Food Sensitivities: Trends, Triggers and Truths

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Outline

- Introduction: What are food sensitivities?
- Food Allergies
- Food Intolerance
- Diagnosis & Treatment
- Recommendations
- Resources
- Questions?
What are food sensitivities?

- The result of adverse responses to food
  - May include many different types of sensitivities to food
  - Arise for a wide variety of reasons
  - Complex mechanisms
  - Oftentimes confusing definitions
  - Symptoms may have delayed onset
  - Food allergy vs. food intolerance
Food Allergies

- Adverse clinical reactions to food or food additives that involve the immune system
  - Over 60% of immune activity occurs in the intestinal tract
  - Body identifies molecules in food as potentially harmful and toxic
  - Immune response initiated

![Diagram of immune cell, immune cell binds antigen, and immune cell is activated to release histamine and other chemical messengers]
Food Allergies

- **Symptoms:**
  - Vomiting
  - Diarrhea
  - Blood in stools
  - Eczema
  - Hives
  - Skin rashes
  - Wheezing
Food Allergies

- Over 140 different foods have been identified as causes of allergic reactions
- Over 90% of food allergies are associated with:
  - Cow’s milk
  - Eggs
  - Peanuts
  - Soy foods
  - Wheat
  - Fish
  - Shellfish
  - Tree nuts
Food Allergies

- Foods least often associated with food allergies
  - Apples
  - Lamb
  - Pears
  - Winter squash
  - Sweet potatoes
  - Cherries
  - Carrots
  - Rice
Food Intolerance

- Reproducible, adverse response to food that does not involve the immune system
- Much more common than food allergies
- May affect as many as 43 million Americans

Can occur for many reasons:

- Absence of an enzyme needed to fully digest a food
- Irritable bowel syndrome
- Sensitivity to food additives
- Many mechanisms unknown
Food Intolerance

- Common Symptoms:
  - Nausea
  - Gas
  - Cramps
  - Bloating
  - Vomiting
  - Diarrhea
  - Headaches
  - Irritability
Food Intolerance

- **Most common:**
  - Lactose intolerance
  - Tyrosine (chocolate)
  - Histamine and other amines (strawberries)
  - Preservatives & additives
    - Yellow dye #5
    - MSG
    - Sulfites
- **Other foods:**
  - Eggs
  - Wine
  - Nightshades (potatoes, tomatoes, peppers, eggplants, paprika, cayenne)
Gluten

- **Celiac Disease**
  - Abnormal immune response to gluten (protein in wheat and some other grains) that damages the intestinal wall
  - Involves immune system but symptoms are mostly gastrointestinal and there is no risk of anaphylaxis
  - Can be diagnosed by a doctor

- **Non-Celiac Gluten Sensitivity**
  - Mostly self-reported
  - No test or defined set of symptoms
  - May affect 5-10% of Americans
  - Mechanism unknown
Diagnosis & Treatment

- No cure for food allergies or intolerances

- Comprehensive assessment to diagnose:
  - Description of symptoms
  - Physical examination to exclude other medical problems
  - Food diary
  - Skin prick test (positive reaction alone not enough to confirm food allergy)
  - Blood test checking the amount of allergy-type antibodies in your bloodstream, known as immunoglobulin E (IgE) antibodies.
  - Oral food challenge
  - Elimination diet
Elimination Diet

- Helps link symptoms to specific foods
- Remove specific foods or ingredients from diet
- After period of elimination, gradually reintroduce foods into diet – keeping a food journal of symptoms

Comprehensive Elimination Diet

- Designed to clear the body of foods and chemicals you may be allergic or sensitive to
- Elimination phase typically lasts 2-3 weeks
- Testing phase requires foods to be added back one at a time, every 2-3 days
## Elimination Diet

- **Foods commonly eliminated:**
  - Citrus
  - Dairy
  - Eggs
  - Gluten-containing foods (wheat)
  - Processed meats
  - Shellfish
  - Soybean products
  - Peanuts and peanut butter
  - Nightshades (eggplant, peppers, tomatoes)
  - Corn
  - Heavily processed or refined foods
  - Alcohol
  - Coffee and other caffeinated beverages
  - Artificial sweeteners
  - Foods containing high amounts of fructose (corn syrup, white sugar, honey, agave)
Elimination Diet – Important Considerations

- Eat a wide variety of foods
- Do not try to restrict your calorie intake (not intended for weight loss)
- There is no “typical” or “normal” response
  - Positive: increased energy, mental alertness, resolution of symptoms
  - Negative: changes in sleep patterns, headache, changes in digestive function (usually these last only a few days)
- If you have no improvement within three weeks either you do not have any food sensitivities or there is another factor complicating the picture
Elimination Diet – Important Considerations

- Plan your meals and snacks so that you do not find yourself hungry or without appropriate food
  - Gluten-free grains
  - Broths & soups
  - Vegetable dishes
  - Chopped fruits
- Avoid any foods that you know or suspect you might be sensitive to, even if they are not on the list of foods to avoid
- Drink lots of water
Controversial Diagnostic Techniques

- **Cytotoxicity Testing**
  - Food allergen added to blood sample
  - White cell count evaluated
  - Not found to be effective in diagnosing food sensitivities

- **Sublingual or Subcutaneous Challenge**
  - Diluted form of suspected food sensitivity administered under tongue or skin
  - Symptoms evaluated
  - Not shown to be effective in diagnosing food sensitivities
Controversial Diagnostic Techniques

- **Immune Complex Assay**
  - Blood sample to examine if there are complexes of certain antibodies bound to food allergen in bloodstream
  - Claim to correlate with food sensitivities, however, formation of immune complexes completely normal
  - Not conclusively shown to correlate with sensitivities to foods

- **IgG Subclass Assay**
  - IgG antibodies to food identified in a blood sample
  - Reflects exposure to food but not presence of sensitivity
  - No credible evidence this technique is useful for diagnosing food sensitivity
Recommendations

- If you suspect you have a food allergy or your symptoms are severe:
  - Consult your physician (do not attempt to diagnose yourself)
- If your symptoms are not severe, but you suspect you might be intolerant or sensitive to a particular food:
  - Try eliminating it from your diet for a few weeks to see if symptoms improve
- If you think you may have multiple food sensitivities:
  - Consider doing a comprehensive elimination diet - this requires a lot of dedication and planning but is one of the most effective ways to determine whether a food is causing symptoms
- At-home food sensitivity tests are expensive and there is lack of research supporting their validity
Recommendations

- Ultimately, avoiding the offending food is the only way to treat any food sensitivity
- If you feel better by avoiding a certain food, there is nothing wrong with continuing to avoid it...
- JUST be sure you are still eating a nutritionally balanced diet rich in:
  - Vegetables
  - Fruits
  - Lean proteins
  - Healthy fats
  - Wholesome starches
Resources

- The Food Allergy & Anaphylaxis Network
  - [www.foodallergy.org](http://www.foodallergy.org)
- USDA & US Dept. of Health and Human Services
  - [www.foodsafety.gov/poisoning/causes/allergens](http://www.foodsafety.gov/poisoning/causes/allergens)
- SF Bay Area Food Allergy Network
  - [www.sffoodallergy.org](http://www.sffoodallergy.org)
- Living Without Magazine
  - [www.livingwithout.com](http://www.livingwithout.com)
- Elimination Diets (will send links)
  - Institute of Functional Medicine
  - University of Wisconsin Integrative Medicine