

Allergies, Allergies, All Around



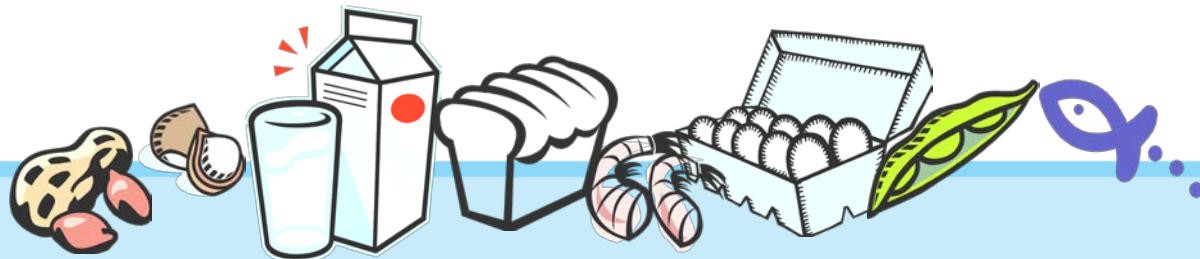
Hawaii Child Care Nutrition Program
University of Hawaii
Cooperative Extension Service
Nutrition Education for Wellness Program

Created 2011, Updated 2012

Note to participants...

The material covered in this presentation is merely for educational purposes and should not be used to replace the medical judgment of qualified healthcare professionals. Information reflects that reviewed as of 2012, but is subject to change based on ongoing research.

Each case should be handled individually taking into account the unique circumstances of one's environment and condition. Any specific questions should be directed to the appropriate health care professional or specialist.



Overview

- Prevalence
- Symptoms
- Prevention & Treatment
- Labeling
 - 8 most common allergens
- Nutrition Plan for schools
- Practice label reading
- Resources



Definitions

- **Food allergy...**
 - Adverse health effect arising from a specific immune response that occurs reproducibly on exposure to a given food
- **Food allergen...**
 - Specific components of food or ingredients, usually proteins, that elicit a specific immune-based response



Food Allergy

- Immune system (antibodies) clears body of foreign substances "antigens"
- Sometimes, "sensitization" occurs upon 1st exposure to the "allergen"
- Immune cells subsequently recognize these cells next time body is exposed & release chemicals like histamine



Fact or Fiction?

Food allergies can be dangerous.

ANSWER: _____



Fact or Fiction?

Food allergies can be dangerous.

ANSWER: YES



Prevalence

➤ Every year...

- 200,000 Americans go to the ER for treatment
- 90,000 Americans visit ER for probable anaphylaxis
- Anaphylaxis is a severe allergic reaction that can happen rapidly after ingestion and can cause death



Fact or Fiction?

Food allergies are more common in children than adults.

ANSWER: _____



Fact or Fiction?

Food allergies are more common in children than adults.

ANSWER: YES



Prevalence

- In the United States, food allergies affect...
 - 4% of adults*
 - 8% of children*
- Rate of reported food allergies in 2007 was 18% higher than in 1997**
- Higher chance if both or one parent has allergies

*FAAN: www.foodallergy.org/

**NCHS Data Brief No. 10 Oct 2008

Fact or Fiction?

A person will always have the same reaction to an allergen.

ANSWER: _____



Fact or Fiction?

A person will always have the same reaction to an allergen.

ANSWER: NO



Symptoms of Allergic Reactions

- Appear usually within 2 minutes – 2 hours

Respiratory
wheeze, cough,
shortness of
breath, chest
tightness, runny
nose, sneezing



Eyes
itchy, watery
eyes, swelling,

GI
tingling/swelling in
mouth,
pain, vomiting,
diarrhea, cramps

Cardiovascular
Dizzy
Lightheadedness
Fainting
Drop in blood pressure
Loss of consciousness

Skin
hives, rash,
swelling,
redness

Most severe:
Anaphylaxis

Definition

➤ Anaphylaxis...

- Allergic hypersensitivity to a food resulting in a collection of symptoms affecting multiple systems of body
- Symptoms may include:
 - Difficulty breathing
 - Drop in blood pressure
 - Skin symptoms
 - Gastrointestinal symptoms

Anaphylaxis

➤ Common causes:

- *Peanuts*
- *Tree nuts*
- *Shellfish*
- *Fish*
- *Milk*
- *Eggs*
- Medication
- Insect stings
- Latex (hospital settings)

➤ Risk factors:

- coexistent asthma
- young adult
- lack of preparedness
- Previous anaphylactic episode

Biphasic Anaphylaxis

- Reaction that occurs after the initial symptoms have gone away
- Continue monitoring even after initial symptoms have subsided

Fact or Fiction?

There is a cure for food allergies.

ANSWER: _____



Fact or Fiction?

There is a cure for food allergies.

ANSWER: NO



Prevention & Treatment

- NO CURE
- Prevention of allergies has not been proven
- Strict avoidance of allergy causing foods by:
 - Reading labels
 - Contact food manufacturers when unsure
 - Keep accurate records of menus

Prevention & Treatment

- Proper cleaning of hands and surfaces
 - Have extra cutting board for allergen-free foods
 - Bar & liquid soap *with* running water is effective
 - Most household cleaners, wipes are effective
 - **Alcohol sanitizer is not effective*
- Have an Allergy Action Plan
- Proper medication
- Learn from previous incidents

Labeling Laws

- Food Allergen Labeling and Consumer Protection Act (FALCPA) 2004, effective 2006
- Applies to domestic and imported packaged foods that FDA regulates
- Easily identify 8 most allergenic foods and those derived from these foods
 - In ingredients list in parentheses () OR
 - After the ingredients list in a "Contains.." statement
 - May include disclaimer statements

Identifying Allergens on Labels

➤ In ingredients list

- Ingredients: Enriched flour (**wheat** flour, malted barley, niacin, reduced iron, thiamin mononitrate, riboflavin, folic acid), sugar, partially hydrogenated soybean oil, and/or cottonseed oil, high fructose corn syrup, whey (**milk**), **eggs**, vanilla, natural and artificial flavoring, salt, leavening (sodium acid pyrophosphate, monocalcium phosphate), lecithin (**soy**), mono- and diglycerides (emulsifier)

Identifying Allergens on Labels

➤ After the ingredients list

- Ingredients: Enriched flour, sugar, partially hydrogenated soybean oil, and/or cottonseed oil, high fructose corn syrup, whey, eggs, vanilla, natural and artificial flavoring, salt, leavening (sodium acid pyrophosphate, monocalcium phosphate), lecithin, mono- and diglycerides (emulsifier)
- Contains: **Wheat, Milk, Eggs and Soy**

Identifying Allergens on Labels

➤ *Optional* Disclaimer Statements:

“**May contain traces** of peanuts and other tree nuts.”

“**Manufactured in a facility** that also processes milk, egg, peanuts and tree nut products.”

“This product is **manufactured on equipment** that processes products containing eggs.”

“Corn used in this product contains traces of soybeans (**cross contamination**).”

Most Common Allergies

1. Milk
2. Eggs
3. Tree nuts
4. Peanuts
5. Fish
6. Crustacean Shellfish
7. Soy
8. Wheat



Milk



- *Prevalence: about 2.5% of children under 3 years
- Most children outgrow in the 1st few years
- Goat milk not safe alternate
- Nutritional considerations:
 - Calcium
 - Potassium
 - Protein
 - Vitamins
- Some alternatives:
 - Fortified soy, almond, rice or juice beverages

Fact or Fiction?

Food allergies and food intolerances are the same thing.

ANSWER: _____



Fact or Fiction?

Food allergies and food intolerances are the same thing.

ANSWER: NO



Food intolerance...

Adverse reaction caused by a food or additive, which **DOES NOT** involve the immune system

➤ *Lactose Intolerance:

- inability to process 'lactose' *sugar*, which is naturally found in milk
- Rare in young children

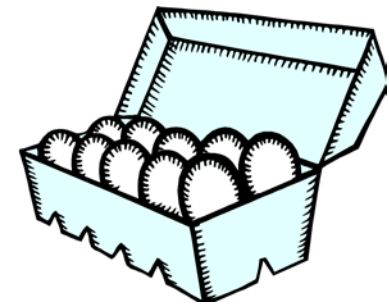
➤ *Some alternates

- Lactose free milk
- Fortified soy, rice or almond milk
- Yogurt, cheese
- Gradual, small amounts



Eggs

- *Prevalence: about 1.5% of children under 3 years
- Most children outgrow
- Other eggs (fowl) may not be tolerated
- Watch for hidden sources:
 - Baked goods
 - Cholesterol free egg substitute
 - Mayonnaise
- Vaccines – consult doctor



Tree Nuts



- Increased chance of being allergic to more than 1 tree nut
- FALCPA designates the following as 'tree nuts'

Almond	Cashew	Filbert/ Hazelnut	Macadamia	Pistachio
Beech nut	Chestnut	Ginko nut	Pecan	Sheanut
Brazil nut	Chinquapin	Hickory nut	Pine nut	Walnut
Butternut	*Coconut	Lichee nut	Pili nut	

*Coconuts are seeds of a fruit that FDA began identifying as a "tree nut" in 2006.



Peanuts

- *Prevalence: 0.6% of children under 3 years
- Majority can tolerate other legumes or beans
 - Peas
 - Lima beans
 - Green beans
 - Lentils
- Increased chance of allergy to tree nuts





Peanuts & Tree nuts

- Usually life-long allergy
- Peanuts & tree nuts are among the leading causes of fatal and near-fatal reactions
- FDA exempts *highly refined* oil from being labeled as an allergen
 - Oils range from low to high allergenicity
 - Potential allergenic oils:
 - ✓ Cold pressed
 - ✓ Expeller pressed
 - ✓ Extruded



Nut-Free Campus Policy

➤ Pros

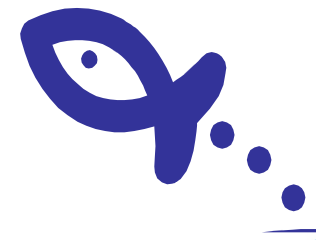
- Potentially reduces exposure
- Children & staff may be unable to bear responsibility
- May help prevent bullying

➤ Cons

- False sense of security
- May limit potential learning opportunities
- Ban other allergenic foods too?
- Restrictive for other families & children
- Cannot *guarantee* "peanut-free"

Fish & Crustacean Shellfish

- *40% of fish, 60% crustacean shellfish allergic reactions experienced as an adult
- Crustacean shellfish:
 - Crab, shrimp, lobster
- Unlikely to be outgrown
- FALCPA requires *type of seafood* to be specified
- Generally recommended to avoid
 - seafood restaurants
 - Asian restaurants



Soy



- Most outgrow soy allergies
- Some hidden sources:
 - Asian cuisine
 - Soy sauce
 - Tofu
 - Vegetarian foods, dishes
- Studies show highly refined oils (not cold pressed, expeller pressed or extruded oil) can be tolerated --- *consult with your health care professional.*

Wheat Allergy



- Usually outgrown
- 4 classes of proteins in wheat that can cause allergies:
 - Albumin
 - Globulin
 - Gliadin
 - Gluten
- FALCPA includes
 - Common wheat
 - Durum wheat
 - Club wheat
 - Spelt
 - Semolina
 - Einkorn
 - Emmer
 - Kamut
 - Triticale

Others...?

- Corn, meat, seeds, spices
- Oral Allergy Syndrome
 - Certain **raw** fruits & veggies
 - Hay fever
- Medication
- Insect stings
- Latex
- Exercise Induced
- MSG
- Food coloring
- Food additives
- Scombroid poisoning

General High Risk Foods / Situations

- Restaurants, buffet
- Salad bars
- Bakeries
- Deli / Fresh fish counter
- Candies, chocolate
- Birthday or holiday celebrations
- Fried foods
- Field trips
- Food related activities
- Imported foods

Nutrition Plan



Nutrition Plan: School Responsibilities

- Hawaii State Licensing Rules for GCC, BAS, FCC, IT programs:
 - *"...Children shall not be offered foods to which they are **allergic** or, for religious reasons cannot consume. Provision shall be made to secure such information from the parent or guardian and the parent or guardian of the child shall arrange for nutritious substitute foods."*

Nutrition Plan: School Responsibilities

- Hawaii State Licensing Rules for IT programs:
 - “...Signs of **food sensitivity or allergy** shall be reported to the parent or guardian **on the day** this has been observed.”

Nutrition Plan: School Responsibilities

- Food Allergy Action Plan
 - Child's name, photo
 - Contact information & signatures:
 - Parents
 - Physician
 - Specification of food allergy, or other disabling condition & symptoms
 - List food(s) to be omitted
 - List food(s) that may be substituted
 - Medication list and dosage & storage information
 - Follow up plan



Nutrition Plan: School Responsibilities

- Work cohesively as a team
- Education
- Keep doctor's current orders on file
- *Practice* Action Plan
- Include children in activities
- Ensure no 'sharing'
- Designate "allergy-free zones"
 - Classroom
 - Kitchen, Cafeteria
 - Bus



Nutrition Plan: School Responsibilities

- Keep everything clean
- Read food labels – call manufacturer
- **Recognize** symptoms of anaphylaxis
- Considerations for atypical activities
 - Classroom activities
 - Celebrations
 - Field trips
- Inform parents of reactions



Nutrition Plan: School Responsibilities

- *Written menus
 - 1 month in advance
 - Share with parents
 - Amend any changes to foods actually served
 - Date, retain menus
- Introduction of new foods
 - Obtain list of tolerated foods (<18 months)
 - Discuss new foods BEFORE serving to child
 - Introduce new foods 1 at a time; wait a few days before introducing another

Nutrition Plan: Parent's Responsibility

- Provide a Food allergy action plan:
 - Child's history
 - Current doctor's order
 - Emergency contact information
- Communicate with school staff regularly
- Provide substitutions; list of foods to avoid
- Educate child
- Medical ID bracelet or necklace
- Chaperone field trips

Nutrition Plan: Child's Responsibility

- Never trade or share food
- Never eat foods with unknown ingredients
- Recognize symptoms
- Notify adults immediately
- Wash hands
- Report teasing
- Responsibilities increase with age
 - Carry medication
 - Read labels



Resources

- **American Academy of Allergy, Asthma & Immunology**

www.aaaai.org/conditions-and-treatments/allergies.aspx

- **The Food Allergy & Anaphylaxis Network**

www.foodallergy.org/

- **USDA Food & Drug Administration – Food Allergy Labeling**

www.fda.gov/Food/FoodSafety/FoodAllergens/default.htm

- **Meeting Children's Special Food & Nutrition Needs in Child Nutrition Programs (NFSMI) – Lesson 3**

<http://nfsmi-web01.nfsmi.olemiss.edu/ResourceOverview.aspx?ID=89>

- **USDA Food & Nutrition Information Center – Allergens & Food Sensitivities**

http://fnic.nal.usda.gov/nal_display/index.php?info_center=4&tax_level=2&tax_subject=278&topic_id=1379

Contact Information

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