

#### 63 Zillicoa Street Asheville, NC 28801 © Genova Diagnostics

Patient: SAMPLE

PATIENT

DOB:

Sex:

MRN:

### 1001 IgG Food Antibodies Profile - Serum

Methodology: EIA and Chemiluminescent

clinical reactivity to specific foods.

- The Elimination Diet commentary is specific to IgG results only. Allergens

inducing an IgE response should be completely avoided.

IgG Food Antibody Results									
Dairy		Vegetables		Fish/Shellfish		Nuts and Grains			
Casein	VL	Alfalfa	0	Clam	0	Almond	VL		
Cheddar cheese	VL	Asparagus	VL	Cod	0	Buckwheat	VL		
Cottage cheese	VL	Avocado	0	Crab	0	Corn	0		
Cow's milk	1+	Beets	0	Lobster	0	Corn gluten	1+		
Goat's milk	0	Broccoli	VL	Oyster	0	Gluten	3+		
Lactalbumin	VL	Cabbage	0	Red snapper	0	Kidney bean	VL		
Yogurt	1+	Carrot	0	Salmon	0	Lentil	0		
Fruits		Celery	0	Sardine	0	Lima bean	0		
Apple	0	Cucumber	0	Shrimp	0	Oat	0		
Apricot	0	Garlic	1+	Sole	0	Peanut	0		
Banana	0	Green Pepper	0	Trout	0	Pecan	0		
Blueberry	0	Lettuce	0	Tuna	0	Pinto bean	0		
Cranberry	0	Mushroom	0	Poultry/Mea	te	Rice	VL		
-		Olive	0	-		Rye	0		
Grape Grapefruit		Onion	0	Beef	0	Sesame	3+		
Lemon	0	Pea	0	Chicken	0	Soy	VL		
Orange	0	Potato, sweet	0	Egg white	0	Sunflower seed	3+		
-	0	Potato, white	VL	Egg yolk	0	Walnut	VL		
Papaya Peach		Spinach	VL	Lamb	0	Wheat	3+		
Pear		String bean	VL	Pork	0	Miscellaneo			
Pineapple	1+	Tomato	VL	Turkey	0				
Plum	0	Zucchini	0			Yeast	VL		
Raspberry	0		Tota	l IgE		Cane sugar	VL		
Strawberry	0			_		Chocolate	VL		
Sliawberry	0		Inside	Outside	Reference Range	Coffee	3+		
		Total IgE ◆	9.2		<=87.0 IU/mL				
0 🗌 No	one Detected	VL Very L	_ow 1+	Low 2+	Moderate	3+	High		
- The performance characteristics of all assays have been verified by									
- 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.									
<ul> <li>Increasing levels of antibody detected suggest an increasing probability of</li> </ul>									

IMMUNOLOGY

Patient: SAMPLE PATIENT

# ID: Summary of IgG Test Results

Reactive / Non-Reactive Foods								
3+ Hig	h							
Gluten	Sesame	Sunflower seed						
1+ Lov	v							
Cow's milk	Garlic	Pineapple						
VL Very Low								
Asparagus Casein Grape Potato, white String bean	Broccoli Cheddar cheese Kidney bean Rice Tomato	Buckwheat Chocolate Lactalbumin Soy Walnut						
0 None Detected								
Apple Beef Carrot Cod Cucumber Grapefruit Lentil Mushroom Orange Peanut Plum Red Snapper Shrimp Tuna	Apricot Beets Celery Corn Egg white Green pepper Lettuce Oat Oyster Pear Pork Rye Sole Turkey	Avocado Blueberry Chicken Crab Egg yolk Lamb Lima bean Olive Papaya Pecan Potato, sweet Salmon Strawberry Zucchini						
	Gluten Gluten 1+ Low Cow's milk Cow's milk VL Ver Asparagus Casein Grape Potato, white String bean 0 None Apple Beef Carrot Cod Cucumber Grapefruit Lentil Mushroom Orange Peanut Plum Red Snapper Shrimp	3+ HighGlutenSesame1+ LowCow's milkGarlicVL Very LowAsparagus Casein Grape Potato, white String beanBroccoli Cheddar cheese Kidney bean Rice TomatoO None DetectedApple Beef Carrot Cod Cod Corn Cucumber Cucumber Cod Corn Cucumber Cod Corn Cucumber Peanut Pear Plum Plum Pork Red Snapper ShrimpApricot Reg Sole						



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 <u>https://www.gdx.net/elimination-diet-handout.pdf.</u>