Dietary Antigen Exposure by Food Group

High levels of IgG antibodies to milk antigens have been reported in patients with eczema and/or asthma. In a separate study high levels of IgG4 antibodies were detected in patients suffering from atopic dermatitis and/or bronchial asthma caused by hypersensitivity to soybean.

In this report a human serum sample is probed for the presence of IgG’s that have an exact affinity for specific dietary allergens. Dietary specific IgG’s are clustered by food groups and the quantitative summation of the IgG’s within the offending food group(s) are expressed graphically. The exclusion of the offending food group(s) from the diet has shown to improve the symptoms of these conditions.

IgG responses to specific dietary antigens that mediate the rate and types of reaction indicate different immune responses. There are four subclasses of the G-type immune complexes: Type I, II, III, and IV hypersensitivity. Type I is immediate hypersensitivity, Type II is mediated by antibody-dependent cellular cytotoxicity, Type III is mediated by immune complexes, and Type IV is delayed-type hypersensitivity.

IgG mediated immune complexes are thought to be the active agents for the delayed allergic responses. IgG mediated immune complexes are tagged for complement activity by complement antigens such as C1q and C3D. The absence or presence of complement activity is essential to the pathological pathway that the immune system follows in response to the offending dietary antigen or food group.