BDA The Association of UK Dietitians

Food Fact Sheet

Food Allergy and Intolerance Testing

The use of complementary and alternative medicine (CAM) for the diagnosis of food allergy and intolerance is growing fast. There are many types of 'tests' available on the high street and on the internet and so much information is available, it is difficult to know what is reliable and scientifically sound. This fact sheet looks at various tests available for diagnosing food allergy and intolerance and also discusses the scientific background or 'evidence' behind them.

Conventional Allergy Testing

These tests are evidenced based and performed by competent health professionals:

Skin prick test

A small amount of diluted allergen (suspected protein that person is allergic to) is placed on the skin and the skin is then pricked. If a small swollen lump or 'weal' appears, in conjunction with a detailed clinical history, an IgE mediated food allergy may be diagnosed. This test is only performed under medical supervision.

Blood tests

A specific IgE test, formally known as RAST (Radio Allergo Sorbent Test), is carried out by measuring the amount of IgE antibodies to a suspect food in the blood. The results are interpreted with a detailed clinical history to give a diagnosis of IgE mediated food allergy. This blood test can be organised by your GP or hospital clinician. There are commercial companies who offer a similar blood test called MAST (Multi-Allergen Screening Test), however as there is no detailed clinical history available with this test, it's difficult to give an accurate diagnosis.

Food challenges

Very small amounts of the suspect food are given orally (in the mouth) and symptoms are observed. The food may be given openly or 'blinded' (when people are unaware they are being given certain food). Again, this should only be performed under medical supervision where medical facilities and resuscitation equipment are available.

> "Alternative allergy testing should be avoided as it has no scientific basis."

Common words

Medical terms for food allergy and intolerance can be confusing, so here is a list of their descriptions:

Food Hypersensitivity
Covers all bad reactions to food.

IgE mediated food allergy
The reaction is immediate and can be severe. This reaction involves IgE antibodies which are produced by the immune system.

Non-IgE mediated food allergy
The reaction is delayed or 'slow onset'. The immune system is involved but not IgE antibodies.

Non-allergic food hypersensitivity
The immune system is not involved

Food exclusion and reintroduction

The suspected food or foods are excluded for a period of time and symptoms observed and recorded. If symptoms improve then the suspect food is reintroduced. If symptoms return then this would indicate that there is a problem with that particular food. This can be very time consuming and is best carried out under the supervision of a registered dietitian, especially if children are involved. It is important to ensure a well balanced nutritional intake during the test period and in the design of a diet where major food groups are excluded (e.g. dairy or wheat).

Alternative allergy tests

There are also many commercially available tests that claim they can diagnose food hypersensitivity. These should be avoided as there is no scientific basis:

IgG blood test

This blood test looks at IgG antibodies present in the blood. It's claimed that an increase in IgG to a certain food indicates an intolerance to that food. At present there is no convincing evidence to support this test, and it's not recommended as a diagnostic tool.

Kinesiology

This is based on the idea that certain foods cause an energy imbalance in the body which is detected by testing the response of the muscle. The client holds the suspect food which is in a glass vial and the therapist tests the muscle response. The result can lead to many foods being eliminated from the diet however research studies show that this test is no better than chance.

Hair analysis

A small lock of hair is sent off to a laboratory and the energy fields in the hair are scanned. The results are compared to other established data to identify a food hypersensitivity. Although this is used in testing for recreational drug use as well as lead and mercury poisoning, its use in allergy testing is unproven and has no scientific basis.

Leucocytotoxic or Cytotoxic test

This is a blood test where the white blood cells are mixed with the suspect food and if they swell this would indicate a problem with that food. There is no rational scientific basis for this test.

Pulse test

The pulse is taken before eating the suspect food and then 15 minutes afterwards. An increase of ten beats per minute would indicate food intolerance. Research shows there is no connection between the increased pulse and food intolerance.

Electrodermal (Vega) test

This test measures the electromagnetic conductivity in the body. An offending food will show a dip in the electromagnetic conductivity. Research studies show that this test is no better than chance.

These alternative allergy tests may suggest long lists of oods to be excluded from the diet unnecessarily. Excluding a major food group e.g. wheat or milk, or a combination of different foods, creates many practical difficulties. Without good nutritional advice, a restricted diet can lead to severe nutritional deficiencies leadin to malnutrition.

Summary

If a food allergy is suspected, one should seek medical advice and discuss the use of evidence-based conventional allergy testing. Alternative allergy testing should be avoided as there is no scientific basis. Registered dietitians are able to give you the correct nutritional advice and ensure a well balanced nutritional intake which will be tasty, varied and culturally acceptable. Children, particularly, should not follow a restricted diet unless supervised by a dietitian as they require a well-balanced diet to ensure adequate growth and development.

Useful information

Food Fact Sheets on topics in this sheet including *Food Allergy and Intolerance* can be downloaded at www.bda.uk.com/foodfacts