Food Allergies and Intolerances

Nan Jensen RD, LD/N
Pinellas County Extension
Overview of Presentation

- Statistics
- What is food allergy?
- What foods causes allergies?
- What is a food intolerance?
- Possible ways to deal with food allergy
- Resources you can use
Prevalence of True Food Allergies

- Infants 4-6%
- Young children 1-2%
- Adults < 1%
What Is A Food Allergy?

♥ Food allergy - an adverse reaction to a food or food component that involves the immune system.
♥ Food allergen - the part of a food a person is allergic to.
♥ Food allergens are proteins.
Who Has Food Allergies

♥ People with a genetic tendency
  1 parent with allergy = 40% higher risk
  2 parents with allergy = 60% higher risk
  (boys 1.5 times more likely than girls)

♥ People with other allergies - those who also have asthma, or show sensitivities to inhaled allergens such as dust, cat fur and pollen.
What Happens With A Food Allergy

♥ When a person eats a food they are allergic to, the food allergen stimulates the immune system to release an antibody called Immunoglobulin E (IgE) which is found in people with allergies. This antibody may develop after eating the food repeatedly in the past without having problems.

♥ The antibody (IgE) causes body cells to release substances, which cause allergic reactions.
Food Allergies Prevalence

- 90% Top Eight: Peanut, Tree nuts, Milk, Egg, Soy, Fish, Shellfish, Wheat
- 10% Others: Hundreds of others
Food Allergy Symptoms

♥ Reactions most often occur within minutes after eating an offending food. Rarely, a reaction can take a few hours to manifest itself.

♥ Smelling or touching the offending food may produce an allergic reaction in very sensitive people.
Food Allergy Symptoms

♥ Vary from person to person.
♥ Same food can produce totally different symptoms in different people, as well as varying symptoms within the same person.
Common Sites for Allergic Reactions

- **mouth**  
  (swelling of the lips or tongue, itching lips)

- **airways**  
  (wheezing or breathing problems)

- **digestive tract**  
  (stomach cramps, vomiting, diarrhea)

- **skin**  
  (hives, rashes or eczema)
Symptoms of a Food Allergy

Examples of Skin Rashes:
Severe Allergy Reactions

- Most reactions are mild.
- Small number of individuals have severe reactions that can be life-threatening.
- Anaphylaxis is rare, but can be a possibly fatal food allergy reaction.
Anaphylaxis

- Different parts of the body experience food allergy reactions at the same time.
- Reactions can progress rapidly.
- May include:
  - itching
  - hives
  - sweating
  - swelling of the throat
  - breathing difficulties
  - lowered blood pressure
  - unconsciousness and even death
Have A Plan

♥ People who have severe allergic reactions need to plan for handling emergency situations.
♥ May carry epinephrine for self-injection and medical bracelets or necklaces in case they become unconscious.
Proper Diagnosis

- **Skin prick test** - small amounts of diluted food extracts are pricked into the skin.

- **Blood test (RAST)** - a blood test to determine the presence of antibodies.

- **Food challenges** - patient given a small sample of suspected allergen or a placebo.
Living With A Food Allergy

♥ Avoid the offending food.
♥ A elimination diet must be carefully developed and be personalized to take into account the ability of an individual to tolerate an allergy-producing food.
Living With A Food Allergy

- Using an elimination diet for 1-2 years may promote outgrowing a food allergy.
- Some food allergies, particularly to peanuts, nuts, fish and shellfish can last a lifetime.
- No drugs are available to treat food allergies.
Other Types Of Food Reactions

♥ Some people have adverse reactions to foods that do not involve the immune system.
♥ These are referred to as "food intolerances."
Metabolic Intolerances

- A metabolic intolerance is when the body cannot adequately digest a portion or component of a food.
- For example: lactose intolerance and gluten intolerance.
Lactose Intolerance

- People with lactose intolerance can not digest lactose in milk.
- Lactose is a disaccharide (sugar) in milk.
- Lactose is digested by the enzyme lactase into two monosaccharides, glucose and galactose, which can be absorbed by the small intestine.
Lactose Intolerance

- If there is not enough lactase, the lactose goes undigested.
- Lactose moves into the large intestine and is fermented by normal bacteria found in the large intestine.
- The amount of lactase produced tends to decrease in adulthood.
Symptoms Of Lactose Intolerance

- Symptoms include cramps, bloating, intestinal gas, diarrhea and nausea.
- Severity of symptoms varies with the amount of lactose consumed and degree of intolerance.
- Symptoms appear from 15 minutes to several hours after eating foods or beverages containing lactose.
Is Lactose Intolerance A Food Allergy To Milk?

♥ A milk allergy is an allergic reaction to the protein components in milk, not the sugar in milk.

♥ People with milk allergy usually must avoid all milk products.

♥ People with lactose intolerance can use certain dairy products that are low in lactose.
How Much Lactose?

♥ Amount of lactose allowed depends on the degree of lactose tolerance.
♥ Very sensitive people need to check food labels.
♥ Look for ingredients: milk, whey, lactose, nonfat milk solids, dry milk solids, curds, cheese, margarine and sweet or sour cream.
Which Foods Contain Lactose?

- breads
- dry cereals
- cold cuts
- cream soups
- medications
- drink mixes
- sugar substitutes
- salad dressings
- cookies
Gluten Intolerance

- Also referred to as celiac disease, celiac-sprue, non-tropical sprue or gluten sensitive enteropathy.
- Individuals do not outgrow gluten intolerance.
Symptoms Of Gluten Intolerance

- Diarrhea
- Steatorrhea (fat in the stool)
- Bloating
- Loss of appetite
- Muscle wasting
- Weight loss that can lead to progressive malnutrition
Which Foods Contain Gluten?

- A protein found in
  - Wheat
  - Barley
  - Rye
  - Spelt
  - Triticale
  - Possibly oats

...and in all products made from or containing them
Food Additive Intolerances

Although most individuals consume a wide variety of food additives each day, only a small number have been shown to affect individuals.
FD&C Yellow No. 5 or Tartrazine Sensitivity

♥ Yellow No. 5 is a food color additive.
♥ Color additives may cause hives in some individuals.
♥ Whenever Yellow No. 5 is added to a food, it should be listed on the product food label.
Monosodium glutamate

- MSG is a flavor enhancer. MSG is the sodium salt of glutamic acid, an amino acid found naturally in all protein.
- A few people report mild and short-lived reactions after eating MSG.
- If MSG is added to a food it is listed on the label as “monosodium glutamate.”
**Sulfites**

- Sulfites are used to preserve color of foods and inhibit microorganism growth.
- Some people develop shortness of breath or fatal shock shortly after exposure to sulfites.
- Affects one out of every 100 people.
- Sulfites can produce severe asthma attacks in sulfite-sensitive asthmatics.
**Sulfites**

- FDA banned the use of sulfites on fresh fruits and vegetables (except potatoes) that are intended to be sold to consumers raw.
- Sulfites added to all packaged and processed foods must be listed on the product label.
Food Allergen Labeling and Consumer Protection Act (FALCPA)

- Signed into law by President Bush in August 2004.
- Labeling was implemented by January 1, 2006 (for products packaged on or after January 1, 2006).
Food Allergen Labeling and Consumer Protection Act

- Must label ingredients that contain protein from the major food allergens:
  - Milk
  - Eggs
  - Fish
  - Crustacean shellfish (e.g., shrimp)
  - Wheat
  - Peanuts
  - Soy
  - Tree nuts (e.g., walnuts)

- Must use plain English name of the allergen
  - For fish, shellfish or tree nuts, use specific species name (e.g., cod, crab or hazelnut).

- Must label allergenic ingredients, even if usually exempted from declaration (e.g., incidental additive).
The word “Contains” followed by the name of the major food allergen (milk, wheat, or eggs for example); or

a parenthetical statement in the list of ingredients, e.g., “albumin (egg)”.

Food Allergen Labeling and Consumer Protection Act
CURRENT LABEL
Ingredients: skim milk and milkfat, sugar, flour, brown sugar, eggs, butter, soybean oil, chocolate liquor, coconut oil, vanilla extract, cocoa, guar gum, salt, cocoa butter, lecithin, carageenan and natural flavors.

*Per supplier: natural flavor contains walnut
Ingredients: skim milk and milkfat, sugar, flour (wheat), brown sugar, eggs, butter, soybean oil, chocolate liquor, coconut oil, vanilla extract, cocoa, guar gum, salt, cocoa butter, lecithin (soy), carageenan, natural flavors (walnut).

Contains: milk, wheat, eggs, soybean and walnut.
Parental Responsibilities

- Notify key people that your child has a food allergy.
- Have an action plan.
- Have your child wear a medical alert bracelet or necklace.
Resources for Food Allergies

Food Allergy and Anaphylaxis network (FAAN) [http://www.foodallergy.org/](http://www.foodallergy.org/)