Food Sensitivity & Food Allergy Reference Guide

This short guide will

1. explain the difference between food sensitivities and food allergies,
2. explain what tests are available,
3. briefly explain the antibodies involved
4. list what type of practitioners can help
5. list helpful resources for deeper support

What is the difference between Food Allergies and Food Sensitivities/Intolerances?

There are two main types of allergic reactions:

1. IgE (food/allergies) and
2. IgG (food/sensitivities)

The American Academy of Allergy, Asthma, and Immunology explains that a food intolerance/sensitivity stems from the digestive system. It happens when you’re not able to break down food you eat. This can be caused by enzyme deficiencies, sensitivity to a food, or a reaction to naturally-occurring food chemicals. Usually, people with an intolerance or sensitivity can eat these foods in small amounts without experiencing problems.

A food allergy, on the other hand, is an immune system response. Your immune system’s job is to protect and defend your body against viruses, bacteria and illness causing agents. If you have an allergy to milk, your immune system sees the milk as a problem and produces antibodies called Immunoglobulin E (IgE) in response. These antibodies are part of what triggers an allergic reaction. We experience them as hives, itchiness, swelling, gastrointestinal symptoms like vomiting and diarrhea, and even anaphylaxis.

One important distinction between intolerance and allergy is that with an allergy, even a tiny amount can cause serious, life-threatening reaction.
### Comparison of Food Allergies and Food Sensitivities/Intolerances

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<tr>
<th>Type of Reaction</th>
<th>Explanation</th>
<th>Intervention</th>
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<tbody>
<tr>
<td><strong>IgE/ True Food Allergy</strong></td>
<td>Reaction is typically acute and quick to present (from seconds post consumption/contact to minutes or an hour)</td>
<td>Foods that trigger food allergies must be avoided.</td>
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<td>Example: Peanut allergy</td>
<td>Reaction might include hives, sneezing/running nose, or anaphylactic shock.</td>
<td>Emergency intervention like an EpiPen may be prescribed to help in the event of accidental ingestion.</td>
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<td>Easier to recognize because of the fast and intense nature of the reaction.</td>
<td>Patients are educated by their MD or Dietician on safety protocols.</td>
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<td>Food allergies can happen at any time. Some people are born with specific food allergies, while others encounter food allergies later in life. In general, food allergies do not go away.</td>
<td>In some cases, tolerance may be built up with the help of an allergist/specialist, but usually the item needs to be avoided for life. A Dietician or Functional Nutritionist can recommend safe substitutes.</td>
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<th><strong>IgG/ Food Intolerance or Sensitivity</strong></th>
<th>Reaction may be acute, but typically takes hours or days to appear.</th>
<th>Trigger foods often need to be avoided completely.</th>
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<tr>
<td>Example: Lactose intolerance.</td>
<td>The most common food sensitivities are gluten, casein, soy, corn, eggs, peanuts, citrus, chocolate, and cane sugar.</td>
<td>If there is an underlying reason for the sensitivity, foods may be able to be reintroduced safely after the reason is resolved and there has been enough time for the body to recover.</td>
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<td>Lactose intolerance is caused by an inability of your body to produce sufficient quantities of the enzyme which breaks down lactose, the primary sugar found in milk. Avoiding milk or supplementing their diet with lactase is the best way for a person with lactose intolerance to overcome their problem.</td>
<td>IgG reactions can cause gut inflammation and further sensitivities to develop.</td>
<td>Digestive enzymes may be helpful in some cases.</td>
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<td>In addition to diarrhea, constipation, aggression, lethargy, and the myriad symptoms seen with food sensitivities, also look for extreme cravings or self-limiting only to certain foods.</td>
<td>Food sensitivities can develop at any time and may last a lifetime or may go away.</td>
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Testing Options/Diagnosis

IgE testing/skin prick testing/Blood Testing

- An Allergist injects a small amount of an allergen under the skin (forearm or back, usually) and looks for a reaction to develop.
- About 50-60 percent of all blood tests and skin prick tests will yield a “false positive” result. This means that the test shows positive even though you are not really allergic to the food being tested.

Oral Food Challenge

- Done under supervision of an Allergist or other medical professional.
- The practitioner identifies a food that is believed or known to be a trigger and conducts a challenge where the patient consumes increasing amounts to determine tolerance and if there is a true allergy.
- Can be difficult psychologically - fear of a reaction/anaphylaxis.

IgG testing

- Typically done by Functional Medicine doctors and Naturopaths
- Measures one antibody, IgG. IgG is a memory antibody that we develop after exposure to foods. It can be elevated when you eat a lot of a certain food OR it can be elevated even when you rarely eat a food.
- Usually done via finger pin prick test that the client does at home.
- Caveat: people who are on immunosuppressants may not get accurate results. Immunosuppressants cause antibody production to be suppressed. If IgG testing is done in this case and we see activity on the results then we have to consider that it is likely depressed from it’s real reactive state (but we can still see some variance).

ELISA/ACT Allergy Testing

- Measures the cells lymphocyte mediated reaction to particular antigens
- Does not reveal the particular pathway or physiology that is leading to the inflammatory response, just shows that there is a reaction.
- Looking directly at lymphocytes the hsLRA detects all three types of delayed food and chemical hypersensitivities to as many as 512 items
Cyrex Labs

- specializes in autoimmunity and gluten sensitivity testing.
- Array #4 looks specifically at gluten cross-reactivity with various foods. This test can be a great resource, particularly with understanding which foods may be triggering the same gluten-sensitivity response in a particular individual.

ALCAT testing

- Can test for over 450 foods and chemicals.
- This uses a different technology to look for any foods that trigger a WBC immune-mediated response, rather than looking at activity of any particular antibody.
- While this can be helpful in narrowing in on reactive foods for clients who are hyper-reactive, it does not tell us much about how the body is responding to a specific food.

MRT -- Mediator Release Test (MRT®) - Oxford Biomedical Technologies, Inc.

- Is a good test for not just food sensitivities but also dyes, chemicals.
- Requires a blood draw at a lab and it is more expensive than a finger prick at home test
- Practitioner must be trained in evaluating the MRT

Elimination Diet

- A protocol where we remove the antagonists to help the body do it's long-term healing and ultimately calm the system to reduce reactivity and repair the underlying issues so the body is no longer vulnerable to the immune response.
- Can be an accurate and affordable way to determine food sensitivities.
- How a client feels eating or eliminating the food is the gold standard.
- After a period of elimination, clients reintroduce specific foods and look for a response. Beyond digestive symptoms, people are asked to look for changes in mood, energy, sleep, focus, pain, skin, etc.
- Dietician, Functional Nutritionist, Functional MD, ND can help with this process.
Note on testing: No tests are 100% accurate. In addition, tests have to be interpreted by someone accustomed to working with them.

- For example, if someone has a lot of high reactivity, I'm not going to assume that they need to remove all those foods, but instead look to determine if there is leaky gut or other factors in play, address that and start to assess the findings.
- If someone doesn’t respond to gluten but I suspect reactivity for other reasons, I may still suggest taking it out for a period of time, etc.

What are antibodies?
Antibodies (also called immunoglobulins) are large y-shaped proteins which function to identify and help remove foreign antigens such as viruses and bacteria. They are part of your adaptive immune system, which means that they work in a specific manner (ie. they’re “trained”).

In mammals there are five main types of antibodies including: IgA, IgD, IgE, IgG, and IgM.

IgE

- Immunoglobulin E (IgE) are antibodies produced by the immune system.
- If you have an allergy, your immune system overreacts to an allergen by producing antibodies called Immunoglobulin E (IgE). These antibodies travel to cells that release chemicals, causing an allergic reaction. This reaction usually causes symptoms in the nose, lungs, throat, or on the skin.
- Each type of IgE has specific “radar” for each type of allergen. That’s why some people are only allergic to cat dander (they only have the IgE antibodies specific to cat dander); while others have allergic reactions to multiple allergens because they have many more types of IgE antibodies.

IgG

- IgG antibodies are found in all body fluids.
- They are the smallest but most common antibody (75% to 80%) of all the antibodies in the body.
- IgG antibodies are important in fighting bacterial and viral infections.

Your Food Allergy Team – Who Can Help

If you are reacting acutely to certain foods, an allergist can assess you and may measure blood levels of IgE antibodies to determine whether food allergy is present.

If you suspect you are reacting specifically to gluten, an assessment for celiac disease (IgA-tTG) can start the diagnosis process. An Allergist, family doctor, Functional/Integrative MD or Naturopath can help with this.

If you suspect that you are reacting to certain foods more broadly, a food intolerance assessment can be completed by a Functional/Integrative MD or Naturopath.

A Registered Dietician can help with an Elimination Diet and specific meal plans.

A Functional Nutritionist can help with an Elimination Diet, meal planning and lifestyle modifications.

A Health Coach can help with accountability and staying on track with new dietary plans.

A Licensed Counselor or Social Worker can help with emotional support and may be instrumental in helping with specialized plans for school-aged children.

A Licensed Massage Therapist can help with physical manifestations of stress that result from food allergies and from dietary restrictions.

Helpful Resources

https://www.foodallergy.org/resources

- Newly Diagnosed Guide
- Printable Food Allergy & Anaphalyxis Emergency Plan printout
- MANY guides and resources for all ages and stages in the Food Allergy journey

American Academy of Allergy Asthma and Immunology

NH Health & Wellness Center