

Allergy Testing

Skin Tests

Skin tests, first developed almost a century ago, are still the mainstay of allergy testing. They are easy and safe to do, give fast results, and are relatively inexpensive, which makes them the best way to start looking for specific allergies.

In performing *scratch* skin tests, drops of allergen extracts (eg, pollens, dust mites, molds, animal dander, foods) are allowed to seep through shallow scratches made in the patient's skin. The tests can also be performed by the deeper, *intradermal* technique, in which extracts are injected under the skin. There are pros and cons to both testing methods. Scratch tests are painless and very easy to do. They are somewhat less sensitive than intradermal tests; they are also less likely to cause a severe reaction in someone who is highly allergic. The intradermal tests, which let the allergen extracts penetrate deeper into the skin, are highly sensitive, but they can occasionally result in false-positive reactions. Your physician may decide to start with scratch tests, and then go on to intradermal testing if further information is needed. Before testing, your doctor will ask you not to give your child any antihistamines for 3 to 5 days, as they will interfere with the results of the tests.

If your child has formed specific IgE antibodies through earlier exposure to one of the substances being tested, the skin test area will redden and swell into a disk that looks like a mosquito bite around the puncture site. This skin reaction usually peaks within 15 to 20 minutes after the test extracts are applied, and then gradually clears up. The skin where the tests were done may feel itchy for a few hours.

Interpreting Tests

Although a positive result to scratch or intradermal skin testing strongly suggests that your child has formed IgE antibodies against a specific allergen, it does not follow that your child will definitely develop allergy symptoms when exposed to that particular allergen in the environment. As a rule, the bigger the skin test reaction, the higher the chances are that your child is allergic and will sneeze, itch, or break out in a rash. However, in some cases the skin reaction is trivial while the symptoms are overwhelming, and vice versa. Further, even though your child may have diminished symptoms as he gets older, the skin test result can remain positive.

This Is Only a Test

Many parents and children are afraid of having allergy skin testing because they've heard false reports that it is painful and upsetting. Scratch tests, the form of testing most often used in children, are mostly painless because they are done on the surface of the skin, where there aren't any nerve endings to register pain. Furthermore, new test devices are available that can do up to 8 tests at a time and allow scratch testing to be done quickly and without injury. The intradermal technique uses a very fine needle to penetrate the surface of the skin. It is "felt" a little more than scratch testing but is still not very painful.



Many people also falsely believe that children have to reach a certain age before they can be tested. In fact, age is no barrier to skin testing; positive results can be obtained at any age. For example, in infants and toddlers who have eczema and suspected food allergy, skin tests often reveal sensitivity to milk or egg. Once parents have this information, they can keep those foods out of their child's diet to control allergy symptoms.

Blood Tests for Allergies

Instead of skin tests, your pediatrician may order a blood test that has various names, including the immunocap test, or radioallergosorbent test (RAST). The specific IgE blood test is especially useful if skin tests cannot be done because, for instance, a child has eczema over much of his body or cannot be taken off medication that interferes with skin testing. This blood test shows specific sensitivities, as skin tests do, but does so by detecting the presence of allergy antibodies circulating in the blood. If antibodies are in the blood, it usually means the same antibodies are also in other tissues. The method is not quite as versatile as skin testing because certain extracts are not available for measuring specific IgE using this technique. For example, a specific IgE blood test cannot be used to detect sensitivity to medications and is rarely used to detect insect venom allergy. However, the specific IgE blood test, in general, is adaptable and sensitive enough to detect a wide range of allergies.

The procedure costs more per test than skin testing. It requires only a few minutes of the patient's time to draw a blood sample and there is no risk of any allergic reaction. The results take from 3 to 5 days, whereas skin test results are available immediately.

Source: Guide to Your Child's Allergies and Asthma (Copyright © 2011 American Academy of Pediatrics)

