

Information regarding the Use of sIgG₄ for Diagnosis

sIgG₄ tests should not be considered as tests for determining food intolerance, but actually for determining the level of IgG₄ antibodies against a variety of foods. It is a bit like IgE tests which do not determine allergy as a clinical entity, but the level of IgE antibodies to allergens in patients' blood. People with IgEs to an allergen are called "sensitized", but only a portion of them may have a clinical allergy. The degree of sensitization/IgE levels is a reasonable measure for the probability that a certain allergen is evoking symptoms in a patient.

IgE as well as IgG₄ are serological markers that can help a health professional to identify the allergens, or foods, a patient may have to avoid. The markers are intended to accelerate the identification of the system evoking allergens, or foods, and to support a skilled practitioner to give an appropriate medical (IgE) or nutritional (IgG₄, anti-food IgEs) advice.

IgG₄ testing is not intended to support any type of medical advice. What we know about IgG₄ is that it has a critical role in natural IgE reactions, e.g. in parasite infections, where it is believed to act as a kind of an "antidote" to IgE, thereby regulating IgE driven reactions. Similar effects of IgG₄ are seen in allergy immunotherapy, where a chronic stimulation of the patient with allergen evokes IgG₄ synthesis to these allergens. Elevated IgG₄ B cells have also been found in a variety of disorders, including some allergy-type adverse reactions with minimal or no IgE antibody involvement. Current scientific data suggest that elevated IgG₄ can be a marker for a chronic immune reaction, including "healed" allergies against staple foods.

An additional point is the topic of "food intolerances". This term is extremely fuzzy and may cover anything when the ingestion of some foods results in adverse symptoms, including digestive problems due to lack of certain enzymes (e.g. lactase), classical IgE-driven food allergies or celiac diseases. None of the causes mentioned above may be determined using IgG₄ testing, but it is known that a large number of patients with self-reported adverse reactions to foods/food proteins neither show reactions in the classical allergy tests, such as IgE and skin prick testing, nor in the tests for the other causes mentioned. Unfortunately, food ingestion may result in a wide variety of symptoms, including, but not limited to, gastrointestinal problems, skin reactions, induction of migraine attacks, rhinitis, general fatigue and unwellness. To some degree this is similar to what is seen in food allergies, but these reactions are usually delayed by hours or days and are not life-threatening.



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Studies and experience have shown that elimination diets can be helpful in such cases, but there are no established (IgE-like) serological markers. More than a decade of experience has shown that anti-food IgG₄/IgG testing can be helpful in many cases to accelerate the identification of the foods to be avoided. And recent studies in a well defined clinical entity of non-IgE mediated inflammatory reactions, called Eosinophilic Esophagitis (EoE), is often responsive to elimination diets and IgG₄ antibodies have a diagnostic role, decreasing after successful therapy. But the mechanisms of food allergies are still little understood and those of non-IgE reactions even less.

One of the findings in practical experience is that many patients with adverse reactions to food are often trying to avoid stuff they are reactive to, either by instinct or bad experience. The central advantage of near-patient IgG₄ testing devices is that they are meant to support a health professional, doctor or nutritionist, in giving a patient advice based on thoroughly anamnesis and some IVD data. So if the anamnesis and IgG₄ data fit (and a type I allergy has been excluded), the patient may start to omit the food in question for several days, typically supported by a food/symptoms diary, and to reintroduce the food afterwards. If several foods are supposed to be relevant, a so called "rotation diet" can be considered which allows to test for multiple foods in parallel. In severe cases, a patient shall be recommended to specialized centers where they can perform more elaborate procedures. Given a food has been identified as a potential cause of symptoms, the food might be avoided for a prolonged period and then to carefully try to reintroduce them into the patients' diet.