



- I'm a consultant for National Peanut Board
- Southern Fried Nutrition Services is my nutrition communications and consulting firm, and I also see some private clients
- I'm a podcaster (Southern Fried Girlfriends podcast), writer, and speaker

Disclosures

Learning Objectives

1

Direct parents and patients using the latest guidelines for nutrition intervention to prevent food allergies, obtain an accurate food allergy diagnosis, and successfully manage food allergies.

2

Implement an evidence-based approach as RDs educate patients in order to reduce the risk of food allergy reactions while protecting quality of life.

3

Understand and use the appropriate educational approaches and techniques to teach families, pediatric patients, or adult patients about successful food allergy management.



What is a Food Allergy? (FA)

Immunoglobulin E, or IgE, -mediated reaction

Typically to protein, but can be to other substances (e.g. alpha-gal)

Very quickly results in a reaction – usually within minutes, up to 2 hours

Reactions can be life-threatening

Reactions are unpredictable

Reproducible every time the food is eaten

Treatment is avoidance, emergency medications

Signs and Symptoms of Food Allergies

SIGNS AND SYMPTOMS OF ANAPHYLAXIS
Anaphylaxis (or a "911 call") is a severe allergic reaction that causes a person to feel the physical effects of anaphylaxis. The most common anaphylactic reactions are to foods, insect stings, medications, and latex.

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

- PROTEIN:** itching, tingling, swelling of the lips/tongue/throat (roof of the mouth)
- THROAT:** Swallowing, tightening of throat, difficulty swallowing, hoarseness, cough, wheezing or rales, high-pitched sound of voice breathing in
- LUNGS:** shortness of breath, wheezing, coughing, chest pain, tightness
- GASTRO:** abdominal pain, nausea, vomiting, diarrhea
- SKIN:** hives or other rash, redness/flushing, itching, swelling
- EYES/NOSE:** watery eyes, itching, nose, sneezing, watery and open, itchy eyes, swollen eyes
- CIRCULATION/HEART:** chest pain, low blood pressure, weak pulse, dizziness, fainting, lightheadedness or falling, blurry (lack of focus)

SEVERE & POTENTIAL LIFE-THREATENING SYMPTOMS

Consult with a board-certified allergist for an accurate diagnosis and management plan.

FAACT
Food Allergy Action and Awareness Center
www.foodallergy.org
1-800-551-0133
Fax 1-877-251-2125
PO Box 1811
West Chester, OH 45381
info@foodallergy.org

<https://www.foodallergyawareness.org/education/education-resource-center/>

Diagnosing a Food Allergy

Symptoms suggestive of IgE-mediated food allergy (TABLE 3)

```

graph TD
    A[Symptoms suggestive of IgE-mediated food allergy (TABLE 3)] --> B[History of anaphylaxis]
    A --> C[Consider previous reactions, family history, and use of food diaries]
    B --> D[Refer for consultation]
    C --> E[Confusing history]
    C --> F[Specific food clearly suggested]
    E --> G[Refer for consultation]
    F --> H[Tailored IgE testing]
    H --> I[Negative]
    H --> J[Positive]
    I --> K[Allow food in diet with close observation]
    J --> L[Food challenge or possible trial of elimination diet]
            
```

Adapted from <https://www.aafp.org/afp/2012/0701/p443.html>

Everything Starts with History

Initial questions and information to consider for clients with possible food allergy:

Category	Items to Consider
Symptom and atopic history	Ask specific questions about symptoms and pattern of appearance by system, including details regarding skin, oropharyngeal, gastrointestinal, upper and lower airway, and cardiovascular symptoms. Has anaphylaxis occurred? Do symptoms occur intermittently or continuously? Determine the age, circumstances under which, and location where symptoms first appeared. What were past treatment experiences? Were there any extrinsic factors, such as medications, exercise, or alcohol that might influence reactions?
	Are there current and/or previous potentially associated conditions (eg, other atopic disease or asthma) in the client? What about other family members? infertility or pregnancy?
	Assess anxiety regarding condition.
	Catalogue current medications or supplements.
Linking foods to symptoms	Determine what previous food elimination may have been attempted and whether or not it was helpful. Ask about symptoms related to food. Collect a detailed list of potential foods currently being avoided as a means to avoid symptoms. Based on the information collected, determine whether or not the individual is currently on a restricted diet and/or at risk for deficiencies.

Practice Paper of the Academy of Nutrition and Dietetics: Role of the Registered Dietitian Nutritionist in the Diagnosis and Management of Food Allergies. <https://onlinelibrary.wiley.com/doi/10.1111/1751-2220.12402>

Unproven Tests for Diagnosing Food Allergy

- Allergen-specific immunoglobulin G
- Facial thermography
- Applied kinesiology
- Gastric juice analysis
- Basophil histamine release/activation
- Hair analysis
- Cytotoxic assays
- Intradermal allergy testing
- Electrodermal test
- Mediator release assay (LEAP diet) provocation neutralization
- Endoscopic allergen provocation

Food Allergy Prevalence in Childhood

- "There is no known food allergy prevalence." - The National Academies of Sciences, Engineering, and Medicine expert, ad hoc committee
- Estimated at 6-8% of children
- Prevalence varies and is widely based on age (and the study)



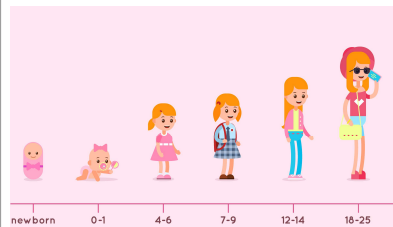
Most Common Food Allergens in the US

- Milk
- Egg
- Peanut
- Tree nut
- Crustacean shellfish
- Fish
- Soy
- Wheat
- Sesame (emerging)
- Beef/red meat (emerging)



11

Natural History of Food Allergies



12

Food Allergies CAN Be Outgrown

- Milk and egg are most likely to resolve in early childhood
- Peanut and tree nut are less often outgrown
- BUT children are holding on to their allergies longer than in years past
- Following IgE levels can help determine if/when resolution happens, but only OFC can truly tell
- Baked milk and egg, if tolerated, can help hasten resolution
- Severity of reactions does not necessarily get worse with repeated exposure, but infants are less likely to have anaphylaxis than older children

13

Nutrition Problems & Interventions

Healthy Eating is a Journey

- Food is one part of a child's development
- Learning to eat healthy food is part of learning everything else, and our children are learning it *all* at the same time
- Teaching your child to be a healthy eater requires patience, consistency, and trust in the process
- Be flexible!

15

What is Normal Eating?

Normal eating . . .

is going to the table hungry, and eating until you are satisfied.

Normal eating . . .

is being able to choose food you enjoy and to eat it and truly get enough of it—not just stop eating because you think you should.

Normal eating . . .

is being able to give some thought to your food selection so you get nutritious food, but not being so wary and restrictive that you miss out on enjoyable food.

Normal eating . . .

is giving yourself permission to eat because you are happy, sad, or bored, or just because it feels good.

Normal eating . . .

is mostly three meals a day—or four or five—or it can be choosing to munch along the way.

Normal eating . . .

is leaving cookies on the plate because you will let yourself have cookies again tomorrow, or eating more now because they taste so great!

Normal eating . . .

is overeating at times, and feeling stuffed and uncomfortable . . . and undereating at times, and wishing you had more.

Normal eating . . .

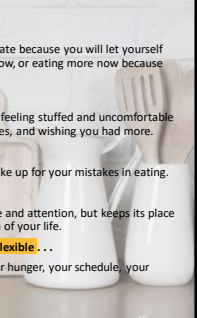
is trusting your body to make up for your mistakes in eating.

Normal eating . . .

takes up some of your time and attention, but keeps its place as only one important area of your life.

In short, normal eating is flexible . . .

it varies in response to your hunger, your schedule, your food, and your feelings.



Elynn Satter Institute. <https://www.elynsatterinstitute.org/wp-content/uploads/2017/11/What-is-normal-eating-Secure.pdf>



With Food Allergies...

- ...normal eating is interrupted
- ...picky eating can be exacerbated because of fear
- ...multiple food allergies are a significant issue

Interventions to Consider

- Coach the family on division of responsibility
- Promote a diverse diet
- Educate to reduce fear



18

Specific Nutrients of Concern



Milk – protein, calcium, vitamin D



Fish, Peanuts, Tree Nuts – protein, healthy fats, vitamin E, niacin



Wheat – B vitamins, fiber, folic acid



Eggs – protein, vitamins A & D, choline

19

Normal Growth May Be Impaired

Having any food allergy (OR perceived food allergy) risks normal growth in young children.

Those with cow's milk allergy (CMA) are at a particularly high risk, especially those under 2 years of age.

Having more than 2 food allergies increases risk even more.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4291552/>

20

Statistics for Growth Faltering with CMA

- In one study of more than 1,000 children, those with milk allergy had lower weight and height compared to those with peanut/tree nut (TN) allergy
- A separate study of adults with lifelong CMA showed milk-allergic adults to be shorter than those without a CMA
- Intake of calcium, vitamin D, and protein tend to be lower in those with CMA

Compounding the Problem

- Persistent Food Allergy
- Other common comorbidities with food allergy can exacerbate growth faltering. Examples include:
 - Eczema
 - Asthma
- Persistent FA + eczema

22

Interventions to Consider

- Liberalization of diet
- Appropriate substitutions
- Supplementation

Choose **MyPlate.gov**

23

Nutrition Education

Avoidance

Avoidance

- Currently, the only approved "treatment" for food allergies is strict avoidance and emergency medications (epinephrine) as needed
- Most reactions occur as the result of accidental exposure from a caregiver (37%), but also happen outside the home
- Education is the key to successful avoidance, but reactions are common and preparation is essential for better outcomes

Emergency Medications

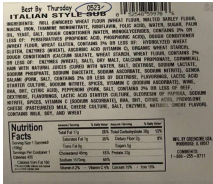
EPINEPHRINE IS THE ONLY RECOMMENDED TREATMENT FOR ANAPHYLAXIS.

THERE IS NO CONTRAINDICATION FOR EPINEPHRINE.

ALWAYS CALL 911 WHEN EPINEPHRINE IS ADMINISTERED.

ANTIHISTAMINES AND INHALERS DO NOT TREAT ANAPHYLAXIS.

Label Reading & PAL



- Food Allergy Labeling and Consumer Protection Act (FALCPA)
 - Only addresses top 8 allergens
 - Must be explicitly listed on the labels by common name (including specific type of nut, fish, and shellfish)
 - Does not include fresh foods (produce, meats, fish)
 - There are exemptions:
 - Highly refined oils (e.g. soy and peanut)
 - Soy lecithin
- Precautionary Advisory Labeling (PAL)
 - Not regulated
 - Varies widely between and within manufacturers
- Food allergen recalls are not uncommon and most often due to milk

Read Labels 3 Times

- At the store
- When putting away at home
- Before preparing to eat



Prevent Cross Contact

- When storing and preparing foods, it is important to prevent cross-contact
- It is not necessary, though it may be preferred, to remove allergens from the home
- Even a small amount of protein, which cannot be seen, can cause a potentially serious reaction

Meal Preparation

- Teaching cooking skills is an important part of nutrition education for families managing food allergy
- Determine who typically shops for and prepares food; assess skill level
- Educate extended family members and/or childcare providers
- Consider in-home cooking lesson(s), if necessary




Dining Away From Home

-  Plan ahead and research options
-  Call the restaurant in advance and ask about food allergy awareness, accommodations, and special menus (if needed)
-  Notify the server upon seating and ask to speak with the chef
-  Consider carrying a chef card
-  Avoid risky restaurants (e.g. seafood restaurants, bakeries, Asian and Indian restaurants)
-  When in doubt, take no chances

31

School Nutrition

- “Reasonable Accommodations” in school are required by the Americans with Disabilities Act (ADA)
- Safe and equal access to education is required by law
- Parents may request a 504 Plan for the accommodation if necessary
- Does not require that the school be “free from” any allergens (and research shows this may not reduce risk)



32

College & University Dining


- Accommodations are also required in college and universities
- Types of accommodations vary widely from allergen-safe dining halls to exemptions from meal plans
- Adolescents with persistent food allergies should begin the process of considering school choice early
- Parents can participate, but students ≥ 18 are legally adults, therefore early self-advocacy training is important





Travel

- Research in advance
- Choose locations that offer a safer experience
- Consider an extended stay hotel or apartment rental with kitchen
- Always carry emergency medications (2 epinephrine injectors)
- Bring safe food and do not eat food provided by airline carrier
- Notify airline of food allergy and ask what accommodations are possible
- Board early and clean seat area, including tray table
- If international travel, consider chef card in multiple languages
- Risk vs. benefit of travel should be discussed, as well as quality of life



Management Changes with Age

- Growth
- Developmentally appropriate
- Autonomy

35




Emerging Treatments

Oral Immunotherapy and More



Oral Immunotherapy

- A tiny amount of allergen is eaten in increasing doses over months
- Increases threshold for anaphylaxis
- Most participants have reactions, many are GI related, but anaphylaxis has happened
- Is not a cure



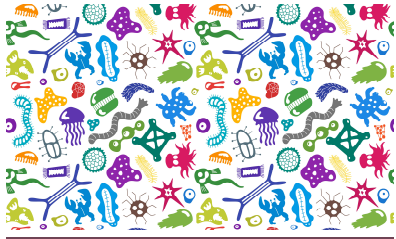
Epicutaneous Immunotherapy

- A patch impregnated with protein is worn on the skin
- Sweat mixes with the protein on skin
- Langerhans cells bring protein to deeper layers of skin
- Increases threshold for reactions
- Has few side effects
- Is not a cure

Biologics

Peanut allergy shots? A new Stanford-led study shows an antibody injection could prevent allergic reactions
 by Kristin Lam, USA Today | November 14, 2019

<http://www.usatoday.com/story/news/health/2019/11/14/peanut-allergy-treatment-stanford-study-antibody-injection/4181723002/>



What Else?

- Microbiome
 - Probiotics?
 - Probiotics + Immunotherapy?
- Vaccination
- Chinese herbal remedy

Not ready for prime time



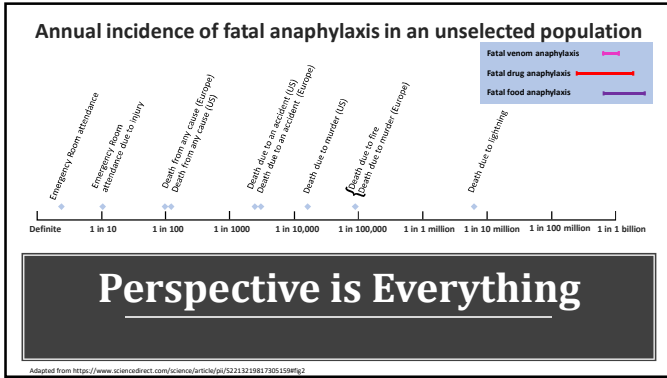
Quality of Life (QOL)

Having Food Allergies Adversely Effects QOL

- Mothers carry disproportionately more anxiety than fathers
- Parents significantly restrict normal activities for family and child
- Children of highly-anxious parents tend to be highly anxious, too
- Parents and caregivers are most fearful of death due to anaphylaxis
- Wheat, soy, and milk are associated with worst QOL



Warren C, Ober A, Lombard L, Gupta R. The psychosocial burden of food allergy among US adults: a population-based survey. *Journal of Allergy and Clinical Immunology*. 2019; November 7-11, 2019; Houston, TX. Abstract P137.



"Relaxed Readiness"

Dr. Shahzad Mustafa

Always	Always follow keys to safe eating. Read every label, every time. Ask all the questions. When in doubt, don't eat it.
Meds	Always have emergency medication on hand and don't be afraid to use it.
911	Always have a phone available to call 911.
Enjoy	Always seek to enjoy life to the fullest!

44

Support Groups and Beyond

- Families need supportive environments and factual information
- Food allergy support groups can provide both... sometimes
- Encourage psychological and family counseling, as needed, for more significant anxiety and fear
- Continue to provide tools for successful navigation of all food environments and nutrition-related problems, while referring to other experts to support QOL and reduce anxiety



Practice Pearls

- Be a reliable partner for parents and children. Food allergies are a family condition.
- Educate to empower at every age with a focus toward safety and QOL.
- Employ liberalization of the diet as much as is safely possible.
- Encourage family to continue regular visits to allergist for retesting and possible resolution.
- Keep up with the latest research and news for available treatments for food allergies.

47

Children with Food Allergies Are Not Little Adults

Children with Food Allergies Are Not Little Adults

For More Resources


International Network for Diet and Nutrition in Allergy
(INDANA, indana-allergy-network.org)

Food Allergy & Anaphylaxis Connection Team
(FAACT, foodallergyawareness.org)

Food Allergy Research Education
(FARE, foodallergy.org)

Kids with Food Allergies
(kidswithfoodallergies.org)

49



Questions?

Join us for Part 3,
Counseling for Food Allergies in Adults,
on February 5, 2020 at 2 p.m. EST.
Register at ce.todaysdietitian.com.

Sherry Coleman Collins, MS, RDN, LD
SouthernFriedNutrition.com
[@DietitianSherry](https://twitter.com/DietitianSherry)

Credit Claiming

You must complete a brief evaluation of the program in order to obtain your certificate. The evaluation will be available for 1 year; you do not have to complete it today.

CREDIT CLAIMING INSTRUCTIONS:

1. Go to www.CE.TodaysDietitian.com
2. Go to "My Courses" and click on the webinar title.
3. Click "Take Course" on the webinar description page.
4. Select "Start/Resume" Course to complete and submit the evaluation.
5. Download and print your certificate.
