**Allergy, Sensitivity, or Intolerance**

If a person has a true allergy it means there is a measurable amount of circulating, allergen-specific IgE antibody in the blood.

Some people exhibit allergy-like symptoms yet there is no allergen specific antibody found in their blood. There are environmental and food substances that people have a sensitivity to but not an allergy although exhibiting similar symptoms.

A major difference between an allergy and a sensitivity is that the latter may be more temporary and will dissipate sooner than upon eliminating the exposure to or consumption of the substance in question. This situation occurs frequently with cats where a person exhibits allergy symptoms if they come in contact with cats but there is no significant level of cat allergen IgE in their blood. Removing oneself from contact or the vicinity of the cat you should notice the allergy-like symptoms subsiding rather quickly. In a true allergy the symptoms would remain for quite some time if the immune system was triggered sufficiently to start producing IgE antibodies.

Some people have a medical condition known as intolerance i.e. lactose intolerance and gluten intolerance. The symptoms associated with these conditions are similar to some allergy symptoms but a physician will have to perform specialized tests of the gastrointestinal system to diagnose these.

**THE RESULTS...**

Results come in an easy to read, color coded format. The level of allergic reaction is graded on a scale of 0-5, with 0 being a negative response and 5 being very high.
What is an allergy?

Allergies are hypersensitivity reactions of the body’s immune system to specific substances we come in contact with called “allergens”. These allergens can be in the form of pollens, insect venom, drugs or foods that in most people result in little or no symptoms. The immune system thinks of these allergens as foreign substances that are attacking the body. The immune system goes to work producing antibodies to fight off these so-called foreign substances.

What causes the allergic response?

Allergic reactions involve a set of cells in the immune system known as “mast cells”. These cells help safeguard the body from attack from the outside world. “Mast cells” display a specific antibody known as Immunogloblin Type E (IgE) on their surface. The “mast cells” store chemicals inside themselves known as granules. When the immune system encounters allergens (suspected foreign substances) a person is sensitive to, it starts to manufacture the IgE antibody that will attach to the “mast cells”. It is when the buildup of these antibodies becomes so great it causes the mast cells to burst. This triggers the release of the granules stored inside the mast cells (degranulation) which spills into neighboring blood vessels and nerve cells. One of the chemicals that is released into the blood vessels is called “histamine”. It is the release and spread of the histamine throughout the body that causes the allergy symptoms.

What type of test is this?

This is an in vitro “outside the body” test using a small amount of blood that is tested in a laboratory.

The method of testing utilized is known as ELISA (Enzyme Linked Immunosorbent Assay), but is often referred to as RAST, which was the acceptable method first developed in the 1970’s using radioactive isotopes to perform an in vitro allergy test. In the late 1990, ELISA became the more accepted methodology using enzymes in the testing procedures rather than radioactive isotopes.

What is the test looking for and how is it performed?

This test is looking for the level of circulating IgE antibody to each of the environmental and food allergens included in the test panels. The level of IgE present indicates the degree of allergy to each specific allergen.

A small amount of a patient’s blood serum is dropped onto a microtiter laboratory plate that has been coated with each of the allergens being tested for. Through a series of chemical washes, rinses and incubation periods, a chemical reaction takes place between the serum and the allergens on the plate. This reaction results in a color transformation. Using sophisticated laboratory instruments, this color reaction is measured and compared against individual positive and negative controls that are also run for each patient. The measurement of this reaction gives a numerical scoring indicating the level, if any, of allergy to each substance.

What substances can be tested for?

Environmental allergens consisting of regional grasses, trees, weeds as well as fungi and epidermals. A total of 45 allergens are tested in this panel.

Food allergens consisting of meats & poultry, seafood, dairy, vegetables, fruits, grains, spices, food additives, and other items. A total of 46 or 91 allergens are tested depending on the panel selected.

What is the difference between the blood test and the skin test performed by a physician?

Both methods are approved by the American Medical Association to test for possible allergies. A comparison of the two methods is as follows:

<table>
<thead>
<tr>
<th>Blood</th>
<th>Skin</th>
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<tbody>
<tr>
<td>Relatively pain-free</td>
<td>Often painful</td>
</tr>
<tr>
<td>Up to 135 allergens tested at one time</td>
<td>Limited number of allergens tested for with each office visit</td>
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<tr>
<td>Only a few minutes to administer</td>
<td>Requires a lengthy office visit</td>
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<tr>
<td>Can be administered at most public health screenings or laboratory draw centers</td>
<td>Must be performed in a physician’s office</td>
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<tr>
<td>No risk of anaphylaxis or reaction</td>
<td>Risk of anaphylaxis and other reactions</td>
</tr>
<tr>
<td>Cost is relatively low and affordable</td>
<td>Cost is relatively expensive</td>
</tr>
<tr>
<td>Test performed and measured in a laboratory with results available in a matter of days for a large number of substances tested</td>
<td>Test results based on observation and experience of physician shortly after administered for a limited number of substances tested.</td>
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What should I do if I tested positive for allergies?

You should always consult a physician when interpreting any medical test report. As a general rule, if you have an allergic response to a specific allergen, the best course of action is avoidance of that item. With airborne allergens this is very difficult to do and your physician should determine if you are a candidate for allergy shots (immunotherapy) and which foods should be avoided or eliminated from your diet.

For more information and to find out if Spectrum Healthcare is right for you, visit www.allergylife.com.