# Comprehensive IgG Food Allergy Test + C. albicans, S. cerevisiae (94) - Serum

## Dairy
- Casein: 15.96
- Cheese: 14.88
- Goat's Milk: 7.49
- Cow's Milk: 14.84
- Mozzarella Cheese: 12.61
- Whey: 12.60
- Yogurt: 14.13

## Legumes - Beans and Peas
- Garbanzo Bean: 4.24
- Green Bean: 6.02
- Kidney Bean: 1.81
- Lentil: 1.14
- Lima Bean: 6.37
- Pea: 3.81
- Pinto Bean: 8.60
- Soybean: 4.08

## Fruit
- Apple: 2.32
- Apricot: 2.35
- Banana: 3.05
- Blueberry: 2.36
- Coconut: 3.27
- Cranberry: 1.82
- Grape: 2.24
- Grapefruit: 3.15
- Lemon: 5.80
- Orange: 5.04
- Papaya: 1.81
- Peach: 3.40
- Pear: 2.88
- Pineapple: 1.77
- Plum (Prune): 1.34
- Strawberry: 3.96
- Watermelon: 4.26

## Grains
- Barley: 4.33
- Buckwheat: 3.37
- Corn: 8.43
- Gliadin: 9.35
- Millet: 5.13
- Oat: 5.58
- Rice: 3.87
- Rye: 4.19
- Sorghum: 4.85
- Wheat: 8.41

## Fish / Seafood
- Cod Fish: 1.30
- Crab: 4.98
- Halibut: 1.39
- Lobster: 2.02
- Salmon: 3.32
- Sardine: 1.04
- Shrimp: 3.10
- Tuna: 4.50

## Meat/Fowl
- Beef: 1.12
- Chicken: 2.25
- Egg White: 2.88
- Egg Yolk: 3.76
- Lamb: 2.01
- Pork: 2.04
- Turkey: 2.50

## Nuts and Seeds
- Almond: 3.35
- Cashews: 1.73
- Flax: 4.16
- Hazelnut: 2.36
- Peanut: 2.58
- Pecan: 3.76
- Pistachio: 3.62
- Sesame: 3.78
- Sunflower: 2.76
- Walnut: 2.18

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*Testing performed by The Great Plains Laboratory, Inc., Lenexa, Kansas. The Great Plains Laboratory has developed and determined the performance characteristics of this test. This test has not been evaluated by the U.S. Food and Drug Administration.*
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### Vegetables

<table>
<thead>
<tr>
<th>Food</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asparagus</td>
<td>Low</td>
</tr>
<tr>
<td>Avocado</td>
<td>Low</td>
</tr>
<tr>
<td>Broccoli</td>
<td>Low</td>
</tr>
<tr>
<td>Beet</td>
<td>Low</td>
</tr>
<tr>
<td>Cabbage</td>
<td>Moderate</td>
</tr>
<tr>
<td>Carrot</td>
<td>Low</td>
</tr>
<tr>
<td>Celery</td>
<td>Low</td>
</tr>
<tr>
<td>Eggplant</td>
<td>Low</td>
</tr>
<tr>
<td>Garlic</td>
<td>Low</td>
</tr>
<tr>
<td>Green Pepper</td>
<td>Moderate</td>
</tr>
<tr>
<td>Lettuce</td>
<td>Moderate</td>
</tr>
<tr>
<td>Onion</td>
<td>Moderate</td>
</tr>
<tr>
<td>Potato</td>
<td>Low</td>
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<tr>
<td>Pumpkin</td>
<td>Low</td>
</tr>
<tr>
<td>Radish</td>
<td>Low</td>
</tr>
<tr>
<td>Spinach</td>
<td>Low</td>
</tr>
<tr>
<td>Sweet Potato</td>
<td>Low</td>
</tr>
<tr>
<td>Tomato</td>
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</table>

### Miscellaneous

<table>
<thead>
<tr>
<th>Food</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Candida Albicans</td>
<td>High</td>
</tr>
<tr>
<td>Cane Sugar</td>
<td>Moderate</td>
</tr>
<tr>
<td>Cocoa</td>
<td>Low</td>
</tr>
<tr>
<td>Coffee</td>
<td>Low</td>
</tr>
<tr>
<td>Honey</td>
<td>Low</td>
</tr>
<tr>
<td>Mushroom</td>
<td>Moderate</td>
</tr>
<tr>
<td>Yeast, Bakers *</td>
<td>High</td>
</tr>
<tr>
<td>Yeast, Brewers *</td>
<td>High</td>
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*Saccharomyces cerevisiae

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</table>

### Reactivity Summary

#### High
- Candida Albicans
- Casein
- Cheese
- Cow's Milk
- Yogurt
- Mozzarella Cheese
- Whey
- Goat's Milk
- Gliadin
- Cabbage
- Radish
- Onion
- Broccoli
- Pinto Bean
- Corn
- Wheat Gluten
- Green Bean
- Green Pepper
- Sweet Potato
- Lemon
- Spinach
- Cat
- Tomato
- Millet
- Carrot
- Orange

#### Moderate
- Crab
- Yeast, Brewers *
- Sorghum
- Avocado
- Garlic
- Tuna
- Barley
- Watermelon
- Garbanzo Bean
- Rye
- Flax
- Soybean
- Cocoa
- Strawberry
- Beet
- Lettuce
- Rice
- Pea
- Sesame
- Egg Yolk
- Pecan
- Pistachio

#### Low
- Peach
- Buckwheat
- Almond
- Salmon
- Coconut
- Yeast, Bakers *
- Grapefruit
- Shrimp
- Banana
- Eggplant
- Egg White
- Pear
- Sunflower
- Peanut
- Turkey
- Blueberry
- Hazelnut
- Apricot
- Apple
- Chicken
- Grape
- Celery
- Walnut
- Pork
- Lobster
- Lamb

### Notes
The Candida albicans scale accounts for the observation that background levels of Candida-specific immunoglobulins are normally present in virtually all individuals tested. It is intended to provide a clearer description of its clinical significance and was established according to population percentile ranks obtained from a random subset of 1,000 patients.

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Comments

The IgG Food Allergy Test measures the relative presence of IgG antibodies to specific food proteins. The patient’s serum is introduced to protein extracts from each of the different foods. If food-specific binding occurs between the antigen proteins and the patient’s IgG serum antibodies, a symptomatic reaction to that food is possible. A food elimination diet can be established based on results of this test and improvement of symptoms can be monitored.

High levels of IgG antibodies to Candida, a genus of yeast, have been found in patients who scored high on a questionnaire regarding symptoms of yeast overgrowth like sugar cravings which can improve with antifungal therapy. In a published study, IgA or IgM antibodies to Candida did not correlate with questionnaire scores. IgG antibodies to Candida may be due to past infections and therefore do not indicate a current infection. However, Candida antibodies may trigger autoimmune disease. Candida antibodies react with virtually all human organs, including the brain. In one study, individuals with pituitary malfunction had Candida antibodies that also reacted to a human pituitary protein. Candida antibodies are elevated in Crohn’s disease, cystic fibrosis, and cancer. Individuals with cancer and elevated IgG antibodies to Candida died on average one year sooner than individuals with the same type of cancer and normal amounts of IgG antibodies to Candida. A wide range of disorders have been linked to Candida including depression, chronic fatigue, thyroid disorders, autism, multiple sclerosis, vulvodynia. Use of antibiotics, oral contraceptives, chemotherapy, and anti-inflammatory steroids greatly increase susceptibility to Candida. Overgrowth of Candida may also cause a rise in cases of food allergies.

IgG antibodies to Saccharomyces cerevisiae are prevalent in inflammatory bowel disease, Crohn’s disease, celiac disease, and Behcet’s disease, while not usually elevated in ulcerative colitis. High amounts of antibodies to either Saccharomyces cerevisiae or Candida albicans may also cross-react with other Candida species or Saccharomyces boulardii. Individuals with high amounts of antibodies to Candida albicans or Saccharomyces cerevisiae might react poorly to Saccharomyces boulardii probiotic supplements because of this cross-reactivity.

High amounts of antibodies to wheat, gluten, rye, or barley are common in celiac disease. However, most people with these elevated antibodies do not have celiac disease, but may still benefit from exclusion of these foods from the diet. The Celiac Disease Test with blood serum can confirm celiac disease. To determine if enough serum is available, contact The Great Plains Laboratory, Inc. (test is not available for bloodspot samples). The Celiac Disease Test should be done prior to implementation of a gluten-free diet to avoid false negative results. For more information on the Celiac Disease Test, please see The Great Plains Laboratory website, www.gpl4u.com <http://www.gpl4u.com>.
SAMPLE REPORT
FOOD ROTATION DIET BASED ON IGG RESULTS

About IgG Food Allergies: IgG antibodies do not produce the immediate histamine response we associate with IgE antibodies - a runny nose or hives, for example. IgG reactions tend to be more subtle - headaches, bloating, muscle aches, or even cognitive dysfunction. Therefore, IgG reactions are often termed “food sensitivities” or “food intolerance.”

The following pages contain a rotation diet based on your individual test results. A food rotation diet is the recommended method for reducing negative responses to foods. In general, eating from different food families distributed over several days reduces existing food reactions and lessens the chance of developing additional food sensitivities. If excessive intestinal permeability (leaky gut) is present, small amounts of food proteins enter the bloodstream. The immune system builds an antibody to those foreign proteins, predominately as IgG. Cumulative excess IgG antibodies contribute to chronic digestive and other conditions.

Foods that have elevated IgG levels on your test (those in the moderate or high categories) have been removed from rotation. Foods that are in the clinically insignificant or low categories are included in the rotation. As you remove the reactive foods from your diet, take the time to observe any changes in digestion, skin condition, energy level, or mood. Because of the extreme allergenicity of milk and wheat, if any food containing cow’s milk or wheat gluten is high, the entire group of related foods is removed from rotation. For example, if the wheat IgG value is high, rye and barley are removed from the suggested rotation diet. Dairy and wheat foods are the most frequent causes of generalized food intolerance symptoms. You and your physician may want to eliminate wheat or milk products from the diet completely even if the reactions are only in the slight to low categories. Oats, rice, corn and the other grains (millet, buckwheat, and sorghum) are not considered gluten grains and often can be tolerated on elimination diets when wheat IgG values are high.

Please note that the rotation diet is based only on IgG testing. To be absolutely safe, testing for IgE antibodies to food allergens should be considered PRIOR TO BEGINNING A ROTATION DIET. Even if histamine reactions are not symptomatically evident, IgE antibodies may still be elevated. The most common IgE reactions are to dairy, eggs, peanuts, or seafood. IgE allergies are most common in childhood, and often are outgrown by adulthood. Consult your health practitioner for advice on how long to follow your rotation diet and when to reintroduce foods as a challenge. With some patients, at least a year or more of food elimination may be necessary for IgG levels to become normal.
<table>
<thead>
<tr>
<th></th>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
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<tr>
<td><strong>Dairy</strong></td>
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<td><strong>Fish / Seafood</strong></td>
<td>Cod Fish</td>
<td>Lobster</td>
<td>Salmon</td>
<td>Sardine</td>
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<td></td>
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<td><strong>Grains</strong></td>
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<td>Coffee</td>
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