

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

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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

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Clinical Characteristics Study

- Amin A, et al "Epidemiology and trends of Pediatric food allergy in 2003 vs. 2008" AAAI 2010; Abstract 852.
 - 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

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Birth Month Study

- Vassallo MF, et al “Season of birth is associated with Risk of Food Allergy in Children.” AAAAI 2010;Abstract 851.
 - 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

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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%?

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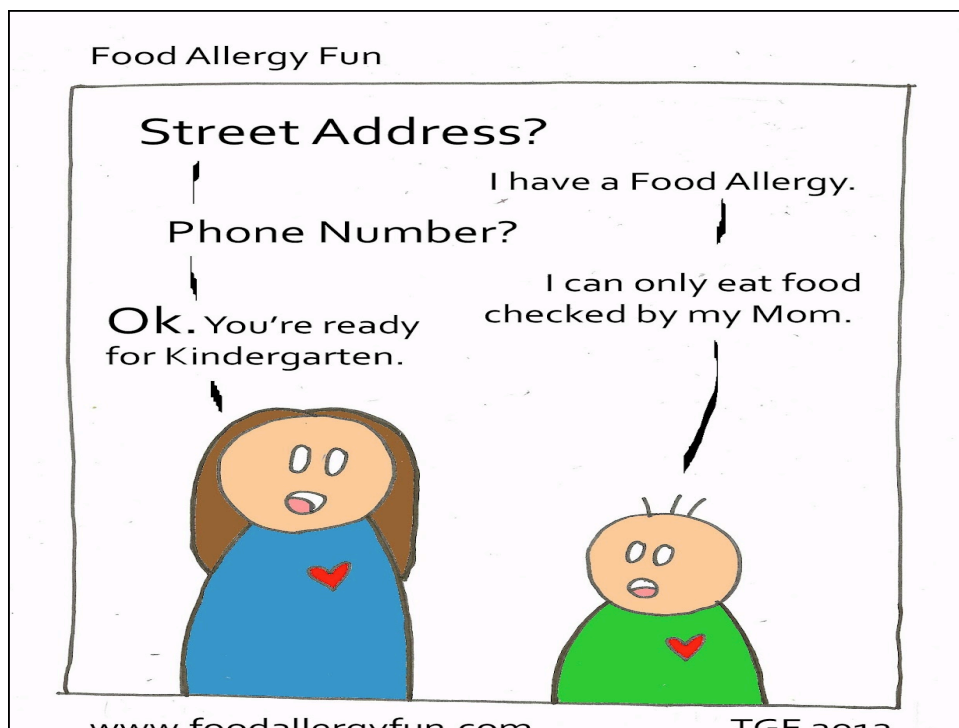
Current Treatment/Avoidance

- Terminology: Avoiding Allergens
- Communication

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

Chinese Proverb

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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

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IgE (immediate, Type 1) Food Allergy

Pathophysiology

Signs and symptoms of a serious food allergic reaction

Systems affected

Treatment

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Recognize Anaphylaxis

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

NIAID

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Protocol for Anaphylaxis

Immediate treatment
with epinephrine
Transfer to ER
Possible biphasic
reaction



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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

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Culinary Approach - Allergen-friendly Milk Substitutes

- Fruit juice
- Rice milk
- Oat milk
- Hemp milk
- Coconut milk
- Flax milk
- Amino acid based formula

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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

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Challenges: Dining Out

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

www.foodallergybuddy.com

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Communication/Dietitian's Role

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

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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

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Review Hospital Kitchen Process

- Kaur S, et al “Food Allergic Patients in the Hospital: a Pharmacy Model Applied to Kitchen Practice.” AAAAI 2010 Abstract 829.
 - 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.

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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

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Advisory Labeling

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...”

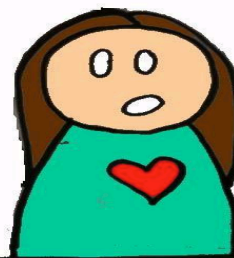
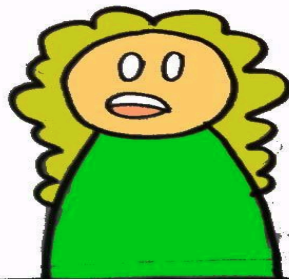
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Food Allergy Fun

OMG Peanut Butter Cheerios?
What's Next!? Reeses Peanut Butter Cup
Cereal? Peanut Butter Toast Crunch?
Peanut Butter Captain Crunch? Peanut
Butter Pops?

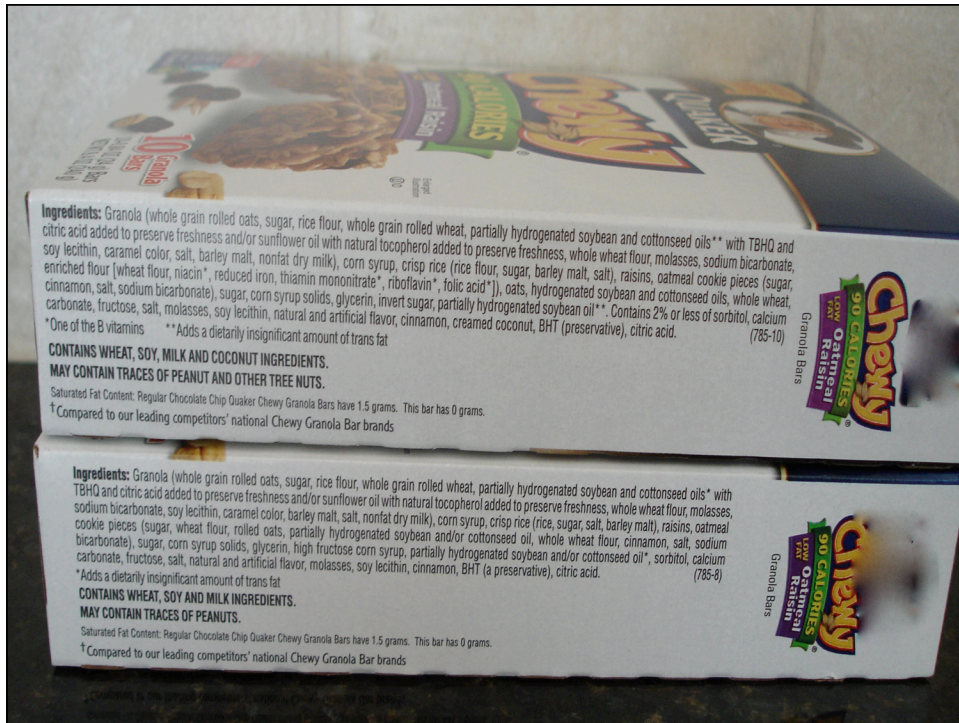
Those things exist.

Oh.



www.foodallergyfun.com

TGF 2011



Food Allergy Treatment

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

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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



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Peanut Immunotherapy Study

- Burks AW, et al “Safety of Peanut Sublingual Immunotherapy in Children with Peanut Allergy” AAAAI 2010; Abstract 77.
 - 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

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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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