Food Allergy Management
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Disclosures
• I have no financial conflict to disclose.

Learning Objectives
• Identify 4 key education topic areas for children, adolescents, and their families with food allergies
• Distinguish 4 components of an accidental food allergy exposure emergency plan
• Discover 4 clear strategies that will optimize outcomes for patients with food allergies
Definition

- Food Allergy – an adverse health effect arising from a specific immune response that occurs reproducibly on exposure to a given food

(US National Institutes of Allergy and Infectious Diseases [NIAID], 2010)

Prevalence

- 8% of children & 4% of adults
- Rate under 18 years of age has increased 18% in last decade

(Hefle et al., 2007)

Risk Factors

- Family history of atopy
- Atopic dermatitis
- Chronic & pruritic inflammation of the skin

(Russell, Gosbee, & Huber, 2012)
### Food Allergens

**Big 8**

- Peanuts
- Tree nuts
- Egg
- Milk
- Fish
- Crustacean shellfish
- Wheat
- Soy

### Natural History & Tolerance

- 85% will develop a tolerance to milk, egg, wheat, & soy allergies
- 15-20% will develop a tolerance to peanut, tree nuts, fish, & shellfish allergies

### General S/Sx

- Abdominal pain (D/N/V)
- Wheezing
- Coughing
- Shortness of breath
- Urticaria
- Rhinorrhea
- Flushing of skin
- Anaphylaxis
- Angioedema (oral, eyes, face)
- Pruritus (oral, eyes, skin)
- Syncope/fainting
- Dysphagia
Infant S/Sx

- Persistent colic
- Diarrhea and/or constipation
- Frequent “spitting up”
- Vomiting
- Feeding problems
- FTT

- Redness to cheeks or anus
- Scratching & rubbing
- Atopic dermatitis/eczema
- Urticaria
- Dry itchy skin/rash
- Persistent diaper rash

Diagnosis

- IgE mediated
  - Serum levels
  - SPT
- Non-IgE mediated & Mixed
  - More challenging
  - Clinical history
  - Food elimination

Patient History Questions

- What food do you think caused sx?
- How much was ingested?
- What other foods at same time?
- Are all ingredients known?
- Asthma?
- How prepared?
- Same sx other times food eaten?
- How much time between food and sx?
- Does child have hx of avoiding or refusing the food?
Treatment

• Avoidance
• No standardized desensitization therapy currently available
• Can be complicated with multiple food allergies

(Burks et al., 2012)

Education is Key
(Objective 1)

1. Product Ingredient Labels
2. Hidden Allergens in Foods
3. Food processing & Allergenicity
4. Developmental Considerations

(Russell, Gosbee, & Huber, 2012)

Ingredient labels

• Essential teaching point for newly diagnosed FA patient is learning the multiple ways allergens can be listed on product labels
Food Allergen Labeling & Consumer Protection Act

- Detailed allergen information
- Simple terms for top 8 only
- Specific type of tree nut or seafood
- Volunteer disclosure of possible cross-contamination

(Russell, Gosbee, & Huber, 2012)

Anaphylaxis S/Sx

- Skin - itching, hives, redness, swelling
- Nose - sneezing, stuffy or runny nose
- Mouth - itching, swelling of lips/tongue
- Throat - itching, tightness, difficulty swallowing, hoarseness
- Chest – shortness of breath, cough, wheeze, chest pain, tightness
- Heart – weak pulse, fainting, shock
- GI – vomiting, diarrhea, cramps
- Nervous System – syncope, fainting

(National Institute of Allergy and Infectious Disease, 2011)

Treatment of Anaphylaxis

- Epinephrine injection
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Epinephrine Dose

- 0.01 mg/kg (1:1000) IM
- Every 5-20 minutes x 3 doses as needed
- Maximum dose – 0.5 mg IM

Epinephrine Auto-Injector

- 10-25 kg = 0.15 mg auto-injector IM
- >25 kg = 0.3 mg auto-injector IM
- May repeat one time

Components of an Accidental Food Allergy Exposure Plan

(Objective 2)

1. What to do when suspected ingestion
2. What to do with known ingestion
3. What to do with known ingestion with symptoms
4. When to call 911 or go to nearest ED
Management Strategies  
(Objective 3)  
1. Identify optimal timing for FA education  
2. Identify education content needs of patients and parents  
3. Identify routes of possible exposure  
4. How to Plan Ahead  

(Russell, Gosbee, & Huber, 2012)

Education – Initial Diagnosis  
• Intense desire for information  
• Period of disbelief and distress  
• Most requested more vs. less information at this time  
• FA are a life changing event  

(Russell, Gosbee, & Huber, 2012)

Potential Risks  
• Anaphylaxis  
• Nutritional insufficiency and FTT  
• Cross contact through saliva  

(Russell, Gosbee, & Huber, 2012)
Planning Ahead

- Birthday parties
- Sleep overs
- School field trips
- Sporting events
- Eating out

Education – Follow Up

- After a year:
  - More about current allergy status
  - Recent scientific developments
  - New safe food products
  - Feedback on management

Education - Milestones

- Requested information at milestones or new events
- New precautionary strategies
- When parent would be absent
Developmental Considerations

- Can influence:
  - FA risks
  - Symptom perceptions
  - Emotional impact of diagnosis

Specific Considerations

Preschool
- Responsibility with caregiver

School-age
- Starting to take some to all responsibility for communicating about food allergy and if having a reaction

Adolescents

- Risk taking behavior varied by social circumstances and perceived risks
- Many viewed high schools as less protected environments as compared to elementary schools
Thank you