What’s on your plate makes you ill: Food Allergy and Intolerance Deciphered

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Simple steps to your patients can take in order to live a healthy allergy-free lifestyle

Objectives:

- Identify the components of food allergic symptoms
- Define culinary approaches to optimize menu planning for patients with food allergy
- Delineate the challenges in creating and providing safe, nutritious and delicious menus to persons with food allergies and lactose intolerance

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Food Allergy Prevalence Data

- Worldwide 220-520 million people
- 15 million Americans
  - > population of NYC, LA, Chicago combined
  - population of 5th largest state
- 5.9 million children in U.S.
  - > 30% have multiple food allergies

Pediatrics 2011, FARE 2013

Projected increase in food allergic patients

Clinical Characteristics Study

  - Patients at TCH with food allergy
  - 2.5 fold increase
  - 148 patients in 2003
  - 379 patients in 2008
  - Symptoms at presentation were more severe
  - Age at dx was significantly younger
Birth Month Study

  - 1,002 children presenting to Boston Eds
  - median age 15 years old
  - significant increase in food allergy in fall/winter babies
  - ? Seasonal differences in sun exposure and vit D status

Major Food Allergens

- Which foods are responsible for 90% of food allergic reactions in the United States?
- Pediatrics vs adults
- Which foods are responsible for the other 10%?
Current Treatment/Avoidance

• Terminology: Avoiding Allergens
• Communication

“The beginning of wisdom is to call things by their right names!”

Chinese Proverb
Guidelines for Multiple Allergies

- Carefully choose food substitutes
- Pay attention to micronutrients
- Involve child in grocery shopping
- Involve child in food preparation
- Key factors are: planning, patience, and persistence
- May need nutritional supplementation

IgE (immediate, Type 1) Food Allergy

Pathophysiology

Signs and symptoms of a serious food allergic reaction

Systems affected

Treatment
Recognize Anaphylaxis

- Mouth
- Nose
- Skin
- Respiratory
- Gastrointestinal
- Nervous system
- Cardiovascular

Protocol for Anaphylaxis

Immediate treatment with epinephrine
Transfer to ER
Possible biphasic reaction
Lactose Intolerance

- Type of reaction
- Symptoms
- Culinary approach
- Lactose Intolerance Nutrition Therapy

Consensus.nih.gov/2010/lactose.htm

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Gluten Intolerance

- Type of reaction
- Symptoms
- Culinary approach
- Gluten Intolerance Nutrition Therapy

www.americanceliac.org
www.eatright.org

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Culinary Approach - Allowed Grains:

- Rice
- Corn (Maize)
- Soy
- Potato
- Tapioca
- Beans
- Garfava
- Sorghum
- Quinoa
- Millet
- Buckwheat
- Arrowroot
- Amaranth
- Teff
- Montina
- Flax

Culinary Approach - Allergen-friendly Milk Substitutes

- Fruit juice
- Rice milk
- Oat milk
- Hemp milk
- Coconut milk
- Flax milk
- Amino acid based formula
Culinary Approach - Allergen-friendly Egg Substitutes

- 1t. Yeast dissolved in ¼ c. warm water
- Commercial egg replacer
  - Ener-G foods
- ¼ c. applesauce
- ½ banana

Challenges: Dining Out

- Call ahead
- Eat during least busy hours
- “Chef card”
- “Food allergy buddy card”

www.foodallergybuddy.com
Communication/Dietitian’s Role

- **Listen**
  - details/diet history
- **Respect**
  - acknowledge understanding
- **Respond**
  - teach patient how to optimize menus with nutrient-dense options
- **Follow-up**
Registered Dietitian

- Discuss avoidance of food allergen
- Evaluate the nutritional quality of the allergen avoidance diet
- Help plan balanced, healthy allergen avoidance meal plans
- Provide allergen friendly meal and snack recipes
- Help with the safe selection of appropriate supplement, if needed

Review Hospital Kitchen Process

  - After a 60 year old patient with known shellfish allergy was served clam chowder, changes in kitchen process were implemented.
  - Similarities to pharmacy profiling medication orders against medication allergies.
**Challenge/Safe Meals**

- Avoid accidents
  - salad bars, buffets, bulk food bins
  - woks, pizza stones, parchment paper
- Separate prep area
  - clean serving utensils, dedicated fryers
  - separate shelf, stickers for identification

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**Challenge - FALCPA**

What are the requirements of the Food Allergen Labeling and Consumer Protection Act?
- Ingredient statement
- Contains statement
How do you interpret precautionary allergen statements on a food label?

- “May contain peanuts and/or trace amounts of allergens not listed in the ingredients.”
- “May contain wheat and other allergens…”
- “Manufactured in a nutty environment…”
Food Allergy Treatment

- **Strict allergen AVOIDANCE**
- **Research:**
  - epitopes?
  - prevention?
  - herbal formulas
  - immunotherapy
Research/CoFAR

- 400 milk or egg allergic infants-immune system changes
- Test allergy shots for peanut allergy
- Biochemical mechanisms of peanut allergy using a mouse model

Peanut Immunotherapy Study

  - 18 children age 1-11 years
  - open SLIT trial
  - rate of reaction was 4.7%
  - all reactions were mild
  - appears to be a safe option for further study
Summary

- Patients with food allergy and intolerance
  - Create a special culinary challenge
  - Offer opportunities for nutritional support

Thank you!
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Closing

- “Laughter and tears are both responses to frustration and exhaustion........I myself laugh, since there is less cleaning up to do afterward.”

Kurt Vonnegut, American writer

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