

# HISTORY OF ALLERGY TESTING

Allergy intolerance testing developed from research into hypersensitive reactions to environmental substances. In the early 20th century, Austrian paediatrician Clement von Pirquet noted that some of his patients who had a smallpox injection suffered severe reactions to a second injection. Von Pirquet, along with fellow paediatrician Bela Schick, later found that patients also suffered allergic reactions to innocuous substances like pollen, dust and certain foods.

Von Pirquet and Schick proposed that allergic reactions were caused by the immune system activating improperly and from then on all hypersensitive reactions were labelled 'allergies'. However, by 1963 a classification system for hypersensitivity was developed from the knowledge that hypersensitivity had more than one mechanism. 'Allergy' hypersensitivity was classified as 'type I hypersensitivity' and characterised by rapidly developing reactions.

One of the most important breakthroughs for allergy intolerance testing occurred in 1966 when Japanese scientist Kimishige Ishizaka discovered the antibody immunoglobulin E (IgE). IgE is the antibody that is released by the immune system when allergens are present. Currently one in four people in the UK are affected by allergies.

## HOW DOES IT WORK?

Allergic reactions occur when the body comes into contact with a harmless substance (an allergen) that it believes is invading it. Allergens contain protein and can be dust, pollen, animal fur, grass, insects, milk, eggs and peanuts. Less common allergens are tree nuts, fruit and latex. The immune system releases an antibody (IgE) to defend the body which in turn releases other chemicals that combine to cause symptoms of irritation and inflammation.

An allergy sufferer can have symptoms that include sneezing, itching, itchy eyes, hives, eczema, sickness, vomiting and breathlessness. Allergy intolerance testing aims to identify the presence of either the IgE antibody or, in the case of food intolerance, the IgG antibody. The type of test used is dependant on symptoms and condition of the patient's skin.

Blood, skin prick and patch tests are the common methods used to identify allergens. The 'challenge test' is another method and is usually carried out in a hospital or specialist allergy unit. Challenge tests involve introducing allergens to the lung (in the case of bronchial allergies such as asthma), nose or eye. Food allergies can also be identified using a challenge test whereby the patient is given specific foods 'blind' to observe their effects.

## A TYPICAL APPOINTMENT

Be prepared - It is advisable to choose an allergy intolerance testing practitioner who is a member of, or is accredited by, an association or professional body. This ensures your allergy test is carried out in a suitable environment and by someone who has received formal training and ongoing development. Members are also bound to a code of ethics and practice. The main allergy testing organisations are listed at the foot of this article.

Allergy intolerance specialists employ different techniques. On finding an allergy specialist, ask about the methods they use, their expertise and some testimonials from previous clients.

If you take antihistamines for your allergy you may have to stop taking them for at least 48 hours before your appointment. Allergy intolerance testing can involve taking blood and antihistamines may affect the result. If you take prescription antihistamines it may be necessary to stop taking them up to five days before. Similarly, if you use steroid injections, creams or sprays you may need to stop taking them for up to three weeks before your appointment as they will also affect the results of a test. Your practitioner will advise you on this when booking an appointment.

Before your appointment, spend time thinking about your condition. Make some notes before you attend about what

triggers your allergic reaction and at what times of the day your allergy is at its worse. Which part of your body is affected and is there a family history. Do certain environments such as the home or office cause the reaction. The answers to these questions help your practitioner make a proper diagnosis.

## WHAT TO EXPECT

During your first appointment your allergy intolerance specialist will take a thorough medical and allergy history. This may be followed by a physical examination and a series of diagnostic tests on the skin or for lung function. The allergy specialist will advise you on this before carrying out any testing.

Allergy intolerance testing employs four main methods. 'Blood tests' involve taking a small amount of blood from a vein in the arm. The blood taken is used to measure levels of immunoglobulin E antibodies in the system and results of the test can take between 7-14 days. The 'skin prick test' can detect over 350 allergens and involves a needle pricking the skin with a liquid containing the allergen specific to your allergic reaction. A positive reaction will cause redness and itching with possible white swelling (known as a weal). Results appear within 20 minutes and the test is usually the first test recommended for allergies.

A 'patch test' diagnoses delayed allergic reactions to the skin such as rashes or hives. Various disc-shaped patches containing allergens are placed on the skin (usually on the back) and left for 48 hours. The reactions are then observed to determine which allergen is the primary cause. Patch tests are used to identify allergies to solvents, medications, dyes, cosmetics or preservatives.

'Challenge tests' should only be carried out in specialist allergy units or hospitals as they involve introducing allergens to the lungs, eye, or nose and in the case of food intolerances, the stomach. Check with your GP and local allergy specialist before undergoing this particular test.

From the results of your allergy intolerance tests, the specialist will be able to advise you on the cause and treatment of your allergy. Treatment may be the removal of a specific allergen from your environment or the prescription of preventative or restrictive medication.

## TIMINGS / COSTS / SESSIONS

Your first allergy intolerance testing appointment should last around an hour as your specialist gains an understanding of your allergy and takes a medical history. The type of tests your specialist recommends will affect the time you will need to be at your appointment. Be aware that some test results are not immediate and you will need to return at a later date to collect them or they may be able to be posted to you.

Practitioner's costs vary from town to town but expect your first appointment to cost from £80-£150 dependant on the type of tests required. You may also be required to pay for prescriptions to treat your allergy. Check with your local practitioner before making an appointment.

Follow-up appointments are not always necessary as your allergy, and its treatment, will be apparent after one session. If follow-ups are required it will be to monitor the allergy's progress and make any adjustments to your treatment should it be required.

## IS IT RIGHT FOR YOU?

Allergy intolerance testing is a safe and effective diagnostic tool and therapy when carried out by a trained practitioner. It's important to check training and membership to an approved association before making an appointment.

Consult with your GP and allergy specialist about any allergies or concerns you have as they are trained to recognise what can and cannot be treated.

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