Get the Facts About Food Allergies

Sherry Coleman Collins, MS, RDN, LD
Objectives

Session attendees will:

• Understand the how the route of food allergen exposure (ingestion, skin contact, and airborne) impacts the allergic reaction.

• Recognize where food allergy reactions are most likely to happen in school environments and how to reduce the risk.

• Be able to implement best practices to reduce the risk of accidental ingestion and cross-contact for those with food allergies.
Food Allergies 101

- What is a food allergy?
- What is not a food allergy?
- What does a reaction look like?
- How to respond to a reaction?
Food Allergy vs. Not Food Allergy

Food Allergy
- Reaction happens quickly and within 2 hours
- Happens every time the food is eaten
- Should be medically diagnosed
- Can be life-threatening

Not Food Allergy
- Happens hours or days after eating the offending food
- Symptoms occur sporadically and not every time a food is eaten
- Mild and uncomfortable symptoms, but not life-threatening
Not Food Allergies

• Food Intolerances (e.g. lactose intolerance)
• Celiac disease
• IBS and related digestive symptoms
• Food aversions (extreme dislike)
The Big Eight

- Milk
- Eggs
- Fish
- Crustacean Shellfish
- Tree Nuts
- Peanuts
- Wheat
- Soya
Food Allergies: Signs and Symptoms

SIGNS AND SYMPTOMS OF ANAPHYLAXIS
Anaphylaxis (an-a–fi-LAK–sis) is a serious allergic reaction that comes on quickly and has the potential to become life-threatening. The most common anaphylactic reactions are to foods, venom, medications, and latex.

Anaphylaxis signs and symptoms that may occur alone (*) or in any combination after exposure to an allergen include:

- **MOUTH:** itching, tingling, swelling of the lips/tongue/palate (roof of the mouth)
- **THROAT:** hoarseness, tightening of throat, difficulty swallowing, hacking cough, stridor (a loud, high-pitched sound when breathing in)
- **LUNGS:** shortness of breath, wheezing, coughing, chest pain, tightness
- **EYES/NOSE:** runny nose, stuffy nose, sneezing, watery red eyes, itchy eyes, swollen eyes
- **SKIN:** hives or other rash, redness/flushing, itching, swelling
- **CIRCULATION/HEART:** chest pain, low blood pressure, weak pulse, shock, pale blue color, dizziness or fainting, lethargy (lack of energy)
- **GUT:** abdominal pain, nausea, vomiting, diarrhea

* IMMEDIATE & POTENTIAL LIFE-THREATENING SYMPTOMS

* Poster available for free download from FAACT [www.foodallergyawareness.org](http://www.foodallergyawareness.org)
Treating a Food Allergy Reaction

- Every allergic student should have an Allergy and Anaphylaxis Emergency Plan on file
- Gives specific instructions for how to respond based on symptoms
- Action plan and meds need to be readily accessible

Allergy and Anaphylaxis Emergency Plan

Child’s name: ________________________ Date of plan: ________________________
Date of birth: __/__/____ Age _____ Weight: ______kg

Child has allergy to ________________________

Child has asthma. ☐ Yes ☐ No (If yes, higher chance severe reaction)
Child has had anaphylaxis. ☐ Yes ☐ No
Child may carry medicine. ☐ Yes ☐ No
Child may give him/herself medicine. ☐ Yes ☐ No (If child refuses, unable to self-treat, an adult must give medicine)

IMPORTANT REMINDER
Anaphylaxis is a potentially life-threatening, severe allergic reaction. If in doubt, give epinephrine.

For Severe Allergy and Anaphylaxis
What to look for
If child has ANY of these severe symptoms after eating the food or having a sting, give epinephrine.
- Shortness of breath, wheezing, or coughing
- Skin color is pale or has a bluish color
- Weak pulse
- Fainting or dizziness
- Tight or hoarse throat
- Trouble breathing or swallowing
- Swelling of lips or tongue that bother breathing
- Vomiting or diarrhea (if severe or combined with other symptoms)
- Many hives or redness over body
- Feeling of “drown,” confusion, altered consciousness, or agitation

SPECIAL SITUATION: If this box is checked, child has an extremely severe allergy to an insect sting or the following foods. Even if child has MILD symptoms after a sting or eating these foods, give epinephrine.

Give epinephrine
What to do
1. Inject epinephrine right away! Note time when epinephrine was given.
2. Call 911.
   - Ask for ambulance with epinephrine.
   - Tell rescue squad when epinephrine was given.
3. Stay with child and:
   - Call parents and child’s doctor.
   - Give a second dose of epinephrine, if symptoms get worse, continue, or do not get better in 5 minutes.
   - Keep child lying on back. If the child vomits or has trouble breathing, keep child lying on his or her side.
4. Give other medicine, if prescribed. Do not use other medicine in place of epinephrine.
   - Antihistamine
   - Inhale/bronchodilator

For Mild Allergic Reaction
What to look for
If child has had any mild symptoms, monitor child. Symptoms may include:
- Itchy nose, sneezing, itchy mouth
- A few hives
- Mild stomach nausea or discomfort

Monitor child
What to do
Stay with child and:
- Watch child closely.
- Give antihistamine (if prescribed).
- Call parents and child’s doctor.
- If symptoms of severe allergy/anaphylaxis develop, use epinephrine. (See “For Severe Allergy and Anaphylaxis”)

Medicines/Dosages
Epinephrine, intramuscular (list type): ________________________ Dose: ☐ 0.15 mg ☐ 0.30 mg (weight more than 25 kg)
Antihistamine, by mouth (type and dose):
Other (for example, inhaler/bronchodilator if child has asthma):

Parent/Guardian Authorization Signature Date Physician/HCP Authorization Signature Date

© 2017 American Academy of Pediatrics. All rights reserved. Your child’s doctor will tell you to do what’s best for your child. This information should not take the place of talking with your child’s doctor. Page 1 of 2.
Treating Anaphylaxis: Epinephrine

- Only approved treatment for anaphylaxis
- If anaphylaxis is suspected, administering epinephrine quickly is important
- Always call 911 after administration
Routes of Exposure

- Airborne – aerosolizing of food proteins
- Skin Contact – food protein touches skin
- Ingestion – eating the offending food protein or absorbing allergenic protein via mouth, eyes or nose
Airborne

- Evidence does not support airborne exposure causing anaphylaxis for those with peanut allergies
  - Brough, et al showed airborne peanut levels undetectable in all simulated experiments, except immediately above shelling
  - Simonte, et al. showed that smelling peanut butter or having peanut butter on the skin did not induce respiratory or systemic reactions in 30 peanut allergic children
  - Dinakar, Shroba and Portnoy and the Transforming Power of Proximity Challenges

- Cooking/Steaming fish may cause reactions
Skin Contact

• Skin contact may cause local irritation including redness, swelling and itching at the site, but does not cause anaphylaxis
  – Simonte, et al. showed that smelling peanut butter or having peanut butter on the skin did not induce respiratory or systemic reactions in 30 peanut allergic children
  – Per Sicherer, in a review of >34k skin tests to foods in 1,138 patients, systemic reactions rate = 0.008% with no severe reactions
Ingestion

• Eating the offending food will cause an allergic response for the child with food allergies
• A tiny amount, even if you can’t see it, can cause a severe reaction
• Reactions can be mild or severe and are unpredictable from person to person and between reactions
• Strict avoidance is the only treatment for food allergies
Assessing the Risk

Where can reactions happen?

- Cafeteria
- Classroom
- Playground
- Field trips
- Bus/transportation
- Athletic field
- Library
- Anywhere there is food
Latest Research

• Study by Hogue, et al. showed that reactions are most likely to happen in the classroom (46.6%)
• 19.9% of reactions happened in the cafeteria
• Less than 9.7% happened on the playground
Where Are Reactions Most Likely to Happen?

• Classroom:
  – Birthdays
  – Rewards
  – Parties
  – Teaching tool
  – Snack

• Contributing factors:
  – Change in routine (often unexpected)
  – Substitute teachers
  – Lack of a plan
Best Practices for Reducing Risks: Overall

- Comprehensive Food Allergy Management Policies
- Annual Training
- Allergen-Aware/Safe Areas
- Stock Epinephrine
- Team Based Approach
- Evidence-based Plans
Comprehensive Food Allergy Management Policies

What are they?
- Includes everyone charged with student care
- Considers all areas of increased risk
- Provides for regular training
- Outlines reasonable accommodations

Start with an assessment.

What resources exist to help?
- SNA Food Allergy Resource Center
- CDC Voluntary Guidelines & Toolkit
- FAME Toolkit
Annual Training

• All staff should receive some food allergy training every year to include how to reduce the risk of a reaction, identify a reaction, and respond to a reaction.

• Staff with direct student oversight should receive more training.

• Administration of epinephrine is simple and training should be provided to as many people as is determined feasible and reasonable.
Training Resources

- Food Allergy & Anaphylaxis Connection Team (FAACT)
  - FAACT’s for Schools’ Program
- Food Allergy Research & Education (FARE)
  - Food Allergies: Keeping Students Safe and Included
- SNA Food Allergy Resource Center
- Institute of Child Nutrition (formerly NFSMI)
Allergen-Aware/Safe Areas

- Food-free classrooms
- Allergen safe tables
- Placemats/Assigned seating in the classroom or cafe
- No food on the bus/transportation
- Eliminate or limit food use as rewards, celebration, or teaching
- No sharing food
Stock Epinephrine

- Non-student specific prescription required
- Know the law: varies by state
- Nearly every state requires or allows stock epinephrine
- Grants may be available to cover cost
Important Considerations for Stock Epinephrine

- Where will the epinephrine be kept?
- Who can access the medication?
- Who is trained and approved to administer the medication?
- What about after “regular school hours”? ASP? School activities and sports?
- What happens after epinephrine is administered?
- Not meant to replace student-specific epinephrine.
Team Based Approach

• Everyone has a part to play
• Parents
• Student (age appropriate)
• School Nurse
• Teacher(s)
• Bus Driver
• Administrators
• School Nutrition Staff
• ASP Staff
Tools for the Team

- Federal Laws
  - ADA
  - Section 504
  - IDEA

- Documents
  - Individualized Health Plan
  - IDEA >> Individualized Education Plan
  - ADA >> 504 Plan (Section 504)

- Tips to Success:
  - Clear Communication
  - Mutual Respect
  - Representative Team
  - Inclusion

“Never promise what you cannot provide.”

– W. Johnson, Esq
Use Evidence-Based Plans

- Few studies exist to evaluate whole approaches, but studies show a few things that work or do not work.
  - Allergen-free/safe tables
  - Bans don’t reduce risk, may increase risk:
    - *No difference in epi use* (*Bartnikas, et al*)
    - *More reactions in schools with bans vs. those without* (*Cherkaoui, et al*)
  - Bans increase false sense of security, but do not reduce risk
- CDC Voluntary Guidelines are the best available.

*If accommodations are in the CDC Guidelines, you’re providing a reasonable request. If not, the accommodation is probably not reasonable or evidence-based.*
Best Practices to Reduce Risk: Foodservice Specific

- Train annually
- Be part of the plan
- Identify the allergic student
- Provide safe food
- Communicate clearly
- Prevent cross-contact
- Clean appropriately
Training

• Training should be provided every year to include (among other things):
  – The Big 8
  – Safe allergen storage, handling, and cleaning
  – Keys for preventing cross-contact
  – How to identify an allergic reaction (signs and symptoms) and how to respond
  – District food allergy policies and procedures
Be Part of the Plan

- A foodservice representative should participate in the IHP, IEP, or 504 plan planning process each year
- Be able to clearly describe how your school nutrition staff manages food allergens in the kitchen and serving line
- Work with appropriate staff (custodial, lunchroom monitors) regarding appropriately cleaning dining tables
- Document and share all food allergy training with parents, student health services and administrators
Identifying Students with Food Allergies

• Remember, Food Allergies are a medical condition, which means it is confidential information.

• Identify student by name and only share food allergic status with those who need to know and in a confidential and respectful way.

• POS alerts are helpful and provide a final check for a safe plate.

• Bullying is not uncommon for those with food allergies; help protect their privacy.
Provide Safe Food

- Providing safe food for food allergic students is a requirement.
- Most allergic students can safely eat school meals with minimal changes.
- Substitute “allergen-free” foods (e.g. wheat-free pasta) can be provided, but are not required if the students’ needs can be met otherwise.
Communicate Clearly

• Externally:
  – Website
  – Menu
  – Serving line

• Internally:
  – Allergen management plans
  – Storage labels
  – Recipe instructions
  – Special diet forms
  – Label ingredients during prep
Prevent Cross-Contact

- Cross-contact can happen at any point in the flow of food.
  - Storage (e.g. ranch dressing stored above salad)
  - Preparation (e.g. using a slotted spoon for pasta, then for vegetables without washing in between)
  - Service (e.g. removing a slice of cheese rather than preparing a new sandwich)
- Consider colored or labeled preparation and serving utensils
- Prepare common allergens at the end of preparation
- Change gloves often and wash hands frequently
Clean Appropriately

- Research shows that common allergens are removed from surfaces using detergents and common household cleaners (Perry, et al)
- Sanitizer does not remove allergens from surfaces
- Use disposable cleaning cloths and towels
- In the dining room, use separate buckets and cloths
Best Practices for Handling Food Allergens in School Foodservice
Your Questions
Consultant: National Peanut Board
PROFESSIONAL STANDARDS CODE

• This session provides one (1) CEU
  – **Key Area:** 1 - Nutrition
  – **Key Topic:** Nutrition – Food Allergies