



**INFINITE**

ALLERGY LABS

# Food Allergy and sensitivity Test (FAST) Results

## Fast Track To Wellness



The information in this guide will help you to understand the Infinite Allergy Labs Food Allergy and Sensitivity Panel (FAST), and how to best utilize your results.

## Why Food Testing Matters:

Many people realize that they are having issues with food and can tell something in their diet is affecting them. They are often led to allergy testing and may find some answers but not the entire solution. Allergy testing is useful, but only looks at one way we react to foods. Allergy testing measures an immune response known as IgE. Our body can be inflamed in different ways, not only from IgE, but Total IgG, IgG4, and complement. A diet that minimizes foods that provoke these responses will decrease many types of inflammation and symptoms and is foundational to wellness. When we are eating the least inflammatory diet, individualized to our body, we are optimizing our chance for health.

Inflammation can be due to certain foods specific to each individual and is at the heart of many conditions that are detrimental to health and quality of life. Considering that the surface area of our intestines is almost the size of a football field, controlling even a small amount of this inflammation, provides huge benefits to health. Research continues to emerge regarding the consequences of inflammation in our gut and how foods trigger an inflammatory process.

As inflammation decreases, the intestinal lining or “gut” begins to heal. Rebuilding the gut results in stronger protection for the body from many factors including irritating foods. The gut contributes heavily to our “immune tolerance.” A tolerant immune system is a healthy immune system; prepared to fight infection when necessary, but not in a state of hyperactivity. An out-of-balance immune system creates inflammation that can set off a cascade of events, ultimately resulting in many symptoms and conditions or making already existing conditions worse.

If the gut barrier breaks down, this is a condition often referred to as “leaky gut.” When gaps in the lining are present, larger molecules of under-digested food(s) enter the bloodstream. The body begins to attack these foods. This compromises the immune system’s reserves to fight bacteria, viruses, parasites; and consequently, the body is inflamed for no productive reason. This results in immune confusion and causes many symptoms throughout the body. Damage to the gut also decreases the number of enzymes available to help us absorb nutrients from our food, such as amylase and lipase. As these enzymes break down, we can not absorb nutrients as well. Poor absorption of nutrients compromises every cell in the body.

# What are we testing for?

## What are we looking at?

Infinite Allergy Labs Food Allergy Sensitivity Test (FAST) looks at four 4 different immune responses to 88 food antigens. Our test evaluates both allergies and sensitivities, specifically:

## 4 Types of Immune Reactions Measured on Infinite 's Food Allergy and Sensitivity Test

**1. IgE (IMMUNOGLOBULIN E):** allergies are the immediate responses to a foreign substance that has entered the body via food or inhalation. IgE allergies can cause very serious symptoms like difficulty in breathing, swelling, and hives. In more serious cases, IgE reactions can lead to anaphylactic shock. Our test measures the serum level of IgE, one of the four subclasses of antibodies. Antibodies are proteins made by the immune system that attack antigens such as bacteria, viruses, and allergens. They can become confused or cross-reactive and begin attacking foods instead. High titers of IgE are associated with allergic reactions, which is when the immune system overreacts to food or environmental antigens such as pollen, pet dander, and/or parasitic infections.

**2. IgG (IMMUNOGLOBULIN G, TOTAL):** are antibodies that provide long-term resistance to infections and have a much longer half-life than an IgE allergy. This food sensitivity can be more subtle than allergies, and many people live with it for years, if not their entire lives. Sensitivity symptoms range from fatigue, headache/nausea, seizures, hyperactivity, bloating, mood changes, IBS, IBD, joint pain, weight gain and dark circles under the eyes. IgG symptoms typically occur within 3-72 hours after the offending food was ingested and they will create ongoing inflammation that can make most conditions worse.

The degree and severity of symptoms vary greatly from person to person because of genetic makeup. The complete elimination of IgG positive foods may bring about important improvements in symptoms of irritable bowel syndrome, autism, ADHD, cystic fibrosis, rheumatoid arthritis, and epilepsy, as demonstrated in numerous clinical studies. It is important to get tested for food sensitivities to know what foods work for the patient's body and what foods don't. If you are only looking at allergies, or IgE, then you would miss the IgG mediated symptoms, creating an incomplete patient picture.

**3. C3d/b (COMPLEMENT COMPONENT 3):** are proteins of the innate immune system which can be activated by microorganisms in the absence of an antibody. When C3d/b is activated in response to an antigen, the C3 portion attaches to the antigen. This activation, even though it is independent, will amplify the reaction that occurs with total IgG greatly increasing inflammation and symptoms of sensitivity. This same reaction that was designed to amplify inflammation to microorganisms, can be triggered in response to foods. If complement is present, it will amplify an IgG reaction as much as 10,000-fold. Therefore, tests that only measure IgG may miss the reactions to foods that are most clinically relevant.

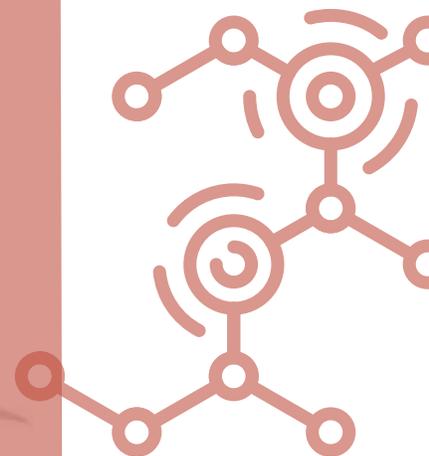
If complement is known to have a high level of reactivity in the condition you are treating, then foods that confuse and irritate this part of the immune system should be given special attention. See below table for conditions driven by complement.

## Other conditions Associated with Complement (C3d)

Lupus	Crohn's Disease	Rheumatoid Arthritis	Ulcerative Colitis
Psoriasis	Cystic Fibrosis	Epilepsy	Gout
Scleroderma	Thyroiditis	Reiter Syndrome	Dermatomyositis
Depression	Food Reactions	Increased CRP	Acute Rheumatic Fever
Typhoid Fever	Sarcoidosis	Traumatic Spinal Cord Injuries	Periarthritis nodosum
Dermatomyositis	Scleroderma	Acute Myocardial Infarction	Ankylosing Spondylitis

**4. IGG4 (IMMUNOGLOBULIN G SUBTYPE 4):** is another antibody produced in the body to fight infection. IgG4 is used in allergy therapies to help neutralize the reaction of IgE. This is because of its potential to decrease histamine responses by blocking IgE from attaching to receptors. Levels of IgG4 are beneficial up to a point, as they block IgE or allergic reactions and result in immune tolerance to foods.

Too much IgG4 however, causes immune-mediated conditions, known as IgG4-RD that typically affects multiple organ systems in the body. For these reasons, it's important to know the levels of IgG4 in the body to be able to maintain a correct balance. An example of a tissue that is susceptible to higher levels of IgG4 is the esophagus, resulting in Eosinophilic Esophagitis. IgG4 also interferes with the thyroid, contributing to autoimmune thyroiditis, and can also cause IgG4-Related Diseases (IgG4-RD) of the ovaries and prostate.



# Conditions Associated With IgG4

Autoimmune pancreatitis	Salivary gland disease	Orbital disease, often complicated by proptosis	Retroperitoneal fibrosis
Increased number of eosinophils	Peripheral Eosinophilia	Atopy	Lymphadenopathy
Sclerosing cholangitis	Mikulicz disease	Sclerosing sialadenitis	IgG4-related submandibular gland disease
Lacrimal gland enlargement	"Idiopathic" retroperitoneal fibrosis	IgG4-related thyroid disease	IgG4-related thyroid disease
IgG4-related kidney disease	Mimics sarcoidosis in the lung	Hypopituitarism associated with IgG4-related hypophysitis	Prostatitis
IgG4-related disease of the ovary	Constrictive pericarditis	Nasopharyngeal disease	Midline-destructive lesion
Eosinophilic Esophagitis			

## Special Notation of IgG4 foods in the Diets

Though IgG4 does not always result in negative prognosis, with certain conditions, higher levels of IgG4 can be harmful. Antigens with a high response of IgG4 are taken out of the diet, but if there is only a moderate IgG4 reaction and no other markers are high, it may be of a lesser concern, because general it is not as inflammatory as IgG 1-3 and may merely be blocking an IgE reaction.

## Tolerance to IgE

If IgG4 reactivity is greater than that of IgE for a specific food, IgG4 will block the IgE from creating an allergic reaction. IgG4 is how we gain tolerance to foods that we were allergic to.

## Less Restrictive Diet

The Less Restrictive Diet removes foods with high levels of reactivity for IgE, IgG4, IgG and those with the presence of complement factor proteins C3b and C3d.

### REMOVE

High IgE

High IgG

High IgG4

Present C3d/b

### REMOVE

High IgE

Moderate IgE

High IgG

Moderate IgG

C3b/d Present

Moderate IgG4

## More Restrictive Diet

The More Restrictive Diet removes foods with high and moderate levels of IgE, IgG, and complement (C3b/d).

# Frequently Asked Questions

## I have a thyroid condition, why is my clinician looking at foods I react to?

Eating foods that you are reactive to, can make you feel worse, but also decrease thyroid activity. IgG4 reactions to foods have been shown to specifically damage the thyroid tissue. Complement or C3b/d reactions also damage thyroid tissue. This is the only food test that looks at the exact components that are most damaging to the thyroid. When you are eating foods you are sensitive to, it creates inflammation. This inflammation causes your body to be less able to convert your less active thyroid hormone, T4 into the more active thyroid hormone, T3. Finally, eating foods you are sensitive to, can increase antibody production, causing your body to attack your own thyroid. Eliminating foods you are sensitive to is a great first step to increasing thyroid function naturally.

## Why Test Complement and IgG together?

Complement plays a role in how inflammatory an IgG antibody is. Complement binds to IgG and creates a synergistic effect in terms of increasing inflammation. The combination of complement and IgG together can increase inflammation 1000 to 10,000-fold.

See: [The Comprehensive Assessment in Food Allergy and Sensitivity Screening, www.infiniteallergylabs.com](http://www.infiniteallergylabs.com) for more information

## Why should IgG and IgE be tested together?

IgE and IgG should be measured together because they each independently play a role in symptoms to foods. You can either have an allergy/IgE response, or a sensitivity IgG response and both are independent of the other and create inflammation in the body

## What are the limitations of only testing Total IgG?

Only testing IgG, is a bit like knowing total cholesterol, but not knowing how much HDL/good or LDL/bad cholesterol you have. The reason for this is that different IgG antibodies do different things depending on their subtype. IgG4 decreases IgE or allergic reactions. IgG1-III increase inflammation 3-72 hours after exposure. Also, different subtypes are increased in certain pathologies. For example, while IgG4 is generally good, there are a handful of pathologies where it is of concern, such as auto-immune hypothyroidism and eosinophilic esophagitis.

See: [The Comprehensive Assessment in Food Allergy and Sensitivity Screening for more information, www.infiniteallergylabs.com](http://www.infiniteallergylabs.com)

## IS IgG4 good or bad?

IgG4 is by and large good, as it blunts an IgE response and reduces anaphylactic shock. In fact, desensitization injections and drops work by this mechanism of increasing Ig4 to induce tolerance. However, there are a handful of conditions that increase IgG4 reactions, and if the patient has one of these conditions it may be helpful to remove foods that are provoking an IgG4 reaction. In non-responsive patients it is also reasonable to do a clinical trial of removal of IgG4, especially if removal of other foods did not create the improvement anticipated. IgG4 plays multiple roles in immune function and must be carefully evaluated with each patient.

*See Table of IgG4 reactions*

## IS IgG4 related to autoimmune disease?

IgG4-related disease is an immune-mediated condition, meaning that it involves the occurrence of disease in organs as the result of a dysregulated immune system. Increasing evidence suggests that IgG4-RD is an autoimmune condition, much like rheumatoid arthritis and lupus. IgG4, can blunt an IgE response, but if it becomes confused, and upregulated by exposure to antigens or foods, it can begin to precipitate out into tissue creating damage. There are IgG4-related diseases which are a subset of autoimmune conditions.

## What is the difference between an allergy and a sensitivity?

An allergy is mediated by IgE antibodies and creates an immediate reaction. A sensitivity is created by IgG antibodies and create a delayed response. While these general traits hold true, there are also times when IgG can amplify IgE reactions, and also some examples of if there is a remarkably high level of IgG, it can have more of an immediate reaction too. They create independent reactions but can also influence each other. IgG is most typically a delayed reaction, but if high enough titers are present, it too can react within a few hours. The interplay between parts of the immune system demonstrates why it is best to look at multiple antibodies together.

## Are IgG reactions the result or the cause of gut-based permeability?

IgG reactions are both the cause and the result of gut-based permeability. One way we develop IgG reactions is when the gut becomes more compromised or permeable. This allows for larger molecules than normal to "leak" through the gut. These larger molecules look antigenic to the immune system. T cells become sensitized and begin to make an immune response or produce antibodies. However, this is not the only way one can become sensitive to foods. Improper immune queuing in the GI tract, specifically in cells called the Peyer's patches, can also cause this too. Once an IgG reaction begins, it increases production of histamine and inflammation. This inflammation continues to damage the gut, thereby contributing to permeability. The best way to reduce gut-based inflammation, is to remove offending foods and work on healing the gut.

## **I react to gluten, but it did not show up on my test, why?**

Reactions to gluten could be because of allergies or sensitivities, but there are also a number of other reasons you can feel bad from gluten outside of sensitivities. For example, gluten more than other grains decreases the tryptophan to serotonin ratio, making production of this neurotransmitter more difficult. Also, gluten can often be contaminated with bromides that decreases other important nutrients like Iodine which compromises thyroid function.

Gluten can often be moldy, as commercial grains are measured for ppm of aflatoxin and are generally positive for this contaminate.

## **Can food sensitivities be related to weight gain?**

Food sensitivities create inflammation in the body, which can be related to weight gain. Inflammation will cause an increase in the hormone leptin, which in turn tells adipose tissue to store more fat. Inflammatory foods create irritation that leads to weight gain.

For more on weight gain, see "Weight Gain" [www.infiniteallergylabs.com](http://www.infiniteallergylabs.com)

## **Can food sensitivities be related to other issues such as headaches, pain, or depression?**

Yes! While the beginning of the reaction to foods start in the gut, it does not have to necessarily create gut pain, or be contained in the GI tract. The inflammatory process that starts in the gut can spread and even be more symptomatic in places outside of the gut. Many conditions such as headaches, pain and even depression have a gut-based cause but manifest in other areas of the body.

## **My test says I am reactive to mold, what does that mean?**

The measurement in the blood could either be from a reaction in the air, or a reaction from moldy foods. If you are concerned that mold may be a reason for inflammation throughout the body, then consider measuring a TGF-beta. If it is high, this means your immune system is highly reactive to mold. Also consider removing moldy foods. (See Chart on Next Page)

# Foods High In Mold

- Peanuts
- Cheese – all cheese, especially aged cheese
- Melons
- Vinegar – and vinegar containing food (mayonnaise, salad dressings, catsup, chili sauce, pickled foods, relishes, green olives, mustard)
- Alcoholic liquors, beer, wine and sake
- Soured breads, such as pumpernickel, coffee cakes, and other foods made with large amounts of yeast
- Sauerkraut
- Cider and homemade root beer
- Pickled and smoked meats and fish, including delicatessen foods, sausages, frankfurters, corned beef and pickled tongue, ham and bacon
- All dried fruits such as apricots, dates, prunes, figs and raisins
- Canned tomatoes unless homemade
- All canned juice
- Eat only freshly opened canned foods and freshly prepared fruits
- Do not eat meat or fish more than 25 hours old
- Avoid foods made from leftovers such as meatloaf, hash and croquettes
- Avoid hamburger unless made from freshly ground meat



## WHY WOULD I BE REACTIVE TO SOMETHING I NEVER EAT?

- I could have a cross reaction with something in the environment to the food. For example, latex can cause banana allergies because they are in the same family. (See table on next page)
- Sometimes there may be trace amounts of foods in other sources you are not aware of
- There can be cross reactions from other foods in the family of the food you are showing a reaction to. See food families below:

# Cross Reactivity List from Environmental Triggers to Food

<b>Alder Pollen</b>	almonds, apples, apricot, celery, cherries, hazelnuts, kiwi, nectarine, orange, peaches, pears, persimmon, plum, parsley, raspberry, strawberry, carrot, white potato, fennel
<b>Birch Pollen</b>	almonds, apples, apricots, avocados, bananas, carrots, celery, cherries, chicory, coriander, fennel, fig, hazelnuts, kiwifruit, lychee, nectarines, parsley, parsnips, peaches, pears, peppers, persimmon, plums, potatoes, prunes, soy, strawberries, wheat, zucchini. Potential: walnuts
<b>Grass Pollen</b>	fig, melons, tomatoes, oranges, celery, peach, kiwi, swiss chard, potato, buckwheat, wheat, fennel, peanut, latex
<b>Mugwort Pollen</b>	carrots, celery, coriander, fennel, parsley, peppers, sunflower, apple, kiwi, melon, lettuce, anise seeds, caraway, chamomile tea extract, cumin, almond, hazelnut, peanut, pistachio, poppy seed, honey, latex
<b>Ragweed Pollen</b>	banana, cantaloupe, cucumber, green pepper, paprika, sunflower seeds/oil, honeydew, watermelon, zucchini, echinacea, artichoke, dandelions, honey (if bees pollinate from wild flowers), hibiscus or chamomile tea, pumpkin, tomato, latex
<b>Latex</b>	apple, banana, cherry, kiwi, melon, papaya, peach, pear, pineapple, tomato, avocado, carrot, celery, white potato, almond, chestnut, hazelnut
<b>Cow's milk</b>	Meat: sheep, lamb, goat, buffalo
<b>Beef</b>	cow's milk, lamb, pork, cat dander, Lyme's Disease
<b>Pork</b>	cow's milk, beef, cat epithelia, dog dander
<b>Chicken Egg</b>	duck egg, goose egg, seagull egg, turkey egg, pet bird dander, avian feathers and meat
<b>Crustacean</b>	Mollusks (abalone, clam, mussel, oyster, scallop, squid), dust mite, cockroach
<b>Dog</b>	Meat: cat, horse, pork
<b>Dust Mite</b>	lobster, snail, shrimp, cockroach, other insects
<b>Mold</b>	lobster, snail, shrimp, cockroach, other insects

# What should I do if Yeast Comes Back Positive?

Elevated candida markers are indicative of a current or recent intestinal overgrowth of yeast. Some symptoms of a candida overgrowth within the body are:

- Skin and nail fungal infections such as athlete's foot, ringworm, and toenail fungus
- Digestive issues such as bloating, constipation, or diarrhea
- Difficulty concentrating, poor memory, lack of focus, ADD, ADHD, and/or brain fog
- Skin issues such as eczema, psoriasis, hives, and rashes
- Irritability, mood swings, anxiety, or depression
- Vaginal infections, urinary tract infections, rectal itching, or vaginal itching
- Severe seasonal allergies or itchy ears
- Feeling tired and worn down or suffering from chronic fatigue or fibromyalgia
- Autoimmune disease such as Hashimoto's thyroiditis, Rheumatoid arthritis, Ulcerative colitis, Lupus, Psoriasis, Scleroderma, or Multiple sclerosis
- Strong sugar and refined carbohydrate cravings

Diet recommendations for yeast overgrowth are a low-carb, low- sugar diet. Restrict sugar, refined grains, alcohol and vinegar. Treatment recommendations to kill yeast may include garlic, caprylic acid, berberine, and grapefruit seed extract.

It is important to measure reactions to yeast in the gut because yeast can decrease levels of sIgA, the local immune lining of the gut, and result in an increase in severity and duration of allergies. When yeast is present, treating it will also help food allergies and sensitivities to improve.

## What if Foods Bother me, but there is no reaction shown on the test?

Other factors can cause reactions to foods besides allergies. For example, gluten can interfere with ability to convert amino acids into neurotransmitters. This can make us feel depressed and achy. However, this is not an allergy or sensitivity. Another reason one can feel worse from foods is because they cause reactions in response to things like platelet activating factor which may cause an adverse response but is not an allergy or sensitivity. Also, foods that are high in histamine, can release the histamine in the body and this too can be a reason one gets allergy or sensitivity symptoms without an IgE, IgG or complement reaction.



## What are some treatments I should consider to improve my levels of allergies and sensitivities?

The elimination diet is the best way to calm the inflammation and over activity of the immune system to those reactive foods. In addition to elimination, strategies that reduce a leaky gut such as glutamine, immunoglobulins, functional foods, and probiotics will help the immune system to normalize faster and will prevent new reactions from forming.



## Does this mean I should never eat these foods again?

No! In fact, quite the opposite. The ultimate goal is to remove foods and work on the gut lining to retrain your immune system, so you are not reactive. There may be some reactions that are so strong, you need to avoid them life long, but for most people and most reactions, they will normalize, and even if you have them once in a while you will not be symptomatic from them.

Your clinician will likely guide you through a challenge phase where you bring foods back in one at a time and monitor your reaction to them. If you challenge foods at 2-3 weeks, this is when you will have the greatest reaction with reintroduction. The reason for that is that you have not quieted the immune response yet, and when a food is introduced after short term avoidance, the immune system is “refreshed” and rebounds aggressively. Your clinician may have you do a challenge around this time to see what you are most reactive to; however, this can of course make your symptoms worse.

Many clinicians will wait longer, 3 months to a year depending on severity of symptoms and will introduce foods months later rather than weeks later. The reason for this is it should no longer cause symptoms by waiting this long, and you will have more successfully restrained your immune system to not be reactive. Strict avoidance for longer periods of time will be more likely to restore normalcy to the food and ultimately result in being able to increase diversity in your diet, not restrict it.

# Food Family List

Sometimes removing foods in the same family as those you are allergic to can further reduce inflammatory load on the body. Foods that are related can have similar protein structure and can also cause symptoms or ignite the process of pathology. Use the food family document below to determine related foods. The FAST test also helps to identify food families that are most problematic.

## Food: Species, families, and relatable foods

Antigen/Species	Family	Notes
<b>Almond</b> <i>Prunus dulcis</i>	Rose (stone fruits)	Almond, apricot, cherry, peach, nectarine, plum, prune
<b>Apple</b> <i>Malus pumila</i>	Rose (pomes)	Apple, apple cider, apple cider vinegar, crabapple, loquat, pear, quince
<b>Asparagus</b> <i>Asparagus officinalis</i>	Lily	Aloe vera, asparagus, chives, garlic, onion, ramp, shallot, leek
<b>Aspergillus Mix</b> <i>A. flavus, A. niger, A. fumigatus, A. nidulans</i>	Fungi	Aspergillus, baker's yeast, brewer's yeast, citric acid, morel, mushroom, truffle
<b>Avocado</b> <i>Persea americana</i>	Laurel	Avocado, bay leaf, cassia bark, cinnamon, sassafras
<b>Banana</b> <i>Musa sapientum</i>	Banana	Arrowroot, banana, plantain
<b>Barley</b> <i>Hordeum vulgare</i>	Grass	Barley, malt, maltose, bamboo shoots, corn, corn meal, corn oil, cornstarch, corn syrup, hominy grits, popcorn, kamut, lemon grass, citronella, millet, oat, oatmeal, rice, rice flour, rye, spelt, sorghum grain, sorghum syrup, sugarcane, cane sugar, molasses, raw sugar, sweet corn, triticale, wheat, wheat bran, wheat bulgur, wheat flour, gluten, wheat graham, whole wheat, wheat germ, wild rice

<b>Antigen/Species</b>	<b>Family</b>	<b>Notes</b>
<b>Bean Common Mix</b> <i>Phaseolus vulgaris</i>	Legume	Kidney, Navy and String Beans
<b>Beef</b> <i>Bos taurus</i>	Bovine	Beef cattle, beef by-products, beef gelatin, oleo-margarine, rennin, sausage, milk products like butter, cheese, ice cream, lactose, yogurt. Veal, buffalo (bison), goat, goat cheese, goat ice cream, goat milk, sheep, lamb, mutton, rocky, mountain sheep
<b>Blueberry</b> <i>Vaccinium myrtilloides</i>	Heath or Ericaceae	Bearberry, blueberry, cranberry, huckleberry
<b>Brazil Nut</b> <i>Bertholletia excelsa</i>	Lecythidaceae	Brazil nut, paradise nut, sapucaia nut
<b>Broccoli</b> <i>Brassica oleracea</i> <i>var. botrytis</i>	Mustard	Broccoli, brussel sprouts, cabbage, collards, colza shoots, couve, tronchuda, curly cress, horseradish, kale, kohlrabi, mustard greens, mustard seed, radish, rape seed, rutabaga, turnip, puland cress, water cress
<b>Buckwheat</b> <i>Fagopyrum esculentum</i>	Polygonaceae	Buckwheat, rhubarb, and sorrel
<b>Cabbage</b> <i>Brassica oleracea</i> <i>var. capitata</i>	Mustard	Broccoli, brussel sprouts, cabbage, collards, colza shoots, couve, tronchuda, curly cress, horseradish, kale, kohlrabi, mustard greens, mustard seed, radish, rape seed, rutabaga, turnip, puland cress, water cress
<b>Candida</b> <i>Candida albicans</i>	Saccharomycetaceae	
<b>Cantaloupe</b> <i>Cucumis melo</i> <i>cantalupensis</i>	Gourd	Chayote, Chinese melon, cantaloupe, cucumber, gherkin, loofah, muskmelons, casaba, Crenshaw, honeydew, Persian melon, pumpkin, pumpkin seed, pumpkin meal, squash (acorn, buttercup, butternut, Boston, spaghetti), zucchini, watermelon
<b>Carrot</b> <i>Daucus carota</i>	Carrot	Angelica, anise, caraway, menhaden, celery root, celery seed, celery leaf, chervil, coriander, cumin, dill, dill seed, fennel, finocchio, Florence, gotu kola, lovage, parsley, parsnip, sweet cicely

<b>Antigen/Species</b>	<b>Family</b>	<b>Notes</b>
<b>Casein</b> <i>Bos taurus</i>	<b>Bovine</b>	Beef cattle, beef by-products, beef gelatin, oleo- margarine, rennin, sausage, milk products like but- ter, cheese, ice cream, lactose, yogurt. Veal, buffalo (bison), goat, goat cheese, goat ice cream, goat milk, sheep, lamb, mutton, rocky, mountain sheep
<b>Cashew</b> <i>Anacardium occidentale</i>	<b>Cashew</b>	Cashew, mango, pistachio, poison ivy, poison oak, poison sumac
<b>Cauliflower</b> <i>Brassica oleracea var. botrytis</i>	<b>Mustard</b>	Broccoli, brussel sprouts, cabbage, cardoon, cauliflower, collards, colza shoots, couve, tronchuda, curly cress, horseradish, kale, kohlrabi, mustard greens, mustard seed, radish, rape seed, rutabaga, turnip, puland cress, water cress
<b>Celery</b> <i>Apium graveolens</i>	<b>Carrot</b>	Angelica, anise, caraway, menhaden, celery root, carrot, celery seed, celery leaf, chervil, coriander, cumin, dill, dill seed, fennel, finocchio, Florence, gotu kola, lovage, parsley, parsnip, sweet cicely
<b>Cherry</b> <i>Prunus avium</i>	<b>Rose (stone fruits)</b>	Apple, Apricot, cherry, peach, nectarine, plum, prune
<b>Chicken</b> <i>Gallus gallus</i>	<b>Pheasant</b>	Chicken, eggs, peafowl, pheasant, quail
<b>Cinnamon</b> <i>Cinnamomum verum</i>	<b>Laurel</b>	Avocado, bay leaf, cassia bark, cinnamon, sassafras
<b>Cocoa Bean</b> <i>Theobroma cacao</i>	<b>Sterculia</b>	Chocolate, cocoa, cocoa butter, cola nut
<b>Coconut</b> <i>Cocos nucifera</i>	<b>Palm</b>	Coconut (meal, oil), date (sugar, palm), sago starch
<b>Coffee</b> <i>Coffea arabica</i>	<b>Madder</b>	Coffee
<b>Corn</b> <i>Zea Mays</i>	<b>Grass</b>	Barley, malt, maltose, bamboo shoots, corn, corn meal, corn oil, cornstarch, corn syrup, hominy grits, popcorn, Kamut, lemon grass, citronella, millet, oat, oatmeal, rice, rice flour, rye, spelt, sorghum grain, sorghum syrup, sugarcane, cane sugar, molasses, raw sugar, sweet corn, triticale, wheat, wheat bran, wheat bulgar, wheat flour, gluten, wheat graham, whole wheat, wheat germ, wild rice

<b>Antigen/Species</b>	<b>Family</b>	<b>Notes</b>
<b>Cottonseed</b> <i>Gossypium hirsutum</i>	Mallow	Althea root, cottonseed (oil), hibiscus, okra
<b>Cow's Milk</b> <i>Bos taurus</i>	Bovine	Beef cattle, beef by-products, beef gelatin, oleo-margarine, rennin, sausage, milk products like butter, cheese, ice cream, lactose, yogurt. Veal, buffalo (bison), goat, goat cheese, goat ice cream, goat milk, sheep, lamb, mutton, rocky, mountain sheep
<b>Cranberry</b> <i>Vaccinium macrocarpon</i>	Ericaceae	Cranberries, blueberries, bilberries, huckleberries, and lingonberries
<b>Cucumber</b> <i>Cucumis sativus</i>	Gourd	Chayote, Chinese melon, cantaloupe, cucumber, gherkin, loofah, muskmelons, casaba, Crenshaw, honeydew, Persian melon, pumpkin, pumpkin seed, pumpkin meal, squash (acorn, buttercup, butternut, Boston, spaghetti), zucchini, watermelon
<b>Egg Albumin</b> <i>Gallus gallus</i>	Pheasant	Chicken, eggs, peafowl, pheasant, quail
<b>Egg Yolk</b> <i>Gallus gallus</i>	Pheasant	Chicken, eggs, peafowl, pheasant, quail
<b>FlaxSeed</b> <i>Linum usitatissimum</i>	Flax	Flaxseed
<b>Garlic</b> <i>Allium sativum</i>	Lily	Aloe vera, asparagus, chives, garlic, onion, ramp, shallot, leek
<b>Ginger</b> <i>Zingiber officinale</i>	Ginger	Cardamon, East Indian Arrowroot, ginger

<b>Antigen/species</b>	<b>Family</b>	<b>Notes</b>
<b>Gluten</b>		Wheat, barley, rye
<b>Goat's Milk</b> <i>Capra aegagrus hircus</i>	Bovine	Beef cattle, beef by-products, beef gelatin, oleo-margarine, rennin, sausage, milk products like butter, cheese, ice cream, lactose, yogurt. Veal, buffalo (bison), goat, goat cheese, goat ice cream, goat milk, sheep, lamb, mutton, rocky, mountain sheep
<b>Grapefruit</b> <i>Citrus X paradisi</i>	Rue (Citrus)	Citron, grapefruit, kumquat, lemon, lime, murcot, orange, pumelo, tangelo, tangerine
<b>Grapes</b> <i>Vitis vinifera</i>	Grape	Grape, brandy, champagne, cream of tartar, currant, wine, wine vinegar, muscadine
<b>Green Olive</b> <i>Olea europaea</i>	Olive	Olive (green or ripe), olive oil
<b>Green Pea</b> <i>Pisum sativum</i>	Legume	Alfalfa, sprouts, beans, fava, lima, mung (sprouts), navy, string, kidney, black-eyed pea, cowpea, carob, carob syrup, chickpea, garbanzo, jicama, kudzu, lentil, licorice, pea, peanut, peanut oil, red clover, senna, soybean, lecithin, soy (flour, grits, milk, oil), tamarind, tonka bean, coumarin
<b>Green Pepper (Bell)</b> <i>Piper nigrum</i>	Potato	Eggplant, ground cherry, pepino, melon pear, pepper (bell, sweet, cayenne, chili, paprika, pimiento), potato, tomato, tomatillo
<b>Hazelnut</b> <i>Corylus americana</i>	Betulaceae	Hazelnut
<b>Hops</b> <i>Humulus lupulus</i>	Mulberry	Breadfruit, fig, hops, mulberry
<b>Lamb</b> <i>Ovis aries</i>	Bovine	Beef cattle, beef by-products, beef gelatin, oleo-margarine, rennin, sausage, milk products like butter, cheese, ice cream, lactose, yogurt. Veal, buffalo (bison), goat, goat cheese, goat ice cream, goat milk, sheep, lamb, mutton, rocky, mountain sheep



<b>Antigen/species</b>	<b>Family</b>	<b>NOTES</b>
<b>Lemon</b> <i>Citrus limon</i>	Rue (Citrus)	Citron, grapefruit, kumquat, lemon, lime, murcot, orange, pumelo, tangelo, tangerine
<b>Lettuce</b> <i>Lactuca sativa</i>	Composite	Boneset, burdock root, cardoon, chamomile, chichory, coltsfoot, dandelion, endive, escarole, globe artichoke, goldenrod, Jerusalem artichoke, artichoke flour, lettuce (celtuce, pyrethrum, romaine, safflower oil, salsify, santolina, scolymus, scorzonera, southernwood, sunflower), sunflower (seed, meal, oil), tansy, tarragon, wormwood (absinthe), yarrow
<b>Mackerel</b> <i>Scomber scombrus</i>	Scombridae	Mackerels, tunas, bonitos
<b>Malt</b> <i>Hordeum vulgare</i>	Grass	Malt grain is used to make foods such as beer, whiskey, malted milk, malt vinegar, confections such as Maltesers and Whoppers, flavored drinks such as Horlicks, Ovaltine, and Milo, and some baked goods, such as malt loaf, and bagels.
<b>Mushroom</b> <i>Agaricus campestris</i>	Fungi	Aspergillus, brewer's yeast, baker's yeast, citric acid, morel, mushroom, truffle
<b>Mustard</b> <i>Brassicaceae</i>	Mustard	Broccoli, brussel sprouts, cabbage, collards, colza shoots, couve, tronchuda, curly cress, horseradish, kale, kohlrabi, mustard greens, mustard seed, radish, rape, rutabaga, turnip, puland cress, water cress
<b>Nutmeg</b> <i>Myristica fragrans</i>	Myristicaceae	Nutmeg, mace
<b>Oat</b> <i>Avena sativa</i>	Grass	Barley, malt, maltose, bamboo shoots, corn, corn meal, corn oil, cornstarch, corn syrup, hominy grits, popcorn, Kamut, lemon grass, citronella, millet, oat, oatmeal, rice, rice flour, rye, spelt, sorghum grain, sorghum syrup, sugarcane, cane sugar, molasses, raw sugar, sweet corn, triticale, wheat, wheat bran, wheat bulgar, wheat flour, gluten, wheat graham, whole wheat, wheat germ, wild rice

<b>Antigen/species</b>	<b>Family</b>	<b>NOTES</b>
<b>Onion</b> <i>Allium cepa</i>	Lily	Aloe vera, asparagus, chives, garlic, onion, ramp, shallot, leek
<b>Orange</b> <i>Citrus X sinensis</i>	Rue (Citrus)	Citron, grapefruit, kumquat, lemon, lime, murcot, orange, pumelo, tangelo, tangerine
<b>Peach</b> <i>Prunus persica</i>	Rose (stone fruits)	Almond, apricot, cherry, peach, nectarine, plum, prune
<b>Peanut</b> <i>Arachis hypogaea</i>	Legume	Alfalfa, sprouts, beans, fava, lima, mung (sprouts), navy, string, kidney, black-eyed pea, cowpea, carob, carob syrup, chickpea, garbanzo, jicama, kudzu, lentil, licorice, pea, peanut, peanut oil, red clover, senna, soybean, lecithin, soy (flour, grits, milk, oil), tamarind, tonka bean, coumarin
<b>Pear</b> <i>Pyrus communis</i>	Rose (pomes)	Apple, apple cider, apple cider vinegar, crabapple, loquat, pear, quince
<b>Pecan</b> <i>Carya illinonensis</i>	Walnut	Black walnut, butternut, English walnut, heartnut, hickory nut, pecan
<b>Pineapple</b> <i>Ananas comosus</i>	Pineapple	Pineapple
<b>Plum</b> <i>Prunus domestica</i>	Rose (stone fruits)	Almond, apricot, cherry, peach, nectarine, plum, prune
<b>Pork</b> <i>Sus scrofa</i>	Swine	Hog, pork, bacon, ham, lard, pork gelatin, sausage, scrapple
<b>Raspberry</b> <i>Rubus idaeus</i>	Rose (Berries)	Blackberry, boysenberry, dewberry, loganberry, longberry, youngberry, raspberry

**Antigen/species****Family****NOTES****Rice**  
*Oryza sativa*

Grass

Barley, malt, maltose, bamboo shoots, corn, corn meal, corn oil, cornstarch, corn syrup, hominy grits, popcorn, Kamut, lemon grass, citronella, millet, oat, oatmeal, rice, rice flour, rye, spelt, sorghum grain, sorghum syrup, sugarcane, cane sugar, molasses, raw sugar, sweet corn, triticale, wheat, wheat bran, wheat bulgar, wheat flour, gluten, wheat graham, whole wheat, wheat germ, wild rice

**Rye**  
*Secale cereale*

Grass

Barley, malt, maltose, bamboo shoots, corn, corn meal, corn oil, cornstarch, corn syrup, hominy grits, popcorn, Kamut, lemon grass, citronella, millet, oat, oatmeal, rice, rice flour, rye, spelt, sorghum grain, sorghum syrup, sugarcane, cane sugar, molasses, raw sugar, sweet corn, triticale, wheat, wheat bran, wheat bulgar, wheat flour, gluten, wheat graham, whole wheat, wheat germ, wild rice

**Salmon**  
*Salmo salar*

Salmon

Salmon species

**Scallops**  
*Pectinidae*

Mollusks

Abalone, snail, squid, clam, cockly, mussel, oyster, scallops

**Sesame Seed**  
*Sesamum indicum*

Pedaliaceae

Sesame seed, sesame oil, tahini

**Shellfish Mix**  
*Placoepecten magellanicus*

Crustaceans

Paralithodes camtschatica (Crab), Crangon penaeus (Shrimp), Homarus americanus (Lobster), Ostrea spp. (Oyster)

**Soybean**  
*Glycine max*

Legume

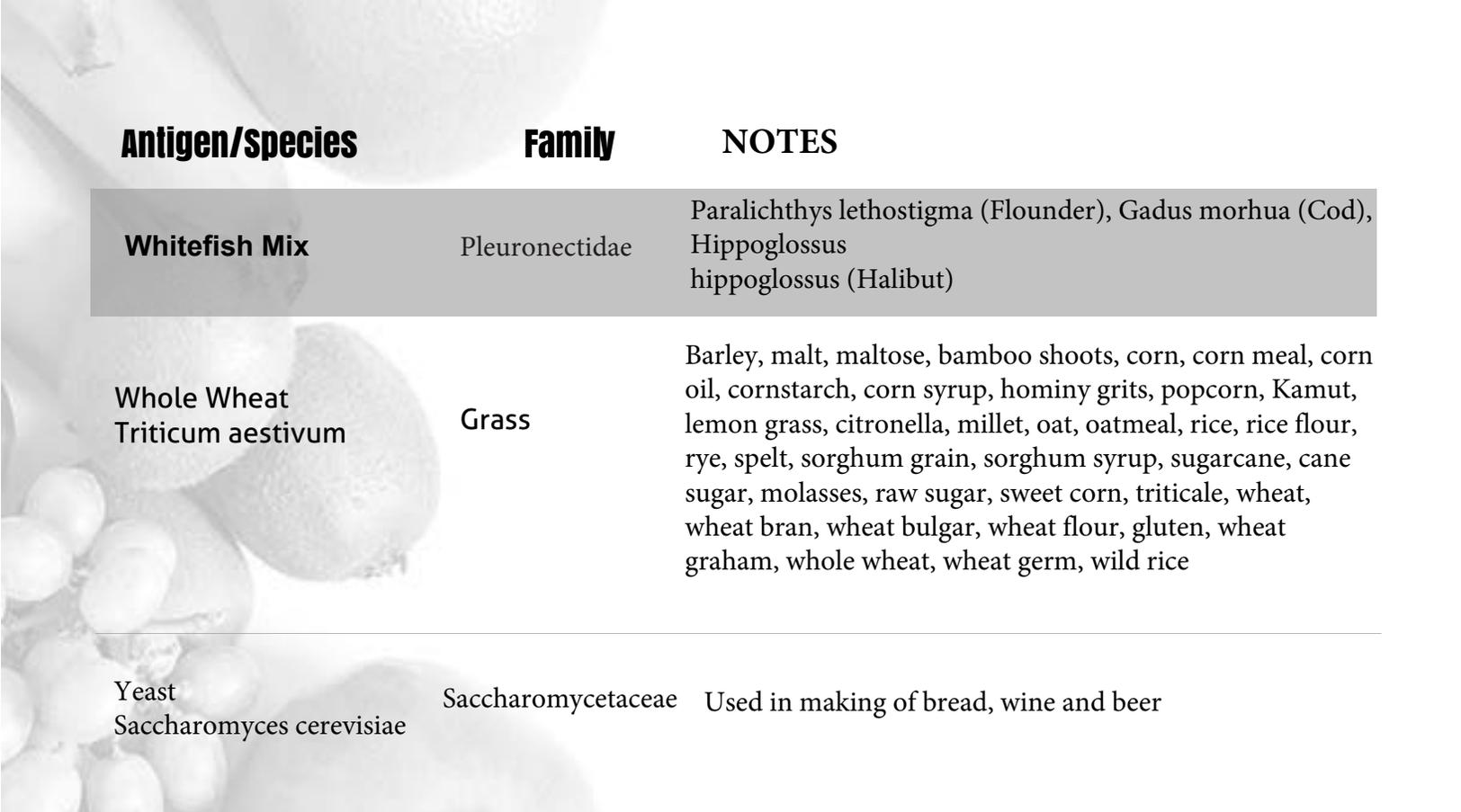
Alfalfa, sprouts, beans, fava, lima, mung (sprouts), navy, string, kidney, black-eyed pea, cowpea, carob, carob syrup, chickpea, garbanzo, jicama, kudzu, lentil, licorice, pea, peanut, peanut oil, red clover, senna, soybean, lecithin, soy (flour, grits, milk, oil), tamarind, tonka bean, coumarin

**Spinach**  
*Spinacia oleracea*

Goosefoot

Quinoa, beet, chard, lamb's quarters, spinach, sugar beet, tampala

<b>Antigen/species</b>	<b>Family</b>	<b>NOTES</b>
<b>Squash Mix</b> <i>Cucurbita pepo</i> <i>var. ovifera</i>	Gourd	Yellow summer, zucchini
<b>Strawberry</b> <i>Fragaria X ananassa</i>	Rose (Berries)	Blackberry, boysenberry, dewberry, loganberry, longberry, youngberry, raspberry
<b>Sweet Potato</b> <i>Ipomoea batatas</i>	Morning Glory	Sweet potato
<b>Tea</b> <i>Thea sinensis</i>	Tea	Black tea, white tea, green tea ,red tea (Does not include herbal teas)
<b>Tomato</b> <i>Solanum lycopersicum</i>	Potato	Eggplant, ground cherry, pepino, melon pear, pepper (bell, sweet, cayenne, chili, paprika, pimienta), potato, tomato, tomatillo
<b>Tuna</b> <i>Thunnus albacarus</i>	Mackerel	Albacore, bonito, mackerel, skipjack, tuna
<b>Turkey</b> <i>Meleagris gallopavo</i>	Turkey	Turkey, turkey eggs
<b>Vanilla</b> <i>Vanilla planifolia</i>	Orchid	Vanilla
<b>Watermelon</b> <i>Citrullus lanatus</i>	Gourd	Chayote, Chinese melon, cantaloupe, cucumber, gherkin, loofah, muskmelons, casaba, Crenshaw, honeydew, Persian melon, pumpkin, pumpkin seed, pumpkin meal, squash (acorn, buttercup, butternut, Boston, spaghetti), zucchini, watermelon
<b>White Potato</b> <i>Solanum uberosum</i>	Potato	Eggplant, ground cherry, pepino, melon pear, pep- per (bell, sweet, cayenne, chili, paprika, pimienta), potato, tomato, tomatillo

**Antigen/species****Family****NOTES****Whitefish Mix**

Pleuronectidae

Paralichthys lethostigma (Flounder), Gadus morhua (Cod), Hippoglossus hippoglossus (Halibut)

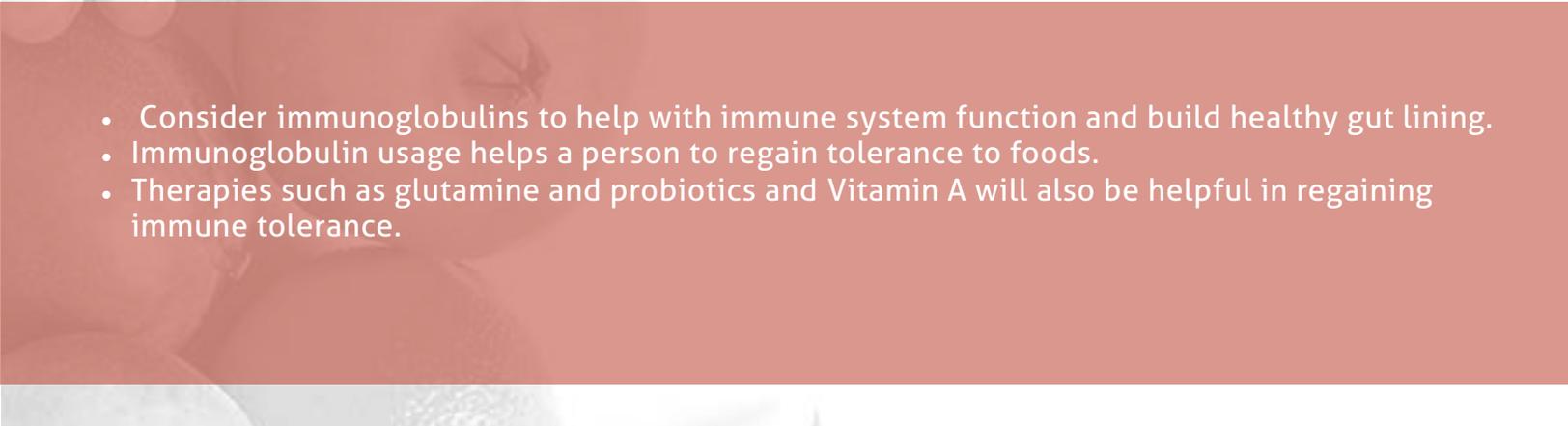
Whole Wheat  
Triticum aestivum

Grass

Barley, malt, maltose, bamboo shoots, corn, corn meal, corn oil, cornstarch, corn syrup, hominy grits, popcorn, Kamut, lemon grass, citronella, millet, oat, oatmeal, rice, rice flour, rye, spelt, sorghum grain, sorghum syrup, sugarcane, cane sugar, molasses, raw sugar, sweet corn, triticale, wheat, wheat bran, wheat bulgar, wheat flour, gluten, wheat graham, whole wheat, wheat germ, wild rice

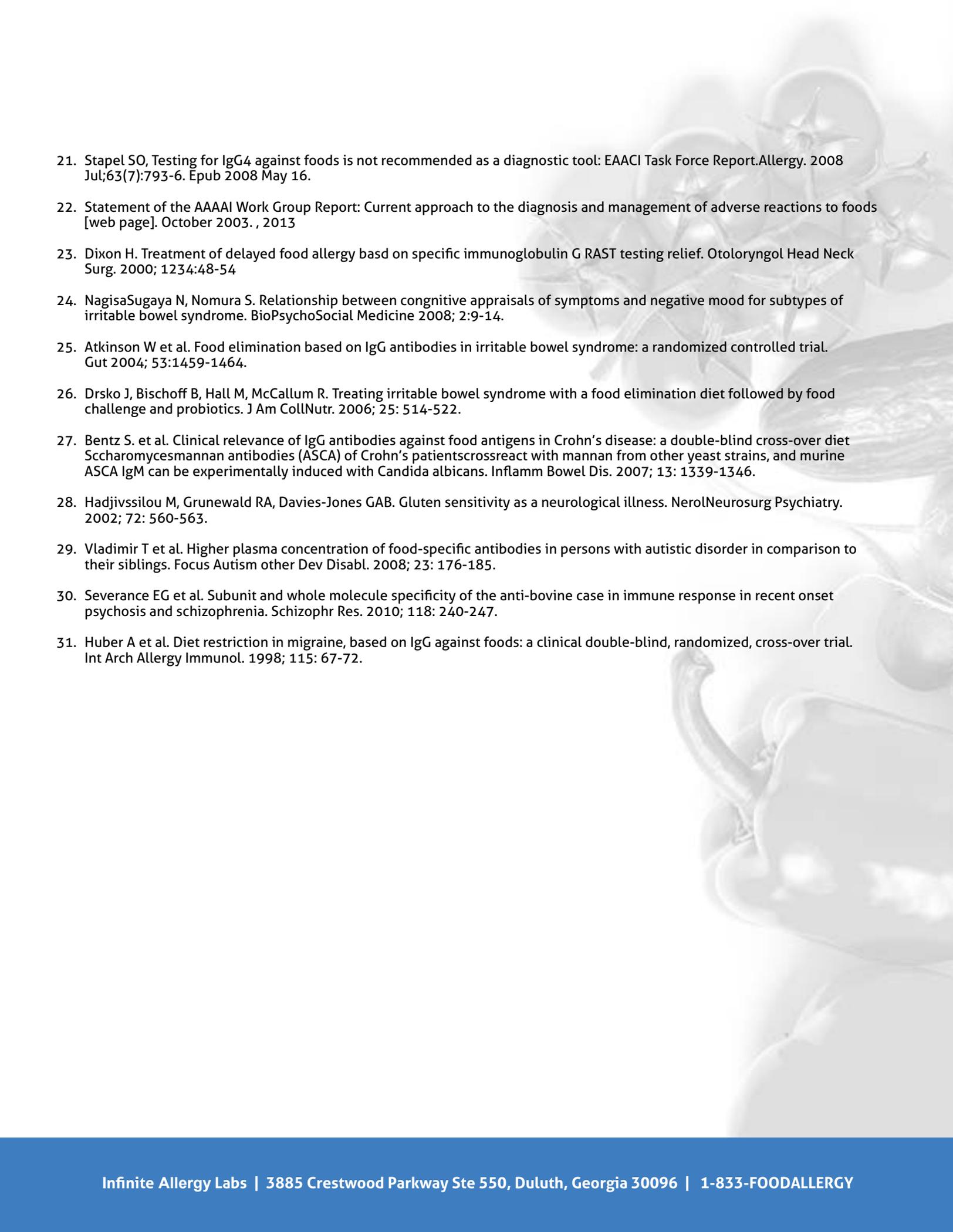
Yeast  
Saccharomyces cerevisiae

Saccharomycetaceae Used in making of bread, wine and beer

- 
- Consider immunoglobulins to help with immune system function and build healthy gut lining.
  - Immunoglobulin usage helps a person to regain tolerance to foods.
  - Therapies such as glutamine and probiotics and Vitamin A will also be helpful in regaining immune tolerance.

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