

Patient: **SAMPLE**
PATIENT

DOB:

Sex:

MRN:

1001 IgG Food Antibodies Profile - Serum

Methodology: EIA and Chemiluminescent

IgG Food Antibody Results			
Dairy Casein VL <input type="checkbox"/> <input checked="" type="checkbox"/> Cheddar cheese VL <input type="checkbox"/> <input checked="" type="checkbox"/> Cottage cheese VL <input type="checkbox"/> <input checked="" type="checkbox"/> Cow's milk 1+ <input type="checkbox"/> <input checked="" type="checkbox"/> Goat's milk 0 <input type="checkbox"/> <input type="checkbox"/> Lactalbumin VL <input type="checkbox"/> <input checked="" type="checkbox"/> Yogurt 1+ <input type="checkbox"/> <input checked="" type="checkbox"/> Fruits Apple 0 <input type="checkbox"/> <input type="checkbox"/> Apricot 0 <input type="checkbox"/> <input type="checkbox"/> Banana 0 <input type="checkbox"/> <input type="checkbox"/> Blueberry 0 <input type="checkbox"/> <input type="checkbox"/> Cranberry 0 <input type="checkbox"/> <input type="checkbox"/> Grape VL <input type="checkbox"/> <input checked="" type="checkbox"/> Grapefruit 0 <input type="checkbox"/> <input type="checkbox"/> Lemon 0 <input type="checkbox"/> <input type="checkbox"/> Orange 0 <input type="checkbox"/> <input type="checkbox"/> Papaya 0 <input type="checkbox"/> <input type="checkbox"/> Peach VL <input type="checkbox"/> <input checked="" type="checkbox"/> Pear 0 <input type="checkbox"/> <input type="checkbox"/> Pineapple 1+ <input type="checkbox"/> <input checked="" type="checkbox"/> Plum 0 <input type="checkbox"/> <input type="checkbox"/> Raspberry 0 <input type="checkbox"/> <input type="checkbox"/> Strawberry 0 <input type="checkbox"/> <input type="checkbox"/>	Vegetables Alfalfa 0 <input type="checkbox"/> <input type="checkbox"/> Asparagus VL <input type="checkbox"/> <input checked="" type="checkbox"/> Avocado 0 <input type="checkbox"/> <input type="checkbox"/> Beets 0 <input type="checkbox"/> <input type="checkbox"/> Broccoli VL <input type="checkbox"/> <input checked="" type="checkbox"/> Cabbage 0 <input type="checkbox"/> <input type="checkbox"/> Carrot 0 <input type="checkbox"/> <input type="checkbox"/> Celery 0 <input type="checkbox"/> <input type="checkbox"/> Cucumber 0 <input type="checkbox"/> <input type="checkbox"/> Garlic 1+ <input type="checkbox"/> <input checked="" type="checkbox"/> Green Pepper 0 <input type="checkbox"/> <input type="checkbox"/> Lettuce 0 <input type="checkbox"/> <input type="checkbox"/> Mushroom 0 <input type="checkbox"/> <input type="checkbox"/> Olive 0 <input type="checkbox"/> <input type="checkbox"/> Onion 0 <input type="checkbox"/> <input type="checkbox"/> Pea 0 <input type="checkbox"/> <input type="checkbox"/> Potato, sweet 0 <input type="checkbox"/> <input type="checkbox"/> Potato, white VL <input type="checkbox"/> <input checked="" type="checkbox"/> Spinach VL <input type="checkbox"/> <input checked="" type="checkbox"/> String bean VL <input type="checkbox"/> <input checked="" type="checkbox"/> Tomato VL <input type="checkbox"/> <input checked="" type="checkbox"/> Zucchini 0 <input type="checkbox"/> <input type="checkbox"/>	Fish/Shellfish Clam 0 <input type="checkbox"/> <input type="checkbox"/> Cod 0 <input type="checkbox"/> <input type="checkbox"/> Crab 0 <input type="checkbox"/> <input type="checkbox"/> Lobster 0 <input type="checkbox"/> <input type="checkbox"/> Oyster 0 <input type="checkbox"/> <input type="checkbox"/> Red snapper 0 <input type="checkbox"/> <input type="checkbox"/> Salmon 0 <input type="checkbox"/> <input type="checkbox"/> Sardine 0 <input type="checkbox"/> <input type="checkbox"/> Shrimp 0 <input type="checkbox"/> <input type="checkbox"/> Sole 0 <input type="checkbox"/> <input type="checkbox"/> Trout 0 <input type="checkbox"/> <input type="checkbox"/> Tuna 0 <input type="checkbox"/> <input type="checkbox"/> Poultry/Meats Beef 0 <input type="checkbox"/> <input type="checkbox"/> Chicken 0 <input type="checkbox"/> <input type="checkbox"/> Egg white 0 <input type="checkbox"/> <input type="checkbox"/> Egg yolk 0 <input type="checkbox"/> <input type="checkbox"/> Lamb 0 <input type="checkbox"/> <input type="checkbox"/> Pork 0 <input type="checkbox"/> <input type="checkbox"/> Turkey 0 <input type="checkbox"/> <input type="checkbox"/>	Nuts and Grains Almond VL <input type="checkbox"/> <input checked="" type="checkbox"/> Buckwheat VL <input type="checkbox"/> <input checked="" type="checkbox"/> Corn 0 <input type="checkbox"/> <input type="checkbox"/> Corn gluten 1+ <input type="checkbox"/> <input checked="" type="checkbox"/> Gluten 3+ <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Kidney bean VL <input type="checkbox"/> <input checked="" type="checkbox"/> Lentil 0 <input type="checkbox"/> <input type="checkbox"/> Lima bean VL <input type="checkbox"/> <input checked="" type="checkbox"/> Oat 0 <input type="checkbox"/> <input type="checkbox"/> Peanut 0 <input type="checkbox"/> <input type="checkbox"/> Pecan 0 <input type="checkbox"/> <input type="checkbox"/> Pinto bean 0 <input type="checkbox"/> <input type="checkbox"/> Rice VL <input type="checkbox"/> <input checked="" type="checkbox"/> Rye 0 <input type="checkbox"/> <input type="checkbox"/> Sesame 3+ <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Soy VL <input type="checkbox"/> <input checked="" type="checkbox"/> Sunflower seed 3+ <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Walnut VL <input type="checkbox"/> <input checked="" type="checkbox"/> Wheat 3+ <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Miscellaneous Yeast VL <input type="checkbox"/> <input checked="" type="checkbox"/> Cane sugar VL <input type="checkbox"/> <input checked="" type="checkbox"/> Chocolate VL <input type="checkbox"/> <input checked="" type="checkbox"/> Coffee 3+ <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Total IgE			
Total IgE ♦		Inside <input type="checkbox"/> <input checked="" type="checkbox"/> 9.2	Outside <input type="checkbox"/> <input checked="" type="checkbox"/> Reference Range <=87.0 IU/mL

0 <input type="checkbox"/> None Detected	VL <input type="checkbox"/> Very Low	1+ <input type="checkbox"/> Low	2+ <input type="checkbox"/> Moderate	3+ <input type="checkbox"/> High
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- The performance characteristics of all assays have been verified by Genova Diagnostics, Inc. Unless otherwise noted with ♦, the assay has not been cleared by the U.S. Food and Drug Administration.
- Total IgE level may have clinical significance regardless of specific antibody levels.
- Increasing levels of antibody detected suggest an increasing probability of clinical reactivity to specific foods.
- The Elimination Diet commentary is specific to IgG results only. Allergens inducing an IgE response should be completely avoided.

Laboratory Comments

Summary of IgG Test Results

Reactive / Non-Reactive Foods

3+ High

Coffee	Gluten	Sesame	Sunflower seed
Wheat			

1+ Low

Corn gluten	Cow's milk	Garlic	Pineapple
Yogurt			

VL Very Low

Almond	Asparagus	Broccoli	Buckwheat
Cane sugar	Casein	Cheddar cheese	Chocolate
Cottage cheese	Grape	Kidney bean	Lactalbumin
Lima bean	Peach	Potato, white	Rice
Soy	Spinach	String bean	Tomato
Walnut	Yeast		

0 None Detected

Alfalfa	Apple	Apricot	Avocado
Banana	Beef	Beets	Blueberry
Cabbage	Carrot	Celery	Chicken
Clam	Cod	Corn	Crab
Cranberry	Cucumber	Egg white	Egg yolk
Goat's milk	Grapefruit	Green pepper	Lamb
Lemon	Lentil	Lettuce	Lobster
Mushroom	Oat	Olive	Onion
Orange	Oyster	Papaya	Pea
Peanut	Pear	Pecan	Pinto bean
Plum	Pork	Potato, sweet	Raspberry
Red Snapper	Rye	Salmon	Sardine
Shrimp	Sole	Strawberry	Trout
Tuna	Turkey	Zucchini	



Commentary

Overview

Immunoglobulin G (IgG) antibodies that elicit an immune response to food are in a class distinct from Immunoglobulin E (IgE) food allergy reactions. IgG-mediated food responses are described as delayed hypersensitivity reactions and have been associated in the peer-reviewed literature with an array of common clinical conditions including migraine, obesity, asthma, autoimmune diseases, and irritable bowel syndrome.

IgG Testing: Factors to Consider

IgG testing can be very useful in screening foods that a person is eating on a regular basis and which may be causing adverse reactions. However, it is possible to have adverse reactions to foods with low or non-detected levels of IgG. Because the IgG profile measures exposure of the immune system to food antigens, performing this test on a patient who is not consuming a particular food or who is taking a drug with known ability to suppress immune function (i.e. steroids) may result in the test not showing a positive reaction, potentially leading to a false negative result for the particular food. Be advised that if the patient is already on an elimination diet due to known food reactions, a negative result on an IgG food antibody profile does not necessarily mean that they can freely eat the food without experiencing symptoms.

IgG Results Interpretation

The amount of IgG antibodies is measured using a semi-quantitative ELISA assay procedure. The relative degrees of IgG present for each food are reported using a semi-quantitative level; None Detected (0), VL (very low), Low (1+), Moderate (2+) or High (3+). The degree of reactivity may not correlate with the severity of patient's response, therefore clinical correlation is advised as it can help direct treatment.

Clinical Management of Reactive IgG Foods: Elimination Diet

The purpose of an elimination diet is to pinpoint symptom-triggering foods that may be the root cause of and/or perpetuating chronic health issues. This diet is specific to food sensitivities that elicit an Immunoglobulin G (IgG) response and not those defined as classic (IgE-mediated) food allergy reactions. An elimination diet is a strategic process which depends on the oversight of the healthcare provider to ensure that a patient's nutritional requirements - macronutrient, micronutrient, and caloric needs - are adequate.

Four-Phases of an Elimination Diet



PHASE 1 – PREPARATION

A patient's clinical presentation and the IgG Food Antibody Assessment results typically determine which food(s) to temporarily remove from the diet. The average time frame for an elimination diet is 1 to 3 months. It is optimal to work with the patient to determine a start and end date for the elimination diet. Patient guidance around preparation ahead of the start date is important to ensure success. These include: (1) encouraging the patient to remove offending foods from the home and adjust grocery shopping accordingly; (2) providing the patient with resources that advance meal preparation, such as recipe books or reputable websites. Directing the patient to record foods consumed, date of consumption/elimination, and any notable changes in symptoms in a food journal can help track the progress of the diet.



Commentary



PHASE 2 – ELIMINATION

It is important to ensure the patient avoids those foods which resulted in a demonstrable reaction, either in whole food forms or as ingredients in other prepared foods to gain the greatest benefit. For patients unable to eliminate all reactive foods from their diet, focusing on the foods that elicited a stronger reaction (i.e.: 2+ and 3+) may be considered for an elimination diet. Practitioners may also encourage elimination of a complete food group when the patient shows reactivity to all foods tested within that group.



PHASE 3 – REINTRODUCTION

The reintroduction of eliminated foods is done one food at a time while monitoring for any adverse reaction. The patient should consume the test food several times throughout the day for several days. If symptoms occur with reintroduction, the patient should be instructed to remove that food once again and to evaluate whether the symptoms diminish over the next few days following elimination. Signs which may indicate an IgG food reaction include the following: headache, itching, bloating, fatigue, diarrhea or constipation, and indigestion. If the food does not cause symptoms during the reintroduction phase, it can be added back into the diet. The patient should continue this process with each food eliminated.

CAUTION: All patients warrant counseling related to signs and management of immediate hypersensitivity reactions prior to food reintroduction following an elimination diet. If reintroduction of a food causes an immediate allergic reaction (i.e. swelling of face, mouth, tongue, etc.; wheezing, rash/hives, or other allergic symptoms), it is imperative that the patient be treated as soon as possible. Following resolution of the immediate hypersensitivity reaction, the patient should be instructed to completely avoid consumption of that food.



PHASE 4 – LONG TERM MANAGEMENT

An elimination diet based on food sensitivity testing is part of a comprehensive approach to overall gastrointestinal health. Based on the test results and the complete clinical presentation of the patient, a long-term plan is usually developed utilizing the results of the reintroduction phase. Clinicians may also consider assessing and treating intestinal permeability, as gut barrier integrity is important for proper immune responses to foods. Nutrients that have been found to support intestinal barrier and decrease potential inflammation are glutamine, vitamin A, vitamin D, essential fatty acids (Omega-3), probiotics, and butyrate. Botanicals that can also be considered to assist with intestinal health are slippery elm, deglycyrrhizinated licorice (DGL), Aloe vera extract, and marshmallow root.

For additional information on the elimination diet and how to better understand your results, please download the "Elimination Diet Handout" from our website at <https://www.gdx.net/elimination-diet-handout.pdf>.