

## Allergy testing

A wide variety of substances may cause allergic reactions in some people. Allergy testing is the procedure used to determine which particular substances (allergens) are responsible for provoking an allergic reaction. The procedure used depends on the type of allergy, but may include skin and blood tests or special diets.

### Symptoms associated with allergies

Symptoms associated with allergies can include:

- **Skin rashes** – such as eczema (atopic dermatitis) or hives (urticaria)
- **Swelling** – or angioedema
- **Sneezing and running nose** – or allergic rhinitis (hay fever)
- **Teary, red, itchy eyes** – or allergic conjunctivitis
- **Asthma**
- **Nausea and vomiting**
- **Anaphylaxis** – this is a severe allergic reaction that causes serious breathing problems. Anaphylaxis can be fatal.

### Medical issues to consider

Before undergoing allergy testing, you need to discuss a range of issues with your doctor, including:

- Your medical history
- Clinical symptoms and when they occur
- Possible allergen triggers
- Any medicines you take that may interfere with skin prick test reactions, such as antihistamines.

### The procedures

Specific tests are needed to determine which substance or substances are causing an allergy. These tests can include:

- **Skin prick tests** – selected allergens are applied to the forearm or the back with a dropper, and the skin gently pricked with a needle. A positive result shows as a red weal or flare on the skin within 20 minutes.
- **Allergen-specific IgE blood tests (RAST)** – these tests are useful when skin testing is not possible or is inconclusive. A blood sample is taken and the level of an immunoglobulin associated with allergic reaction (allergen-specific IgE) is measured in a laboratory.
- **Elimination diets and challenge testing** – an elimination diet is used to isolate foods that may be causing an allergic reaction. This usually takes a number of weeks and involves avoiding foods identified as common causes of food allergy. No foods or fluids may be consumed other than those specified. If symptoms improve, foods are added one at a time until symptoms recur (this is known as 'challenge testing'). Usually, a diary is kept to record any symptoms so they can be linked to the correct food. This procedure must only be performed under medical supervision.
- **Patch tests** – are most commonly used to investigate contact dermatitis. Common triggers include fragrances (for example, in soaps), nickel (in jewellery, watch buckles and coins) and chrome (in leathers and bricklayers' cement). Patches are applied to the back in adhesive strips. The area is examined after two and four days. A positive result shows as redness or blisters at the site of a particular substance.

### After a test

After the test, you can expect:

- If you have a skin prick test, your doctor will examine you for signs of an allergic reaction after 20 minutes.
- Patch tests require further visits at two and four days after they are applied.
- The results of blood tests may take up to a week to be known.
- An elimination and challenge diet may take many weeks to provide results.

False reactions can occur with any test, so results need to be assessed in conjunction with your clinical symptoms. Once the offending allergen or allergens are identified, you should try to avoid or reduce exposure to them in future.

### **Possible complications**

Some people with allergies experience severe reactions when exposed to particular allergens. For example, the red weals associated with skin prick tests can be painful, inflamed and irritated.

Some reactions, such as anaphylaxis, are potentially life threatening. It is important that allergy tests are performed by a qualified health professional who can anticipate and treat any allergic reactions you may have.

### **Seek medical help to diagnose allergies**

A number of other tests have been misleadingly promoted to diagnose allergies. Such tests include the cytotoxic food test, the Vega test, bioelectrical testing, hair analysis, pulse test and kinesiology. These tests have not been scientifically validated and the results should not be used for diagnosis or treatment.

Remember, reactions to allergens can be life threatening. Allergy testing should always be conducted under medical supervision.

### **Taking care of yourself at home**

Be guided by your health care professional, but general suggestions for care after allergy tests include:

- If you had skin tests, follow all recommendations given by your doctor.
- If you are following an elimination diet, be careful not to consume any foods or fluids that are not allowed. This may affect the results of the test and you may need to start all over again.

### **Long-term outlook**

Allergy testing can help a person suffering from allergies to discover which allergens trigger their symptoms.

In some cases, an experienced allergist can offer immunotherapy. This exposes a person to increasing amounts of a particular allergen, to a point where they no longer have symptoms when exposed to 'normal' amounts of that allergen or they experience reduced symptoms. Immunotherapy should be conducted only under strict medical supervision.

### **Other forms of treatment**

Other forms of treatment for allergies include:

- Avoiding the allergens
- Taking medications to treat the symptoms, including over-the-counter medications available from your chemist (such as corticosteroid nasal sprays or antihistamines)
- Using corticosteroids and other medications that may be prescribed by your doctor to help manage your symptoms.

### **Where to get help**

- In an emergency, dial triple zero (000)
- Your doctor
- Nutrition Australia Tel. (03) 9650 5165
- Australasian Society of Clinical Immunology and Allergy email: [education@allergy.org.au](mailto:education@allergy.org.au)
- Anaphylaxis Australia Tel. 1300 728 000

### **Things to remember**

- Allergy testing is used to find out which substances provoke an allergic reaction.
- Tests can include skin and blood tests or special diets.
- Allergy tests must be performed by a qualified health professional who can anticipate and treat any allergic reactions.

**This page has been produced in consultation with, and approved by:**

Australasian Society of Clinical Immunology and Allergy (ASCIA)

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