An allergy is the hypersensitivity to a particular substance that, if inhaled, ingested or touched, it produces the characteristic symptoms. When an allergen enters in contact for the first time with the organism of an allergic subject, his immune system responds by producing a large quantity of type IgE antibodies, by means of a process called sensitization. The successive exposure to the same allergen will produce the characteristic symptoms of the allergic reaction.

The allergic reactions can be manifested in different ways and both the symptoms and their intensity may vary according to each person. The most common symptoms are: allergic conjunctivitis, allergic rhinitis, urticaria and dermatitis, bronchial asthma and anaphylaxis.

The allergies increase each year in Spain by 2%, and the three most frequent causes of allergy in adults are: pollens (53%), dust (23%) and mites (20%).

In Spain there are nearly 10 million persons that suffer an allergic illness, and it is estimated that in the year 2010 half the Spanish population will suffer some type of allergy.

**ISAC® Test**

The ISAC® Test (Immuno Solid-phase Allergen Chip) is the most advanced in vitro diagnostic test for the simultaneous determination of specific IgE antibodies to 112 allergenic proteins present in more than 50 different allergens.

It is a semi-quantitative analysis that uses microchip technology. The results are expressed in ISAC Standardized Units (ISU), and are classified in four categories: undetectable reaction, low, moderate-high and very high.

The analysis uses only raw allergenic extracts, since they are purified from their natural source or recombinants, allowing a better standardization of the diagnosis. The allergens are grouped according to the characteristics of their proteins. This is of important clinical interest, since it makes it possible to differentiate primary sensitizations from cross-reactivity and relevant sensitizations from non-relevant.

Each allergen is analyzed in triplicate, and the test can be used to detect simultaneously IgE antibodies to: foods, plants, animals, insects, molds and synthetic products (for example, latex).

The ISAC® Test is the first test based on the biochip technology approved by the regulations of the European Union for the diagnosis of allergies.

**Advantages of the ISAC® Test**

The simultaneous analysis of 112 allergenic proteins allows determining, precisely and rapidly, and from a single blood sample, the allergens that cause the clinical situation of the patient. The very broad spectrum of allergenic proteins studies makes it possible to highlight unexpected sensitizations and/or rule out others.

Consequently, the analysis allows obtaining an individual sensitization profile, with the consequent improvement in the diagnosis, leading to personalized treatment. All this enhances the improvement of health and of the quality of life of the patient.

Furthermore, the economic cost of the analysis is less than that of the individual analysis of the specific IgE to multiple allergens.

**Indications of the ISAC® Test**

The ISAC® Test is especially indicated for:

- **Improving the diagnosis** in patients who are polysensitized to foods, inhalants and/or Hymenoptera venom.
- **Avoiding diagnostic errors**, especially in patients where a clear correlation is not observed between the positive results of the conventional allergy tests and the symptoms.
- **Avoiding therapeutic errors** in the composition of allergy vaccinations.
- **Evaluating those more complex cases**, such as those with an inconsistent clinical history or with an unsatisfactory response to the treatment.
- **Evaluating patients with idiopathic anaphylaxis**.
- **Detecting unsuspected sensitizations**.

**Requirements**

**Sample**: 1 ml of serum or plasma. Send refrigerated.

**Requirements**: 4 hours of fasting.