



Managing Food Allergies, Celiac Disease & Gluten Free Needs in Healthcare



Meet the Expert Panel

Speaker



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Overview

Part I

- Food Allergies
- Gluten & Celiac Disease
- Gluten Free

Part II

- How to Manage Food Allergies
 - Gluten Free Recipes
 - Resources
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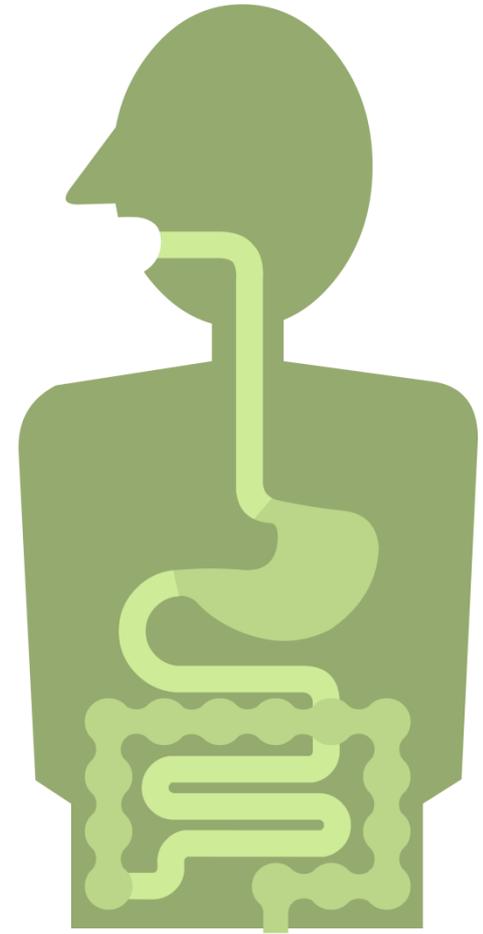
FOOD ALLERGIES



What is a Food Allergy?

- Adverse reaction to food that involves the immune system.
Immunoglobulin E (IgE) mediated.
 - IgE: an antibody that fights foreign substances in our body

Onset is often immediate and more severe
- Symptoms
 - Mild to Severe/Life-threatening
 - Hives to severe gastrointestinal and respiratory irritation
 - Anaphylactic shock





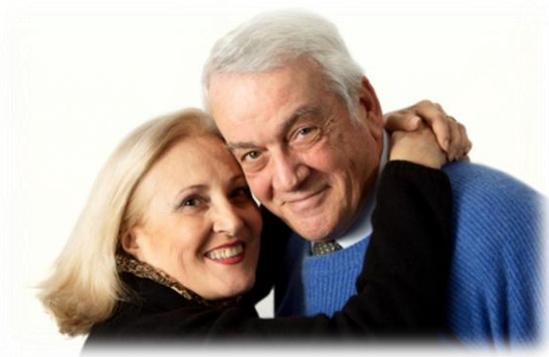
Factors Involved in Development of a Food Allergy



Genetics



Exposure to allergenic food



Age at exposure



Dose, frequency, and duration of exposure



Most Common Food Allergens

- Cows' Milk



- Egg



- Shellfish

- Fish



- Peanut



- Soy

- Tree nuts

- Wheat

Allergens must be listed on labels! There are eight (8) major food allergens that are required to be placed on a food label.



Prevalence



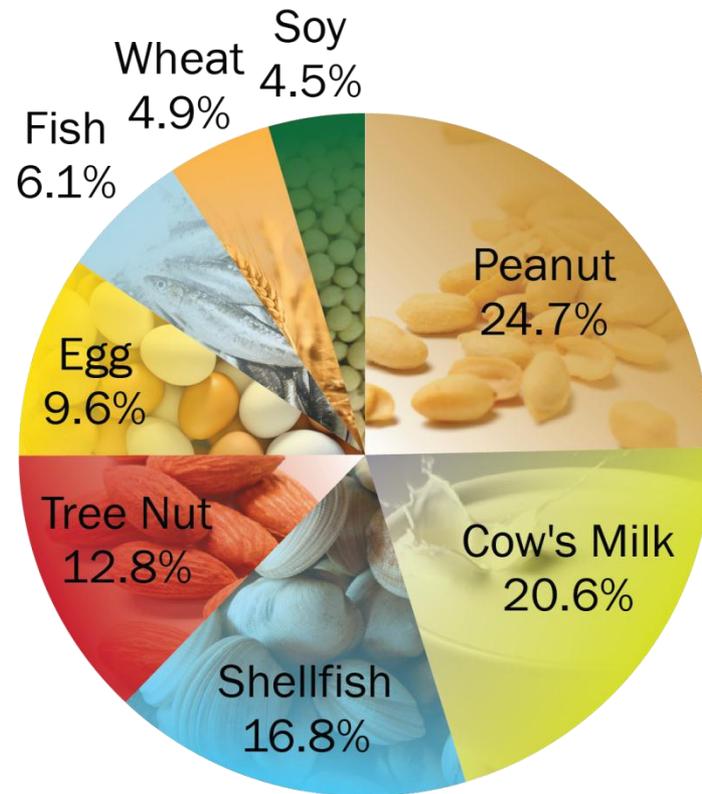
As many as 15 million Americans have food allergies:

- An estimated 9 million, or 4%, of adults have food allergies.
- Nearly 6 million or 8% of children have food allergies with young children affected most.



Food Allergies in Children

Prevalence Among Children Surveyed with Food Allergies





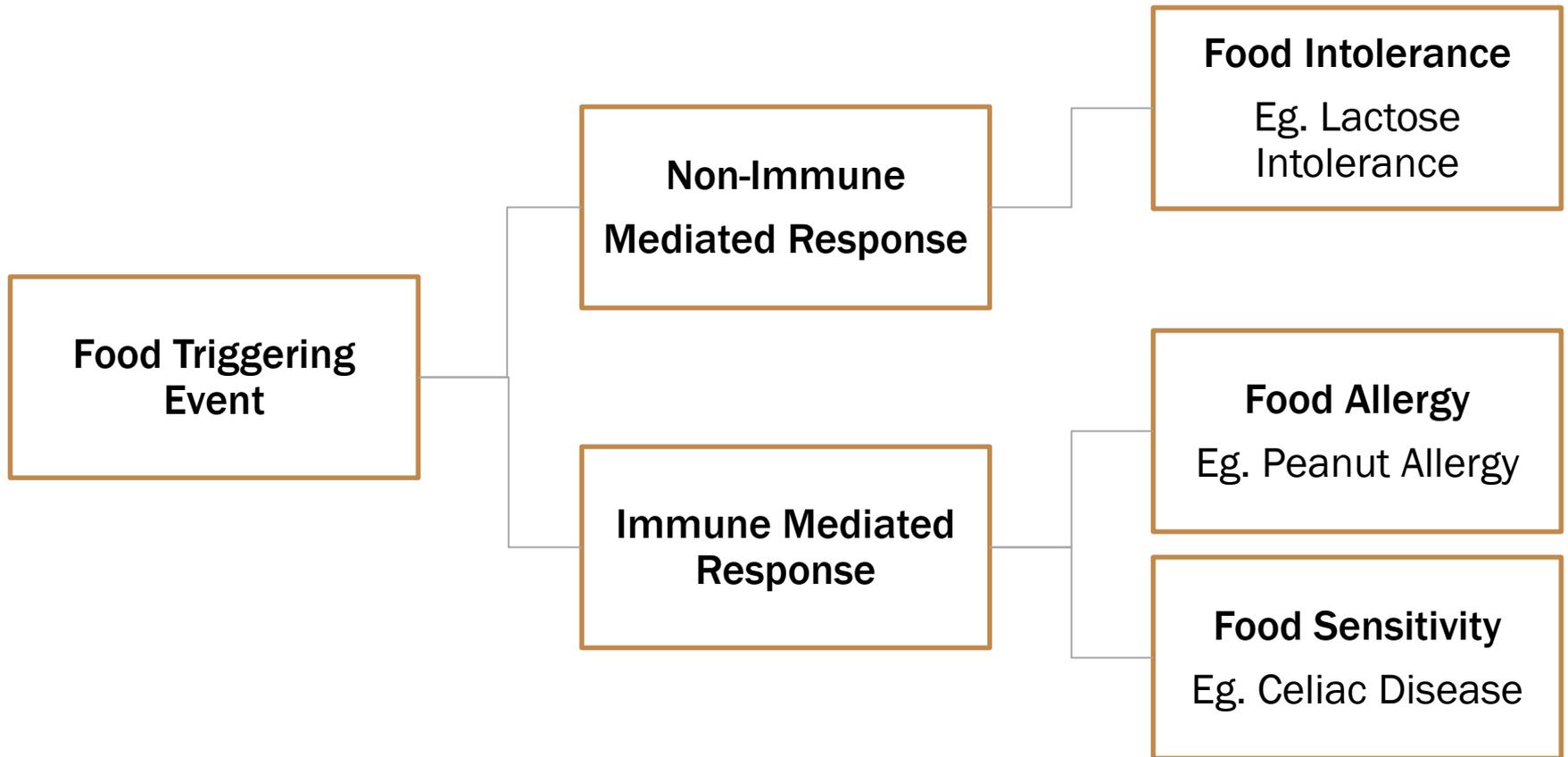
Allergy Considerations by Age

- Younger children with food allergies need constant supervision and care
 - Usually reluctant or afraid to try new foods
- Teens with food allergies are taking risks
 - 42% of food-allergic teens ignore “may contain” labeling
 - 19% claim no prior reaction to allergic food
 - 13% taste test
 - Only 33% consider their allergy life threatening





Allergy vs. Sensitivity vs. Intolerance

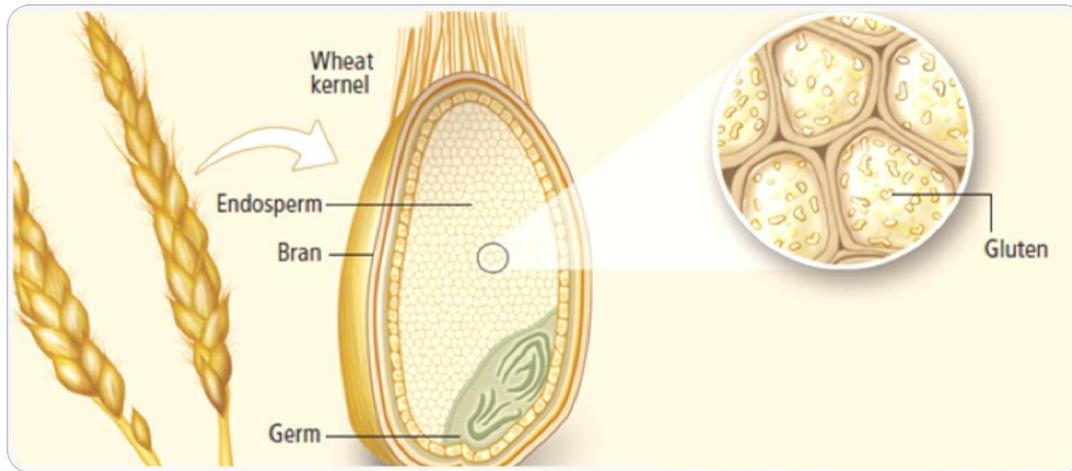




GLUTEN AND CELIAC DISEASE



What is Gluten?



- The primary storage proteins in wheat, barley and rye.
 - The specific protein families that make up gluten are very functional in food and make replacing gluten difficult
 - Glutenin: dough elasticity, leavening, chewiness in baked products
 - Gliadin: gas-holding properties
-



What is Celiac Disease?

- Celiac disease is a genetic, autoimmune disorder triggered by the ingestion of gluten or other related proteins in grains
- It is the only autoimmune disorder with a known trigger: gluten
- 3 components necessary for disease diagnosis:
 - Environmental Trigger (gluten)
 - Genetic susceptibility
 - Unusually permeable intestinal wall
- Celiac Disease can lead to malabsorption
 - Nutrient/mineral deficiencies are common in newly-diagnosed CD patients



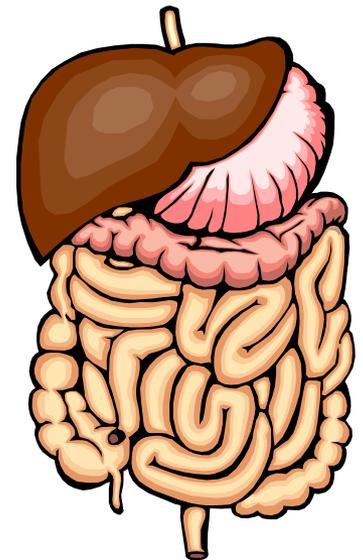
What Celiac Disease Is Not

- **A food allergy**
 - Food allergy stimulates different immune response (IgE)
 - **The same as intolerance**
 - Indigestibility of gluten is not due to the absence of required enzymes
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What Happens When a Person With Celiac Disease Ingests Gluten

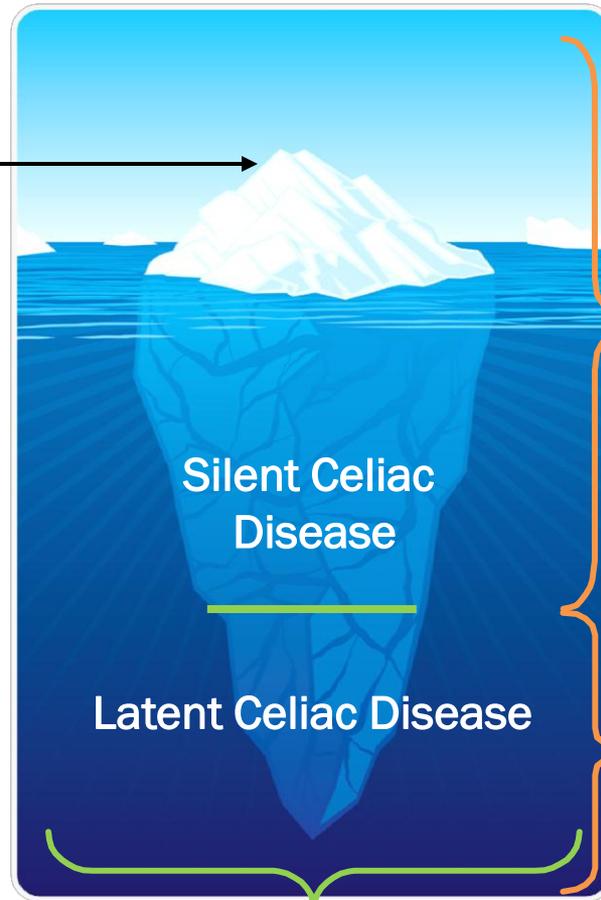
- 1 Absorptive villi become inflamed and damaged due to the body's response to gluten
- 2 Damaged villi are unable to carry out their normal function
- 3 Prevents delivery of nutrients throughout the body





The Celiac Iceberg

Symptomatic
Celiac Disease:
Classic & Atypical



Intestine
is damaged

Intestine
appears normal

Genetic susceptibility



Celiac Disease Symptoms

Gastrointestinal Manifestations (“Classic”)

Children:

Gastrointestinal Manifestations (“Classic”)

- Chronic/recurrent diarrhea or Constipation
- Lack of appetite
- Weight loss

Adults:

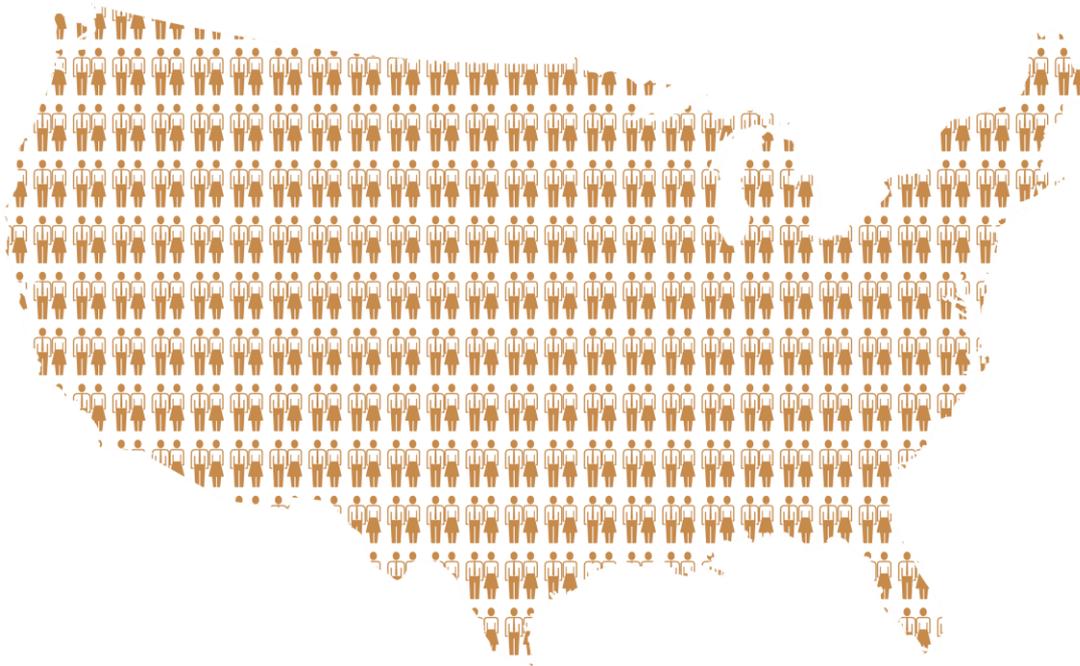
Atypical Symptomatic Celiac Disease

- Fatigue
- Irritability and behavioral changes
- Skin Disorders
- Bone and Joint Pain
- Dental enamel defects & discoloration
- Muscle Cramps
- Epilepsy and seizures
- Depression



How Common Is Celiac Disease?

1 in **141** Americans (<1%) have Celiac Disease¹



More than **2 Million** Americans have Celiac Disease²

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1. Rubio-Tapia A1, Ludvigsson JF, Brantner TL, Murray JA, Everhart JE. The prevalence of celiac disease in the United States. *Am J Gastroenterol*. 2012 Oct;107(10):1538-44;
 2. Fasano, A. Surprises from Celiac Disease. Study of a potentially fatal food-triggered disease has uncovered a process that may contribute to many autoimmune disorders. *Scientific American*, Aug 2009



How Is Celiac Disease Diagnosed?

- Two Step Process
 - Blood Test
 - Biopsy
- Who Should Get Tested?
 - First Degree Relative
 - Symptomatic
- Average length of time prior to diagnosis with celiac disease for a person showing symptoms is 4 years in the US.





Treatment



- The only known treatment for Celiac Disease is a **life long gluten free diet.**
 - Elimination of gluten leads to resolution of symptoms and intestinal damage
-



Poll Question

- At what meal occasion is a special diet most difficult to accommodate?
 - Breakfast
 - Lunch
 - Dinner
 - Snack/Other
-



GLUTEN FREE



What Is Gluten Free?

- The FDA definition: a food labeled “gluten free” must have <20ppm of gluten
 - Foods can be labeled gluten free if they are tested and have <20ppm of gluten
- Foods can be naturally free of gluten or manufactured to be free of gluten
- Gluten free foods often do not contain the following grains because of their naturally high level of gluten:
 - Wheat
 - Barley
 - Rye





Wheat Free \neq Gluten Free

- Gluten is not only found in wheat, but is also found in rye, barley and hybrids of these grains and ingredients made from these grains.
- "Wheat free" is not defined by FDA.
- A product labeled "wheat free not necessarily gluten free
- Check ingredient list or package for "gluten free"





Gluten-Free Grains

Gluten FREE Grains

Amaranth

Buckwheat

Corn

Millet

Montina (Indian Rice Grass)

Quinoa

Rice

Sorghum

Teff

Wild Rice



**Oats are inherently gluten-free, but are frequently contaminated with wheat during growing or processing.*



Nutritional Considerations of a Gluten Free Diet

- Whole grain & enriched grain foods are major sources of nutrients in the American diet
- Fortified cereals provide key nutrients of need
- Removing these types of foods from the diet when following a GF diet can result in lower intakes of various nutrients

Nutritional Concerns of a Gluten-Free Diet:

- Lower antioxidant status
 - Decreased levels of vitamin A, vitamin E and selenium
- Other nutrients/minerals of concern:
 - Whole Grain
 - Iron
 - B-vitamins
 - Fiber
 - Vitamin D
 - Fat Intake
 - Calcium
- There are plenty of foods, including cereals, that are gluten free and provide these key nutrients of need



Gluten Free Lifestyle

Two other groups who may be following a gluten free diet:

- Those who have symptoms that don't relate to Celiac Disease
- Those who don't have symptoms but have chosen to follow a Gluten Free diet for other reasons (i.e social, personal)
 - 95% of individuals indicate that they consume gluten free for reasons beyond treatment of celiac disease¹



Poll Questions

- How many Gluten-Free patients do you serve meals in a typical month?
 - 0-5
 - 6-10
 - 11-15
 - More than 15
-



Summary

- A food allergy is an adverse reaction to food that involves the immune system.
 - Generally IgE mediated
 - Onset is immediate
- Celiac Disease is an autoimmune disease triggered by gluten and is largely undiagnosed in many populations
- A gluten-free diet is the only treatment for Celiac Disease





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Part II

- **How to Manage Food Allergies**
 - **Recipes**
 - **Resources**
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Why is it important to accommodate food allergies and sensitivities?

- Mandatory dietary accommodations for patients with disabilities
 - Severe food allergies and Celiac disease can be considered a disability



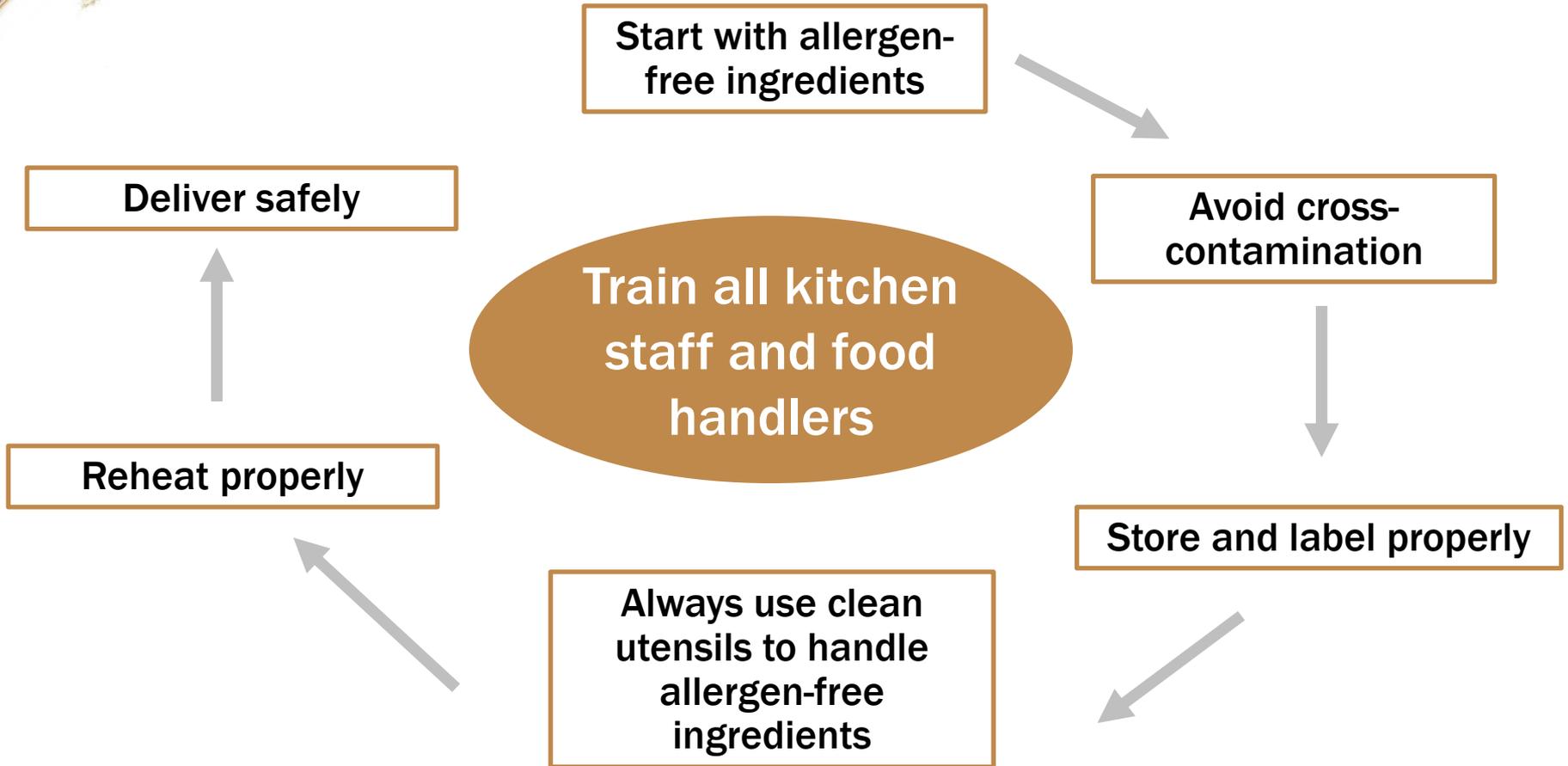


Managing Food Allergies in the healthcare setting

- 1 Inform yourself
 - 2 Communicate the information received
 - 3 Test the knowledge
 - 4 Be prepared
 - 5 React appropriately
-



Managing Food Allergies in the Kitchen





How to Manage Food Allergies in the Kitchen



GOOD

- Clean surfaces
- Isolate ingredients
- Label foods
- Different equipment
- Train employees
- Good hygiene



NOT SO GOOD

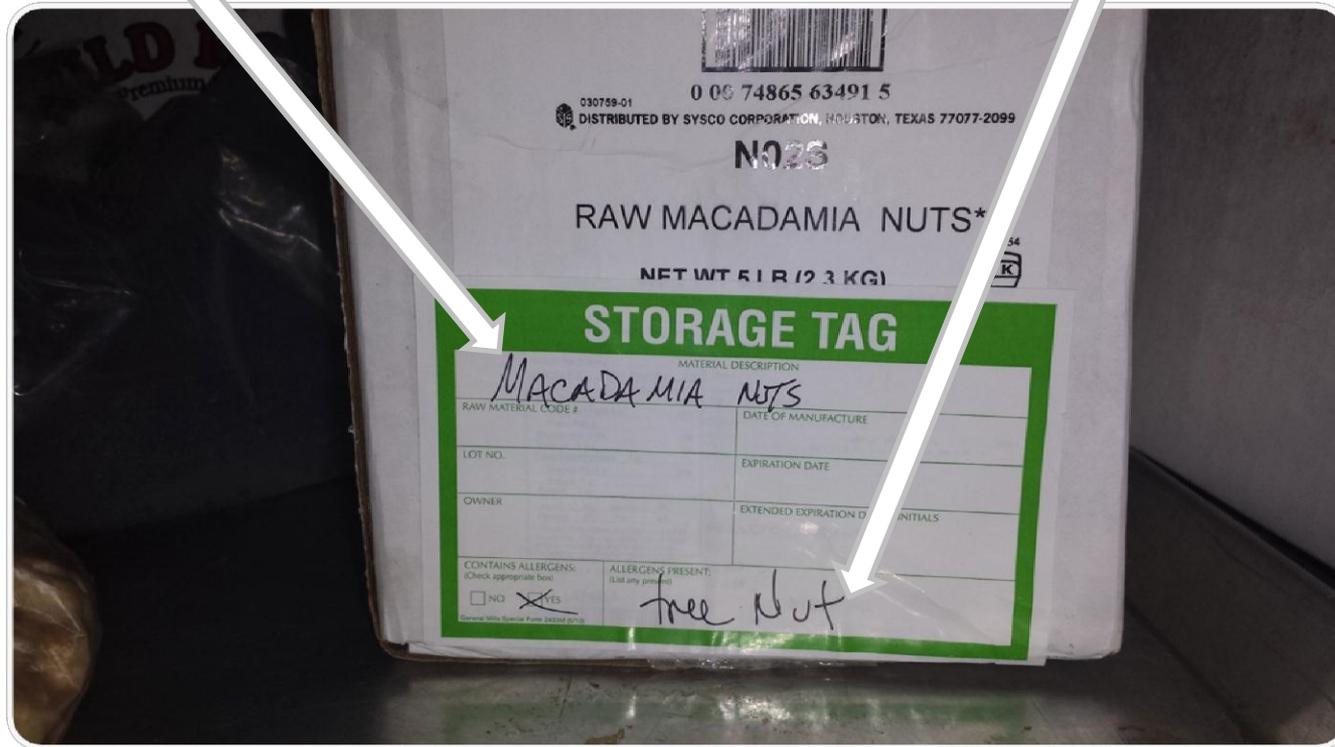
- Carelessly preparing the food
 - Sharing equipment
 - Not labeling allergens
 - Poor communication
 - Poor hygiene
-



Example of Good Labeling Practices

Name of the product

Allergen





Food Markers





Poll Question

- Of the options below, what is your biggest pain point in serving special diets?
 - Cross-Contamination in cooking/meal prep
 - Lack of on-hand special diet food options
 - Lack of high taste special diet options
 - Ensuring special diet patients are served correct meal
-



Consider Purchasing an Allergen Kit.



- Purple cutting board
- Knives
- Tools
- Serving trays
- Sautee pans
- And many more solutions....





Using Food Labels to Determine the Presence of Allergens

fructose corn syrup, modified corn starch, salt, mono and diglycerides, potassium sorbate [preservative], xanthan gum, sodium bicarbonate, artificial flavor), **Walnut Pieces, Cocoa Processed with Alkali, Corn Syrup. Contains 2% or less of:** Partially Hydrogenated Soybean and/or Cottonseed Oil, Corn Starch, Salt, Carob Powder, Artificial Flavor. Freshness Preserved by BHT.

CONTAINS WHEAT, WALNUT, MILK AND SOY INGREDIENTS.

INGREDIENTS: DATES, **CASHEWS, ALMONDS,** LEMON JUICE CONCENTRATE, DRIED LEMON JUICE CONCENTRATE, NATURAL LEMON FLAVOR.

- All products are required by law to list the allergens contained in common terms
- Some products will list a “contains” statement for allergens at the end of the ingredient declaration
- Some products will simply list the common names in the ingredient statement



Using Food Labels to Determine the Presence of Allergens

Ingredients: Chicory Root Extract, Semisweet Chocolate Chips (sugar, chocolate liquor, cocoa butter, soy lecithin, natural flavor), **Whole Grain Oats, Corn Syrup, Rice Flour, Barley Flakes, Sugar, Canola and Palm Kernel Oil, Vegetable Glycerin, High Maltose Corn Syrup, Maltodextrin, Tricalcium Phosphate, Sugarcane Fiber, Soy Lecithin, Cocoa Processed with Alkali, Salt, Fructose, Malt Extract, Caramel Color, Cellulose Gum, Baking Soda, Milk, Natural Flavor, Mixed Tocopherols added to retain freshness.**

CONTAINS SOY, MILK; MAY CONTAIN PEANUT, ALMOND, SUNFLOWER AND WHEAT INGREDIENTS.

“May Contain” Statements

- Not a required statement by FDA, so not all food labels will bear a "may contains" or “shared on equipment” statement
 - There is a small chance the allergen could be present although it is not explicitly added to the product recipe
 - Follow the recommendation of the licensed physician or your facility’s allergen management policy when deciding whether to use these products
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Gluten Free

Attract Patients by having an outstanding Gluten Free Menu!!!





Gluten Free Recipes!

Gluten-Free Apple
Bread Pudding



Turkey Gyro Bites with
Tzaziki Sauce



Whole Grain-Rich
Chocolate Brownie



Gluten-Free Grilled Chicken
Peanut Noodle Salad



Gluten-Free Quinoa Porridge
with Fruits and Nuts



Ginger Snaps



Recipes available at www.generalmillsfoodservice.com



RESOURCES



Resources



- Centers for Disease Control and Prevention:
<http://www.cdc.gov/healthyyouth/foodallergies/>
 - Food Allergy Research and Education:
<http://www.foodallergy.org/>
 - NEA Health Information Network:
http://www.neahin.org/assets/pdfs/foodallergybook_english.pdf
http://www.neahin.org/assets/pdfs/foodallergybook_spanish.pdf
 - National Food Service Management Institute
<http://www.nfsmi.org/ResourceOverview.aspx?ID=428>
 - United States Department of Agriculture, Food and Nutrition Service
<http://origin.www.fns.usda.gov/fns/safety/pdf/FoodAllergyBook.pdf>
http://www.fns.usda.gov/sites/default/files/special_dietary_needs.pdf
 - Celiac Disease Foundation:
<http://celiac.org/live-gluten-free/>
 - National Foundation for Celiac Awareness:
<http://www.celiaccentral.org/education/>
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Gluten Free Training



- Gluten-Free Food Service (GFFS) Accreditation Program
 - GIG Industry Program designed to work with food service establishments of all types who wish to serve gluten-free consumers, through the development and use of training and management strategies that provide a high level of consumer confidence.
 - The leading gluten-free food service accreditation program in the world
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Questions

