

Improving Food Allergy Diagnosis

Voice-over 1:

An allergic reaction is a dysfunction of the immune system. A normally harmless substance is perceived as a threat by the body. Scientists call this an allergen. On first contact, the immunising cells produce antibodies, in particular a class of immunoglobulins known as IgE. These antibodies will then fix on other cells of the skin and mucus membranes. On second contact with the allergens, the cells release chemical substances, including histamine, which provoke an allergic reaction. The symptoms vary from a mere redness to swellings, an asthma attack or even an anaphylactic shock, which can be fatal.

Any ingredient, even just a trace of it, can cause an allergic reaction. But the principal culprits are now recognised: nuts, eggs, milk, corn, groundnut, fish and seafood. But the number of people affected is often overestimated. In Europe, only 2 to 4 per cent of adults suffer from food allergies and only around 6 per cent of children under the age of three.

Here in Vienna, Austria at the capital's central hospital, researchers are also participating in the EuroPrevall project. They are focusing on improving allergy diagnosis. To find the allergens, the doctor talks to the patient to get a general view then carries out various tests. One in particular involves pricking the skin and adding a sample of the suspect food. A few minutes later the doctor analyses the patient's reactions.

Voice-over 2:

Being allergic to certain foods is very common allergy especially in combination with hay fever. Often there is a cross-over reaction. In other words, when people have an allergic reaction to birch, they often also react to some vegetables. This is the case with our patient today who has an adverse reaction to birch and likewise to some particles in apples, carrots and peaches.

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With some allergens present in several substances it's difficult to identify the source of the allergy. It's the work of the researchers to break down the constituent parts of the potential food allergen. They have to isolate, extract and purify each protein - all the better to analyse its structure and properties. The allergens thus purified make it possible to develop more reliable methods of diagnosis.

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