Overcoming Key Barriers to Peanut Allergy Prevention

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Educational Objectives

By completing this educational activity, the participant should be better able to:

1. Review the impact of peanut allergies on patients.
2. Discuss the advantages of early peanut introduction.
3. Review best practice guidelines for food allergy testing.

Speaker Disclosure

Dr. Gruhlkey disclosed that he is an employee of Direct Allergy.

Supporter Disclosure

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OVER COMING KEY BARRIERS TO PEANUT ALLERGY PREVENTION

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Written by THERESA JACOBS, MD, FAAFP

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Disclosure of Financial Interest

I, Jay L. Gruhlkey, MD, FAAFP have a financial arrangement with Direct Allergy, that could be perceived as a real or apparent conflict of interest in the context of this presentation. A speaker's honorarium has been paid by Texas Academy of Family Physicians.

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OBJECTIVES

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Food Allergy Impacts Quality of Life

- Food allergy limits a major life activity and may qualify an individual for protection under the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973.
- Caring for children with food allergies costs U.S. families nearly $25 billion annually.
- About one in three children with food allergy reports being bullied as a result.

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PEANUT ALLERGIES

Roughly 1.2 million children and teens in the United States -- or just over 2% of the non-adult population

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PEANUT ALLERGIES

Among babies under the age of 1 year, one of the studies showed a roughly three-fold increase in peanut allergy between 2001 and 2017, with the most current incidence estimated to be 5.2%.

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Possible Prevention

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Learning Early About Peanut Allergy (LEAP)

- 640 infants at high-risk for peanut allergy d/t egg allergy or mod/severe eczema
- Half ate peanut foods at 4-11 months
- Half avoided
- Up to 86% reduction in peanut allergy at the end of 5 years
- Early introduction is safe and effective
- http://www.nejm.org/doi/full/10.1056/NEJMoa1414850#t=article

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Persistent of Oral Tolerance to Peanuts

LEAP-On

- Followed same kids from LEAP for 12 more months
- Everyone avoided peanut foods
- Tolerance and protection from early introduction was retained
- http://www.nejm.org/doi/full/10.1056/NEJMoa1514209#t=article

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Early Peanut Introduction

- High risk infants should begin **peanut foods** between 4 and 6 months of age.
- All other infants should begin around 6 months.
- Doing so greatly decreases the risk of developing a **peanut** allergy.

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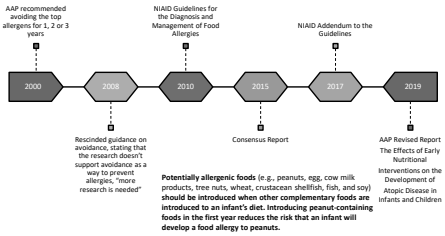
Quick History of Feeding Guidelines



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There are three groups for infants according to the guidelines:

1. Severe eczema, egg allergy or both
2. Mild to moderate eczema
3. No eczema or any food allergy

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Group 1: Severe Eczema, Egg Allergy, or Both

- This group is at highest risk to develop peanut allergy and would benefit most from early introduction
- A physician (allergist) may evaluate via sIgE testing.(Most recent AAAAI recommendations are to skip screening)
- No sensitization (negative IgE testing) indicates very low risk for allergic reaction upon introduction
- Physicians should consider offering introduction in office for those with sensitization.

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Group 2: Mild to Moderate Eczema

- These infants do not need peanut IgE testing before introduction
- It is recommended that these infants be introduced to age-appropriate peanut-containing foods as early as 4 to 6 months of age
- Infants should already be eating other solid foods to show developmental readiness to add peanut-containing foods into their diet
- Some caregivers and health care providers may desire an in-office supervised feeding and/or evaluation before to introduction

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Group 3: No History of Eczema or Food Allergy

- These infants do not need peanut IgE testing before introduction
- It is recommended that these infants be introduced to age-appropriate peanut-containing foods around 6 months and within the first year
- These infants do not need a medically-supervised feeding

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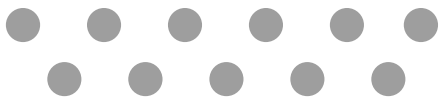
No/Mild History of Eczema or Food Allergy but a Family History of Peanut Allergy

- This is not a guideline included in the LEAP study, but the question comes up often
- Data from randomized controlled trials do not exist for this group of infants
- Data are limited about risk of peanut allergy in this group. Some studies show increased risk of peanut allergy compared with infants who do not have a family history
- Due to potential benefit, it is recommended that these infants have age-appropriate peanut-containing foods introduced into their diets around 6 months and within the first year
- Parents and health care providers may decide whether to test for sensitization and method of introducing peanuts, given the lack of data in this group.



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How Much Peanut Do Infants Need to Eat?

- In LEAP, infants ate 2 grams of peanut three times a week
- It remains unknown whether lesser amounts, or less frequent feedings, will offer the same benefit in prevention of peanut allergy
- Once babies are successfully eating peanut, they should continue to do so on a regular basis (unless concerns for a new allergic reaction arise)
- The total amount of peanut protein to be consumed per week should be 6 to 7 grams over three or more feedings
- In the LEAP study, 75% of children were able to eat this amount of peanut through the entire study.

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How to Start

- **Start with a healthy, happy baby and feed at home.**
- **Don't introduce if baby is sick, vomiting or has a fever.**
- **Start early in the day and observe for at least 2 hours.**
- **Prepare a full, infant-sized portion, but give just a taste to start. After 10 minutes, continue with the rest. For peanut, the goal is 2g/day.**

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INTRODUCING **PEANUT**

DO:
- Introduce other lower allergen foods first.
- Use thinned peanut butter, powdered peanut butter, or either, mixed with puree.
- Use peanut puffs for babies that have been "melted" into breastmilk, formula or warm water.

DON'T:
- Feed whole peanuts to infants or young children.
- Give babies full strength peanut butter.
- *These can both be choking hazards for baby.

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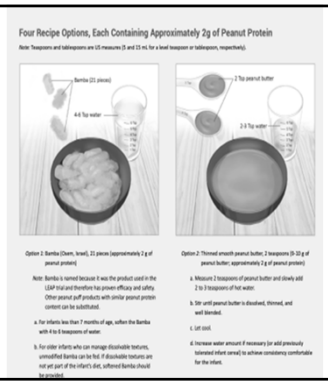

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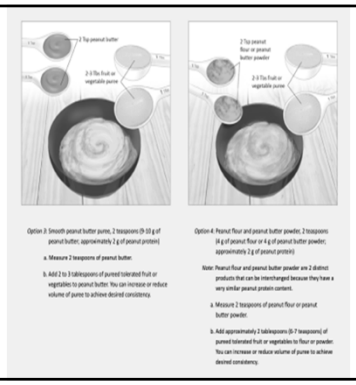

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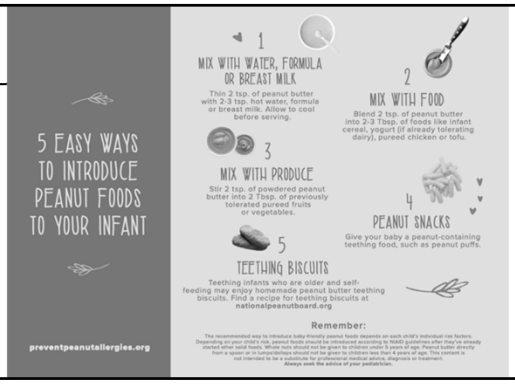

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What Role Will FP's Play

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WE SEE FAMILIES

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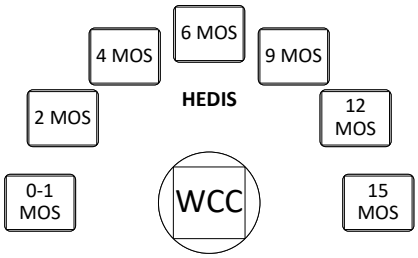

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DEVELOPMENTAL MILESTONES

History

Vitals | Sleeping

Vaccine | Physical | Eating/Stooling

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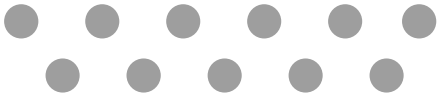
Nutrition and Feeding

Determine whether baby is ready for solids; introduce single-ingredient foods one at a time; respond to hunger, fullness cues.



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Early Peanut Introduction

- High risk infants should begin **peanut foods** between 4 and 6 months of age.
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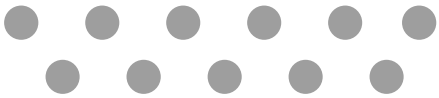
TESTING

When to test?

Who to test?

What test?



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BEST PRACTICES

- American Academy of Allergy, Asthma & Immunology (AAAAI)
- American College of Allergy, Asthma & Immunology (ACAAI)
- Joint Council of Allergy, Asthma & Immunology (JCAAI)

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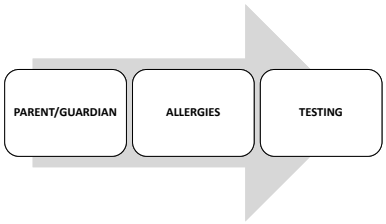
TYPICALLY



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ORAL FOOD CHALLENGE

- **Goal standard**
- **Used to confirm negative or questionable test result**
- **Allergist Office**

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PATCH TESTING

- ***Preferred for delayed T cell–mediated response***
- ***Poison Ivy***
- ***Cosmetics***
- ***Jewelry***

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IgE

- *Specific serum immunoglobulin E (IgE) antibody or allergy skin testing is preferred for patients with suspected IgE-mediated response*.

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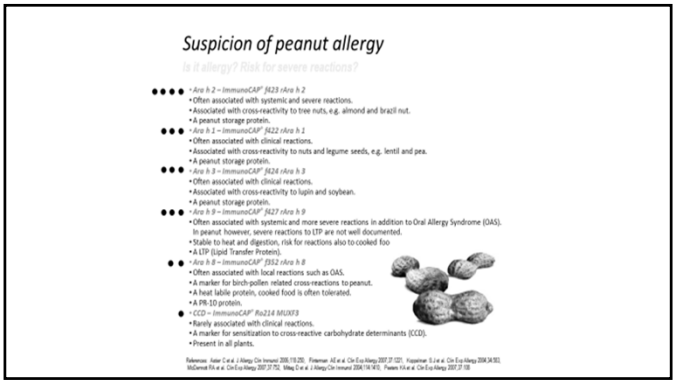

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IgE Mediated

TABLE 4

Common Foods that Produce Allergic Reactions

Cow's milk*	Soy
Fish	Tree nuts (e.g., cashews, walnuts)
Hen's eggs*	Wheat
Peanuts*	
Shellfish	

*—In children and adolescents, hen's eggs, milk, and peanuts cause 85% of food allergies.[11]

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TESTING

PCP'S

sIgE Food Allergy PANEL

Screening

ALLERGIST

sIgE single food Panel

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IgE

Low Positive Predictive Value

>50% FALSE POSITIVE

- **Misinterpretation**
- **Over diagnosis**
- **Unnecessary dietary elimination**
- **Increase cost/burden**
- **Not a good screening test**

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ALLERGEN PROFILE, FOOD-BASIC 01/19/2016 (#616225, Final, 01/15/2016)

Report	Result	Ref. Range	Units	Status	La
CLASS DESCRIPTION	COMMENT			Final	01
	LEVELS OF SPECIFIC IGE: < 0.10 = 0 NEGATIVE; 0.10 - 0.31 = 0/I EQUIVOCAL/LOW; 0.32 - 0.55 = I LOW; 0.56 - 1.40 = II MODERATE; 1.41 - 3.90 = III HIGH; 3.91 - 19.00 = IV VERY HIGH; 19.01 - 100.00 = V VERY HIGH; >100.00 = VI VERY HIGH				
F001-IGE EGG WHITE	<0.10	CLASS 0	KU/L	Final	01
F002-IGE MILK	<0.10	CLASS 0	KU/L	Final	01
F003-IGE CODFISH	<0.10	CLASS 0	KU/L	Final	01
F004-IGE WHEAT	<0.10	CLASS 0	KU/L	Final	01
F013-IGE PEANUT	<0.10	CLASS 0	KU/L	Final	01
F014-IGE SOYBEAN	<0.10	CLASS 0	KU/L	Final	01

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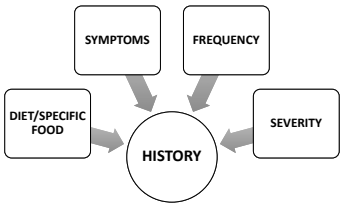
TESTING



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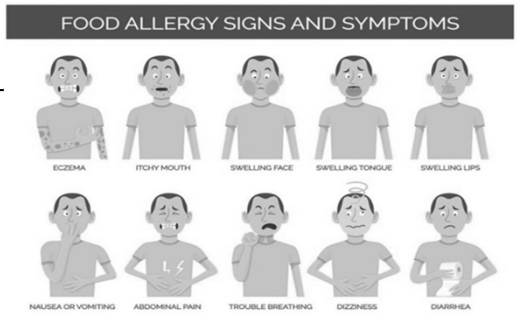

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High Risk

Severe Atopic Dermatitis

Egg Allergy

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Audience Polling Question 1

Which of the following allergies is most likely to persist from childhood into adulthood?

1. Soy
2. Milk
3. Eggs
4. Peanut

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Audience Polling Question 2

Which of the following statements about the prevention of food allergy is TRUE?

1. A soy-based formula should be used to prevent allergy in infants at high risk.
2. Breastfeeding until an infant is at least 6 months of age will help prevent food allergy.
3. There is little evidence to support the delay of solid foods for preventing food allergy.
4. Delaying introduction of solid foods until 36 months of age will help prevent food allergy.

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Audience Polling Question 3

Asthmatic symptoms, such as bronchospasms and/or wheezing, occur most often with exposure to

1. wheat
2. peanuts
3. seafood
4. monosodium glutamate

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Audience Polling Question 4

What are the most common food allergies in children throughout the world?

1. Fish and shellfish
2. Cow's milk and hen's eggs
3. Sesame seed and mustard
4. Peanuts and tree nuts

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Audience Polling Question 5

Which of the following food allergies usually begins at age 6 to 24 months and resolves in the majority of cases by 5 years old?

1. Cow's milk
2. Peanuts
3. Shellfish
4. Sesame seeds

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THANK YOU!

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Notes