Upcoming Webinars

COVID-19: Ongoing Stress & Virus Variants
June 16, 2021
4:00 PM ET

Risk Factors for the Development of Food Allergies
June 24, 2021
4:00 PM ET

Our Next Weather Trends Webinar
July 13, 2021
Check our our new Weather feature at AllergyAsthmaNetwork.org/Weather

Register at allergyasthmanetwork.org ➡ News ➡ Webinars

Food Allergy: From Home to School
June 8, 2021
Our SPEAKERS

Lynda Mitchell
Allergy & Asthma Network
Chief Operating Officer

Background:
• Food Allergy Mom
• Founder, Kids with Food Allergies

Sally Schoessler
Allergy & Asthma Network
Director of Education

Background:
• School Nurse / State School Nurse Consultant
• Allergy Author

Program OUTLINE

• Allergy 101
• Sending a Child with Food Allergies to School
• Roles & Collaborations in School Food Allergy Care
• Food Allergy Resources from the Network and Others
Allergy 101

Sally Schoessler

Food Allergens
Anaphylaxis
Food Allergy
Recommendations

A few facts to get us going -

**Life-Threatening Allergies**

- **1 in 12** children have food allergies
- **$24.8 billion** annual cost of food allergies
- **29%** of children with food allergies have asthma
- **25%** of food allergy reactions occur in students without a previous diagnosis
- **150-200** fatalities per year from food allergies
- **40** fatalities per year due to insect stings
- **400** fatalities per year due to medication allergy
- **1-6%** of Americans have latex allergy
What happens in a Food Allergy reaction?

- An abnormal immunologic response to a food protein
- No reaction at first exposure
- Subsequent exposures – degranulation of mast cell – release of histamine
- Allergic reaction occurs

Top 8 Allergens

Sesame is now recognized as the 9th Top Allergen
Is it a Food Allergy or Food Intolerance?

- Example: Milk Allergy or Lactose Intolerance?

<table>
<thead>
<tr>
<th></th>
<th>Food Intolerance</th>
<th>Food Allergy</th>
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<tbody>
<tr>
<td>Where reaction takes</td>
<td>Digestive System</td>
<td>Immune system</td>
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<tr>
<td>place</td>
<td></td>
<td></td>
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<tr>
<td>Intensity of reaction</td>
<td>Mild to moderate</td>
<td>Can be life-threatening</td>
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<tr>
<td>discomfort</td>
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<tr>
<td>Symptoms</td>
<td>Gastrointestinal</td>
<td>Multiple body systems: skin,</td>
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<td>respiratory, heart</td>
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<td></td>
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<td>and/or gastrointestinal</td>
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<tr>
<td>Reaction time</td>
<td>May be delayed</td>
<td>Usually immediate (within</td>
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<td></td>
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<td>30 – 60 minutes)</td>
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<tr>
<td>Action to take</td>
<td>See healthcare provider</td>
<td>Call 911 if anaphylaxis</td>
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<td></td>
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<td>occurs</td>
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Food Allergy Exposure
PREVENTION

Different Risks with different routes of exposure

- Oral
- Skin
- Inhalation

Relevant concepts, practical challenges and practical interventions for each
ORAL EXPOSURE
- Allergens, hidden ingredients, cross-contact – most allergic reactions start in classroom
  - Younger students: passing saliva, supervision during meals and snacks
  - Older students: risk-taking, peer pressure, bullying, kissing
- Labels must be read, should offer meals without allergens, assist students with choices
- No sharing of food, drink or utensils, no unlabeled food – nonfood celebrations
- Strategies to avoid cross-contact, food free classrooms only when necessary
- Periodic check-ins with students and staff

SKIN EXPOSURE
- Isolated contact on intact skin = no severe or systemic response – skin reactions
  - Both children & adults touch eyes, nose & mouth regularly
- Soap & water best – commercial hand wipes good – Hand sanitizer is not
- Nonedible items contain some food allergens – finger paint, play dough, shaving cream
- For young children – skin exposure can quickly become mucosal or oral exposure
- HAND WASHING! Have a cleaning protocol, curricular activities should be food free
INHALATION

- Aerosolized proteins – not odors cause allergic reactions, can be fatal
- Science experiments involving burning/heating of allergens create risk
- Use caution when cooking with food, flours, powders & other small particles of food that can go up in the air
- Avoid food in curricular classroom activities
- Field trips – a mine field of issues for students with allergies – food, activities & more
  - Some require prior assessment from the school nurse for special accommodations
  - Law: All students go on the field trip or no students go on the field trip

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American Academy of Pediatrics

Allergy & Anaphylaxis Emergency Plan

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American Academy of Pediatrics

Allergy & Anaphylaxis Emergency Plan
Anaphylaxis

Occurs in about 1 in 50 people

Symptoms:

- Skin: itching, redness, swelling, hives
- Mouth: itching, swelling of lips, tongue
- Stomach: vomiting, diarrhea, cramps
- Respiratory: shortness of breath, wheezing, coughing,
  chest pain and/or tightness
- Heart: weak pulse, dizziness, faintness
- Headache, nasal congestion, watery eyes, sweating
- Confusion, feeling of impending doom
- Loss of consciousness

Anaphylaxis

- May begin within seconds
- May not appear until hours after ingestion
- Symptoms can be different and vary in severity with every allergic reaction
  - Once symptoms start they usually progress quickly

Average time to respiratory or cardiac arrest due to anaphylaxis:

- Food allergy: 30 minutes
- Venom allergy: 15 minutes
- Medication allergy: 5 minutes

Source: Clinical & Experimental Allergy, Volume 30, Issue 6
Anaphylaxis

- Epinephrine is the ONLY medication that can reverse the life-threatening symptoms of anaphylaxis.
- It is the first line of treatment.
- Administer epinephrine as soon as anaphylaxis symptoms occur.

**Epinephrine First**

**Epinephrine FAST**

- Determine the correct dose
  - Prescriber’s order
  - If stock, don’t take the time to weigh the child – if you don’t know weight, use Broselow tape (prepare ahead)
  - When to upsize?

Treatment of ANAPHYLAXIS

Stay with and observe student until EMS arrives

- Maintain airway, monitor circulation, start CPR if necessary
- Do not have the student arise to an upright position
- Consider lying on the back with legs elevated, on side if vomiting
- Observe for changes until EMS arrives

**IF NO IMPROVEMENT OR IF SYMPTOMS WORSEN IN ABOUT 5 MINUTES OR MORE, ADMINISTER A 2ND DOSE OF EPINEPHRINE**

- Transport to Emergency Department via EMS even if symptoms get better
Anaphylaxis is a life-threatening allergic reaction that affects more than one organ system.

Common symptoms

- **MOUTH**: Itching, swelling of lips and/or tongue
- **THROAT**: Itching, tightness/closure, hoarseness, difficulty swallowing
- **SKIN**: Itching, hives, redness, swelling
- **STOMACH**: Vomiting, diarrhea, cramps
- **CHEST**: Shortness of breath, cough, wheeze, chest pain, tightness
- **HEART**: Weak pulse, dizziness, passing out, cardiac arrest
- **OTHER**: Feeling of impending doom, headache, itchy/red/watery eyes, nasal congestion

Allergens that can set off anaphylaxis

- **FOOD**: Peanuts, Tree nuts: almonds, pecans, cashews, walnuts, Shellfish, Cow’s milk products, Hen’s eggs, Fish, Soy, Wheat
- **VENOM**: Yellow jackets, Wasps and hornets, Honeybees, Fire ants, Spiders
- **LATEX**: Balloons, Rubber gloves, Condoms, Elastic bands (i.e., physical therapy bands), Dental dams
- **Foods with cross-reactive proteins to natural rubber**: Banana, Avocado, Chestnut, and Kiwi
- **MEDICATION**: Penicillin, Aspirin, ibuprofen and other NSAID pain relievers

**RECOGNIZE THE SEVERITY**

Anaphylaxis is life-threatening, unpredictable, presents in multiple ways and can progress quickly. If symptoms appear, refer to your Emergency Care/Action Plan.

**USE EPINEPHRINE IMMEDIATELY**

Epinephrine is the first line of treatment to stop the progression of anaphylaxis. Use your epinephrine auto-injector at the first sign of symptoms – don’t wait to see what happens!

**CALL 911**

Always call for emergency medical assistance and go to the emergency room for follow-up observation and treatment.

**CARRY TWO AUTO-INJECTORS**

Keep two epinephrine auto-injectors on hand, in case symptoms recur before emergency medical assistance is available. Up to 35% of people will require more than one dose.

**FOLLOW UP**

Consult a board-certified allergist for accurate diagnosis and prevention/treatment plan.

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**Epinephrine Treatments**

Here are the various epinephrine treatments available:

- **Brand Devices**
  - **Anti-**
    - Auto-injectors
  - **Epi-Pen**
    - Automatic injectors
  - **Symptom**
    - Oral epinephrine

- **Generic Devices**
  - **Epinephrine Auto-Injector**
    - Auto-injectors
  - **Epinephrine Auto-Injector (Reads)**
    - Auto-injector
  - **Epinephrine Auto-Injector (Does Not Read)**
    - Auto-injector

- **Pediatric Devices**
  - **Epi-Pen Jr**
  - **Epi-Pen Mini**

- **Adult Devices**
  - **Epi-Pen**
  - **Epi-Pen Auto-Injector**
  - **Symptom**

Readers are encouraged to consult their healthcare provider for the most accurate information on available treatments.
Food Allergy RECOMMENDATIONS COVID-19

1. Schools should always promote strict handwashing before and after meals with soap and water; cleaning surfaces with a detergent before and after meals and avoid sharing food as a common policy.

2. Food bans should not be included in accommodation plans or strategies used as part of Section 504 Plans.

3. Incorporate reasonable, evidence-based, and mutually beneficial accommodations into 504 plans given the unusual restrictions posed by also minimizing infection risk of contracting COVID-19 at school.

4. Schools that do not already stock unassigned epinephrine should be strongly encouraged to immediately adopt this policy.

5. Train all teachers, staff and volunteers at the school in the recognition of signs and symptoms of food-allergic reactions including anaphylaxis, and how to properly treat reaction symptoms with emergency medication.

6. Institute a zero-tolerance policy for food allergy related bullying.

Food Allergy RECOMMENDATIONS COVID-19

7. Consider adopting unique approaches or modify current school district or CDC policies or recommendations, as indicated by special circumstances.

8. School should develop very clear communication strategies and channels to help promote open dialogue and engagement, for fostering trust with families of food-allergic children.


Sending a Child with Food Allergies to School

Lynda Mitchell

Preparation
Planning
Partnership

Great information for parents & school staff!
Going to School with FOOD ALLERGIES

Communicate with the school.
• Ask about food allergy policy
• Request a meeting
• Get the forms you need

• Start early
• Request a meeting with the school nurse
• Ask about food allergy policies and practices
• Get the forms needed for school
• Work with the school to fill in gaps as needed for your child
• “Build Bridges” - When communicating with the school always start with staff and move up the chain of administration – don’t jump to the principal or superintendent if you have a problem

From Kids with Food Allergies – Planning Tips for Parents
https://www.kidswithfoodallergies.org/food-allergy-school-planning-tips-for-parents.aspx

Going to School with FOOD ALLERGIES

Visit your child’s doctor before school starts to have forms signed and get prescriptions.

• Get required prescriptions for emergency medicines (epinephrine auto-injectors).
• Doctor signatures on all three of the forms:
  ✓ Medication Authorization
  ✓ Special Dietary Needs Accommodation
  ✓ Emergency Action Plan

From Kids with Food Allergies – Planning Tips for Parents
https://www.kidswithfoodallergies.org/food-allergy-school-planning-tips-for-parents.aspx
going to school with food allergies

meet with the school nurse or school representative before school starts and ask:

- when is the nurse at school?
- where epinephrine will be kept
- how bullying is handled
- if staff are trained on managing food allergies
- how allergic reactions are handled

from kids with food allergies – planning tips for parents
https://www.kidswithfoodallergies.org/food-allergy-school-planning-tips-for-parents.aspx

- when is the school nurse at your child’s school? (full-time, part-time, available by phone, etc.)
- if the nurse is not at your school, who takes care of students during the school day if they are sick? how does the health room operate during a typical school day?
- where will your child’s emergency medicines be kept unlocked during the school day?
- what experience has the school had with food-related emergencies?
- what are the procedures for shelter-in-place and evacuations? how are food and medicines handled during emergencies?
- how are food allergies managed on school buses and during after-school activities?
- how does the school deal with bullying about food allergies? is there a zero-tolerance policy? does the school educate students about food allergies?
- does the school nurse train school staff on managing food allergies? who and when?

how the school manages meals in the cafeteria, lunch area or classroom for students with food allergies

- how students with life-threatening food allergies will request meals with safe substitutions once you submit the signed special dietary needs accommodations form

meet with the school/district food services director to find out how the cafeteria manages meals in the lunch room and requests for safe meals.

from kids with food allergies – planning tips for parents
https://www.kidswithfoodallergies.org/food-allergy-school-planning-tips-for-parents.aspx
**Going to School with FOOD ALLERGIES**

- Medication Authorization forms
- Emergency Action Plan (EAP)
- Special Dietary Needs Accommodations Form – if your child will be eating meals provided by the school.
- Epinephrine auto-injectors need to be in original package and labeled with your child’s name. Be sure these will not expire during the school year.

**Turn in all completed and signed forms and prescriptions before the first day of school.**

From Kids with Food Allergies – Planning Tips for Parents
https://www.kidswithfoodallergies.org/food-allergy-school-planning-tips-for-parents.aspx

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**Going to School with FOOD ALLERGIES**

Make an appointment to meet the teacher to discuss classroom management of food allergies.

- Allergen control strategies in the classroom and during “specials” such as music or art
- Ingredient label reading
- Safe snacks (encourage fresh fruits and vegetables)
- Classroom celebrations (encourage non-food items)
- “No food sharing” rules
- Field trips (Who carries medicine? Can parents attend?, etc.)
- Cleanup after eating or anytime food is brought into the classroom
- Food in classroom activities (encourage non-food curriculum)
- Hand-washing practices before and after eating, or use of hand wipes (not hand sanitizer)
- Alerting substitute teachers about children with food allergies

From Kids with Food Allergies – Planning Tips for Parents
https://www.kidswithfoodallergies.org/food-allergy-school-planning-tips-for-parents.aspx
Going to School with FOOD ALLERGIES

• Reading food labels, avoiding foods without labels, not sharing food
• Hand-washing or hand wipes (no use of hand sanitizer)
• Self-carrying and how to use an epinephrine auto-injector (discuss readiness to self-carry with your child’s doctor)
• Knowing what their body might do if they were to have a reaction
• Telling a grownup if they start to have an allergic reaction at school
• Reporting any bullying or harassment by staff or students
• Sitting with their classmates in the cafeteria
• Riding the bus and/or going on field trips

Periodically check in with your child to ask how they feel at school.

From Kids with Food Allergies – Planning Tips for Parents
https://www.kidswithfoodallergies.org/food-allergy-school-planning-tips-for-parents.aspx

Going to School with FOOD ALLERGIES

Drop off items your child may need to store at school to keep them safe:

• Hand wipes
• Non-perishable safe foods
• Special snacks
• Allergy-friendly school supplies

• Hand wipes
• Non-perishable foods for disasters or shelter-in-place situations
• Special snacks or a non-perishable lunch for occasions your child may need them
• Allergy-friendly school supplies

From Kids with Food Allergies – Planning Tips for Parents
https://www.kidswithfoodallergies.org/food-allergy-school-planning-tips-for-parents.aspx
Going to School with FOOD ALLERGIES

- Document meetings and interactions via email summaries with key staff.
- Choose your battles wisely and volunteer when possible.
- Offer solutions whenever possible and collaborate with your child’s school.
- Keep in mind that a friendly approach will help you get a positive result if conflicts start to happen.
- Check in periodically with school staff to make sure the plan is working and your child is adjusting.

Visit KFA’s School Planning Zone for additional information on managing food allergies at school.

Thank you to Kids with Food Allergies and the Allergy & Asthma Foundation of America for sharing their web-based information with us!
Roles & Collaborations in School Food Allergy Care

Sally Schoessler

Allergy Management

Parent/Family Centered CARE

- **Family**
  - Foster and support relationship between school nurse & others in the school health
  - Family
  - Student

- **School Health Team**
  - LISTEN! Build bridges, build trust
  - Create a safe environment for students with allergies
  - Collect detailed history & medications
  - Prepare school community

- **School Nutrition Team**
  - Ensure optimal nutrition beyond just dietary restriction

- **Board Certified Allergist**
  - Refer patients with suspected food allergy for further evaluation
  - Develop collaborative relationship to manage patients
  - Support – routine follow-up/anticipatory guidance
Care COORDINATION

• School Health Team
  • Be prepared for nonemergent and emergent care
  • Partner with school medical director
  • Communicate regularly as the “hub” in student care

• School Nutrition Team
  • Ensure food substitutions are offered & accepted
  • Maximize nutrition for students with allergies

• Board Certified Allergist
  • Share responsibility for providing support for food allergy management in all settings
  • Coordinate with allergy team, primary care provider to reduce redundancy

• Family
  • Communicate with school nurse regularly
  • Update the nurse and school re: new allergies, Emergency Care Plans, any changes in student’s condition

Care PLANS

• School Health Team
  • Obtain or create Emergency Care Plan
  • Collaborate to adjust plan as needed for multiple settings
  • Partner to develop IHP, 504 Plan or other plans as needed

• School Nutrition Team
  • Assist in care plan implementation
  • Be familiar with state laws & requirements per the USDA
  • Obtain physician statement of allergies

• Board Certified Allergist
  • Coordinate with school to provide or collaborate on Emergency Care Plan
  • Provide requested documentation

• Family
  • Assist in creation & implementation
  • Plan should reflect all settings the child is in
  • Check in and modify as needed
### Prevention Strategies

**School Health Team**
- Partner with school community members to determine school resources and practices
- Promote a school environment where the students is safe, healthy & ready to learn

**School Nutrition Team**
- Ensure meals that avoid allergen
- Partner with home to use resources & school nutrition expertise to reach nutritional needs

**Board Certified Allergist**
- Provide & reinforce education on allergen avoidance
- Coordinate with allergy team, primary care provider & school to reduce redundancy

**Family**
- Teach & reinforce evidence-based strategies at home to avoid allergen exposure
- Involve student & family education in all prevention strategies

### Emergency Preparedness

**School Health Team**
- Be sure all members of the school community are appropriately trained to respond to an emergent situation
- Practice Table Top Drill as needed

**School Nutrition Team**
- Be sure staff is trained to recognize & respond to an emergent situation
- Partner in development of emergency procedures

**Board Certified Allergist**
- Provide an updated ECP upon request
- Coordinate with allergy team, primary care provider & school to reduce redundancy & inconsistency

**Family**
- Provide school with 2 epinephrine auto-injectors if possible
- Keep ECP up to date
- Encourage student to wear emergency medical ID jewelry
School Education & Training

School Health Team
- Provide training and education to all members of the school community
- Work with school administration to make education a staff priority

School Nutrition Team
- Provide training to food service staff
- Collaborate with school nurse to provide consistent messaging and language to all school community members

Family
- Check in with school nurse about staff education & training
- Offer to assist by teaching how to properly read food labels

Board Certified Allergist
- If school does not have a school nurse to train staff:
  - Advocate to have a full-time school nurse at the school
  - Provide for needed training and education

Family
- Check with school to see what the policy is regarding stock epinephrine
- If stock is allowed, ask to see if it is being implemented in your student’s school

School Health Team
- Contact school medical director or local pediatric organizations to assist in development of protocols & obtain prescription
- Ensure that standing orders exist
- Train appropriate staff as needed
- Partner with administration as needed

School Nutrition Team
- Know policies & protocols and role in administration of stock epinephrine

Board Certified Allergist
- Check on school implementation of stock epinephrine
- Support the implementation process as needed
- Write prescription if needed

Stock EPINEPHRINE

Family
- Check with school to see what the policy is regarding stock epinephrine
- If stock is allowed, ask to see if it is being implemented in your student’s school
Anaphylaxis At a Glance

Anaphylaxis is a life-threatening allergic reaction that affects more than one organ system.

Common symptoms:
- FOOD
  - Peanuts
  - Tree nuts: almonds, pecans, cashews, walnuts
  - Shellfish
  - Cow’s milk products
  - Hen’s eggs
  - Fish
  - Soy
  - Wheat
- VENOM
  - Yellow jackets
  - Wasps and hornets
  - Honeybees
  - Fire ants
  - Spiders
- LATEX
  - Balloons
  - Rubber gloves
  - Condoms
  - Elastic bands (i.e., physical therapy bands/rubber bands)
  - Dental dams
- Foods with cross-reactive proteins to natural rubber: banana, avocado, chestnut and kiwi
- MEDICATION
  - Penicillin
  - Aspirin, ibuprofen and other NSAID pain relievers

Allergens that can set off anaphylaxis:

THROAT
- itching, tightness/closure, hoarseness, difficulty swallowing

SKIN
- itching, hives, redness, swelling

STOMACH
- vomiting, diarrhea, cramps

CHEST
- shortness of breath, cough, wheeze, chest pain, tightness

HEART
- weak pulse, dizziness, passing out, cardiac arrest

OTHER
- feeling of impending doom, headache, itchy/red/watery eyes, nasal congestion

RECOGNIZE THE SEVERITY
Anaphylaxis is life-threatening, unpredictable, presents in multiple ways and can progress quickly. If symptoms appear refer to your Emergency Care/Action Plan.

USE EPINEPHRENE IMMEDIATELY
Epinephrine is the first line of treatment to stop the progression of anaphylaxis. Use your epinephrine auto-injector at the first sign of symptoms – don’t wait to see what happens!

CALL 911
Always call for emergency medical assistance and go to the emergency room for follow-up observation and treatment.

CARRY TWO AUTO-INJECTORS
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FOLLOW UP
Consult a board-certified allergist for accurate diagnosis and prevention/treatment plan.
Resources for Training

American Academy of Pediatrics

AllergyHome.org
- School staff training module
- Certificate available

FAME
- St. Louis Children’s Hospital
- Content for whole school community
Other Resources

http://www.aap.org/aaep

TIME FOR QUESTIONS
Next Webinar

- COVID-19: Ongoing Stress & Virus Variants
- June 16, 2021
- 4:00 PM ET

For More Information

Visit Allergy & Asthma Network at www.allergyasthamanetwork.org