

# Managing Food Allergies in Each Stage of Life

**Ruchi Gupta, MD, MPH**

Professor of Pediatrics & Medicine, Northwestern University Feinberg School of Medicine  
Clinical Attending, Ann & Robert H. Lurie Children's Hospital of Chicago  
Director, Center for Food Allergy & Asthma Research

# Learning Objectives

1. Identify the various domains in which food allergies impact patients' lives.
2. Describe the unique challenges of managing food allergies across different educational stages, from early childhood through college.
3. Provide practical resources and guidance for managing food allergies at each stage of life.



**CFAAR**

Center for Food Allergy  
& Asthma Research

# Daily Life with Food Allergies

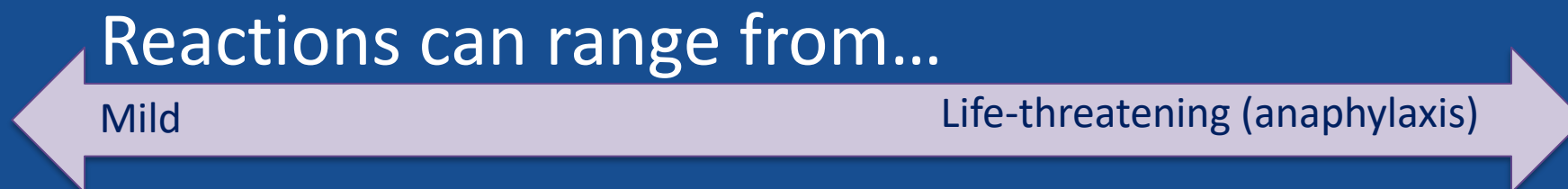


Ann & Robert H. Lurie  
Children's Hospital of Chicago®

**M Northwestern Medicine®**  
Feinberg School of Medicine



# THE FOOD ALLERGY EPIDEMIC



# Food Allergy Impact on Quality of Life

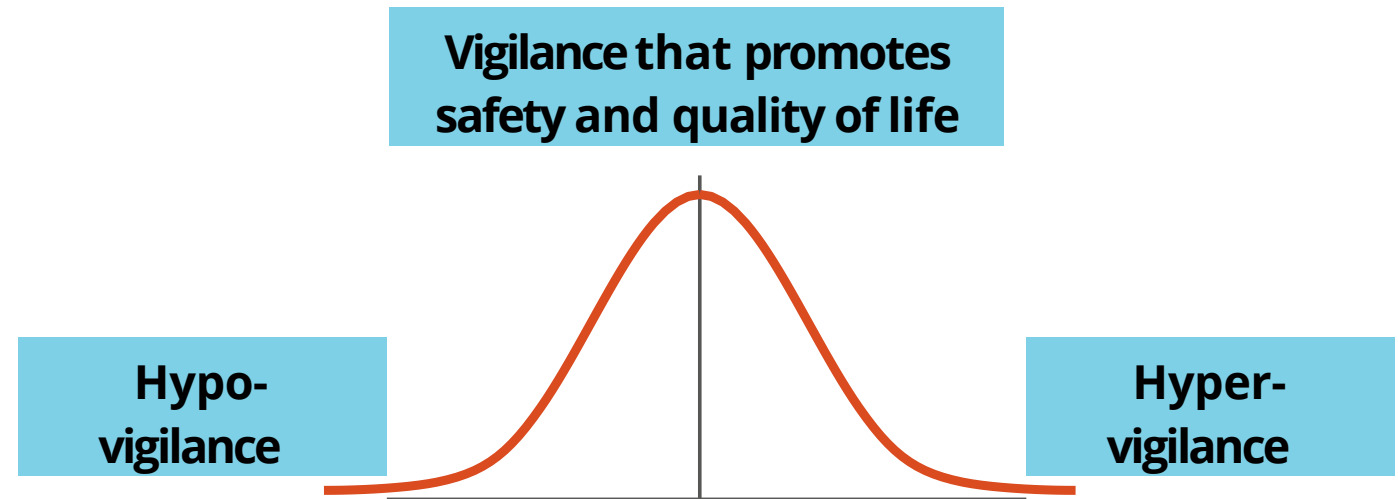
- **Food allergies impact quality of life in a variety of domains:**

- Day care, school, college
- Social interactions
- Family relationships
- Finances
- Labeling and shopping for safe food
- S
- Eating out and traveling
- Mental health



# Food Allergy Impact on Quality of Life

- **Common psychological concerns reported by children and adults:**
  - Increased stress related to daily burden
  - Increased anxiety which can lead to avoidance/social isolation
    - Allergen exposure
    - Ability to treat reactions
    - Trusting other caregivers
    - Relationships
    - The future
  - Decreased quality of life, especially regarding social activities and diet diversity



# Social Interactions

- Food is ubiquitous:
  - Clubs, parties, sporting events, eating out with friends, etc.
- Quality of life among food allergic families varies widely, with one exception:
  - Caregivers are consistently troubled by social limitations



# Families

- 1 in 4 parents report that food allergy causes a strain on their marriage
- Poor quality of life is more likely if the child has:
  - Been to the ED for food allergies in the last year
  - Multiple food allergies
  - Milk or wheat allergies





# Dining Out

- Multiple studies found food allergy limits quality of life in the context of dining out
- Children with food allergies will frequently visit the same restaurant because they know their food allergy is catered for



# Dining Out

- Adolescents reported their FA impeded their ability to spend time with friends at restaurants or friends' homes
- Avoidance of social venues because of fear of allergen exposure – adversely impacts quality of life





**CFAAR**

Center for Food Allergy  
& Asthma Research

# Early Childhood

# Early Childhood and Food Allergy

- May be the first time parents place their child in the care of someone else
- Potential need to educate teachers/students/other parents about FA and **how to recognize signs/symptoms of reactions**
- Children may not be able to articulate what they are feeling/may not have awareness of symptoms





# Understanding Food Allergy Education Needs in Early Childhood Schools

## 1 Our Research

In 2018, we surveyed parents of young children & Early Childhood providers across the state of Illinois to understand the food allergy education needs.

## 2 Our Findings

The majority of providers work with children with food allergies but there is a need for more education on management.

## 3 Our Work

Three (3) videos were created to address the food allergy education needs.

# Food Allergy & Parents: What We Learned From the Survey

- 75% of those who completed the survey were parents of children **without** food allergy.
- They know food allergies are real and serious – **75% said their child has a friend with a food allergy.**
- **Parents of children without food allergies want food allergy knowledge also. They are willing to watch videos and learn.**



# Early Childhood Providers

- 69% were formally trained in food allergies; however, 38% **believed they are unprepared to administer epinephrine even though they were trained**
- 62% were unfamiliar with Emergency Action Plan related terms (ie. Body System – “for mild symptoms from **more than one system** area”..., or “for mild symptoms from **a single system**” area...)



# Early Childhood Providers

- **1 in 4 providers** witnessed an allergic reaction at the early childhood center
  - More than 25% were unfamiliar with the Emergency Action Plan
- **Less than half** were comfortable identifying allergy-friendly food labels
- **47%** wanted to know how to talk with children about food allergies





# The Importance of an Action Plan

**Allergy and Anaphylaxis Emergency Plan** American Academy of Pediatrics  
DEDICATED TO THE HEALTH OF ALL CHILDREN®

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/is 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	Give epinephrine! What to do
If child has ANY of these severe symptoms after eating the food or having a sting, <b>give epinephrine</b> . <ul style="list-style-type: none"><li>• Shortness of breath, wheezing, or coughing</li><li>• Skin color is pale or has a bluish color</li><li>• Weak pulse</li><li>• Fainting or dizziness</li><li>• Tight or hoarse throat</li><li>• Trouble breathing or swallowing</li><li>• Swelling of lips or tongue that bother breathing</li><li>• Vomiting or diarrhea (if severe or combined with other symptoms)</li><li>• Many hives or redness over body</li><li>• Feeling of "doom," confusion, altered consciousness, or agitation</li></ul> <input type="checkbox"/> <b>SPECIAL SITUATION:</b> If this box is checked, child has an extremely severe allergy to an insect sting or the following food(s): _____. Even if child has MILD symptoms after a sting or eating these foods, <b>give epinephrine</b> .	<ol style="list-style-type: none"><li>1. Inject epinephrine right away! Note time when epinephrine was given.</li><li>2. Call 911.<ul style="list-style-type: none"><li>• Ask for ambulance with epinephrine.</li><li>• Tell rescue squad when epinephrine was given.</li></ul></li><li>3. Stay with child and:<ul style="list-style-type: none"><li>• Call parents and child's doctor.</li><li>• Give a second dose of epinephrine, if symptoms get worse, continue, or do not get better in 5 minutes.</li><li>• Keep child lying on back. If the child vomits or has trouble breathing, keep child lying on his or her side.</li></ul></li><li>4. Give other medicine, if prescribed. Do not use other medicine in place of epinephrine.<ul style="list-style-type: none"><li>• Antihistamine</li><li>• Inhaler/bronchodilator</li></ul></li></ol>

For Mild Allergic Reaction What to look for	Monitor child What to do
If child has had any mild symptoms, <b>monitor child</b> . Symptoms may include: <ul style="list-style-type: none"><li>• Itchy nose, sneezing, itchy mouth</li><li>• A few hives</li><li>• Mild stomach nausea or discomfort</li></ul>	Stay with child and: <ul style="list-style-type: none"><li>• Watch child closely.</li><li>• Give antihistamine (if prescribed).</li><li>• Call parents and child's doctor.</li><li>• If more than 1 symptom or symptoms of severe allergy/anaphylaxis develop, use epinephrine. (See "For Severe Allergy and Anaphylaxis.")</li></ul>

**Medicines/Doses**  
Epinephrine, intramuscular (list type): \_\_\_\_\_ Dose: ☐ 0.10 mg (7.5 kg to less than 13 kg)  
☐ 0.15 mg (13 kg to less than 25 kg)  
☐ 0.30 mg (25 kg or more)  
Antihistamine, by mouth (type and dose): \_\_\_\_\_ (\*Use 0.15 mg if 0.10 mg is not available)  
Other (for example, inhaler/bronchodilator if child has asthma): \_\_\_\_\_

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

© 2017 American Academy of Pediatrics. Updated 03/2019. 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.

- Every child with food allergies needs an action plan
- The action plan addresses recommended treatment in case of an allergic reaction and is signed by the parent and student's physician
- Should have a new action plan every annual visit

# Tips for Parents

## Be Proactive:

- ✓ Notify school/day care of your child's allergies
- ✓ Request a meeting with the EC professional BEFORE your child's first day to discuss the child's Emergency Action Plan

## Be Organized:

Work with provider to create an appropriate plan for your child

- ✓ Have medication with you at all times & keep track of epinephrine expiration dates
- ✓ Let provider know you support them and it is okay to use epinephrine

## Be an Advocate:

- ✓ Read food labels & bring special snacks if needed
- ✓ Keep an open dialogue, share information & resources
- ✓ Ex: Discuss language normally used if child is having a reaction

## Be Careful:

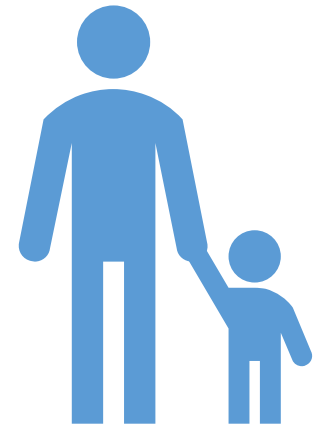
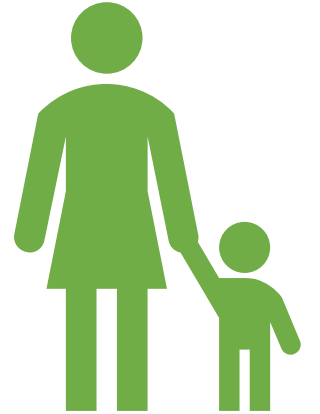
- ✓ Hand sanitizers are not soap; soap removes allergens!

## Reassure the Child:

- ✓ Use simple, concrete language

# What Can Parents and Providers Both Do?

- ✓ Remember you are a positive role model for ALL children.
- ✓ Reduce fear by using age-appropriate language and hand signs that ALL children can understand and practice.
- ✓ Children benefit from repetition and a consistent snack/meal time message:  
**STOP, LOOK, ASK, GO.**





**CFAAR**

Center for Food Allergy  
& Asthma Research

# Elementary School and Middle School



Ann & Robert H. Lurie  
Children's Hospital of Chicago®

**M Northwestern Medicine®**  
Feinberg School of Medicine



# Reactions at School

- Approximately **18%** of children with food allergies have experienced an allergic reaction at school
- **25%** of first-time anaphylactic reactions occur at school



# Navigating Elementary School with Food Allergies

## Elementary schools

- Have higher rates of designated areas in the lunchroom for children with FA compared to high school **(72.5% vs. 20%)**
- Are more likely to have a snack policy in the classroom than high schools **(69.8% vs 31.4%)**
- Implement stricter food policies for celebrations **(56.6% vs 34.3%)**



# Tips for Parents

- ✓ Talk about sharing foods and smart, safe ways to eat in the cafeteria
- ✓ Encourage teachers to provide **non-food related items for celebrations to avoid accidental ingestion of allergen**
- ✓ Ensure child has their action plan and knows how to use it!



# Middle School and Food Allergies

- More students allowed to **self-carry** epinephrine in high school and middle school as compared to elementary school. **(91.4%, 78.3% vs. 47.3%)**
- Children take more of an independent role with their food allergy as they get older





# Tips for Parents

- ✓ Ensure your child knows how to properly administer their epinephrine auto-injector if they self-carry
  - ✓ **Make sure they have a physician permission form to self-carry/self-inject if necessary**
- ✓ Get to know the staff (point person, school nurse, teachers, etc.) so they understand and can support your child appropriately and effectively
- ✓ Your child is his/her most powerful advocate. Practice with them to educate friends and family about their allergies and what they can do to help!



# Action Plan!

## Allergy and Anaphylaxis Emergency Plan

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



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/is unable to self-treat, an adult must give medicine)

Attach  
child's  
photo

### 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 "doom," 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 food(s): \_\_\_\_\_. 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
  - Inhaler/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 more than 1 symptom or symptoms of severe allergy/anaphylaxis develop, use epinephrine. (See "For Severe Allergy and Anaphylaxis.")

#### Medicines/Doses

Epinephrine, intramuscular (list type): \_\_\_\_\_ Dose: ☐ 0.10 mg (7.5 kg to less than 13 kg)\*

☐ 0.15 mg (13 kg to less than 25 kg)

☐ 0.30 mg (25 kg or more)

Antihistamine, by mouth (type and dose): \_\_\_\_\_ (\*Use 0.15 mg, if 0.10 mg is not available)

Other (for example, inhaler/bronchodilator if child has asthma): \_\_\_\_\_

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

© 2017 American Academy of Pediatrics, Updated 03/2019. 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.



**CFAAR**

Center for Food Allergy  
& Asthma Research

# High School

# Adolescents and Young Adults: Food Allergies and Daily Life

**Food is ubiquitous and impacts adolescents' and young adults' daily lives in a variety of ways:**

- Social events
- Eating out with friends
- Dating

**Adolescents and young adults with food allergy are more likely to engage in risk-taking behavior in these situations:**

- Don't always carry epinephrine auto-injectors
- Less likely to speak up in restaurants and social settings to avoid talking about their allergies
- Less likely to check food labels every time before trying foods

**Individuals with FA experience highest levels of anxiety after initial diagnosis and following severe allergic reactions.**





# Risk-Taking Behavior in High School Students

- Survey developed to examine behaviors and factors that influence teens to take risks with their food allergies and understand the role parents, teachers, and friends play
- Adolescents with food allergy continue to take the following risks:
  - **13%** do not always carry an epinephrine auto-injector
  - **20%** report eating packaged foods “processed on equipment” or that “may contain” ingredients of their most severe allergen
  - **36%** report eating foods that were "manufactured in a facility" with their most severe allergen.





# School Support for Living with a Food Allergy

- Teacher awareness of a student's food allergy was associated with less risky behaviors

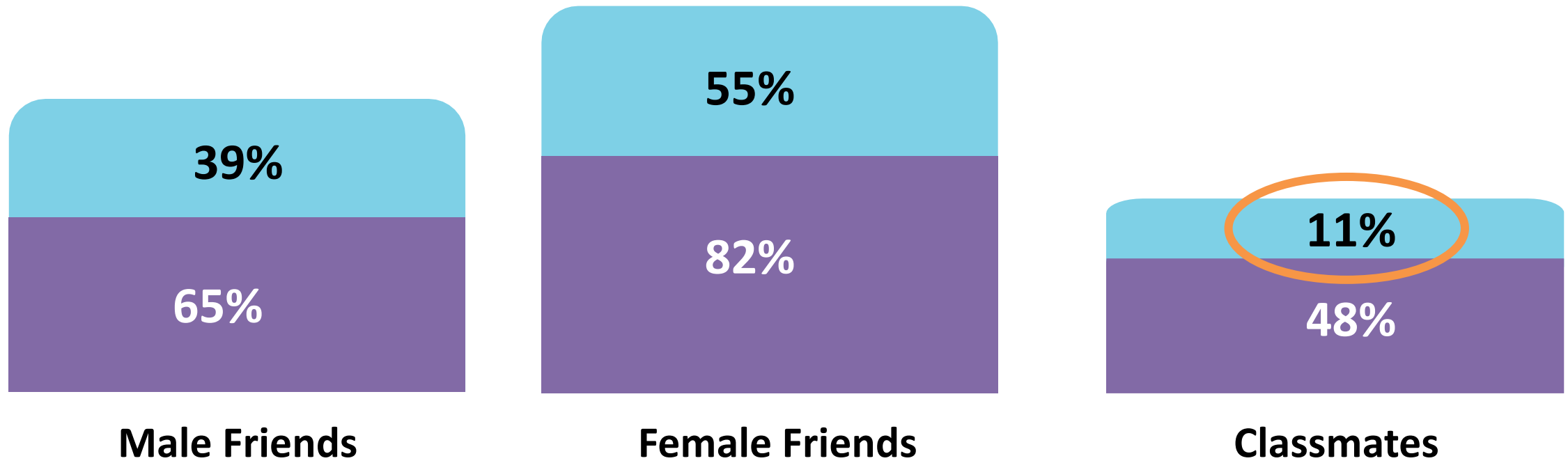


School Contact Aware of Respondent's FA	Frequency, % (n) N=200
Friends	90 (180)
School Nurse	69 (138)
Teacher	61 (122)
No One	2 (4)
I Don't Know	2 (3)
Other	20 (389)

# Support from Friends and Classmates

**11% felt that most classmates would know what to do if respondent was in a food allergy emergency**

- Supportive of FA
- Knows what to do if respondent has FA emergency



# Support from Friends and Classmates

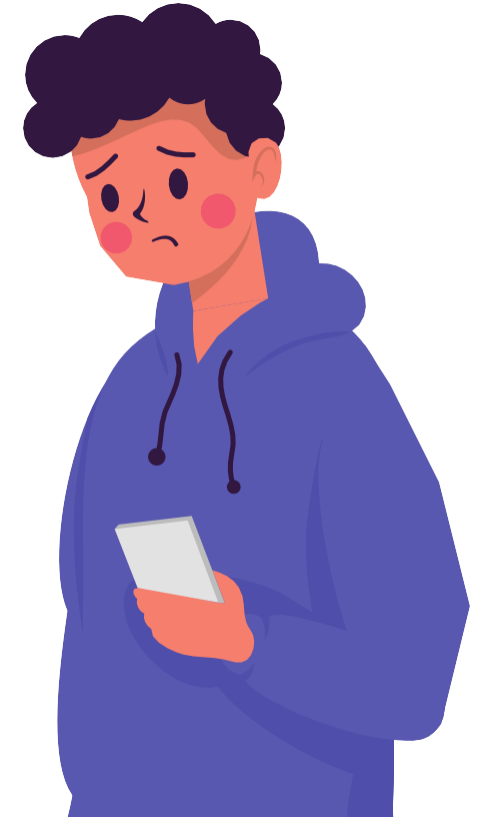
- Adolescents and young adults with supportive female friends engaged in fewer risky behaviors
- Male friends were perceived as less supportive than female friends and less likely to know what to do in the event of a food allergy emergency



# Food Allergy Bullying: A New Reality

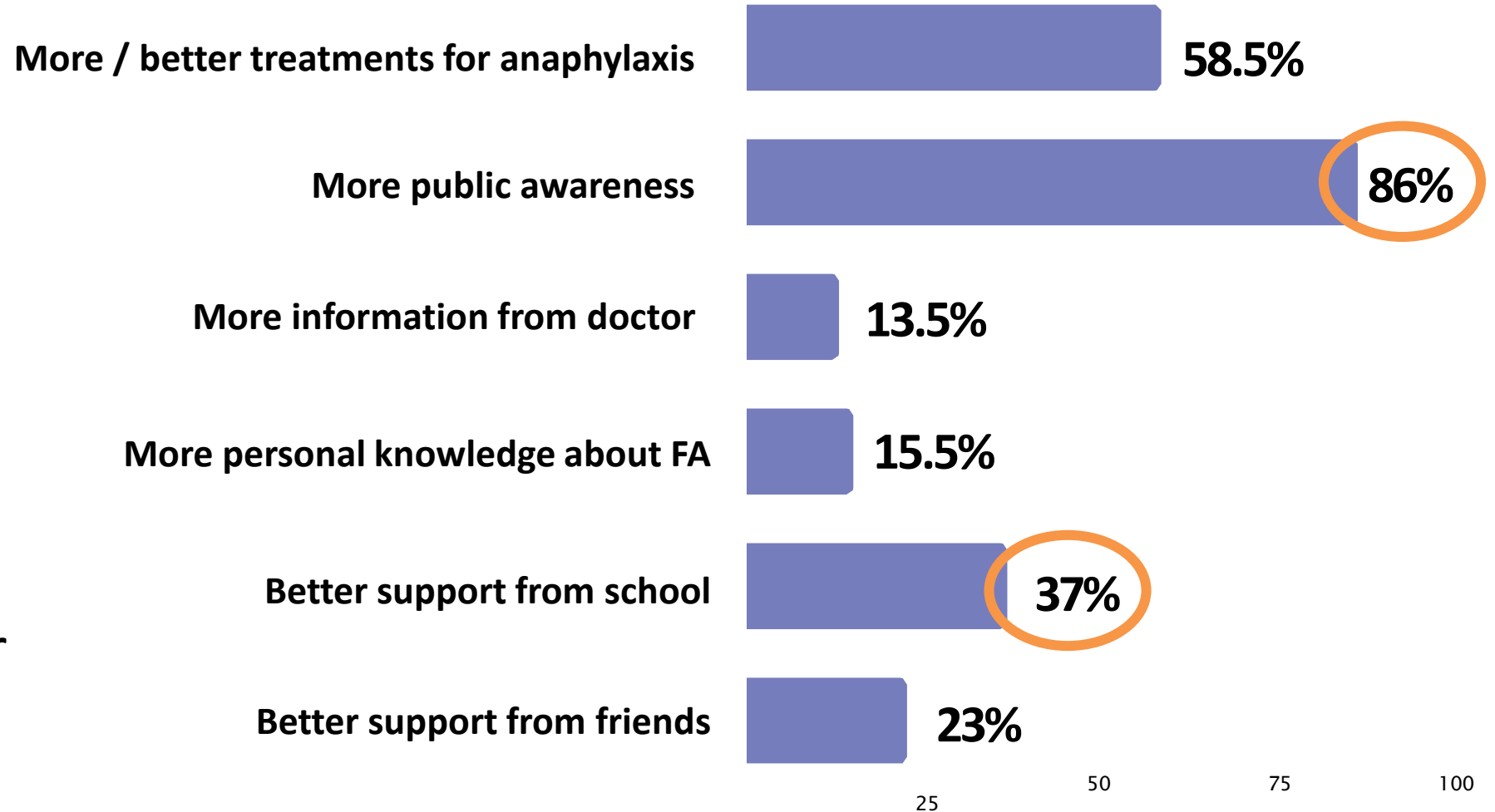
Have you ever been bullied because of your food allergy?

Variable	Frequency, %(n) N=200
Yes	43(83)
No	57(110)



# Additional Support Sought by Teens for FA

- The majority of adolescents (86%) reported needing additional support through **more public awareness** and 37% reported wanting **better support** from their school





# Reported Positive Aspects of Living with FA

Adolescents and young adults reported that food allergy:

- Made them **more responsible**
- Made them a **better advocate** for themselves and others
- Helped them **appreciate** and **offer help** to others with special needs
- Made them **more appreciative** of the foods they can eat
- Made them eat **healthier** options





**CFAAR**

Center for Food Allergy  
& Asthma Research

# College

# Food Allergies in College

Food allergy impacts nearly all aspects of students' lives on campus



Dorm Life/Social Events



Dining on and off Campus



Attending Class/Games/Clubs



# Food Allergies in College

- Nearly **10%** of college students were clinically diagnosed with at least one food allergy
- Fatal food-induced anaphylaxis is most common among the adolescent and young adult population
  - Risk taking behaviors
- Nearly **40%** of students did not consistently carry emergency medication

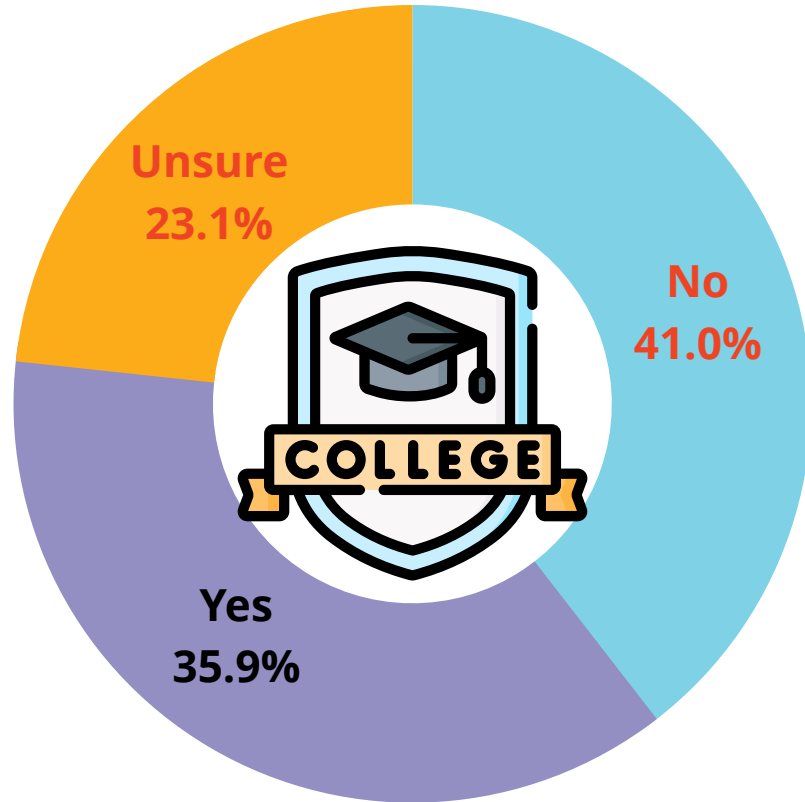


# College Study

- Online cross-sectional survey sent nationwide to college students
- **Aim:** To understand college-experience with FA and identify areas for improvement
- Completed by 204 students from 74 universities
  - 78 students reported FA

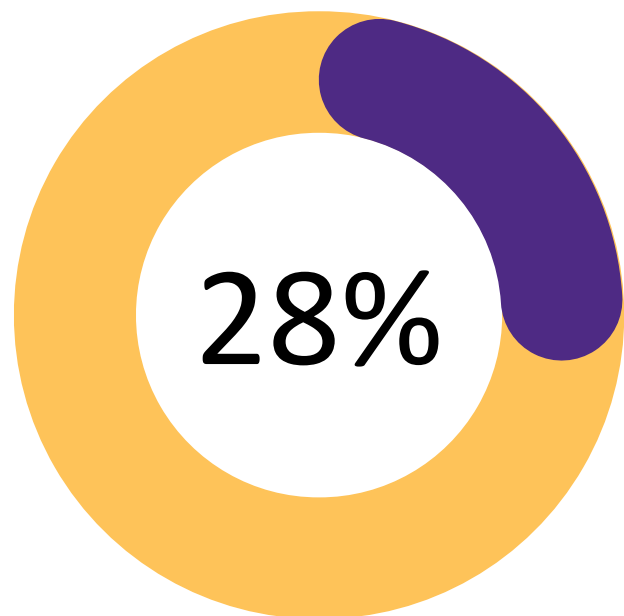






## University Awareness of Food Allergy is LOW

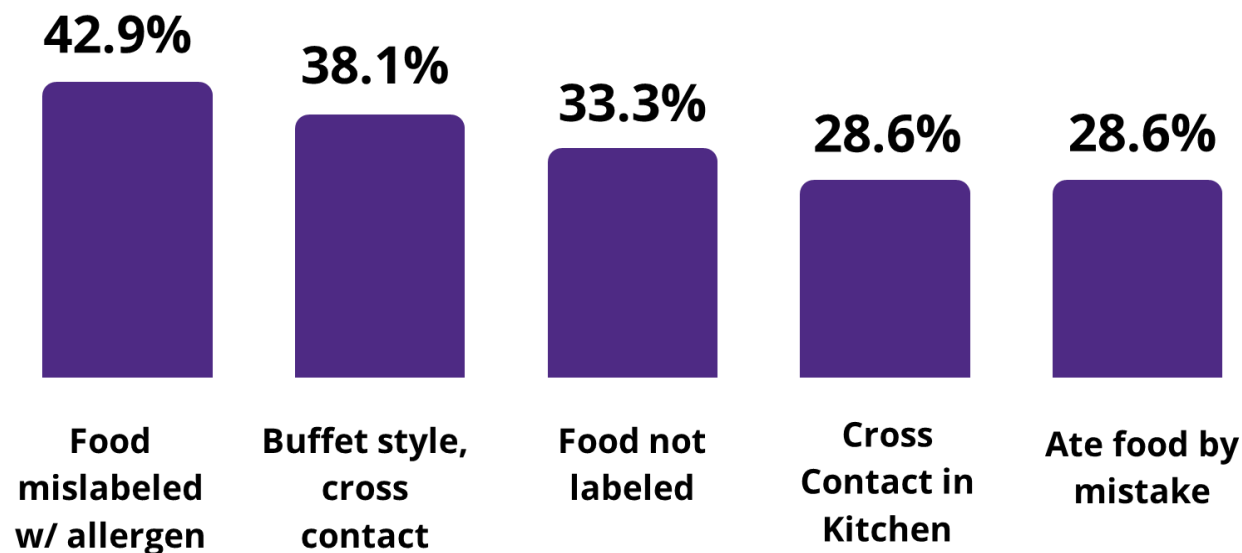
**Is the university aware of your food allergy?**



of students have had an allergic reaction in the dining hall since starting college



## Most Common Cause of Allergic Reactions in Dining Hall



# Areas Impacted by Food Allergy

What areas of your college life are impacted by food allergy?

**Social Life**



**55.1%**

**On-campus dining  
experience**



**55.1%**

**Housing / dorm  
experience**



**28.2%**

**Club / organization  
involvement**



**21.8%**

# Social Impacts

## How do you feel your FA impacts your social life?

Attend events where food is present but choose not to eat



81.4%

Feel like burden on friend group



74.4%

Feel awkward



67.4%

Worried about attending social events in case of allergic reaction

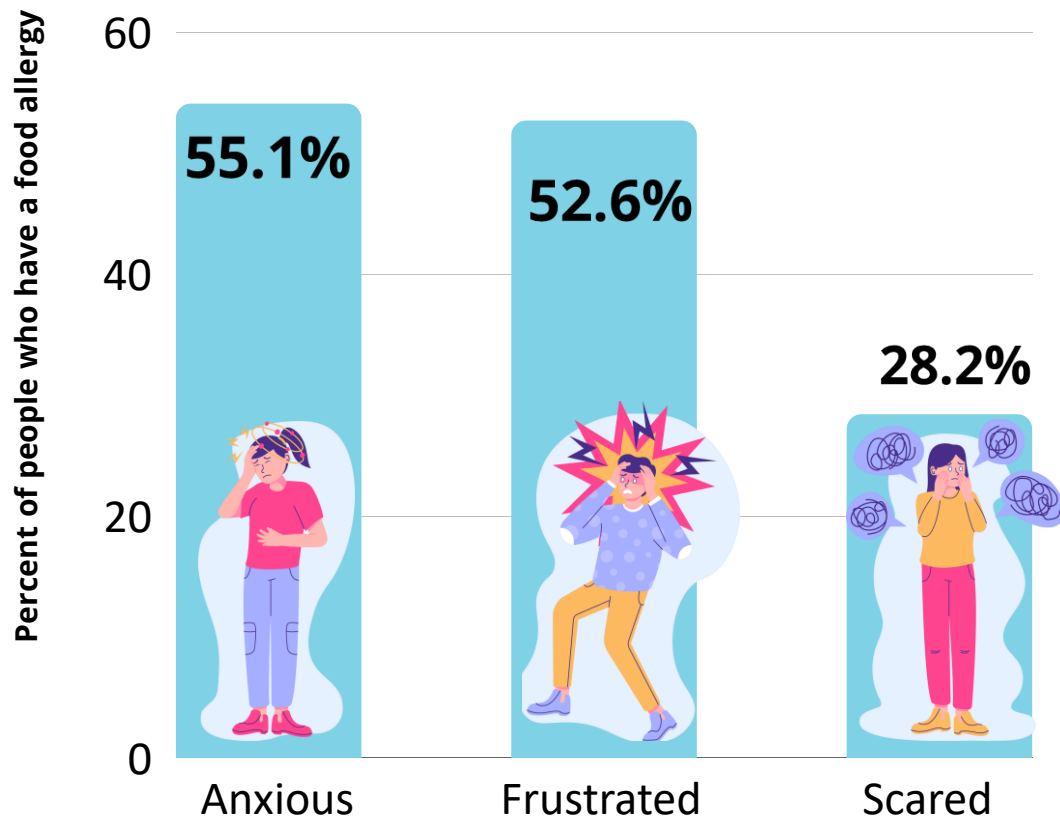


62.8%

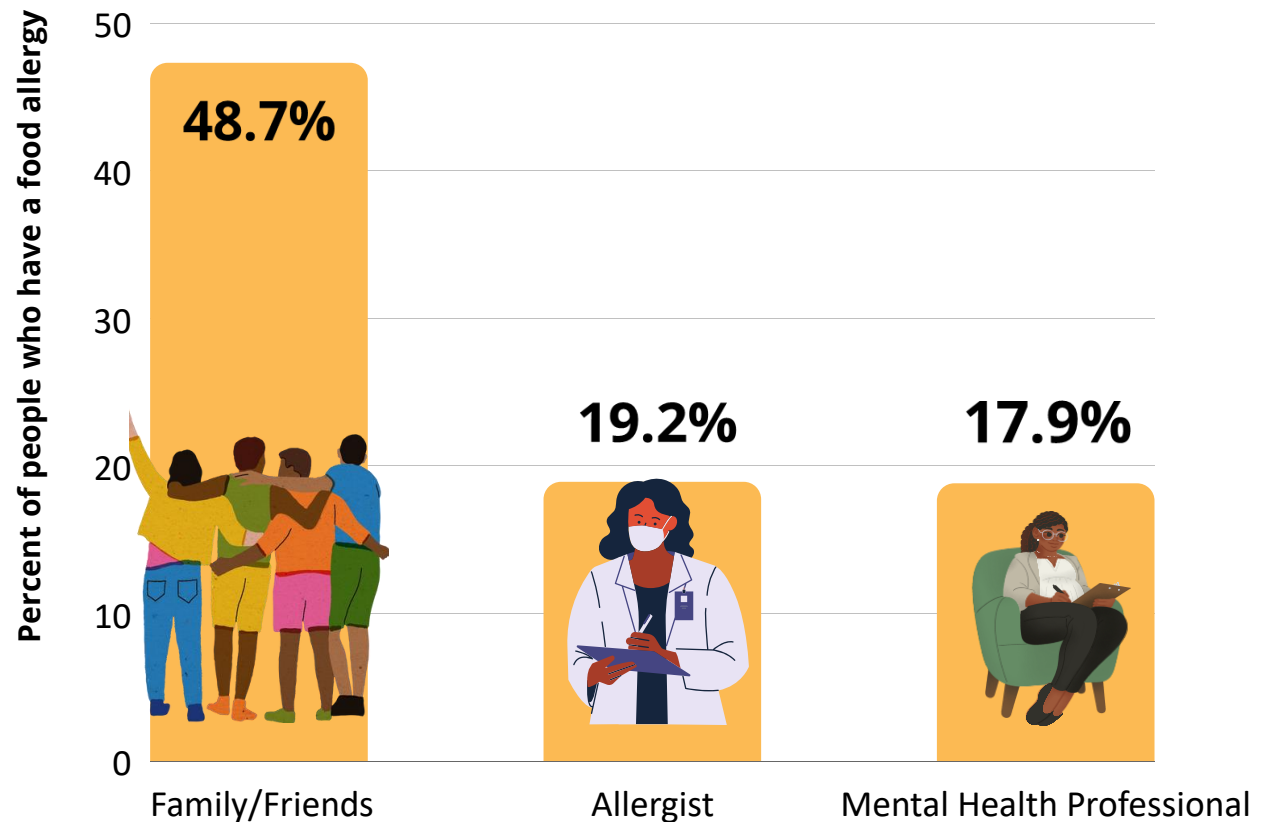
# Emotional Impacts

**50%** are more worried about their FA in college than they were in high school  
**32.5%** have had an increase in allergic reactions since coming to college.

How does having a food allergy make you feel?

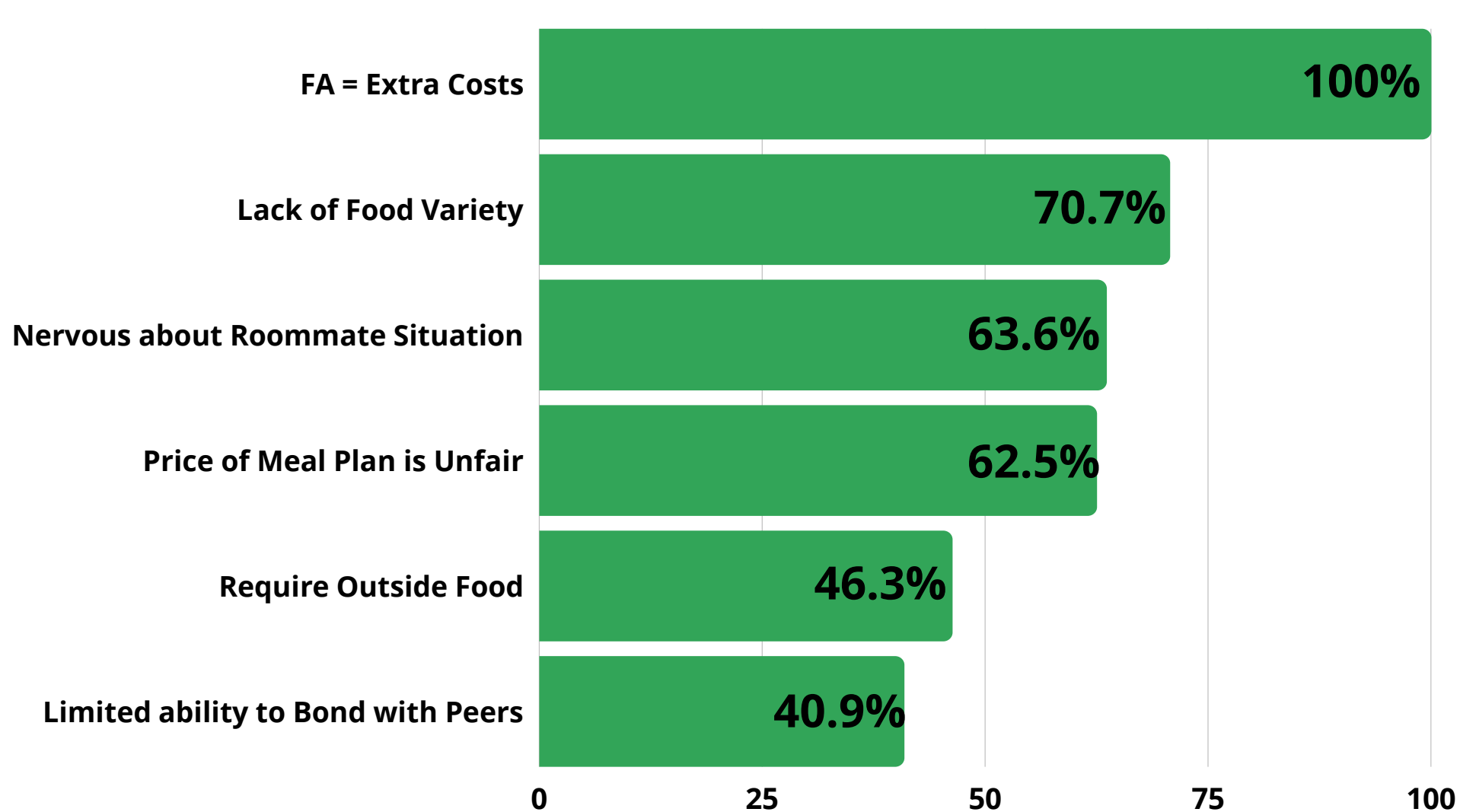


Who do you go to for support?



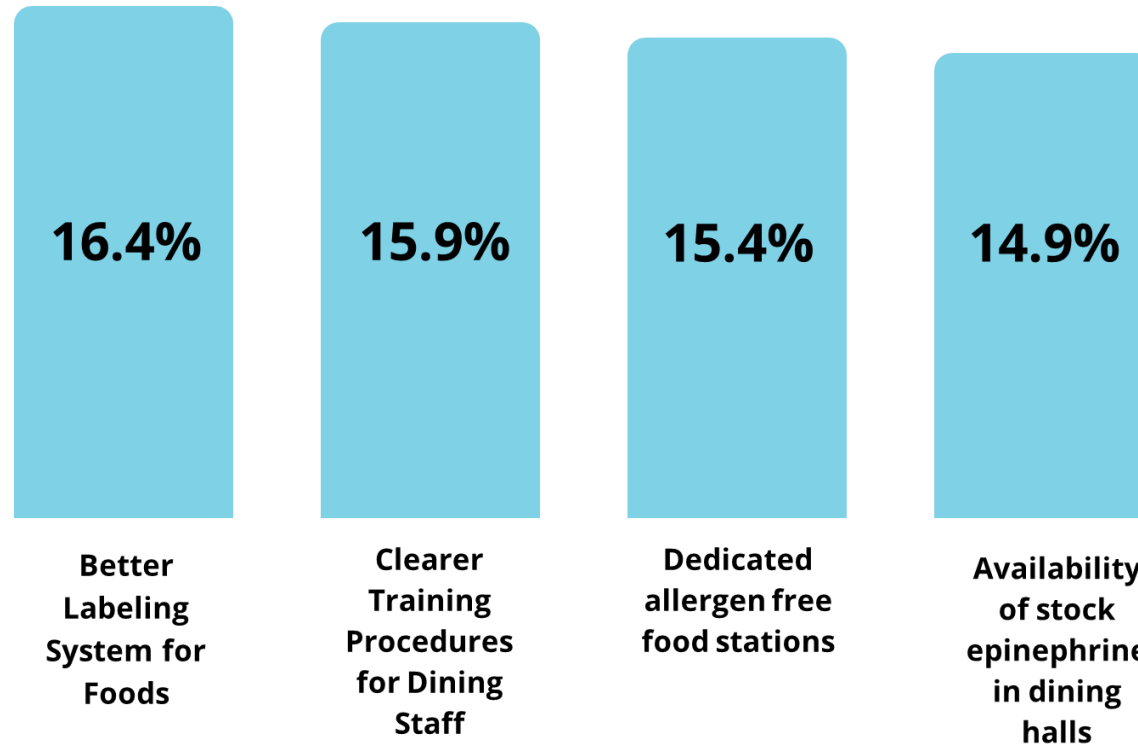
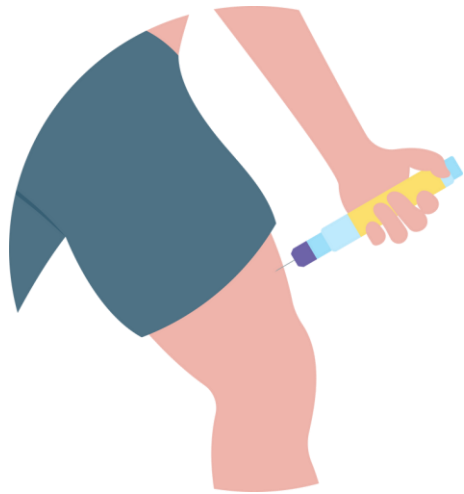


# Dorm Life / Financial Impacts



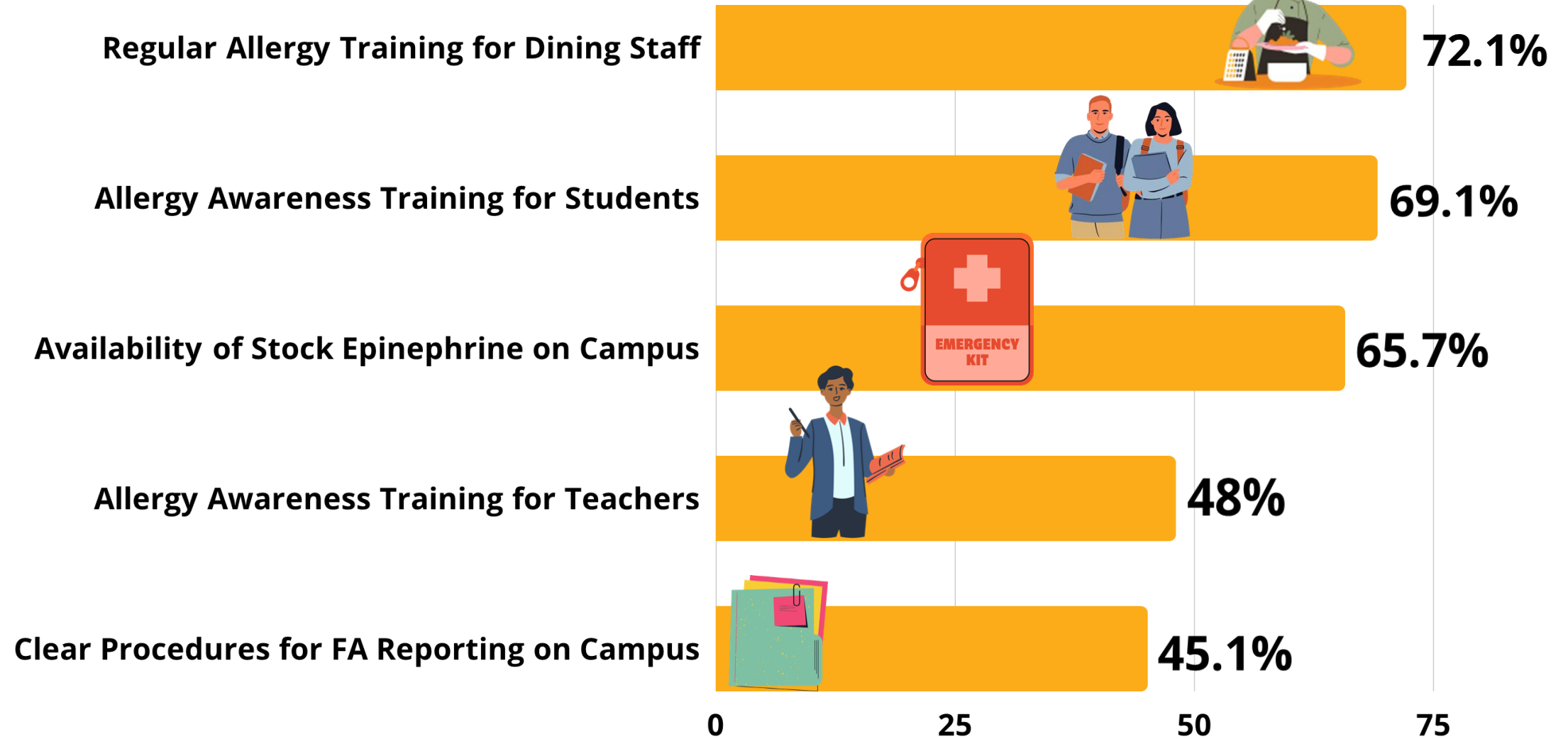
# What Students Want

## Best Ways for Dining Halls to Improve Safety



**CONTAINS  
SHELLFISH**

# What Students Want



# College Study Conclusion

- Results suggest improvements in food allergy awareness and training for universities, students, and dining staff are necessary to improve quality of life for food-allergic students on campus



# Advice for Patients: Connect with Campus Staff

- Disclose your food allergy to dining services, housing services, and student disability services prior to arriving on campus
- Talk with campus staff about the college's food allergy policies, emergency procedures, accommodations, and resources





# Advice for Patients: Get to Know the Dining Hall

- Introduce yourself to the campus dietician and dining hall staff at the beginning of the term and let them know about your dietary needs
- Locate safe zones in the cafeteria with ingredients you can trust (gluten-free and allergy-friendly stations)
- Ask each dining hall's "Allergy Expert" to detail specific ingredients in dishes you are uncertain about



# Advice for Patients: Create a Management Plan

- Develop a medication management plan with your doctor and your family
- Discuss epinephrine auto-injectors, antihistamines, other prescription medications, emergency action plans, emergency contact info, medical ID bracelets, and chef cards



# Advice for Patients: Communicate with Roommates

- Reach out to your roommate prior to move-in and let them know about your dietary needs!
- Set rules that clearly outline what you need from your roommate. Consider discussing keeping allergens out of the dorm or keeping all food separated in designated containers
- Educate them about the signs and symptoms of a reaction and how to use an epinephrine auto-injector
- Designate an easy to find location to store epinephrine auto-injectors for use during an emergency



# Advice for Patients: Make Plans for Dining Out

- Work with friends to select a restaurant that can accommodate your food allergies
- Call ahead to ensure accommodations can be made
- Upon arrival, identify yourself to the server and/or chef to ensure a safe meal can be prepared
- Consider carrying a chef's card outlining your allergens that you can give to restaurant staff



# Advice for Patients: Prepare for Social Events

- Ask the event host what is being served and share your food allergies or dietary restrictions
- BYOASF: Bring Your Own Allergy Safe Food!







**CFAAR**

Center for Food Allergy  
& Asthma Research

# The Workplace



Ann & Robert H. Lurie  
Children's Hospital of Chicago®

**M Northwestern Medicine®**  
Feinberg School of Medicine

# Food Allergy in the Workplace

- Food is an important part of work culture
  - Team meetings
  - Happy hours and socials
  - Birthdays, holidays, and special occasions
  - Everyday snacks and lunches in an open office floorplan or lunchroom
- Work environment can present challenges for employees with food allergies and related conditions, which may be unsafe and feel uncomfortable



# Disabilities in the Workplace

- According to the ADA, a person has a disability if he/she has a physical or mental impairment that **substantially limits one or more major life activities**, a record of such an impairment, or is regarded as having an impairment
- A food allergy may be considered a disability under current federal laws such as:
  - Section 504 of the Rehabilitation Act of 1973
  - Title I of the Americans with Disabilities Act of 1990
  - ADA Amendment Acts of 2008



# Accommodating Employees with Food Allergies

- Providing reasonable accommodations in the workplace environment can ensure all employees are able to enjoy and participate in the same benefits and opportunities
  - Pre-packaged foods without top allergens
  - Separate microwave
  - Ingredient or allergen labeling



# Key Take-Aways and Tips for Employers

- ✓ Review accommodations at your institution to learn how you can support an employee with food allergy
- ✓ Create Employee Resource Group
- ✓ Ensure that there are safe places and trusted people to carry epinephrine auto-injectors in case of emergency
- ✓ Ask employees to share dietary restrictions during onboarding
- ✓ When hosting potlucks, happy hours, etc., be mindful when bringing food to share. Label foods properly and separate accordingly.
- ✓ Understand needs for allergen-friendly zones in cubicles or desks
- ✓ Make employees feel comfortable, respected, and safe by listening and addressing accommodations as needed



**CFAAR**

Center for Food Allergy  
& Asthma Research

# Managing Reactions at Every Stage of Life



Ann & Robert H. Lurie  
Children's Hospital of Chicago®

**M Northwestern Medicine®**  
Feinberg School of Medicine





## MOUTH & THROAT

Itching, Swelling of lips and/or tongue,  
Tightness/closure, Coughing

## BRAIN

Headaches, Disorientation, Dizziness, Anxiety, Feeling  
of Impending Doom



## HEART

Dizziness, Drop in Blood Pressure, Fainting



## LUNGS

Shortness of breath, Coughing,  
Wheezing

## STOMACH

Vomiting, Nausea, Stomach Pain



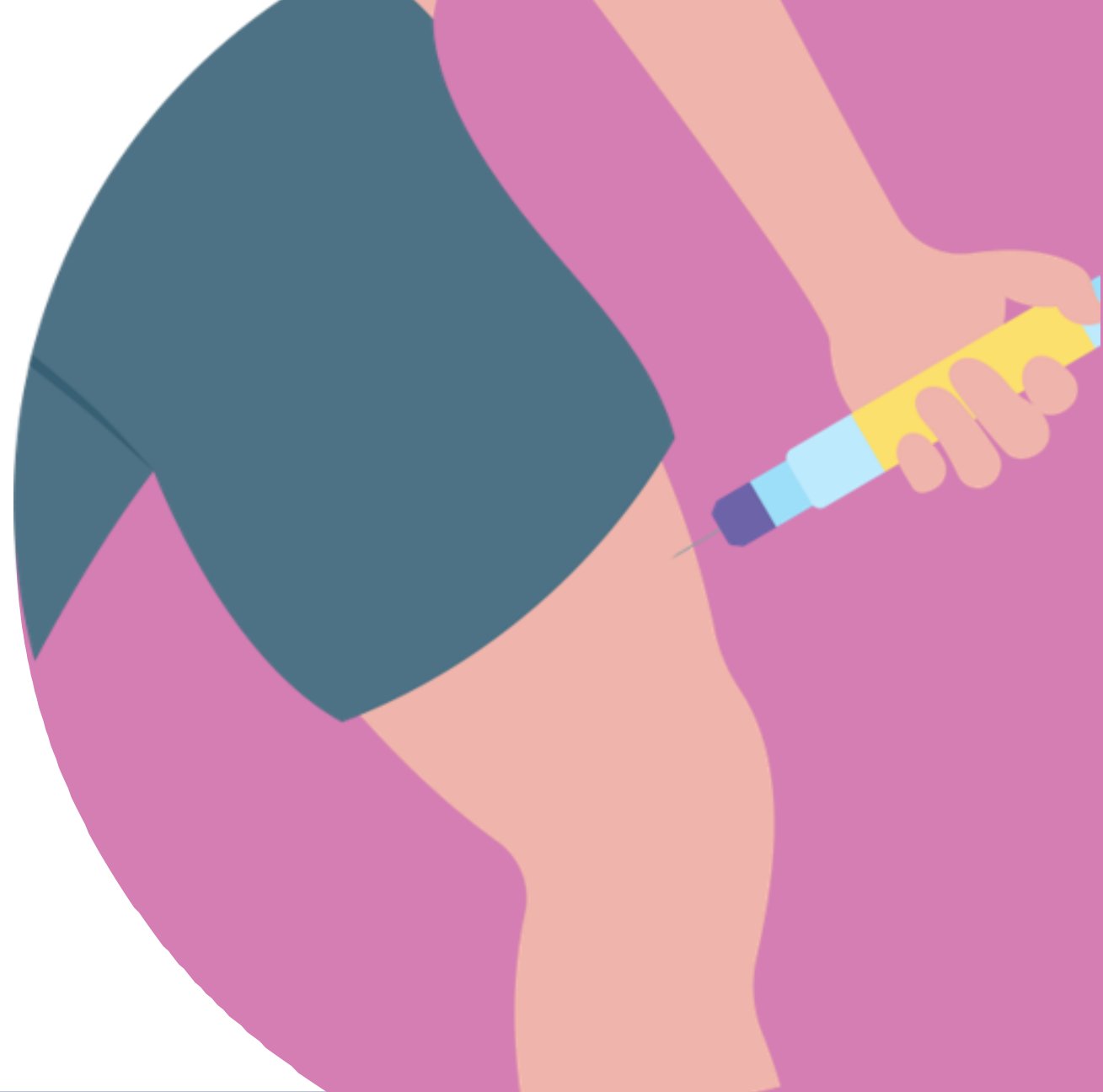
## SKIN

Itching, Hives, Redness, Swelling



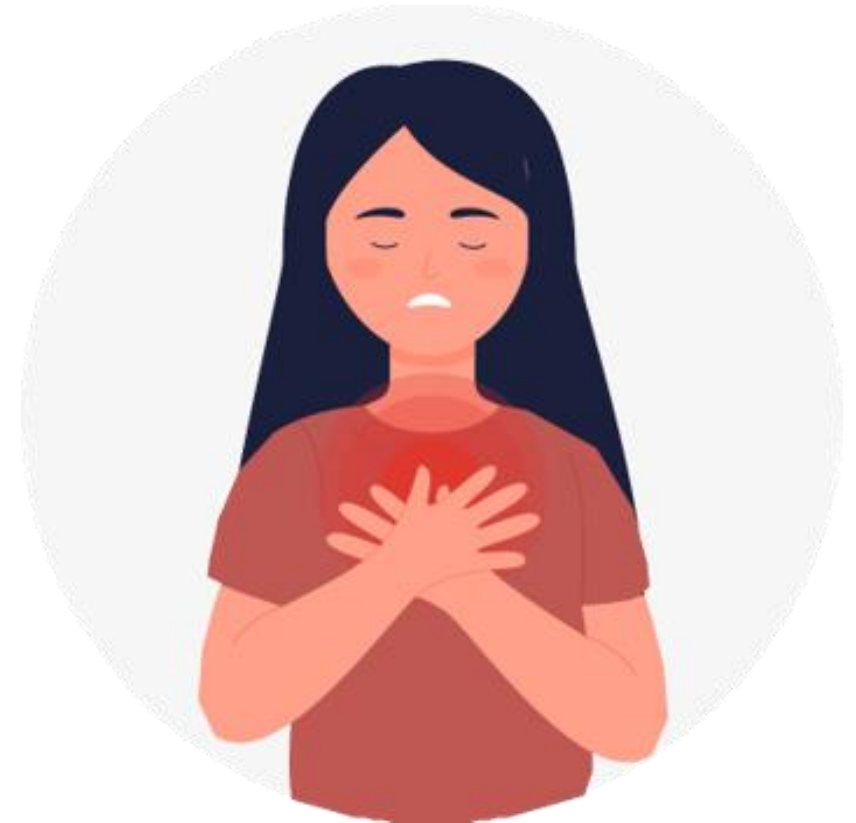
# Epinephrine

- Food allergen avoidance is the only way to prevent an allergic reaction
- In the event of an allergic reaction, especially anaphylaxis, auto-injectors are used. It delivers a single dose of epinephrine into thigh muscle. **Anti-histamines alone are not effective.**
- Epinephrine has the opposite effect of inflammatory agent
  - **Blood vessels contract and become less leaky, smooth muscles relax. Maintains blood pressure and opens airways**



# When to Use Epinephrine

- First line treatment for anaphylaxis
  - Very rare physiologic harm from use
  - Families must use own judgment, we outline optimal use
- Epinephrine **strongly** recommended for...
  - Airway or respiratory compromise
  - Cardiovascular/circulatory compromise
  - Vomiting
  - 2 or more organ system involvement (e.g., anaphylaxis)



# More About Epinephrine

- 16-30% of patients with anaphylactic reactions may require more than one dose
- Must have **two auto-injectors** at all times





## Brands:

EpiPen®

EpiPen Jr. ®

Auvi-Q ®

Adrenaclick ®

Symjepi ®

## Generic epinephrine:

Amneal Pharmaceuticals (Adrenaclick)

Teva Pharmaceuticals (EpiPen/EpiPenJr.)

Viatrix (EpiPen/EpiPenJr.)



# New Alternatives to Auto-Injectors

## Epinephrine Nasal Sprays

- neffy® – ARS Pharmaceuticals
  - FDA approved in August 2024
- UTULY™ – Bryn Pharma



## Epinephrine Sublingual Film

- AQST-109 - Aquestive Therapeutics





# Anaphylaxis and Epinephrine Checklist



Recognize the symptoms and severity of anaphylaxis



Use epinephrine **immediately**



Call 911 and go to the emergency room



Carry **two** auto-injectors



Follow up with a doctor

# Anti-Histamines

- Second line treatment for reactions
  - Slow to act (30-60 minutes)
  - Ineffective for GI, respiratory, and circulatory symptoms
  - No significant effect in the treatment of anaphylaxis in animal studies
- Effective for skin symptoms
  - Diphenhydramine (BENADRYL®) or Cetirizine (Zyrtec®)
    - When oral route acceptable consider 2nd generation H1 blockers
    - Similar onset of action to diphenhydramine with less sedation





**CFAAR**

Center for Food Allergy  
& Asthma Research

# Resources





# Early Childhood Training

- Free online training hosted by FARE, the CFAAR at Northwestern University, and Lurie Children's Hospital
- Appropriate for all adults working with young children in any setting
- Provides necessary **information, strategies, and resources** to address food allergies in early childhood spaces
- CE credit is available for early childhood professionals

## STOP.LOOK.ASK.GO

**Food Allergy Education for the Early Childhood Years.**

We want children to: **STOP** before they eat. **LOOK** at the food. **ASK** an adult if it's OK. **GO** if the adult says so.



### Collaborative partners:

- FARE
- CFAAR
- Lurie Children's Hospital
- Northwestern Medicine
- OneOp

# Food Allergy Passport

Personalized tool that helps caregivers and children manage their food allergies more easily and with greater confidence.

Available for free on CFAAR website.  
Create your own/share with patients:  
[www.foodallergypassport.com](http://www.foodallergypassport.com)!

After filling out personalized FA Passport™, it can be printed or sent via email.





# Food Allergy Workbook

## Managing Food Allergies Workbook

Parent's checklist: ✓

- ☐ Review common signs of an allergic reaction
- ☐ Teach your child where important reaction information is located in passport
- ☐ Review where epinephrine is kept at home and at school

For Parent and Child: Review Details of Past Reactions

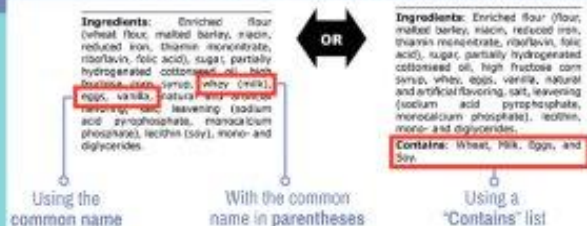
What food was eaten? \_\_\_\_\_  
What were your symptoms? \_\_\_\_\_  
What actions were taken? \_\_\_\_\_  
What worked? \_\_\_\_\_  
What did not work? \_\_\_\_\_  
What new actions will you take? \_\_\_\_\_

Pro Tip: Make sure to share these details with your allergist at your child's next appointment.

Create a list of questions you would like to ask the allergist. Make sure to jot down their answers, too!

## Food Label Tips

### ALLERGENS CAN BE LISTED IN ONE OF THREE WAYS



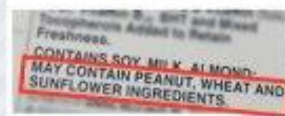
#### Pro Tip:

Read every label, every time.  
Ingredients in packaged foods may change without warning.

### WHAT ARE PRECAUTIONARY LABELS?

These labels include statements like:

- "May Contain..."
- "Processed in a facility with..."
- "Processed on equipment that also processes..."



Manufacturers do NOT have to include these statements NOR do they have to include "traces" of allergens that have come about through processing

Allergists normally tell patients to AVOID these products to prevent eating unintentional traces of an allergen due to cross contamination

## Talking about food allergies with your child



### Keep It SIMPLE

- Use **language** that is right for your child's age.
- Talk about the **"unsafe foods"** that make them very sick.
- **Show them** what the "unsafe foods" are and common snacks that may include them. When at the grocery store, point out gallons of milk or cartons of eggs to show your child what they commonly look like.
- Teach them the importance of only eating foods that are given to them by their parents or trusted adults aware of the food allergy.

### Stick To The FACTS

- Describe **accurate information** about allergic reactions and allergens.
- **Be honest** when you answer questions, but don't magnify or "over-share" things you read on social media.
- **Be calm** and use a positive tone, even if you may feel anxious or fearful about allergic reactions. As your child's role model, they will follow your lead.
- Emphasize that they are **NOT alone!** There are other kids, just like them, who have food allergies. In fact, 1 in 13 kids in the U.S. are just like them!
- Most importantly, they should know how to find an adult that can help them if they feel sick.
- Showing them where their emergency action plan and their medication that needs to be taken during an allergic reaction (epinephrine) can help them prepare if the event were to occur.

### Helpful Videos



<https://youtu.be/Fne6rMAOT9c>  
<https://youtu.be/HJU5d1gE3E8>  
<https://youtu.be/sXMUOW3FEv8>

# Peer-to-Peer Educational Videos



**K – 3rd Grade**



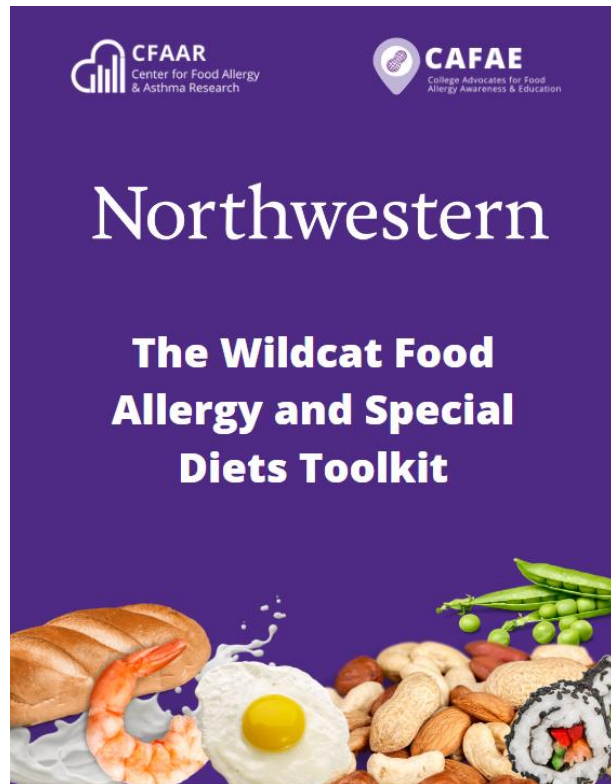
**4th - 7th Grade**



**8th - 12th Grade**



# College Toolkit



## TALKING WITH YOUR ROOMMATE

Be open and communicate your needs.

- 1 **Reach out to your roommate** prior to move-in and let them know about your dietary needs!
- 2 **Set rules that clearly outline what you need** from your roommate. Consider discussing keeping allergens out of the dorm or keeping all food separated in designated containers.
- 3 **Educate them about the signs and symptoms** of a reaction and how to use an epinephrine auto-injector.
- 4 **Designate an easy to find location to store epinephrine auto-injectors** for use during an emergency



## Allergens/Labels to Look Out for!

	<b>Peanut</b>	e.g., found in baked goods, ice creams, candy, cereals, trail mix, etc.
	<b>Tree Nuts</b>	e.g., Cashews, Almonds, Walnuts, Hazelnuts, Macadamia Nuts, Brazil Nuts, Pistachio, etc.
	<b>Milk</b>	e.g., sometimes labeled as casein, whey, lactose, etc.
	<b>Egg</b>	e.g., sometimes labeled as albumin, ovalbumin, lysozyme, etc.
	<b>Shellfish</b>	e.g., Lobster, Crab, Shrimp, etc.
	<b>Fin Fish</b>	e.g., Salmon, Cod, Tuna, Tilapia, etc.
	<b>Wheat</b>	e.g., found in Bread, Bulgur, Cereal, Couscous, Flour, Gluten, Noodles, etc.
	<b>Soy</b>	e.g. found in Tofu, Edamame, Tempeh, Miso, Shoyu Sauce, soy cheeses/milks, etc.
	<b>Sesame</b>	e.g., found in Hummus, Tahini, Falafel, Burger Buns, Bakery items, etc.

These are the top 9 most common allergens, but you can develop an allergy to any food! Be mindful when sharing foods and remember to check the label for your friends' allergens!

## HOW TO USE EPINEPHRINE



The epinephrine auto-injector can save a life.

**How to use: EpiPen® and generic epinephrine autoinjectors** follow device instructions [here](#)

1. **Remove the Safety Cap**
2. **Place orange end on mid outer thigh (with or without clothing)**
3. **Push down HARD until a click is heard and HOLD IN PLACE for 3 seconds** (read instructions on the box as timings can differ)

**4. Call 911 and GET EMERGENCY CARE**  
While waiting for care, if not improving, give 2nd dose of epinephrine

**How to use: Auvi-Q®** follow device instructions or audio/video walkthrough [here](#)

1. **Remove from the case**
2. **Remove the safety cap**
3. **Push down HARD until a click is heard and HOLD IN PLACE for 3 seconds** (read instructions on the box as timings can differ)

**4. Call 911 and GET EMERGENCY CARE**  
While waiting for care, if not improving, give 2nd dose of epinephrine

# CFAAR'S COMMUNITY RESOURCE CORNER



## Create An Asthma Action Plan

Full Name

Patient's Age

Doctor's Name

Doctor's Phone Number

Next

## FOOD ALLERGY PASSPORT

My full name is: \_\_\_\_\_  
I like to be called: \_\_\_\_\_  
Date of birth: \_\_\_\_\_  
My doctor's name: \_\_\_\_\_  
My doctor's phone: \_\_\_\_\_  
My guardian's name: \_\_\_\_\_  
My guardian's phone: \_\_\_\_\_  
Secondary contact's name: \_\_\_\_\_  
Secondary contact phone: \_\_\_\_\_

### YOU CAN FIND MY LIFESAVING MEDICATION HERE:

Epinephrine Auto injector Name: \_\_\_\_\_  
Location: \_\_\_\_\_

IN CASE OF AN EMERGENCY **CALL 9-1-1**

## MY FOOD ALLERGIES

 FISH Yes No	 EGG Yes No	 PEANUT Yes No	 MILK Yes No	 SHELLFISH Yes No	 WHEAT Yes No
 TREE NUTS Yes No	 SOY Yes No	 SESAME Yes No			

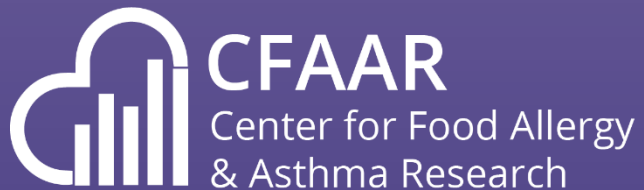


Browse all CFAAR Resources here or  
by visiting [cfaar.northwestern.edu](https://cfaar.northwestern.edu)

# Thank you!

Connect with CFAAR

[cfaar@northwestern.edu](mailto:cfaar@northwestern.edu)



**@cfaarnu**



**@cfaarnu**



**Center for Food Allergy  
& Asthma Research**



**Center for Food Allergy  
& Asthma Research**