

Food Sensitivities

Introduction

Through his writings, we know that Hippocrates, the father of medicine, had already recognized the presence of allergic reactions in people as early as ancient times. However, the term "allergy" is a relatively new one, as compared to many other commonly used medical terms.

In 1906, Viennese pediatrician Baron Clemens von Pirquet used the term for the first time to describe an "altered response" of his patients' bodies. Von Pirquet believed that this altered reaction manifested itself in changes of the immune system, effected by external influences on the body, such as: food intake, the air breathed or direct skin contact.

The term "allergen" (the substance responsible for the altered reaction) was born. At that point in time, however, von Pirquet had no means of scientifically proving that these immunological changes actually occurred in the body. It was not until the mid-1920's, that a second significant event occurred. Researchers found that, by injecting a minute quantity of purified allergen under the skin, certain individuals would develop a clear skin response; a "wheal," with or without itching and redness, could be provoked.

This positive skin test for allergies would show itself most prominently in patients with hay fever, asthma, chronic rhinitis, hives and eczema. The "prick test" became a method of demonstrating the involvement of the immune system in allergic reactions. However, the precise biological reason for the reaction continued to remain a mystery.

It was not until the Sixties, when an important discovery occurred which provided long-awaited scientific support for the classical allergy theory and removed any doubts about the relationship of the immune system with allergies. This breakthrough came about with the scientific discovery of immunoglobulin E (IgE) by a Japanese couple named Ishizaka.

Allergies

Allergic reactions: the chain of events

1. An allergen must be present in your body. This allergen is the substance that causes us to have an abnormal immunological response. Allergens tend to be protein molecules. Interestingly enough, the immune system only detects particles of a certain size as potential troublemakers and protein molecules are just the right size. In a small number of cases, the body actually responds to molecules other than proteins. These molecules, which are generally much smaller, are called haptens. By combining with protein molecules, haptens form larger complexes, which can then be detected by the immune system.
2. The allergen is detected by the B cells. These are specialized immune cells, capable of producing antibodies. Just like allergens, antibodies are protein molecules, which have the capacity to neutralize allergens.
3. Every B cell produces its own, specific antibody, depending on the type of intruder it needs to respond to. It is easy to understand why the body must have a ready pool of millions of antibodies, in order to combat these numerous offenders. There are five main categories of antibodies (IgG, IgA, IgM, IgD and IgE), which the body releases under different circumstances (for instance to fight off various infections, etc.). In the case of allergies, the body produces the antibody immunoglobulin E (IgE), first discovered by the Ishizakas.
4. Usually, antibodies will bind directly to the appropriate damaging substance and neutralize it. However, IgE deviates from this common path. It first attaches one of its "legs" to one of the body's numerous mast cells. The other leg is used to hold on to the offending allergen. This action signals the mast cells to begin disintegrating, thereby releasing histamine. Histamine is a chemical substance responsible for a great number of complaints, which may arise during allergic reactions. It causes muscle cramps and an inflammation-like process with redness and swelling of mucous membranes.

Allergic reactions can occur under a variety of circumstances. Allergies typically bring on complaints very rapidly upon contact with the allergen. Complaints may vary from a runny nose, sinusitis, earache or runny eyes, to itching of the skin, eczema and shortness of breath. In rare cases anaphylaxis may occur: this is an extremely strong allergic reaction that makes the mucous membranes swell and blood pressure drop. This may actually result in death if rapid intervention does not occur.

Intolerances

Demonstrating the presence of intolerances is more difficult. In this situation, similar to the case of classical allergies, the body responds abnormally to food but, in addition, the immune system does not produce IgE. It quite often takes much longer for complaints to come on, thereby masking the possible link between the offensive substance and the complaints themselves. This is why these reactions also tend to be called “hidden food sensitivities”. These are only a few of the reasons why food intolerance is considered a fairly controversial concept in conventional medicine.

Intolerances can be responsible for a wide variety of complaints, which, at first glance, seem to lack a plausible explanation. Intolerances can manifest themselves as (and this listing is nowhere near to being complete):

- chronic fatigue;
- gastrointestinal complaints: mouth ulcers, nausea, heartburn, stomach ache, diarrhoea, constipation (Irritable Bowel Syndrome), Crohn's disease, ulcerative colitis;
- skin complaints: itching, eczema, hives, acne (in adults);
- joint and muscle complaints: ranging from atypical pains (including fibromyalgia) to rheumatoid arthritis;
- headache and migraine;
- asthma, chronic rhinitis or sinusitis;
- pre-menstrual syndrome;
- hypoglycemia;
- depression, anxiety;
- candida;
- sleeping disorders.

Interestingly, allergies and intolerances seem to have increased dramatically over the past couple of centuries, coinciding with the industrial revolution. Not only does our environment suffer greatly (the rain forests are disappearing, the climate is changing and increasing numbers of animal species are becoming extinct), man is also being impacted.

There are strong indicators that the immune system is not able to adequately cope with the effects of pollution and thus creates abnormal responses. Not only do these abnormal responses manifest themselves as food sensitivities - they can also appear as inhalant and chemical sensitivity.

Diagnosing Allergies

Conventional medicine can easily diagnose classical allergies. Here, the so-called RAST test plays a very important role, because this test can demonstrate the presence of IgE.

Diagnosing Intolerances

It is impossible to accurately demonstrate intolerances through conventional testing methods. The Amsterdam Kliniek uses a non-conventional test procedure, which has proven to be very reliable and thus extremely useful. However, a 100% reliable test does not yet exist.

For several years, the Amsterdam Kliniek used the Cytotoxic Test. The disadvantage of this test was the fact that it was not automated (a drop of blood was examined microscopically), thus making it susceptible to a certain degree of subjectivity. For this reason a more advanced test procedure was introduced: the Neutrophile Test. Here, a drop of the patient's blood is mixed with a drop of food concentrate. Next, an adapted hematology analyzer (machine that examines blood cells) measures certain changes in neutrophiles (specific kind of white blood cell) through direct current and radio wave frequencies. The changes in these neutrophiles reflect of the presence of food intolerances with a great degree of reliability. So the basis of the Neutrophile Test is the same as the Cytotoxic Test. The difference, however, lies in the fact that analysis happens via a machine as supposed to a human, thus making it more reliable.

Prior to the Neutrophile Test, the IgG(4) antibody test was used. Here, the presence of IgG(4) antibodies was determined. These antibodies are the slowly occurring variety, which do not appear in the blood until 24 to 48 hours after exposure to an offending food or substance. The reliability of this test left too much to be desired, and for this reason, we chose to abandon the test entirely.

Treatment of food sensitivities

Diet

In the treatment of food sensitivities, avoidance (elimination) of allergens plays an extremely important role. This is especially so in the case of classical food allergies, because these have a tendency to never go away by themselves. Consequentially, the products a person is allergic to will actually be banned for an undetermined amount of time.

In the case of food intolerances it is different. First of all the Neutrophile Test can help determine which foods cause a reaction, as well as to what degree they do so. Based on the test results, an elimination diet can be specifically tailored. Foods causing strong reactions in this test, should (temporarily) be excluded from the diet. Especially during the first week(s) of the diet, withdrawal symptoms, similar to complaints stemming from the cessation of coffee, tobacco or alcohol consumption, may occur - the body seems to crave offending food items. Generally, these withdrawal symptoms disappear after a couple of weeks. Concurrently, those complaints relating to food sensitivity also diminish. Using this dietary approach, the reaction to food allergens may decrease in the course of time. After a three-month moratorium, reintroduction of "forbidden" food items can be attempted, one at a time. In this way, food items still causing reactions can be isolated more easily. Often, at least part of existing intolerances completely disappear after an elimination diet. Additional dietary restrictions may apply based on a glucose tolerance test (see hypoglycemia) or other specific complaints (e.g. fermentation of the gut, etc.).

Medication

Medicines that are generally reserved for treating inhalant allergies (hay fever, asthma), such as antihistamines (Tavegil, Zyrtec, etc.) and corticosteroids (Prednisone, etc.), in some cases, also diminish symptoms from food allergies and intolerances. Cromoglycates such as Nalcrom may also be useful. However, these only suppress symptoms, they do not produce a cure!

Additional information on Candida and Hypoglycemia

Candida

The body can house numerous bacteria, parasites or yeasts without actually producing symptoms or disease. *Candida albicans* is one of those commonly occurring yeasts that does not necessarily cause problems, however, in some cases it starts to grow more rapidly. This tends to happen especially in people whose health is already somewhat compromised.

As a consequence, the absorption of substances via the intestinal tract lining is disturbed, allowing (more) allergens and toxins into the body and thus weakening the immune system even further and promoting food sensitivities to occur. Gastrointestinal complaints, fatigue, migraines etc. could result. Treatment is not only aimed at anti-fungal medication, food supplements and dietary restriction of yeast-stimulating foods, but first and foremost at treating the underlying food sensitivities. The fact that certain patients treated for *Candida* do not find sufficient relief of their symptoms tends to lie in the fact that underlying food sensitivities are overlooked.

Hypoglycemia

Quite often, the blood sugar (glucose) regulatory system is disturbed, with a special tendency towards low glucose levels known as hypoglycemia.

Hypoglycemia is a condition characterized by strongly fluctuating glucose levels, showing dramatic drops in these levels during the course of the day. Spontaneous hypoglycemia may manifest itself in the form of headaches, sleeplessness, sweating, shakiness, irritability, anxiety and panic attacks, hyperventilation and depression on the one hand, as well as in bouts of fatigue, mental fog, weakness and a craving for sweets on the other hand. It is true that many patients tend to feel better after eating, but this is generally a short-lived improvement. A standard glucose tolerance test cannot reveal hypoglycemia, however an extended (5-hour) glucose tolerance test can. Unfortunately, these days this test is rarely performed by conventional laboratories. Often the presence of food sensitivities seems to be at the root of the problem, so avoidance of sugar and sweets alone generally does not suffice.