

FOOD ALLERGY MANAGEMENT PLAN

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INTRODUCTION

North Shore School District 112 works to meet the needs of all students, including those with medical and medical dietary needs such as life-threatening food allergies. The District has adopted policies and practices that enhance the safety and inclusion of students with food allergies. In addition, where appropriate, the District develops an individualized plan for each student, working collaboratively with the student's parents and physician, and the school team in accordance with applicable law and other applicable District policy.

The guidelines contained in this document are based on a review of practices for the management of allergies undertaken by a committee comprising administrators, nurses, teachers, and parents in North Shore School District 112 with the assistance of an outside consultant.

Additional information associated with food allergies can be found in Board Policy 7:285, Food Allergy Management Program

AN OVERVIEW OF FOOD ALLERGIES

What is a Food Allergy?

A **food allergy** occurs when the body's immune system sees a certain food as harmful and reacts by causing symptoms. This is an **allergic reaction**. Foods that cause allergic reactions are **allergens**. While any food can be an allergen, the most common food and food groups that cause allergic reactions in the US are: egg, milk, peanut, soy wheat, tree nuts (such as cashew, pistachio, pecan, walnut, among others), fin fish (such as cod, salmon, trout, among others), crustacean shellfish (such as crab, lobster and shrimp, among others) and sesame.

What are the Symptoms of an Allergic Reaction?

Allergic reactions result from the body's immune system making antibodies that react with a certain food. The allergic reaction can involve the skin, mouth, eyes, lungs, heart, gut and brain. Some of the symptoms can include:

- Skin rash, itching, hives
- Swelling of the lips, tongue or throat
- Shortness of breath, trouble breathing, wheezing
- Stomach pain, vomiting, diarrhea
- Feeling like something awful is about to happen

Sometimes allergy symptoms are mild. Other times they can be severe. It is important to note that there is no such thing as a "mild" food allergy. It is true that some people with diagnosed food allergies may only have a history of mild symptoms, but should symptom history should never be used to predict the nature or severity of future reactions.

What is Anaphylaxis?

Anaphylaxis is a potentially life-threatening medical condition occurring in allergic individuals after exposure to an allergen. Anaphylaxis occurs when the body's immune system reacts to harmless substances as though they were harmful invaders. During an anaphylactic reaction, the body releases chemicals that trigger an inflammatory reaction in the tissues of the skin, respiratory system, gastrointestinal tract and cardiovascular system. When the inflammatory symptoms are widespread and systemic, the reaction is termed anaphylaxis. Any food allergy has the potential to result in anaphylaxis even if it has not previously¹. Not all allergic reactions will develop into anaphylaxis and more than 40% (2 in 5) of children with food allergies in the United States have been treated in the emergency department.²

Fatal anaphylaxis is also more common in children with food allergies who are asthmatic, even if the asthma is mild and well controlled³. Children with a history of anaphylaxis or those whose prior food reactions have included respiratory symptoms such as difficulty breathing, throat swelling, or tightness are also at an increased risk for severe or fatal anaphylaxis.

¹Anaphylaxis may occur in the absence of any skin symptoms such as itching and hives. Typical substances causing anaphylaxis include food, bee and wasp stings, insect bites, medications, latex and vigorous exercise (rarely). Fatal anaphylaxis is more common in children who present with respiratory symptoms, or GI symptoms such as abdominal pain, nausea or vomiting. In many fatal reactions, the initial symptoms of anaphylaxis were mistaken for asthma or mild GI illness, which resulted in delayed treatment with epinephrine auto-injector.

² Sampson HA, Munoz-Furlong A, Campbell RL, et al. Second symposium on the definition and management of anaphylaxis: summary report—Second National Institute of Allergy and Infectious Disease/Food Allergy and Anaphylaxis Network Symposium. *ANN EMERG MED*. 2006;47(4):373–380

³ Wang, Julie MD and Liu, Andrew H. MD “Food Allergies and Asthma” *Current Opinion in Allergy and Clinical Immunology*: 06/2011; 11: 249-254

Even if initial symptoms are successfully treated or resolve completely, up to 20% of anaphylactic reactions recur within 4–8 hours (called biphasic reactions). In other cases, symptoms do not completely resolve and require additional emergency care. For these reasons, children with food-induced anaphylaxis must be monitored closely and evaluated as soon as possible in an

emergency care setting⁴.anaphylaxis must be monitored closely and evaluated as soon as possible in an emergency care setting⁵.

Symptoms in Young Children

Teachers and staff who work with young children should be aware of these words and phrases that young children, who may not have the vocabulary to express symptoms, may use. Children have unique ways of describing their experiences and perceptions, and allergic reactions are no exception. Precious time can be lost when adults do not immediately recognize that a reaction is happening or don't understand what a child is telling them.

SIGNS OF AN ALLERGIC REACTION IN CHILDREN, ESPECIALLY VERY YOUNG ONES, CAN INCLUDE:

- Putting their hands in their mouths
- Pulling or scratching at their tongues
- Slurring their words
- Their voices may change (e.g., become hoarse or squeaky)

⁴ Centers for Disease Control and Prevention. Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs. Washington, DC: US Department of Health and Human Services; 2013.

⁵ Centers for Disease Control and Prevention. Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs. Washington, DC: US Department of Health and Human Services; 2013.

A child might use words like these to describe a reaction:

- "This food is too spicy."
- "My tongue [or mouth] is hot [or burning, tingling, itching]."
- "It feels like something's poking my tongue."
- "It [my tongue] feels like there is hair on it."
- "My tongue feels full [or heavy or funny]."
- "There's something stuck in my throat."
- "It feels like a bump is on the back of my tongue [throat]."
- "My lips feel tight."
- "It feels like there are bugs in there." (to describe itchy ears)
- "My eyes are burning [or itchy]."
- "My skin feels itchy."
- "My stomach [or tummy] hurts."
- "My chest is tight."
- "Something is wrong" or "Something bad is happening."

TREATMENT OF ANAPHYLAXIS





Epinephrine is the only treatment that can reverse the life-threatening symptoms of anaphylaxis. Antihistamines and steroids may be indicated as adjunctive therapies, but they are not to be given in lieu of epinephrine. Spring-loaded, prefilled syringes called epinephrine auto-injectors (EAI) make it easier for patients, health care providers and members of the public to inject the correct dose of epinephrine solution into the patient's thigh muscle.




EAls are available to patients with a prescription. They are also available to schools and school districts in Illinois pursuant to the Illinois School Code, 105 ILCS 5/22-30(f).

It is imperative that following the administration of epinephrine, the student be transported by emergency medical services to the nearest hospital emergency department even if the symptoms appear to have resolved. It is the policy of District 112 to always call 911 when symptoms escalate to a point that epinephrine is indicated, pursuant to the chart below.

FOR **ANY** OF THE FOLLOWING:

SEVERE SYMPTOMS





			
LUNG	HEART	THROAT	MOUTH
Shortness of breath, wheezing, repetitive cough	Pale or bluish skin, faintness, weak pulse, dizziness	Tight or hoarse throat, trouble breathing or swallowing	Significant swelling of the tongue or lips

			OR A COMBINATION of symptoms from different body areas.
SKIN	GUT	OTHER	
Many hives over body, widespread redness	Repetitive vomiting, severe diarrhea	Feeling something bad is about to happen, anxiety, confusion	

↓ ↓ ↓

1. **INJECT EPINEPHRINE IMMEDIATELY.**
2. **Call 911.** Tell emergency dispatcher the person is having anaphylaxis and may need epinephrine when emergency responders arrive.
 - Consider giving additional medications following epinephrine:
 - » Antihistamine
 - » Inhaler (bronchodilator) if wheezing
 - Lay the person flat, raise legs and keep warm. If breathing is difficult or they are vomiting, let them sit up or lie on their side.
 - If symptoms do not improve, or symptoms return, more doses of epinephrine can be given about 5 minutes or more after the last dose.
 - Alert emergency contacts.
 - Transport patient to ER, even if symptoms resolve. Patient should remain in ER for at least 4 hours because symptoms may return.

MILD SYMPTOMS

			
NOSE	MOUTH	SKIN	GUT
Itchy or runny nose, sneezing	Itchy mouth	A few hives, mild itch	Mild nausea or discomfort

FOR MILD SYMPTOMS FROM MORE THAN ONE SYSTEM AREA, GIVE EPINEPHRINE.

FOR MILD SYMPTOMS FROM A SINGLE SYSTEM AREA, FOLLOW THE DIRECTIONS BELOW:

1. Antihistamines may be given, if ordered by a healthcare provider.
2. Stay with the person; alert emergency contacts.
3. Watch closely for changes. If symptoms worsen, give epinephrine.

FEDERAL AND STATE LAWS

FEDERAL LAWS

Section 504 of the Rehabilitation Act of 1973 prohibits public schools from discriminating against students with disabilities. A student with a disability under Section 504 is defined as one who has a physical or mental health impairment that “substantially limits a major life activity,” such as walking, seeing, hearing, speaking, breathing, learning, working, caring for oneself, and performing manual tasks (29 U.S.C 794 § 504; 34 C.F.R. § 104 et seq.).

“Substantially limited” is not defined in the law or Section 504 regulations. It is the responsibility of the Section 504 team to determine eligibility criteria as outlined in the regulations. If qualified, the child is entitled to receive a free and appropriate public education, which may include the provision of accommodations and/or related services. These services should occur within the child’s usual school setting with as little disruption as possible to the school’s and the child’s routines, in a way that ensures that the child with a disability is educated to the maximum extent possible with his non-disabled peers.

Americans with Disabilities Act (ADA) prohibits discrimination in public and private places that are open to the general public. The definition of a qualified individual with a disability is the same under both the ADA and Section 504. The ADA was amended in 2008 to significantly expand the definition by broadening what qualifies as a disability and limiting the consideration of the effects of mitigating measures such as medication when considering whether a disability substantially limits a major life activity. Eating and breathing are two major life activities that can be substantially limited by a food allergy.

The Individuals with Disabilities Education Act of 1976 (IDEA) provides financial assistance to state and local agencies for educating students with disabilities that significantly interfere with learning. Children are eligible if they fit into one or more of the 13 categories of disability defined in the law and if, because of the disability, they require specialized instruction (20 U.S.C.

§ 1400 et seq.; 34 C.F.R. § 300 et seq.).

ILLINOIS LAWS

105 ILCS 5/22-30 allows for self-carry and/or self-administration of medication by a student with asthma and/or the use of an epinephrine auto-injector by a student, provided that the parents or guardians of the student provide to the school written authorization for the self-carry and/or self-administration of medication or use of an epinephrine auto-injectors well as a written statement from the student's medical provider, and complete prescription label for the medication.

This law went into effect on May 19, 2006.

105 ILCS 5/2-3.149 requires the Illinois State Board of Education, in conjunction with the Department of Public Health, to develop and make available to each school board guidelines for the management of students with life-threatening food allergies. The guidelines are to include education and training for school personnel, procedures for responding to life-threatening allergic reactions to food, a process for the implementation of an Emergency Action Plan, an individualized health care plan and/or a 504 Plan for students with life-threatening food allergies, and protocols to prevent exposure to food allergens. This law went into effect on January 1, 2011.

105 ILCS 5/22-30 permits school districts to authorize school nurses and other “trained personnel” to administer an epinephrine auto-injector to a student in accordance with their relevant plans authorized under law, or when the nurse believes in good faith that the student is having an anaphylactic reaction. The law allows schools to obtain a supply of designated stock of epinephrine auto-injectors, to be stored in any secure location where an allergic person is most at risk, including, but not limited to, classrooms and lunchrooms. Required training curriculum and guidelines are set forth for school employees or authorized volunteer personnel to become “trained personnel.” The student’s parent, guardian or emergency contact must be notified of the use of an epinephrine auto-injector immediately upon administration (but prior permission to administer is not required), the prescriber of the standing undesignated epinephrine auto-injectors prescription must now also be notified of its use within 24 hours of administration, and within 3 days of an epinephrine auto-injector administration at a school-sponsored activity, a report to ISBE must be made. This law went into effect on August 1, 2014.

105 ILCS 5/22-30 also permits authorized entities to stock and administer undesignated epinephrine auto-injectors. This can include companies that transport students to and from schools, among other entities. This portion of the law went into effect on January 1, 2017.

SCHOOL DISTRICT 112 DOCUMENTATION

North Shore School district 112 will utilize specific forms as needed for any child with a documented medical history of food allergies.

ALLERGY ASSESSMENT INTERVIEW (APPENDIX A-1)

When the parent informs the school about the child's food allergy, the nurse will contact the parent to complete the assessment interview. Based on this interview, the nurse and the parent will decide if an allergy action plan is necessary to be completed by the parent and the doctor.

FOOD ALLERGY & ANAPHYLAXIS EMERGENCY ACTION PLAN (APPENDIX A-2)

The Food Allergy & Anaphylaxis Emergency Action Plan (FAAEAP) is completed by the parent and the doctor. The District prefers the form developed and maintained by Food Allergy Research & Education(www.foodallergy.org) which is available at <https://www.foodallergy.org/living-food-allergies/food-allergy-essentials/food-allergy-anaphylaxis-emergency-care-plan> and is available in English and Spanish. It will include a student's personal information (including photo ID), emergency contact information, specific allergy concerns, potential signs and symptoms of an allergic reaction, instructions in administration of the EAs that are currently prescribed, and emergency response procedures.

INDIVIDUAL HEALTH CARE PLAN

Based on the doctor's recommendations on the FAAEAP, an Individual Health Care Plan (IHCP) may be developed for students whose health needs require daily intervention regardless of whether the student qualifies for a Section 504 Plan. The information in the IHCP may be distributed to all school staff that has responsibility for the student.

An IHCP includes diagnosis and other pertinent information on student and family. The IHCP is established through a collaborative process between parents/guardians and appropriate school personnel.

504 ACCOMODATION PLANS

The 504 accommodation plan is a legal document completed after it has been determined that a child meets the definition of disability under Section 504 of the Rehabilitation Act of 1973. For a child with documented allergies, it outlines accommodations needed to best provide for a safe educational environment. The IHCP should be attached to the student's 504 Accommodation Plan. Together, the IHCP and the 504 Accommodation Plan may include the following:

- Identification measures
- Location of FAAEAP
- Staff education and training methods
- Peer education plans as appropriate Classroom accommodations
- Cafeteria accommodations
- Field trip accommodations
- School sponsored activity accommodations
- Bus safety measures
- Location of emergency medications Communication devices for staff
- Emergency contact information

FOOD ALLERGY MANAGEMENT POLICY

It is the responsibility of the family to notify the school of any student with food allergies, provide necessary medications and to participate in the completion of the following forms:

- Allergy Assessment Interview
- FAAEAP including medication information, signed by student's physician
- 504 Accommodation Plan and/or Individual Health Care Plan, as applicable

School staff will be made aware of all students with allergies and their needs. Staff in contact with these students may be given a copy of any information pertinent to the individual child. Staff will be offered training opportunities by the district annually. Substitute teacher folders will contain the necessary information outlined in the FAAEAP, as provided by the teachers.

Substitutes may contact nurse with questions regarding food allergies.

DETAILED REVIEW OF RESPONSIBILITIES⁶

EDUCATION AND AWARENESS

On an annual basis, the District will:

- Conduct training on the causes and symptoms of food allergy and District policy including emergency preparedness and administration of EAI (including training on all available models of EAI)
- Notify all school families about the District's food allergy policies, including guidelines on food brought into the building
- Ensure that non-expired stock EAI are available in all District school buildings. This includes pediatric doses for students who weigh less than 66 lbs. (where applicable) and adult doses for those who weigh more than 66 lbs.
- Make outside groups aware of food allergy policies and rules when they use school or Early Childhood Education program facilities before or after hours.
- Create a positive psychosocial climate to prevent bullying, threatening and teasing of students with food allergies.

⁶ The responsibilities and steps listed here are based on the historical practices of District 112 as well as national best practices as delineated in the Centers for Disease Control and Prevention [Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs](#). Washington, DC: US Department of Health and Human Services; 2013

AVOIDANCE MEASURES

Avoidance measures are designed to reduce the risk of a student's accidental exposure to specific allergens while maintaining normal peer interactions. Avoidance measures should take into consideration a child's age, maturity, social-emotional development as well as the physical environment of the school building. Children should learn to self-advocate with peers and staff in situations they perceive as compromising to their health.

The following policies will be in effect throughout all school buildings in the District:

ALL STUDENTS SHOULD:

- Wash hands or use hand wipes before and after eating
- Not trade or share foods, utensils or containers
- Only bring snacks (intended for consumption in the classroom) that are permitted in that classroom according to the food allergies represented and documented in that classroom
- Never tease or threaten students with allergies. This includes never putting the food or food residue on the child, in the child's possessions or locker, or intentionally near the child.

CAFETERIA STAFF WILL:

- Provide lunch-hour supervision when students with documented food allergies are present
- Develop food-handling policies and procedures to prevent food allergens from unintentionally contacting another food
- Enforce safe eating practices in the cafeteria
- Enforce hand-cleaning practices to avoid allergen cross contact
- Wash and clean tables and other eating surfaces after each use
- Provide allergen restricted seating in school lunchrooms.

CLASSROOM, NURSING AND BUILDING STAFF WILL:

- Arrange a meeting at the beginning of the school year, to which parents/legal guardians are invited, to discuss and determine any 504 plan that is necessary for a student with food allergies.
- Develop the 504 and individual health plans and distribute them to student families and appropriate personnel
- Use non-food items and activities in lieu of food for communal consumption in classroom and building-wide celebrations and special events, including fundraising events during school and after school hours.
- Prohibit the availability and distribution of food for communal sharing in classroom and building-wide celebrations and special events during school or on school grounds outside of school hours.
- Prohibit fundraisers that involve the distribution of food during school or on school grounds outside of school hours, excluding PTO Food Days and large PTO events outside of school (e.g. Family Fest).
- Share information with class parents about the district's allergy policy and any foods that may not be permitted as snacks in that classroom
- Promote consumption of snacks that are safe for all users of a given classroom or common room (excluding cafeteria), including students and staff with documented food allergies. If students attempt to consume allergens in the classroom that are unsafe for a classmate, the student will not be permitted to consume that food in the classroom
- Prohibit consumption, by individuals, of allergens in classrooms utilized by students with documented food allergies to those food(s), pursuant to the 504 plans of said students
- Encourage hand-washing practices before and after snacks
- Wipe down tables and eating surfaces after eating
- Limit utilization of food and food containers (such as egg and milk cartons) for academic activities. Only foods and food containers that do not pose a safety risk for students with food allergies in that class will be utilized (for instance, students will not be asked to bring in milk cartons for a class project if there is a student with a milk allergy in that classroom).

- Utilize fresh cleaning supplies in identified classrooms to avoid allergen cross-contact of surfaces

FIELD TRIP PERSONNEL WILL:

- Include FAAEAPs for students with food allergies, any medications indicated on these plans, and a communication device with items brought on a field trip by school personnel
- Specific chaperones will be aware of the identified student as well as his/her FAAEAP as appropriate
- Provide hand wipes for use before and after eating
- Permit parent or guardian of identified student to attend field trips and/or ensure that at least one additional epinephrine-trained adult (such as a nurse, teacher, or paraprofessional) accompany the class on the field trip.
- Place identified student in a group supervised by his/her parent or classroom teacher
- Invite parent of child with food allergies to contact the field trip destination to review environment and answer questions
- Encourage parent of child with food allergies to clearly label child's packed food and to consider providing additional epinephrine auto-injectors if so prescribed

SCHOOL BUS PERSONEL WILL:

- Bus drivers will be informed of the presence of a child with life-threatening allergies for monitoring in accordance with bus company guidelines
- Bus drivers will prohibit eating on school buses
- Bus drivers will report any incidents of teasing or bullying
- Assigned seating in the front of the bus will be determined for students with food allergies
- Transportation Department will be informed of students with life-threatening allergies who ride the school bus and for communication with regular and substitute drivers.

- Be eligible for training on how to use auto-injectable epinephrine, including how to identify the symptoms of anaphylaxis that would necessitate its use.

TREATMENT & EMERGENCY RESPONSE MEASURES

THE STUDENT / STUDENT'S FAMILY WILL:

- Provide a FAAEAP in collaboration with the student's physician
 - Provide the district with any prescription and over the counter medication that is delineated in the aforementioned FAAEAP and ensure that is not expired. Pursuant to Illinois law, EAI's may be carried by the student.
-

THE SCHOOL DISTRICT WILL:

- Ensure that district facilities have internal communications systems that are easy to access in emergency situations
- Maintain students' prescribed EAI's in the nurse's office or another secure but unlocked location, and ensure that staff are informed about the location of these devices
- Maintain a supply of stock EAI's to be used in the event that students without a food allergy diagnosis develop an allergic reaction and that staff are informed about the location of these devices
- Identify the role of each staff member in a food allergy emergency
- Document the response to every food allergy emergency

THE FOLLOWING STEPS WILL GUIDE THE RESPONSE IN THE EVENT OF SUSPECTED ANAPHYLAXIS IN A STUDENT WITH DOCUMENTED FOOD ALLERGY⁷:

- Administer prescribed EAI to a student who is having a suspected anaphylactic reaction, according to FAAEAP while calling for staff back-up
- Call 9-1-1 and inform dispatcher that anaphylaxis is suspected
- Phone emergency contacts
- Administer additional medication as delineated in FAAEAP
- Stay with student until professional help arrives
- Place EAI back in original container and present to emergency personnel
- Follow-up with school administration and nurse for filing any appropriate reports, per district policy

⁷ Regardless of the cause of anaphylaxis, the expert panel sponsored by the National Institute of Allergy and Infectious Diseases (NIAID) within the U.S. National Institutes of Health recommends that the cornerstone of management begin with the following concurrent steps: (i) elimination of additional allergen exposure, (ii) intramuscular injection of epinephrine, and (iii) call for help (activate the code team in the hospital or the emergency medical system in the community). This should not delay the administration of epinephrine if available. The prompt use of epinephrine is also recommended by the American Academy of Asthma, Allergy & Immunology, the American College of Asthma, Allergy & Immunology, and patient advocacy groups.

THE FOLLOWING STEPS WILL GUIDE THE RESPONSE IN THE EVENT OF SUSPECTED ANAPHYLAXIS IN A STUDENT WITH NO DOCUMENTED FOOD ALLERGY:

- Administer stock EAI to a student who is having a suspected anaphylactic reaction. EAI selection must take into consideration estimated weight of student⁸, while calling for staff back-up. No additional medication will be administered, with the exception of a second EAI if symptoms do not improve in 5-8 minutes.
- Call 9-1-1 and inform dispatcher that anaphylaxis is suspected.
- Phone emergency contacts
- Stay with student until professional help arrives
- Place EAI back in original container and present to emergency personnel
- Follow-up with school administration and nurse for filing of appropriate reports, including state-mandated EAI usage reporting

EDUCATION AND TRAINING

All NSSD 112 staff will be trained in the various components of safe protocols with relation to students with food allergies. This training will occur annually and will be delivered by a District-approved provider. Topics may include, but are not limited to:

- Overview of food allergies and anaphylaxis
Demonstrations and hands on practice of all EAIs available for prescription in the U.S.
- Overview of how to read a food label for allergens
- Detailed training on District policies and protocol
- All staff will have knowledge of location of medications and the need to contact the health office in the event of a suspected allergic reaction (and to not move the child in that event)

⁸ Pediatric dosed EAIs are intended for patients who weigh less than 66 lbs., while adult doses are intended for patients who weigh more than 66 lbs.

- All staff will know how to contact emergency personnel specific to individual buildings

PERSONNEL DEPARTMENT WILL MONITOR STAFF COMPLETION OF THE REQUIRED TRAINING. ADDITIONAL SCHOOL RESPONSIBILITIES

- Nurse will make every attempt possible to ensure all necessary forms have been properly completed and on file in the health office.
- Nurse will update PowerSchool with pertinent information related to food allergies
- School office will provide emergency communication devices for related staff during classroom activities.
- School personnel will inform coaches and/or supervising staff during extra-curricular activities of the need to carry emergency medications at all times (on-site or off-site locations)
- Plan will be reviewed and updated as necessary
- Nurse or personnel designated by the principal will conduct an incident review after an emergency has occurred to determine effectiveness of the process and suggest areas for improvement
- Classroom and administrative staff will inform and enforce policies pertaining to use of non-food items to mark extracurricular celebrations and activities

Other Types of Allergies

Information and awareness procedures apply for students with other types of allergies. These procedures include the development of a EAP and IHCP. Specific avoidance measures will depend on the condition.

AVOIDANCE MEASURES FOR INSECT VENOM ANAPHYLAXIS

- Avoid wearing loose, hanging clothes, floral patterns, blue and yellow clothing, and/or fragrances
- Check for the presence of bees and wasps, especially nesting areas, and arrange for their removal
- Keep garbage is properly covered and away from play areas
- Caution students not to throw sticks or stones at insect nests
- If an insect sting occurs, instruct student not to slap or brush the insect off, and never pinch the stinger. (Use items such as a staff ID badge or fingernail to rid the area of the stinger.)

APPENDICES

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A-2 Emergency Action Plan.....24

A-3 Individualized Health Care Plan.....25

A-4 Field Trip Assessment Questionnaire.....26

A-5 Food Label Reading.....28

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A-1

ALLERGY ASSESSMENT FORM

Dear Parent or Guardian of _____:

According to your child's health records, he/she has an allergy to:

Please provide more information about your child's health needs by completing and returning this form to the school office.

1. Please confirm the allergies with which your child has been diagnosed:
2. When and how did you first become aware of the allergy?
3. How were the allergies diagnosed? (Check all that apply)
 - Physical exam
 - Skin test
 - Blood test
 - Oral food challenge
 - My child has not been diagnosed by a physician
 - Other
4. Please provide the name and phone number for your child's current allergist and/or pediatrician:
5. When was the last time your child had an allergic reaction?
6. Mindful that past reactions do not predict future reactions, describe the symptoms of previous reactions.

7. Has your child been prescribed auto-injectable epinephrine as an emergency treatment for his/her allergy?
8. Have you ever had to administer epinephrine to your child? If so, how often and how recently?
9. Has your child ever self-administered epinephrine? If so, how often and how recently?
10. How would you describe your child's comfort level with self-administering epinephrine?

Please note that it is the policy of District 112 to administer epinephrine and call 911 when symptoms escalate to a point that epinephrine is indicated, pursuant to the Emergency Action Plan that is a required submission for any student with a diagnosed food, latex, insect bite or other anaphylactic allergy.

Parent: _____ Date: _____



FARE.
Food Allergy Research & Education

FOOD ALLERGY & ANAPHYLAXIS EMERGENCY CARE PLAN

Name: _____ D.O.B.: _____

Allergy to: _____

Weight: _____ lbs. Asthma: ☐ Yes (higher risk for a severe reaction) ☐ No

NOTE: Do not depend on antihistamines or inhalers (bronchodilators) to treat a severe reaction. USE EPINEPHRINE.

Extremely reactive to the following allergens: _____

THEREFORE:

- ☐ If checked, give epinephrine immediately if the allergen was **LIKELY** eaten, for **ANY** symptoms.
- ☐ If checked, give epinephrine immediately if the allergen was **DEFINITELY** eaten, even if no symptoms are apparent.

FOR ANY OF THE FOLLOWING: SEVERE SYMPTOMS



LUNG

Shortness of breath, wheezing, repetitive cough



HEART

Pale or bluish skin, faintness, weak pulse, dizziness



THROAT

Tight or hoarse throat, trouble breathing or swallowing



MOUTH

Significant swelling of the tongue or lips



SKIN

Many hives over body, widespread redness



GUT

Repetitive vomiting, severe diarrhea



OTHER

Feeling something bad is about to happen, anxiety, confusion

OR A COMBINATION
of symptoms
from different
body areas.

1. **INJECT EPINEPHRINE IMMEDIATELY.**
2. **Call 911.** Tell emergency dispatcher the person is having anaphylaxis and may need epinephrine when emergency responders arrive.
 - Consider giving additional medications following epinephrine:
 - » Antihistamine
 - » Inhaler (bronchodilator) if wheezing
 - Lay the person flat, raise legs and keep warm. If breathing is difficult or they are vomiting, let them sit up or lie on their side.
 - If symptoms do not improve, or symptoms return, more doses of epinephrine can be given about 5 minutes or more after the last dose.
 - Alert emergency contacts.
 - Transport patient to ER, even if symptoms resolve. Patient should remain in ER for at least 4 hours because symptoms may return.

MILD SYMPTOMS



NOSE

Itchy or runny nose, sneezing



MOUTH

Itchy mouth



SKIN

A few hives, mild itch



GUT

Mild nausea or discomfort

FOR MILD SYMPTOMS FROM MORE THAN ONE SYSTEM AREA, GIVE EPINEPHRINE.

FOR MILD SYMPTOMS FROM A SINGLE SYSTEM AREA, FOLLOW THE DIRECTIONS BELOW:

1. Antihistamines may be given, if ordered by a healthcare provider.
2. Stay with the person; alert emergency contacts.
3. Watch closely for changes. If symptoms worsen, give epinephrine.

MEDICATIONS/DOSES

Epinephrine Brand or Generic: _____

Epinephrine Dose: ☐ 0.1 mg IM ☐ 0.15 mg IM ☐ 0.3 mg IM

Antihistamine Brand or Generic: _____

Antihistamine Dose: _____

Other (e.g., inhaler-bronchodilator if wheezing): _____

PATIENT OR PARENT/GUARDIAN AUTHORIZATION SIGNATURE

DATE

PHYSICIAN/HCP AUTHORIZATION SIGNATURE

DATE

FORM PROVIDED COURTESY OF FOOD ALLERGY RESEARCH & EDUCATION (FARE) (FOODALLERGY.ORG) 5/2018



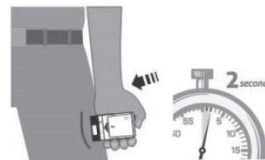
FARE
Food Allergy Research & Education

FOOD ALLERGY & ANAPHYLAXIS EMERGENCY CARE PLAN

HOW TO USE AUVI-Q® (EPINEPHRINE INJECTION, USP), KALEO

1. Remove Auvi-Q from the outer case.
2. Pull off red safety guard.
3. Place black end of Auvi-Q against the middle of the outer thigh.
4. Press firmly until you hear a click and hiss sound, and hold in place for 2 seconds.
5. Call 911 and get emergency medical help right away.

3



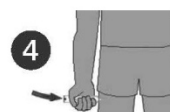
HOW TO USE EPIPEN® AND EPIPEN JR® (EPINEPHRINE) AUTO-INJECTOR AND EPINEPHRINE INJECTION (AUTHORIZED GENERIC OF EPIPEN®), USP AUTO-INJECTOR, MYLAN AUTO-INJECTOR, MYLAN

1. Remove the EpiPen® or EpiPen Jr® Auto-Injector from the clear carrier tube.
2. Grasp the auto-injector in your fist with the orange tip (needle end) pointing downward.
3. With your other hand, remove the blue safety release by pulling straight up.
4. Swing and push the auto-injector firmly into the middle of the outer thigh until it 'clicks'.
5. Hold firmly in place for 3 seconds (count slowly 1, 2, 3).
6. Remove and massage the injection area for 10 seconds.
7. Call 911 and get emergency medical help right away.

3



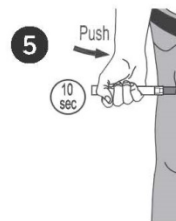
4



HOW TO USE IMPAX EPINEPHRINE INJECTION (AUTHORIZED GENERIC OF ADRENALCLICK®), USP AUTO-INJECTOR, IMPAX LABORATORIES

1. Remove epinephrine auto-injector from its protective carrying case.
2. Pull off both blue end caps: you will now see a red tip.
3. Grasp the auto-injector in your fist with the red tip pointing downward.
4. Put the red tip against the middle of the outer thigh at a 90-degree angle, perpendicular to the thigh.
5. Press down hard and hold firmly against the thigh for approximately 10 seconds.
6. Remove and massage the area for 10 seconds.
7. Call 911 and get emergency medical help right away.

5



HOW TO USE TEVA'S GENERIC EPIPEN® (EPINEPHRINE INJECTION, USP) AUTO-INJECTOR, TEVA PHARMACEUTICAL INDUSTRIES

1. Quickly twist the yellow or green cap off of the auto-injector in the direction of the "twist arrow" to remove it.
2. Grasp the auto-injector in your fist with the orange tip (needle end) pointing downward.
3. With your other hand, pull off the blue safety release.
4. Place the orange tip against the middle of the outer thigh (upper leg) at a right angle (perpendicular) to the thigh.
5. Swing and push the auto-injector firmly into the middle of the outer thigh until it 'clicks'.
6. Hold firmly in place for 3 seconds (count slowly 1, 2, 3).
7. Remove and massage the injection area for 10 seconds.
8. Call 911 and get emergency medical help right away.

5



ADMINISTRATION AND SAFETY INFORMATION FOR ALL AUTO-INJECTORS:

1. Do not put your thumb, fingers or hand over the tip of the auto-injector or inject into any body part other than mid-outer thigh. In case of accidental injection, go immediately to the nearest emergency room.
2. If administering to a young child, hold their leg firmly in place before and during injection to prevent injuries.
3. Epinephrine can be injected through clothing if needed.
4. Call 911 immediately after injection.

OTHER DIRECTIONS/INFORMATION (may self-carry epinephrine, may self-administer epinephrine, etc.):

Treat the person before calling emergency contacts. The first signs of a reaction can be mild, but symptoms can worsen quickly.

EMERGENCY CONTACTS — CALL 911

RESCUE SQUAD: _____

DOCTOR: _____ PHONE: _____

PARENT/GUARDIAN: _____ PHONE: _____

OTHER EMERGENCY CONTACTS

NAME/RELATIONSHIP: _____ PHONE: _____

NAME/RELATIONSHIP: _____ PHONE: _____

NAME/RELATIONSHIP: _____ PHONE: _____

Field Trip Assessment Questionnaire

Child's name and allergies: _____

Trip Destination: _____

Teacher in Charge: _____

Field Trip Date: _____

Destination Contact Person: _____

Field Trip Time: _____

Name: _____

Telephone Number: _____

Email Address: _____

Date of Conversation: _____

Date of Telephone Conversation with Parent: _____

Child's Parent Attending:	Yes	No
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Nurse Attending:	Yes	No
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Questions

- Will anyone at the field trip destination be distributing any food or beverage of any type, and what is it?
- Will the children on the field trip be touching any type of food, and what is it?
- Is there any food displayed at the site, and what is it?
- Are there any demonstrations or hands-on activities that involved food and what are they?
- Which trained adult will be responsible for the child with the food allergy?
- How will snack/lunches be stored on the bus ride to the field trip destination and how will the snack or lunch belonging to the child with food allergies be separate from the others?
- Where will children eat lunch/snack?
- What provisions have been made for the students to wash their hands before and after eating?

Appendix 5: How to Read a Food Label and How to Avoid an Allergen

The only way to prevent a food-allergy reaction is to avoid the problem food. But you can't know whether a food contains an allergen simply by looking at it.

Laws and regulations like the [Food Allergen Labeling and Consumer Protection Act of 2004 \(FALCPA\)](#) have made it easier for people with food allergies to identify problem foods and avoid them.

Managing life with a food allergy means reading packaged food labels—every time you buy that food. This is true even if you have purchased the food hundreds of times. Ingredients and manufacturing processes can change without warning. Make a habit of carefully reading labels to ensure you avoid any potential allergens.

While all ingredients in a food are supposed to be listed in the ingredients list, FALCPA only covers the eight most common allergens. These are milk, egg, peanut, tree nuts, soy, wheat, fish and crustacean shellfish.

Note that molluscan shellfish—such as oysters, clams, mussels or scallops—are not required to be labeled as a major allergen.

WHAT SHOULD I LOOK FOR?

FALCPA-regulated allergens can be called out in one of three ways:

In the ingredient list, using the allergen's common name.

Using the word "Contains" followed by the name of the major food allergen—for example, "Contains milk, wheat."

In the ingredient list in parentheses, when the ingredient is a less common form of the allergen—for example, "albumin (egg)."

With tree nuts, fish and crustacean shellfish, the specific type must be listed (e.g., almond, tuna, crab).

If you see your allergen featured in one of the above ways, it means the allergen is present in the food. Manufacturers must list an FALCPA-regulated allergen even if the amount is very small.

Non-FALCPA regulated allergens, such as sesame and mustard, may be present in a food but missing from an ingredient list if they are part of a spice or flavoring. Instead, they may be covered by a general term such as “natural flavorings.”

Ingredients and manufacturing processes can change without warning. Make a habit of carefully reading labels to ensure you avoid any potential allergens.

“MAY CONTAIN” STATEMENTS

You may also notice other precautionary language on food labels. These include statements such as “may contain,” “processed in facility that also processes” or “made on equipment with.” These warnings often follow the ingredients list.

Such advisory labeling is voluntary for manufacturers. There are no laws governing or requiring these statements—neither when to include them nor what their wording should be. They may or may not indicate if a product unintentionally contains, or has come in contact with, a specific allergen. Likewise, the absence of an advisory label does not mean that a product is safe.

Per the U.S. Food and Drug Administration (FDA), advisory food labels “should not be used as a substitute for adhering to current good manufacturing practices and must be truthful and not misleading.”

OTHER ALLERGEN STATEMENTS

Phrases such as “peanut-free” and “egg-free” are not regulated. Product labels can bear these phrases but be made in facilities where the allergens are present. Always contact the manufacturer if you are unsure.

MORE TIPS FOR READING FOOD LABELS

- Familiarize yourself with your allergen and the foods it often appears in. Food allergens can appear in surprising places and go by less-common names. Knowing your allergen inside and out will improve your sleuthing skills.
- If you are unsure whether a product could have come in contact with your allergen(s), call the manufacturer. Ask them about their ingredients and manufacturing practices.
- If you encounter a product that doesn't have an ingredients list, don't buy it.
- Be extra careful with imported products. Food labeling regulations vary by country. Imported items are supposed to follow FALCPA and other domestic food labeling laws, but occasionally they do not.
- A child with a food allergy can start checking food labels as soon as he or she learns to read. Practice at home and when you're shopping—with help from an adult.



Tips for Avoiding Your Allergen

- All FDA-regulated manufactured food products that contain a “major food allergen” (milk, wheat, egg, peanuts, tree nuts, fish, crustacean shellfish, and soy) as an ingredient are required by U.S. law to list that allergen on the product label. For tree nuts, fish and crustacean shellfish, the specific type of nut or fish must be listed.
- Read all product labels carefully before purchasing and consuming any item.
- Be aware of unexpected sources of allergens, such as the ingredients listed below.
- *Note: This list does not imply that the allergen is always present in these foods; it is intended to serve as a reminder to always read the label and ask questions about ingredients.



For a Milk-Free Diet

Avoid foods that contain milk or any of these ingredients:

butter, butter fat, butter oil, butter acid, butter ester(s)	lactalbumin, lactalbumin phosphate	<i>solids, whole</i> milk protein hydrolysate
buttermilk	lactoferrin	pudding
casein	lactose	Recaldent®
casein hydrolysate	lactulose	rennet casein
caseinates (<i>in all forms</i>)	milk (<i>in all forms, including condensed, derivative, dry, evaporated, goat's milk and milk from other animals, lowfat, malted, milkfat, nonfat, powder, protein, skimmed,</i>	sour cream, sour cream solids
cheese		sour milk solids
cottage cheese		tagatose
cream		whey (<i>in all forms</i>)
curds		whey protein
custard		hydrolysate
diacetyl		yogurt
ghee		
half-and-half		

Milk is sometimes found in the following:

artificial butter flavor	culture and other bacterial cultures	nisin
baked goods	nondairy products	
caramel candies	nougat	
chocolate		
lactic acid starter	dogs, sausages	
	margarine	

Keep the following in mind:

- Individuals who are allergic to cow's milk are often advised to also avoid milk from other domestic animals. For example, goat's milk protein is similar to cow's milk protein and may, therefore, cause a reaction in individuals who have a milk allergy.



For a Wheat-Free Diet

Avoid foods that contain wheat or any of these ingredients:

bread crumbs	<i>protein, instant, pastry, self-rising, soft</i>	semolina
bulgur	<i>wheat, steel ground, stone ground, whole wheat</i>	spelt
cereal extract		sprouted wheat
club wheat		triticale
couscous		vital wheat gluten
cracker meal	freekah	wheat (<i>bran, durum, germ, gluten, grass, malt, sprouts, starch</i>)
durum	hydrolyzed wheat	wheat bran hydrolysate
einkorn	protein	wheat germ oil
emmer	Kamut®	wheat grass
farina	matzoh, matzoh meal	wheat protein isolate
farro	(<i>also spelled as matzo, matzah, or matza</i>)	whole wheat berries
flour (<i>all purpose, bread, cake, durum, enriched, graham, high gluten, high</i>	pasta	
	seitan	

Wheat is sometimes found in the following:

glucose syrup	starch (<i>gelatinized starch, modified starch, modified food starch, vegetable starch</i>)	surimi
oats		
soy sauce		



For an Egg-Free Diet

Avoid foods that contain eggs or any of these ingredients:

albumin (<i>also spelled albumen</i>)	livetin	vitellin
egg (<i>dried, powdered, solids, white, yolk</i>)	lysozyme	words starting with "ovo" or "ova" (<i>such as ovalbumin</i>)
egg nog	mayonnaise	
globulin	meringue (<i>meringue powder</i>)	
	surimi	

Egg is sometimes found in the following:

baked goods	fried rice	meatloaf or meatballs
breaded items	ice cream	nougat
drink foam (<i>alcoholic, specialty coffee</i>)	lecithin	pasta
egg substitutes	marzipan	
	marshmallows	

Keep the following in mind:

- Individuals with egg allergy should also avoid eggs from duck, turkey, goose, quail, etc., as these are known to be cross-reactive with chicken egg.
- While the whites of an egg contain the allergenic proteins, patients with an egg allergy must avoid all eggs completely.



For a Soy-Free Diet

Avoid foods that contain soy or any of these ingredients:

edamame	soy protein (<i>concentrate, hydrolyzed, isolate</i>)
miso	
natto	shoyu
soy (<i>soy albumin, soy cheese, soy fiber, soy flour, soy grits, soy ice cream, soy milk, soy nuts, soy sprouts, soy yogurt</i>)	soy sauce
	tamari
	tempeh
	textured vegetable protein (TVP)
	tofu

Soy is sometimes found in the following:

Asian cuisine	vegetable gum
vegetable broth	vegetable starch

Keep the following in mind:

- The FDA exempts highly refined soybean oil from being labeled as an allergen. Studies show most allergic individuals can safely eat soy oil that has been highly refined (not cold pressed, expeller pressed, or extruded soybean oil).
- Most individuals allergic to soy can safely eat soy lecithin.
- Follow your doctor's advice regarding these ingredients.

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Tips for Avoiding Your Allergen



For a Shellfish-Free Diet

Avoid foods that contain shellfish or any of these ingredients:

barnacle	lobster (<i>langouste</i> , <i>langoustine</i> , <i>Moreton bay bugs</i> , <i>scampi</i> , <i>tomalley</i>)	prawns
crab		shrimp (<i>crevette</i> , <i>scampi</i>)
crawfish (<i>crawdad</i> , <i>crayfish</i> , <i>écrevisse</i>)		
krill		



Mollusks are not considered major allergens under food labeling laws and may not be fully disclosed on a product label.

Your doctor may advise you to avoid mollusks or these ingredients:

abalone	limpet (<i>lapas</i> , <i>opihi</i>)	sea cucumber
clams (<i>cherrystone</i> , <i>geoduck</i> , <i>littleneck</i> , <i>pismo</i> , <i>quahog</i>)	mussels	snails (<i>escargot</i>)
cockle	oysters	squid (<i>calamari</i>)
cuttlefish	periwinkle	whelk (<i>Turban shell</i>)
	scallops	

Shellfish are sometimes found in the following:

bouillabaisse	fish stock	surimi
cuttlefish ink	seafood flavoring (<i>e.g.</i> , <i>crab or clam extract</i>)	
glucosamine		

Keep the following in mind:

- Any food served in a seafood restaurant may contain shellfish protein due to cross-contact.
- For some individuals, a reaction may occur from inhaling cooking vapors or from handling fish or shellfish.



For a Peanut-Free Diet

Avoid foods that contain peanuts or any of these ingredients:

artificial nuts	goobers	nut meat
beer nuts	ground nuts	peanut butter
cold pressed, expeller pressed, or extruded	mixed nuts	peanut flour
peanut oil	monkey nuts	peanut protein hydrolysate
	nut pieces	

Peanut is sometimes found in the following:

African, Asian (<i>especially Chinese, Indian, Indonesian, Thai, and Vietnamese</i>), and Mexican dishes	baked goods (<i>e.g.</i> , <i>pastries</i> , <i>cookies</i>)	enchilada sauce
	candy (<i>including chocolate candy</i>)	marzipan
	chili	mole sauce
	egg rolls	nougat

Keep the following in mind:

- Mandelonas are peanuts soaked in almond flavoring.
- The FDA exempts highly refined peanut oil from being labeled as an allergen. Studies show that most allergic individuals can safely eat peanut oil that has been highly refined (not cold pressed, expeller pressed, or extruded peanut oil). Follow your doctor's advice.
- A study showed that unlike other legumes, there is a strong possibility of cross-reaction between peanuts and lupine (or lupin). Flour derived from lupine is becoming a common substitute for gluten-containing flours. The law requires that a food product's ingredients must be listed on the label, such as "lupin" or "lupine".
- Arachis oil is peanut oil.
- Many experts advise patients allergic to peanuts to avoid tree nuts as well.
- Sunflower seeds are often produced on equipment shared with peanuts.
- Some alternative nut butters, such as soy nut butter or sunflower seed butter, are produced on equipment shared with other tree nuts and, in some cases, peanuts. Contact the manufacturer before eating these products.



For a Tree-Nut-Free Diet

Avoid foods that contain nuts or any of these ingredients:

almond	litchi/lichee/lychee nut	pecan
artificial nuts	macadamia nut	pesto
beechnut	marzipan/almond paste	pili nut
Brazil nut	Nangai nut	pine nut (<i>also referred to as Indian, pignoli, pignolia, pignon, pifion, and pinyon nut</i>)
butternut	natural nut extract (<i>e.g.</i> , <i>almond</i> , <i>walnut</i>)	
cashew	nut butters (<i>e.g.</i> , <i>cashew butter</i>)	
chestnut	nut meal	
chinquapin nut	nut meat	
filbert/hazelnut	nut paste (<i>e.g.</i> , <i>almond paste</i>)	
gianduja (<i>a chocolate-nut mixture</i>)	nut pieces	
ginkgo nut		
hickory nut		

Tree nuts are sometimes found in the following:

black walnut hull	nut distillates/alcoholic extract (<i>flavoring</i>)	walnut hull extract (<i>flavoring</i>)
natural nut extract	nut oils (<i>e.g.</i> , <i>walnut oil</i> , <i>almond oil</i>)	

Keep the following in mind:

- Mortadella may contain pistachios.
- There is no evidence that coconut oil and shea nut oil/butter are allergenic.
- Many experts advise patients allergic to tree nuts to avoid peanuts as well.
- Talk to your doctor if you find other nuts not listed here.
- Coconut, the seed of a drupaceous fruit, has typically not been restricted in the diets of people with tree nut allergy. However, in October of 2006, the FDA began identifying coconut as a tree nut. Medical literature documents a small number of allergic reactions to coconut; most occurred in people who were not allergic to other tree nuts. Ask your doctor if you need to avoid coconut.



For a Fish-Free Diet

Fish is sometimes found in the following:

barbecue sauce	fish oil	pizza (<i>anchovy topping</i>)
bouillabaisse	fish sauce imitation fish or shellfish isinglass	roe
Caesar salad	lutefisk maw, maws (<i>fish maw</i>)	salad dressing
caviar	fish stock	seafood flavoring
deep fried items	fishmeal	shark cartilage
fish flavoring	nuoc mam (<i>Vietnamese name for fish sauce; beware of other ethnic names</i>)	shark fin
fish flour		surimi
fish fume		sushi, sashimi
fish gelatin (<i>kosher gelatin, marine gelatin</i>)		Worcestershire sauce

Keep the following in mind:

- If you have fish allergy, avoid seafood restaurants. Even if you order a non-fish item off of the menu, cross-contact of fish protein is possible.
- Asian cookery often uses fish sauce as a flavoring base. Exercise caution when eating this type of cuisine.
- Fish protein can become airborne in the steam released during cooking and may cause an allergic reaction. Stay away from cooking areas when fish is being prepared.

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Appendix 6: Food Allergy Facts and Statistics for the U.S.

What Is a Food Allergy?

- A food allergy is an adverse health effect resulting from a specific immune response that occurs reproducibly on exposure to a given food¹. The health effect, called an allergic reaction, occurs because the immune system attacks food proteins that are normally harmless.
- Food-induced anaphylaxis is a serious allergic reaction that is sudden in onset and may cause death¹.
- A treatment for peanut allergy was approved in January 2020 by the U.S. Food and Drug Administration, but this treatment is not appropriate for every peanut allergy patient and is approved only for patients from age 4 through age 17⁶⁹. There are no approved treatments for other food allergies. Strict avoidance of food allergens and early recognition and management of allergic reactions to food are important measures to prevent serious health consequences¹.

To Which Foods Are People Allergic?

- More than 170 foods have been reported to cause reactions in the U.S.¹
- Eight major food allergens – milk, egg, peanut, tree nuts, wheat, soy, fish and crustacean shellfish – are responsible for most of the serious food allergy reactions in the United States¹
- The most common food allergies in children are allergies to peanut, milk, shellfish and tree nut⁹.
- The most common food allergies in adults are allergies to shellfish, milk, peanut and tree nut⁷.
- Allergists consider sesame allergy to be an emerging concern. Sesame has caused severe reactions, including fatal anaphylaxis ^{2,3,4,5,6}.

How Many People Have Food Allergies?

- Approximately 32 million people in the United States have food allergies^{7,8,9}.
- Nearly 11 percent of people age 18 or older – more than 9 million adults – have food allergies^{7,8}.
- Results from a 2015-2016 survey of more than 38,000 children indicate that 5.9 million children, or nearly 8 percent, have food allergies^{8,9}. That's one in 13 children, or roughly two in every classroom.
- Studies published in 2018 and 2019 estimate the U.S. population that reports convincing symptoms of allergic reactions to specific foods^{2,7,9}:
 - shellfish: 8.2 million
 - milk: 6.1 million
 - peanut: 6.1 million
 - tree nuts: 3.9 million
 - egg: 2.6 million
 - fin fish: 2.6 million
 - wheat: 2.4 million
 - soy: 1.9 million
 - sesame: 0.7 million
- In a 2007 survey of 9,500 children conducted by the Centers for Disease Control and Prevention, 3.9 percent were reported to have a food or digestive allergy within the past year¹⁰.
- About 40 percent of children with food allergies have multiple food allergies (more than one food to which they're allergic)⁹.

Food Allergies Are on the Rise

- The Centers for Disease Control & Prevention report that between 1997-1999 and 2009- 2011, food allergy prevalence among children increased by 50 percent¹¹.
- In the United States, the prevalence of childhood peanut or tree nut allergy appears to have more than tripled between 1997 and 2008¹².
- The prevalence of childhood food allergy has increased at a rate of 2.1 percent per decade among blacks, 1.2 percent per decade among Hispanics and 1 percent per decade among whites, according to a study of self-reported allergy¹³.

Food Allergy Is a Serious Public Health and Economic Issue

- A food allergy is an impairment that limits a major life activity and may qualify an individual for protection under the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973¹⁴.
- Caring for children with food allergies costs U.S. families nearly \$25 billion annually¹⁵.
- Food Allergy Reactions Are Serious and Can Be Life-Threatening
- Every three minutes, a food allergy reaction sends someone to the emergency room¹⁶.
- Each year in the U.S., 200,000 people require emergency medical care for allergic reactions to food¹⁶.
- Pediatric hospitalizations for food allergy tripled between the late 1990s and the mid-2000s. Between 2004 and 2006, an average of 9,500 children received in-patient hospital care for food allergies each year¹⁰.
- More than 40 percent of children with food allergies have experienced a severe allergic reaction such as anaphylaxis⁹.
- Medical procedures to treat anaphylaxis resulting from food increased by 377 percent between 2007 and 2016⁶⁸.

Serious Allergic Reactions (Anaphylaxis) Require Immediate Treatment

- Prompt injection of epinephrine (adrenaline) within minutes of the onset of anaphylaxis symptoms is crucial to successfully treating an anaphylactic reaction. A self-injectable epinephrine device is available by prescription¹⁷.
- Not recognizing the severity of an anaphylactic reaction and treating promptly (i.e., within minutes) with epinephrine is a risk factor for fatalities^{18,19,20}.
- More than one dose of epinephrine may be required²¹.
- It is possible to have anaphylaxis without any skin symptoms, such as rash or hives²².
- Symptoms of anaphylaxis may recur after initially subsiding (known as a biphasic reaction). Experts recommend an observation period of 4 to 6 hours in the emergency room to monitor that the reaction has been resolved.^{21,23}

Food Allergy Impacts Quality of Life

- About one in three children with food allergy reports being bullied as a result. Among children with allergies to more than two foods, over half report being bullied due to food allergy.²⁴
- Compared to children who do not have a medical condition, children with food allergy are twice as likely to be bullied.²⁵
- More than one-quarter of parents surveyed during food allergy appointments report that their children do not participate in camp or sleepovers because of food allergy. More than 15 percent do not go to restaurants, and more than 10 percent avoid childcare settings or playdates at friends' houses. Ten percent home-school their children to prevent food allergen exposure.²⁶
- Among parents of young children in the first year after food allergy diagnosis, most avoid restaurants and about half restrict social activities or travel.²⁵
- Mothers of food-allergic children under age five have significantly higher blood-pressure measurements and report significantly greater levels of psychosocial stress than mothers whose preschool-aged children do not have food allergies.²⁷

Who is at Highest Risk for Developing Food Allergy?

- Compared to non-Hispanic white children, African American children are at significantly elevated risk of developing food allergy.⁹
- Children from rural communities are less likely to have food allergies than children from urban centers.²⁸
- Children from households earning less than \$50,000 per year are less likely to report food allergies than are children from households earning more than \$50,000 per year.⁹
- Among inner-city children with a family history of hay fever, eczema or asthma, one preschool-aged child in 10 is allergic to eggs, milk, or peanuts.²⁹
- Compared to children without food allergy, children with food allergy are more than twice as likely to have asthma and more than three times as likely to have respiratory allergy or eczema.¹⁰
- Food allergies may trigger or be linked to eosinophilic gastrointestinal diseases.³⁰
- While most food allergies develop during childhood, medical records data suggest that at least 15 percent of patients with food allergies are first diagnosed in adulthood.³¹
- More than one in four adults with food allergies report that all of their food allergies developed during adulthood, and nearly half of adults with food allergy report developing at least one food allergy during adulthood.⁷

Who is at Highest Risk for Fatal Anaphylaxis?

- Although a severe or fatal reaction can happen at any age, teenagers and young adults with food allergies are at the highest risk of fatal food-induced anaphylaxis.^{18,19,20}
- Individuals with food allergies who also have asthma may be at increased risk for severe or fatal food allergy reactions.^{18,20}

Under What Circumstances Do Reactions Occur?


- Food allergy reactions typically involve foods that are believed to be safe. Allergic reactions can result from mislabeling or cross-contact during food preparation.^{19,32,33,34}
- Limited skin contact with peanut butter or inhaling peanut butter from a short distance is unlikely to elicit a significant allergic reaction. These results cannot be generalized to more extensive contact or to other forms of peanut.^{35,36} Note: Limited contact with peanut butter presents a greater risk to young children, who frequently put their hands in their mouths.
- Food proteins released into the air in vapor or steam from cooked foods can potentially cause allergic reactions. Reactions from vapor or steam can resemble reactions to inhaled allergens that cause hay fever or asthma symptoms, such as pollen or animal dander.^{37,38}

Where Do Reactions Occur?

- Reports suggest that the majority of fatal food allergy reactions are triggered by food consumed outside the home.^{18,19,20}
- One study looking at peanut and tree nut allergy reactions in restaurants and other food establishments found that reactions were frequently attributed to desserts, that Asian restaurants and take-out dessert stores (bakeries, ice cream shops) were common sources of foods that triggered reactions, and that the food establishment was often not properly notified of a food allergy by the customer with the allergy.³⁹
- Research on self-reported reactions occurring on commercial airlines indicates that peanut and tree nut reactions on planes have resulted from ingestion, contact and inhalation. Ingestion of an allergen remains the main concern for severe reactions.^{40,41,42}

- Are Food Allergy Reactions Common at School?
- More than 15 percent of school-aged children with food allergies have had a reaction in school.^{43,44}
- In a 2013-2014 survey of schools participating in a program to provide undesignated (stock) epinephrine for emergency use, over 600 schools – more than 10 percent – reported at least one case of anaphylaxis.⁴⁵
- Approximately 20-25 percent of epinephrine administrations in schools involve individuals whose allergy was unknown at the time of the reaction.⁴⁶
- In one large school district during the 2012-2013 school year, more than half of the 38 individuals who were treated with district-supplied emergency epinephrine were experiencing their first severe reaction.⁴⁷
- Food allergy reactions can happen in multiple locations throughout the school, and are not limited to the cafeteria. Care must be exercised during bake sales, classroom parties and opportunities for snacking.^{20,46}

Avoiding Allergens Requires Careful Reading of Labels and Stringent Cleaning Procedures

- Even trace amounts of a food allergen can cause a reaction.^{48,49,50,51,52,53}
- Some studies have shown that most individuals with peanut and soy allergies can safely eat highly refined oils made from these ingredients. However, cold-pressed, expeller-pressed, or extruded oils should be avoided.^{54,55,56,57,58,48}
- According to the Food Allergen Labeling and Consumer Protection Act (FALCPA) the major eight allergens must be declared in simple terms, either in the ingredient list or via a separate allergen statement. However, FALCPA does not regulate the use of advisory/precautionary labeling (e.g., “may contain,” “made in a facility that also processes”).⁵⁹  Advisory/precautionary labeling is voluntary. The terms do not reflect specific risks, and random product testing has found allergen levels ranging from undetectable to amounts that can cause allergic reactions.^{1,32}
- A study showed that peanut protein was detected in 7.3 percent of products bearing advisory/precautionary labeling for peanut.³³
- A study showed that peanut can be cleaned from the hands of adults by using running water and soap or commercial wipes, but not by applying antibacterial gels. In addition, peanut was easily removed from surfaces by using common household cleaning sprays or sanitizing wipes but not by wiping with dishwashing liquid.⁶⁰

Can Food Allergies Be Outgrown?

- Although allergies to milk, egg, wheat and soy often resolve in childhood, research suggests that children may outgrow at least some of these food sensitivities more slowly than was found in previous decades, with many children still allergic beyond age 5.¹
- Allergies to peanuts, tree nuts and shellfish are generally lifelong.¹

Food Allergy Prevention and Treatment

- The Learning Early About Peanut Allergy (LEAP) study provided evidence that the age at which a child first eats peanut and the frequency of peanut in the diet can influence whether the child develops an allergy to peanut. LEAP findings demonstrate that early, sustained consumption of peanut products is associated with a substantial and significant decrease in the likelihood of developing peanut allergy.⁶¹
- In 2017, findings from LEAP and related studies led to the release of new guidelines for introduction of peanut.⁶²
- A follow-up to the LEAP trial, Persistence of Oral Tolerance to Peanut (LEAP-On), showed that decreased peanut allergy risk among children who consumed peanut throughout early childhood persists even after the children avoid peanut from ages 5 to 6.⁶³
- Several immunotherapy approaches are being investigated. Immunotherapy involves intentional exposure to the food allergen, starting with very small amounts and increasing more or less gradually depending on the approach and the protocol. The goal of immunotherapy is to raise the threshold dose of food protein that results in a food allergy reaction. Successful immunotherapy can result in the ability to eat a significant/increased amount of the problem food without a reaction. This can be lost if the problem food is not consumed on an ongoing basis. Immunotherapy results in sustained unresponsiveness when a patient can discontinue exposure for a period of time and still safely eat the problem food. However, this is typically only for weeks to several months. Some therapies under investigation include:

- Oral immunotherapy (OIT)* – To raise the threshold dose at which food allergy reactions occur, progressively greater amounts of allergen are eaten (usually every 2 weeks and under medical supervision) until a maintenance dose is reached. Reported rates of desensitization – that is, increased food allergen tolerance, typically to a preset target amount – vary widely for OIT, ranging from 30 percent to more than 90 percent of trial participants.^{64,65}
- Side effects can be severe, including anaphylaxis and eosinophilic esophagitis.⁶⁵ A treatment for peanut allergy was approved in January 2020 by the U.S. Food and Drug Administration, but this treatment is not appropriate for every peanut allergy patient and is approved only for patients from age 4 through age 17.⁶⁹
- Sublingual immunotherapy (SLIT)* – Food protein is dissolved in liquid and held under the tongue for a time before being spat out or swallowed. As with OIT, the dose of allergen is increased over time until a maintenance dose is reached, although the doses typically used in SLIT are smaller. The desensitization achieved with SLIT can be equivalent to desensitization achieved with OIT, but SLIT is less likely to cause serious allergic reactions.⁶⁶
- Epicutaneous immunotherapy (EPIT, or skin patch) – EPIT delivers food protein via patches applied to the skin. Clinical trials indicate that EPIT can result in desensitization, especially to peanut. Compared to OIT, EPIT has a better safety profile.⁶⁷

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ADDITIONAL RESOURCES

- American College of Allergy, Asthma, and Immunology
www.acaai.org
- Centers for Disease Control Voluntary Guidelines Managing Food Allergies in Schools and Early Care and Education Programs
<https://www.cdc.gov/healthyschools/foodallergies/index.htm>
- Food Allergy & Anaphylaxis Connection Team
www.foodallergyawareness.org
- Food Allergy Research & Education
www.foodallergy.org
- Guidelines for Managing Life-Threatening Food Allergies in Illinois Schools
<https://www.isbe.net/Pages/Food-Allergy-Guidelines.aspx>
- Latex Allergies
<https://allergyasthmanetwork.org/allergies/latex-allergy/>