



Food Allergy or Food Sensitivity?

On exposure to foods, the immune system can react by releasing proteins called antibodies. Foods that cause antibodies to be released are called antigens or allergens. Two types of antibodies are commonly produced in response to foods: IgE (immunoglobulin E) and IgG (immunoglobulin G). Food allergies and food sensitivities differ by the type of antibody produced and the speed of the reaction. Food allergy is an immediate reaction caused by the production of IgE antibodies, while food sensitivity is a delayed reaction caused by the production of IgG antibodies to specific foods.

Food Allergy IgE Reactions - Immediate

IgE reactions generally occur within minutes of eating a reactive food and can, on rare occasions, be life-threatening (e.g. peanut allergies). Skin eruptions (hives, eczema), breathing and digestive problems are also common IgE reactions. After first time exposure to an allergen, the body remembers what the allergen “looks like” and keeps a supply

of IgE ready for immediate release if it “sees” that allergen again. Referral to a specialist is recommended in the case of serious food allergies (i.e. difficulty breathing, anaphylaxis).

Food Sensitivity IgG Reactions - Delayed

IgG reactions take hours or days to develop, making it difficult to determine the food cause without testing. In an IgG reaction, the IgG antibodies attach themselves to the antigen and create an antibody-antigen complex. These complexes are normally removed by special cells called macrophages. However, if the complexes are present in large numbers and the food antigen is still being consumed, the macrophages are unable to remove all the complexes. The antigen-antibody complexes accumulate and can be deposited in body tissues. Once deposited in tissue, these complexes may cause inflammation, which can contribute to a variety of health conditions.

Delayed Food Reactions

Delayed food reactions are IgG antibody reactions (food sensitivities) that occur hours to days after a food is consumed. The inflammatory reaction triggered by antibody-antigen complexes may have the following effects:

Systemic

Fever, fatigue, chills, sweating and feeling weak, puffiness.

Skin

Itching, redness, swelling, and rashes.

Brain

Mood and memory disturbances, behavioural problems.

Lungs

Food-induced bronchitis and asthma symptoms.

Musculoskeletal

Joint pain, muscle stiffness and swelling.

Digestive tract

Nausea & vomiting, diarrhea, abdominal pain, gas, and bloating.

Conditions Associated with Food Sensitivities

Digestive disorders: Conditions like irritable bowel syndrome (IBS) and Crohn's disease have been linked to IgG food reactions. Research has shown that elimination of IgG reactive foods can alleviate IBS symptoms.

Migraines: A 2007 research study found that 43/65 patients with migraine headaches had complete remission of headaches after one month of eliminating reactive foods. Another study in 2010 found a significant reduction in the number of headache days and migraine attacks with elimination of reactive foods.

Mood/attention deficit disorders: Deposition of antibody-antigen complexes

in nervous system tissues may contribute to hyperactivity, depression, anxiety, inability to concentrate and other mood disorders. There is some evidence that eliminating IgG reactive foods can improve attentiveness in children.

Weight gain: Antibody-antigen complexes in tissue cause inflammation, which leads to fluid retention and weight gain. To fight inflammation, the body releases a chemical called ghrelin, which also happens to be an appetite stimulant. Thus, IgG food reactions may contribute to weight gain in two ways: fluid retention and increased appetite.

Why Test Food Sensitivities?

Because hours or days can pass between the time a reactive food is consumed and occurrence of symptoms, testing is often the only way to determine which foods are responsible for the reaction.

- IgG reactions frequently occur to commonly consumed foods such as dairy, wheat, eggs, yeast, pork and soy.
- Elimination diets (remove suspect foods for a period of time and then reintroduce and check for reactions) are difficult to follow and can take months to complete.

Information is for educational purposes only. It is not meant as medical advice and any treatment decisions should be made with the knowledge or consent of your healthcare professional

Food Reactions

Test Results

A sample RMA FST™ report appears at right. Foods with green boxes next to them are considered normal, or non-reactive, while foods with orange boxes are borderline, or close to being reactive. The red shaded box food results are considered reactive. Thus, it is easy to see at a glance which foods are problematic for you. The RMA FST™ also lists results by reactivity, so that all your reactive foods are grouped together. Knowing which foods you react to is an important first step to achieving better health. Your healthcare professional is best qualified to help you interpret the meaning of your results.

Eliminating Reactive Foods

Once you receive your results, your healthcare professional will help you formulate a plan to eliminate the problem foods from your diet. Most people see improvement of symptoms within a few weeks of eliminating the reactive foods. However, it is important to understand that symptom improvement may take some time, and results vary from individual to individual. Removing reactive foods from the diet can sometimes result in withdrawal symptoms like headaches, tiredness, irritability and hunger.

How “Leaky Gut” Contributes to Food Reactions

Leaky gut syndrome is caused by inflammation in the gut lining. Inflammation can be caused by food allergies or sensitivities, abnormal gut flora, stress, certain drugs, and alcohol. An inflamed gut lining causes more food particles to leak into the bloodstream where they may come in

contact with food-specific immunoglobulins. Therefore, a test report that shows multiple food reactions to foods regularly eaten may be an indication of leaky gut. If so, your healthcare professional may suggest treatments for your digestive system in addition to dietary changes.

Unexpected Results

- If you have not eaten a particular food for many months, you are less likely to have circulating antibodies to that food. In that case, a lack of reaction is most probably due to lack of exposure and does not necessarily mean the food is non-reactive.
- Sometimes reactions appear for foods seldom or never eaten. For example: a child reacting to coffee. This may be due to cross-sensitivity with a related food, or may result from inadvertent exposure to that food (hidden ingredient in packaged food item or sauce). Elevated IgG may also have a role in protecting against more serious IgE reactions. It's important to understand that having elevated IgG antibodies is not a concern if the reactive food is rarely eaten.
- Non-immune food reactions: Food reactions can also arise from a lack of digestive enzymes or stomach acid, chemicals naturally present in food and artificial additives. For example: lactose intolerance is due to lactase enzyme deficiency; histamine is found in wine, cheese, spinach and tomatoes; and MSG is an additive that can produce symptoms in some people. These are not immune reactions, and therefore will not result in antibody production.
- Food reactions can also arise from previous negative experiences with a specific food (e.g. food poisoning), in that physical reactions to subsequent exposures are possible.

RMA FST™
FOOD GROUP Report

NOTE: The foods assigned to individual antigens are based on a statistical analysis of a Canadian population. The upper and lower limits for assigning borderline status vary by antigen. The lower limit for assigning Elevated status varies by antigen.

Food Group	Reactivity
Dairy / Eggs	
Almond, Lactoglobulin (cows)	Green
Egg White	Green
Milk (cows)	Green
Grains	
Buckwheat	Green
Corn	Green
Gluten (Wheat)	Green
Grains (Gluten-Free)	
Buckwheat	Green
Rice	Green
Fruit	
Apple	Green
Banana	Green
Cherry	Green
Citrus	Green
Coconut	Green
Fig	Green
Grape	Green
Guava	Green
Kiwi	Green
Lemon	Green
Lime	Green
Mango	Green
Orange	Green
Peach	Green
Pineapple	Green
Pineapple	Green
Plum	Green
Raspberry	Green
Strawberry	Green
Vegetables	
Asparagus	Green
Beet	Green
Broccoli	Green
Brussels Sprout	Green
Cauliflower	Green
Celery	Green
Cucumber	Green
Eggplant	Green
Fennel	Green
Garlic	Green
Green Beans	Green
Kale	Green
Leek	Green
Onion	Green
Parsnip	Green
Peas	Green
Potato	Green
Spinach	Green
Sweet Potato	Green
Tomato	Green
Turnip	Green
Yam	Green

Why Test?

Good health has a lot to do with maintaining balance; the right balance of work and play, the right balance of nutrients in the diet, and the right kinds of foods.

Undiagnosed food sensitivities may contribute to symptoms and biochemical changes that result in illness.

Rocky Mountain Analytical is committed to offering tests that identify food reactions and other imbalances - so they can be corrected before disease develops!

