy Book: What School Employees Need to Know
The NEA Health Information Network (NEA HIN) is the non-profit health and safety arm of the National Education Association (NEA). The NEA is the nation’s largest independent membership and labor association, representing more than three million education employees. Since 1987, NEA HIN has provided information, programs, and services to NEA members throughout the U.S. and on military bases across Europe and Asia. The mission of NEA HIN is to improve the health and safety of the school community by developing and disseminating information and programs that educate and empower school professionals and positively impact the lives of students.

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The fourth-grade class at Shadyside Elementary is having a birthday party. Selena just ate a cookie brought into the class by the parent of one of her classmates. All of a sudden she notices a rash and hives on her arms. She begins to feel short of breath, so she lets Pam the Paraeducator know that something is wrong.

I itch.
This booklet explains what you, the school employee, need to know about food allergies and allergic reactions at school.

- What are the most common foods that might trigger an allergic reaction?
- What are the signs and symptoms of a severe, life-threatening allergic reaction?
- What is anaphylaxis?
- What is your role in helping to manage food allergies in schools?

Approximately six million children in the U.S. have one or more food allergies, and among children with food allergies, 16-18% have experienced a reaction at school. At any time, school staff may need to respond to a food allergy emergency—whether in the classroom or cafeteria, or on the playground, athletic field, or school bus. That’s why it’s important for you to know about food allergies and understand your role in helping to prevent and respond to allergic reactions in schools.
What is a Food Allergy?

*Food allergy* is an abnormal response to a food, triggered by the body’s immune system. In individuals with food allergies, the immune system mistakenly responds to a food (known as the *food allergen*) as if it were harmful, triggering a variety of negative health effects. Some food allergies can be outgrown, but some are lifelong; there is no cure for food allergies. Strict avoidance of the food allergen is the only way to prevent a reaction.

**Common Food Allergens**

More than 170 foods are known to cause a reaction in some people; however, eight foods account for 90% of all allergic reactions to food. They are:
- milk
- eggs
- peanuts
- soy
- wheat
- tree nuts (e.g., almonds, walnuts, pecans)
- fish
- shellfish (e.g., crab, lobster, shrimp)

While these eight allergens are the most common, a student may have a severe, life-threatening allergy to a different food, and they may be allergic to more than one food.
Unexpected food allergens can be found in non-food items such as:
• modeling clay and paper mache (may contain wheat)
• crayons (may contain soy)
• shaving cream (may contain milk)
• finger paints (may contain milk or egg whites)
• soaps (may contain wheat, dairy, soy, or nut extracts)

**Food Allergy vs. Food Intolerance**

_Food intolerances_, such as lactose intolerance, are often confused with food allergies because both can result in cramps, nausea, vomiting, diarrhea, or other gastrointestinal (GI) symptoms. Food intolerance involves the digestive system, while a food allergy involves the immune system. Food intolerances are generally not life-threatening, unlike food allergies, which can cause severe, life-threatening reactions. It is important that food allergies are diagnosed by a doctor.

**Signs and Symptoms of an Allergic Reaction**

Allergic reactions vary from mild to severe and can appear within minutes to hours after exposure to a food allergen. Reactions can affect one or more systems in the body, such as the skin, gastrointestinal (GI) tract, and
respiratory or cardiovascular system. While the majority of severe reactions occur when food allergens are eaten, skin contact and inhalation also can cause a reaction, although these reactions are usually less severe.

**Signs and Symptoms of an Allergic Reaction to Food**

<table>
<thead>
<tr>
<th>Affected Body System</th>
<th>Skin</th>
<th>Gastrointestinal Tract</th>
<th>Respiratory System</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Swollen lips/tongue/</td>
<td>Cramps, nausea, vomiting,</td>
<td>Wheezing, coughing, shortness of breath, trouble breathing, red/watery eyes, trouble</td>
</tr>
<tr>
<td></td>
<td>eyes, itchy/flushed</td>
<td>diarrhea, reflux</td>
<td>swallowing, sneezing, hoarse voice, nasal congestion</td>
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<tr>
<td></td>
<td>skin, rash, hives</td>
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<td></td>
<td></td>
<td></td>
<td>Pale or blue skin color, weak pulse, dizziness, fainting, confusion, shock, drop in</td>
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<tr>
<td></td>
<td></td>
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<td>blood pressure, loss of consciousness</td>
</tr>
</tbody>
</table>
**Anaphylaxis** may also be caused by other allergens such as medications, latex exposure, and bee or other insect stings.

Be aware that children of different ages and developmental levels may communicate their symptoms in different ways. Children may describe their allergic reaction by saying:

- 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 is a frog in my throat; there is 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).
- My throat feels thick.
- It feels like a bump is on the back of my tongue (or throat).


**Severe Allergic Reactions**

*Anaphylaxis* is a severe allergic reaction that happens quickly and may cause death. It may cause a student to stop breathing or experience a dangerous drop in blood pressure. You cannot predict how severe a student’s reaction will be based on previous reactions. Students who previously had only “mild” reactions can later have dangerous and even life-threatening reactions.
Responding to Allergic Reactions

While not all allergic reactions result in anaphylaxis, any reaction has the potential to be life-threatening. All reactions should be taken seriously and treated immediately according to the school’s emergency protocols and the student’s individual plan. Never downplay the severity of a reaction, even if the symptoms appear mild. Allergic reactions are unpredictable and can suddenly turn from mild to severe.

Epinephrine is the primary treatment for anaphylactic reactions, and early administration improves the chances of survival and quick recovery. During an anaphylactic reaction, epinephrine is injected into the thigh muscle using a safe automatic device called an auto-injector. The medication rapidly improves breathing, stimulates the heart, reverses hives, and reduces swelling of the face, lips, and throat. It is important to administer epinephrine as soon as possible if anaphylaxis is suspected, especially when a school nurse or other licensed health care professional is not available to make an appropriate assessment.

In approximately 20% of anaphylactic reactions, symptoms go away only to return one to three hours later. When epinephrine is administered, emergency medical services must be notified and the student taken to immediate access to epinephrine is essential in responding to food allergy emergencies. According to a 2006 CDC study, more than half of schools allow some students with food allergies to carry and self-administer epinephrine.

What does your school allow?

Some states have laws that allow schools to keep a non-patient-specific supply of epinephrine for students without a plan, or for other emergencies.

What does your state law allow?
Sally the School Nurse helps students manage food allergies and is the chair of the food allergy team at her school. Sally works with the district food service director and parents/guardians to get medical statements signed by a doctor that meet USDA requirements for school meal accommodations. She shares this information with food service workers, while following student confidentiality policies.
the nearest hospital for further medical assistance and observation. Never leave a student alone following an anaphylactic episode.

Managing Food Allergies in Schools: It’s a Team Approach

Managing food allergies in schools is a team effort involving all school staff, parents/guardians, and health care providers. Everyone—including teachers, paraeducators, nurses, health aides, custodial and maintenance staff, security officers, bus drivers, food service workers, secretaries and clerical staff, counselors, librarians and media specialists, coaches, and administrators—plays an important role in ensuring that the needs of students with food allergies are met.

Food Allergy Management and Prevention Plans

Schools should create and implement food allergy management and prevention plans (FAMPP) that address the daily management of food allergies; emergency response; bullying of and discrimination against students with food allergies; and education for staff, students, and parents/guardians.

These plans should be based on school district policy and implemented by a food allergy management team or an existing

Sally the School Nurse Continued:

Sally provides annual food allergy training to all school staff so they can recognize the symptoms of an allergic reaction and know how to respond in an emergency. She keeps auto-injectors for students with severe food allergies in a safe, secure, and easily accessible location in her office.

NOTE: Epinephrine is relatively safe, and its side effects, if administered unnecessarily, are usually mild and temporary.
Tammy the Teacher implements food allergy lesson plans as part of the school’s health education curriculum and makes sure students with food allergies feel safe in her classroom. To help prevent exposure to food allergens, Tammy enforces a “no food sharing or trading” rule. When snacks are brought into the classroom, she reads all labels for potential allergens.
health and safety team. Team members should represent various job categories, including (but not limited to) nurses, food service workers, custodians, counselors, bus drivers, and teachers or paraeducators.

Check to see if your school has a FAMPP and a team that coordinates the implementation of the plan.

**Getting the Right Documentation**

In order to identify, monitor, and support students with food allergies, parents/guardians and the student’s doctor must work with the school to document medical and dietary information and develop individualized food allergy management strategies for the school to follow.

**Individual Plans for Students with Food Allergies**

Food allergies must be confirmed by the student’s doctor. Prior to the start of each school year, the student’s parents/guardians should provide the school with a signed statement from a doctor. Medical and dietary information should be included in the student’s food allergy *Emergency Care Plan* (ECP), also known as a Food Allergy Action Plan, and may be included as part of a 504 plan, Individualized Education Plan (IEP), and/or Individualized Health Plan (IHP).
Parents/guardians of students with life-threatening food allergies may request accommodations for the daily management of their child’s condition under Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990 (ADA), and/or the Individuals with Disabilities Education Act (IDEA).

School staff—including administrators and food service, teaching, and health professionals—must share information regarding life-threatening food allergies and at the same time protect the privacy of student information. Schools and districts must conform to the Family Educational Rights and Privacy Act (FERPA) and the Health Insurance Portability and Accountability Act (HIPAA) when collecting, storing, and sharing personal student information.

**TIP:**
Always follow your school’s procedures for handling food allergy emergencies as well as laws and regulations that guide medication administration, storage, and access.

**Emergency Care Plans**

Every student with an identified food allergy should have an individualized food allergy Emergency Care Plan (ECP) on file at school. ECPs are developed by the school nurse or the student’s doctor and provide guidance for school staff on handling food allergy emergencies. ECPs should be kept in safe, secure, and easily accessible locations and be shared with all appropriate school staff in accordance with state and district policy.
Pat the Principal knows that everyone—including teachers, paraeducators, custodial and maintenance staff, security officers, bus drivers, food service workers, secretaries and clerical staff, counselors, librarians and media specialists, coaches, nurses, health aides, and administrators—plays an important role in helping students manage food allergies in schools.
Frank the Food service Worker has a vital role in helping students manage their food allergies at school. He is trained on how to read food labels, how to properly handle and store food, and how to separate equipment and utensils to prevent cross-contact. He reads every food and beverage label carefully, being sure to identify every ingredient.
ECPs should list:

- the food allergen(s)
- avoidance and prevention strategies
- signs and symptoms of a reaction
- severity of reactions and history of anaphylaxis
- treatment plan for reactions
- medication location and dosage instructions
- assessment of the child’s readiness to carry their own epinephrine auto-injector
- any coexisting conditions that may affect food allergy management (e.g., asthma)
- dietary instructions and modifications
- recent photo of the student
- emergency contact information

Food Allergies in School Nutrition Programs

Schools participating in USDA meal programs are required to make meal or food substitutions or modifications for students whose allergies are considered disabilities under USDA regulations. Under current USDA guidance, when a licensed physician includes in a signed medical statement that the student’s food allergy may result in a severe, life-threatening (anaphylactic) reaction, the allergy would meet the definition of a disability. The most current USDA guidance is available

Frank the Foodservice Worker Continued:

Frank knows which students have food allergies and where ECPs and auto-injectors are located. He is trained on how to administer epinephrine.
on the USDA Food and Nutrition website.

USDA requires the following information in the physician’s statement for all accommodations in school meals:

- the child’s disability
- an explanation of why the disability restricts the child’s diet
- the major life activity affected by the disability
- the food or foods to be omitted from the child’s diet, and the food or choice of foods that must be substituted

**The School Employee’s Role in Responding to Food Allergy Emergencies**

In the event of a severe allergic reaction, school staff should follow their school’s emergency protocols and the student’s ECP.

The school nurse should be the first responder to a food allergy emergency. If allowed by state law, other school staff (including, but not limited to, health aides, food service workers, teachers, bus drivers, custodians, athletic coaches, and administrators) should be designated and trained by the school nurse to respond in his/her absence. All school staff should be trained to recognize symptoms, to read ECPs, and to respond to food allergy emergencies, including the proper administration of

**TIP:**
For questions about accommodating a student with a life-threatening food allergy in federal school meal programs, contact your state’s Child Nutrition Program.
Simon the Student knows how to contact a school official during a food allergy emergency, and he understands why it is wrong to tease or bully students with food allergies.
Bert the Bus Driver knows which students who ride his bus have food allergies. He attended an in-service training at his school on food allergies and how to recognize the symptoms of an allergic reaction and how to administer epinephrine.
epinephrine, if permitted by law. In addition, all school staff should know which students have been prescribed epinephrine and where medication is located.

It is important that you know how to recognize and respond to allergic reactions, because many students have undiagnosed food allergies and experience their first reaction while at school. In the absence of an individualized plan, you should always contact emergency medical services immediately, even if epinephrine is administered.

Schools should ensure that staff have access to functioning intercoms, walkie-talkies, cell phones, or other communication devices in schools, on athletic fields, and on school buses, in case of an emergency. Bus drivers should be trained on how to handle a food allergy emergency that occurs on the bus, including how to administer epinephrine (if allowed by state law). They also should know the emergency route to the hospital, in case emergency medical services cannot be reached.

Each food allergy emergency that involves the administration of epinephrine should be documented and followed by a debriefing meeting that includes the school staff and emergency responders involved. The student (where appropriate) and his/her parents/guardians should participate as well.
Courtney, a part-time soccer Coach, is trained on food allergy management and has a plan for responding to emergencies at home and away games. She is trained on how to administer epinephrine and brings student-specific auto-injectors and ECPs to every practice and game.
Training and Education

School Staff

All school staff should receive training on food allergies and emergency response by the school or district nurse. Invite the parents/guardians of students with food allergies to be involved. They can provide firsthand knowledge about their experience with food allergies. Substitute teachers, coaches, volunteers, field trip chaperones, and appropriate contract employees also should be trained to respond to food allergy emergencies.

Students

Teachers and paraeducators should use classroom lessons to teach all students about food allergies. Students should understand the school’s food allergy policies and practices, the signs and symptoms of anaphylaxis, how to contact a school official during an emergency, the food and non-food items that are common causes of allergic reactions, and why it is wrong to tease or bully students with food allergies.

Supporting Students with Food Allergies

Students with food allergies need to feel safe and secure. Creating a positive climate is a collective effort among administrators, school staff, students, and parents/guardians.

Courtney the Coach Continued:

Courtney is also trained on how to recognize symptoms and understands how her players might communicate them. She reminds parents/guardians regularly that if they provide a postgame snack, it must conform to school and district food allergy policies and be safe for all of her players.
Mental health professionals—such as school counselors, psychologists, and social workers—play a critical role in preventing bullying and ensuring that students with food allergies are not socially isolated. School staff should enforce state and district policies related to bullying and discrimination. Acts of bullying and discrimination should never be tolerated.

Preventing Allergic Reactions in Schools

The only way to prevent allergic reactions to food is to avoid food allergens. All school staff need to work together to prevent exposure to food allergens in schools. School policies and practices should be implemented that reduce the risk of exposure to food allergens throughout the entire school, but especially in high-risk areas such as classrooms and cafeterias. There are several ways to prevent exposure to food allergens in schools.

Reading Labels

It is essential that school staff understand how to read labels to identify allergens in foods and beverages served in school meal programs, or those that are brought into the school for parties or other events. Some foods are required to have ingredient labels that clearly identify the eight major food allergens, but remember that a student may be allergic to a
food that is not one of the eight major food allergens. Every label must be read carefully. If the appropriate information is not available on the label, contact the manufacturer.

**Safe Classroom Environments for Students with Food Allergies**

Classroom teachers and paraeducators should avoid using food and non-food items that contain allergens in classroom activities and projects (e.g., arts and crafts, science experiments, counting exercises, cooking activities) and/or in celebrations. Non-food items that may contain allergens include modeling clay, finger paints, science kits, paper mache, crayons, seeds, and more. Read labels carefully or contact the manufacturer to determine if food and non-food items contain allergens. Find alternatives to non-food items that contain allergens and use safe non-food items as rewards or prizes. School nurses should conduct food allergen walkthroughs periodically to identify activities that might lead to food allergen exposure.

**Preventing Cross-Contact**

*Cross-contact* occurs when an allergen is accidentally transferred, directly or indirectly, from one food or surface to another. This transfer may occur from food to food, from hands to food, from equipment to food, or

**NOTE:** When taking school-sponsored trips, avoid potentially high-risk locations such as petting farms, ice cream shops, and pottery shops. Do not exclude students with food allergies from participating in field trips, school events, and extracurricular activities, and invite parents/guardians of students with food allergies to go with their child.
Carlos the Counselor works with other school staff and parents/guardians to create a safe environment for students with food allergies. He provides emotional support to students with food allergies and other chronic conditions. With help from the school nurse, Carlos facilitates training for staff, students, and parents/guardians on bullying and discrimination. He also assists students with food allergies in transitioning back into school after a food allergy emergency and facilitates support groups with the school nurse and social worker when needed.
from a food contact surface to hands or food. Cross-contact can be prevented through hand-washing, cleaning, sanitizing, and other strategies such as storing foods properly, following good food handling practices, and separating equipment and utensils.

**Handwashing**

Handwashing can help reduce the risk of exposure to food allergens. School staff should encourage students to wash their hands with soap and water before and after food is handled or eaten.

**Proper Handwashing Technique:**

- Wet your hands with clean running water and apply soap.
- Rub your hands together, being sure to scrub the backs of your hands, between your fingers, and under your nails for at least 20 seconds (enough time to hum the “Happy Birthday” song twice).
- Rinse your hands well under running water.
- Dry your hands using a clean towel, or air dry them.

When soap and water are not available, such as on school-sponsored field trips, disposable hand wipes should be used before and after eating.

**NOTE:** Studies have shown that alcohol-based hand sanitizers and washing with water alone are **NOT** effective in removing food allergens.

Carlos the Counselor

Continued:

Carlos is trained to respond to food allergy emergencies, including how to administer epinephrine.
Cathy the Custodian has a key role in ensuring that hard surfaces such as cafeteria tables and classroom desks are cleaned to remove food allergens. She is aware of any classrooms, tables, and areas that are identified as allergen-friendly and she knows which students have been prescribed epinephrine. Cathy receives annual training on proper cleaning techniques and how to recognize the signs and symptoms of an allergic reaction.
Cleaning — Cafeteria and Classrooms

Hard surfaces such as cafeteria tables and classroom desks and chairs should be cleaned with soap and water or an all-purpose cleaning product, and with an abrasive cloth before and after meals or snacks. Cleaning with water alone is not effective in removing allergens. To prevent cross-contact, clean the surface first and then rinse it with a clean cloth. Be sure to wash cleaning cloths to prevent cross-contact before re-use. If washable cloths are not available, use a disposable cloth or paper towel and then discard it after use. Rinse with a new cloth or paper towel.

Cleaning — School Buses

Hard surfaces on school buses, such as seats, seatbacks, hand rails, and windows, should be cleaned daily or in between trips, with soap and water or an all-purpose cleaning product and an abrasive cloth.

Cleaning and Sanitizing — Kitchen and Cafeteria

Food allergens may be on surfaces that come in contact with food in the kitchen, such as equipment, utensils, cutting boards, or countertops. By making sure food contact surfaces are cleaned, rinsed, and sanitized, you will greatly reduce the chance of cross-contamination.

Cathy the Custodian

Continued:
She is also trained on how to respond to a food allergy emergency and how to use an auto-injector.

NOTE: Be sure to check your school’s policy on surface and hand cleaning products and procedures, including policies on bringing in products from home.
Pam the Paraeducator helps the teacher implement food allergy lesson plans and is designated as the person to carry auto-injectors during recess for the students with diagnosed food allergies in her class. She is trained to respond to food allergy emergencies, including how to administer epinephrine. Pam watches for any signs of bullying and follows school district policy by reporting it right away.
that allergens are transferred to a food or another food contact surface.

**Safe Seating, Eating, and Food Preparation Areas for Students with Food Allergies**

Schools may consider designating certain tables, classrooms, eating areas, and food preparation stations as allergen-friendly. If designated rooms or areas are identified, students should not be required to sit in them. Allergen-friendly areas should not isolate students or be a replacement for other prevention practices. To prevent cross-contact, use separate cleaning supplies and cloths, or disposable cloths or paper towels, for tables, desks, and seating areas designated to be allergen-friendly.

**Conclusion**

Managing food allergies in schools is a team effort involving all school staff, parents/guardians, and health care providers. Proper training and communication can help prevent exposure to food allergens and ensure that school staff are prepared to respond to a food allergy emergency. By taking steps to prevent food allergy emergencies, school staff can help students with food allergies live healthy and normal lives, participate in all school activities, and achieve academic success.

**NOTE:** Be sure to clean “high-touch” areas such as tables, desks, chairs, counters, door handles, push plates, railings, lockers, light switches, and all areas of the bathroom.

*Pam the Paraeducator Continued:*

She works with the teacher and parents/guardians of students with food allergies to ensure that field trip locations are not a high risk for exposure to food allergens, and invites the parents/guardians to go. She is also responsible for bringing ECPs and student-specific auto-injectors on field trips.
Resources

American Academy of Allergy, Asthma & Immunology (AAAAI)
www.aaaai.org

American College of Allergy, Asthma & Immunology (ACAAI)
www.acaai.org

Asthma and Allergy Foundation of America (AAFA)
www.aafa.org

Centers for Disease Control and Prevention (CDC)
www.cdc.gov/healthyyouth/foodallergies

The Food Allergy & Anaphylaxis Network (FAAN)
www.foodallergy.org

Food and Drug Administration (FDA)
www.fda.gov/Food/FoodSafety/FoodAllergens

Food Allergen Labeling and Consumer Protection Act (FALCPA)
www.fda.gov/Food/LabelingNutrition/FoodAllergensLabeling

National Association of School Nurses (NASN)
www.nasn.org/ToolsResources/FoodAllergyandAnaphylaxis

National Food Service Management Institute (NFSMI)
www.nfsmi.org/foodallergy

National School Boards Association (NSBA)
www.nsba.org/foodallergy
NEA Health Information Network (NEA HIN)
www.neahin.org/foodallergies

School Nutrition Association (SNA)
www.schoolnutrition.org/foodallergies

U.S. Department of Agriculture (USDA)
Food and Nutrition Service
www.fns.usda.gov

U.S. Department of Education
www.ed.gov

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