

1400 Philadelphia Pike Suite A4 Wilmington, DE 19809 Phone: (302) 375-6746

Fax: (302) 375-6822

# Allergy Skin Testing Fact Sheet

During allergy skin tests, your skin is exposed to suspected allergens and is then observed for signs of an allergic reaction. Along with your medical history and physical examination, allergy skin testing may be able to determine whether or not a particular substance you touch, breathe or eat maybe related to your symptoms. Information from allergy skin testing may help your healthcare provider develop an allergy treatment plan that includes allergen avoidance, allergy medications and/or allergy shots/immunotherapy.

Allergy skin tests are widely used to help diagnose allergic conditions, including:

- Hay fever (allergic rhinitis)
- Allergic asthma
- Atopic dermatitis (eczema)
- Food allergies

- Penicillin allergy
- Bee venom allergy
- Latex allergy

Allergy skin testing is generally safe. In certain circumstances, though, allergy skin testing isn't recommended. Your healthcare provider may advise against allergy skin testing if you:

- Have ever had a severe life-threatening allergic reaction or anaphylaxis.

  You may be so sensitive to certain substances that even the tiny amounts used in allergy skin testing could trigger anaphylaxis.
- Take medications that could interfere with test results, which you cannot stop.
   These include allergy antihistamines, tricyclic antidepressants, and heartburn antihistamine medications. Your healthcare provider may determine that it's better for you to continue taking these medications than to temporarily discontinue them in preparation for allergy skin testing.
- Have certain skin conditions making testing unfeasible.

  If severe eczema or psoriasis affects large areas of skin, especially on your arms and back where allergy testing would be placed, there may not be enough clear, uninvolved skin to do an effective test. Other skin conditions, such as dermatographism or writable skin, can cause unreliable test results.

Blood testing or serum IgE (the blood antibody associated with allergy) testing can be useful for those who shouldn't undergo allergy skin testing. Blood testing isn't done as often as allergy skin testing because it can be less sensitive than allergy skin testing and are more expensive. In general, allergy skin testing is most reliable for diagnosing allergies to airborne substances/aeroallergens such as pollen, pet dander, and dust mites. Allergy skin testing may help with the diagnosis food allergies; however, additional testing maybe required due to the complex nature of food allergy. A positive allergy skin testing result or blood test result supports sensitization to that allergen. Sensitization is the precursor to allergy. Allergy occurs when a person is sensitized to the allergen and experiences allergic symptoms when exposed to the substance.

The most common side effect of allergy skin testing is red, itchy, swollen bumps known as wheals at each testing site. These wheals may be most noticeable during the test; however, in some people an area of swelling, redness and itching may develop a few hours after the test and persist for as long as a couple of days. Rarely, allergy skin testing can produce a severe, immediate allergic reaction, so it's important to have allergy skin testing performed at a medical office where appropriate emergency equipment and medications are available. Before recommending an allergy skin test, your healthcare provider will ask you detailed questions about your medical history, your signs and symptoms, and your usual way of treating them. Your answers can help your healthcare provider determine if allergies run in your family and if an allergic reaction is most likely causing your symptoms. Your healthcare provider will also perform a physical examination to search for additional clues about the cause of your signs and symptoms.

Before scheduling an allergy skin test, be sure to bring a list of all your prescription and over-the-counter medications. Some medications can suppress allergic reactions, preventing the allergy skin testing from giving accurate results. Because medications clear out of your system at different rates, your healthcare provider may ask that you stop taking certain medications for up to 5 days. Medications that can cause a false negative (missed) allergy skin testing result include:

## Prescription antihistamines:

Such as levocetirizine (Xyzal), desloratadine (Clarinex), etc.

Such as fluticasone/azelastine (Dymista), azelastine (Astepro, Astelin), olopatadine (Patanse, Patanol, Pataday, Pazeo)

These can be stopped 5 days prior to allergy skin testing, if able. Allergy skin testing can be rescheduled to a different time of the year when you can be off these medications, if needed.

#### Over-the-counter antihistamines:

**S**uch as loratadine (Claritin, Alavert), diphenhydramine (Benadryl, others), chlorpheniramine (Chlor-Trimeton), cetirizine (Zyrtec, others) and fexofenadine (Allegra), etc.

Please pay attention to night-time sleep aids, since they usually contain diphenhydramine!

These can be stopped 5 days prior to allergy skin testing, if able. Allergy skin testing can be rescheduled to a different time of the year when you can be off these medications, if needed.

#### Tricyclic antidepressants:

Such as nortriptyline (Pamelor), desipramine (Norpramin), amitriptyline (Elavil), doxepin, amoxapine, clomipramine (Anafranil), etc.

These medications cannot be stopped without consulting the prescribing healthcare provider due to risk of withdrawal side effects.

## • Certain antihistamine heartburn medications:

Such as cimetidine (Tagamet), ranitidine (Zantac), famotidine (Pepcid), etc.

These medications can be stopped 5 days prior to allergy skin testing, if able.

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#### The asthma medication omalizumab (Xolair).

This medication can disrupt allergy skin test results while currently taking and for six months or longer after cessation.

\*\*When in doubt if a medication you are taking might interfere with allergy skin testing, please notify the healthcare provider so that he/she may determine. \*\*

Allergy skin testing is usually done at a medical office. Office medical staff administer the test, and the healthcare provider interprets the results. Typically, this test takes about up to 60 minutes. Allergy skin testing for aeroallergen and foods detect immediate allergic reactions, which develop within minutes of exposure to an allergen.

### Skin puncture testing

A skin puncture test, also called a prick or scratch test, checks for immediate allergic reactions to as many as 40 different substances at once. This test is usually done to identify allergies to pollen, mold, pet dander, dust mites and foods. In adults, the test is usually done on the forearm; while in children the test is usually on the upper back. Allergy skin testing isn't painful, but there will be some irritation and itching. This type of testing uses tiny needles or lancets that barely penetrate the top layer of skin.

After cleaning the test site with alcohol, the office medical staff numbers your skin and punctures with each allergen next to the assigned number. To see if your skin is reacting normally, two additional substances are punctured into your skin's surface:

- **Histamine or the positive control.** In most people, this substance causes a skin response seen with allergy. If you don't react to histamine, your allergy skin test may not reveal an allergy even if you have one.
- Saline or negative control. In most people, this substance doesn't cause any reaction. If you do react to the negative control, you may have sensitive skin. Test results will need to be interpreted cautiously to avoid false positive (erroneous) results.

About 15 minutes after the skin punctures, the office medical staff measure your numbered skin sites for an allergic reaction. If you are allergic to one of the substances tested, you'll develop a raised, red, itchy bump or wheal that may look like a mosquito bite. Once all tested sites are measured, your skin will be wiped with alcohol to remove the marks.

# Skin intradermal testing

If you have negative aeroallergens at puncture, you may have them repeated at the next testing level or intradermal. Foods are not tested at intradermal level due to the risk of anaphylaxis. Intradermal testing uses a needle to inject a small amount of allergen extract between the top layers of your skin. Other than requiring a needle, the procedure for completing and measuring intradermal testing are identical to puncture.