



The Children's Asthma and Allergy Network  
@ The Children's Medical Institute

## ALLERGY TESTS

### WHAT ARE ALLERGY TESTS?

An allergy occurs when the body produces abnormal amounts of antibody (IgE immunoglobulin E). Allergy tests use different methods to measure the amount of IgE.

### WHO SHOULD BE TESTED?

Children who have persistent and difficult to control allergic symptoms should be tested. This includes patients with moderate or severe persistent asthma, asthmatics on high dose steroids, or children with eczema, rhinitis or conjunctivitis that is more than mild in severity. Children in whom the suspicion of an allergy is high but unconfirmed should also be tested. Finally, children who have suspected food allergy, especially those on multiple food restrictions should be tested.

### HOW ARE THE ALLERGY TESTS PERFORMED?

#### • SKIN PRICK TESTS (IN VIVO TESTS)

The skin prick test involves putting a small amount of the suspected allergen on normal skin and using a small needle to prick the skin. This test is safe and painless, It can be done on patients of any age, even in newborns.

#### • Pre-requisites •

- The indent child should not be taking any short-acting anti-histamines (chlorpheniramine, hydroxyzine, promethazine) for three days or longer-acting antihistamines (levocetirizine, desloratadine) for one week before the test.
- Sufficient area of normal skin not affected by eczema.

#### • BLOOD TESTS (IN VITRO TESTS)

The blood test involves obtaining a small sample of blood from the child and testing to see if the child is allergic to common allergens. This test is not as sensitive as the skin test, and is more expensive and involves blood taking. However, it is suitable for patients who cannot be taken off anti-histamines or those with acute eczema.

### WHICH TEST IS BETTER, THE SKIN PRICK TEST OR BLOOD TEST?

Each test has its advantages. The skin test is a good initial screening test that is quick, safe and inexpensive.

### HOW ACCURATE ARE THE TESTS?

These tests have a good negative predictive value (meaning that a negative test indicates the substance is not causing the allergy). However, the positive predictive value is low (meaning that a positive test is not always accurate). Your doctor is the best person to interpret the test(s) for you. Based on his/her judgement, your doctor may perform more tests. The range of allergens used in SPTs and the technique are very important to obtain accurate results. Inappropriate allergen selection and improperly done tests can result in false positive and false negative results that are confusing to interpretor.

### WHAT TESTS ARE AVAILABLE AT NUH?

We have a wide range of food allergens, inhaled allergens (such as house dust mites) and medications that we can test for. Tests can also be custom-made for unusual foods and drugs.

