



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?



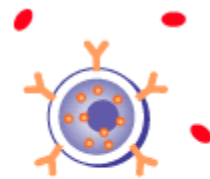
What are food sensitivities?

- ▶ **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

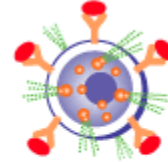
- ▶ Adverse clinical reactions to food or food additives that involve the immune system
 - ▶ Over 60% of immune activity occurs in the intestinal tract
 - ▶ Body identifies molecules in food as potentially harmful and toxic
 - ▶ Immune response initiated



Immune cell



Immune cell binds antigen



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

