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## **SKIN TESTING AND MEDICATION**

The performance of successful skin testing requires the absence of antihistamines from the bloodstream. As some antihistamines take longer to be eliminated from the body, you may have to stop taking these allergy medications several days to several weeks prior to skin testing.

<b>ANTIHISTAMINE</b>	<b>Number of Days to Stop Before Testing</b>
<b>Allegra (fexofenadine) or Allegra-D</b>	7
<b>Astelin Nasal Spray (azelastine)</b>	3
<b>Axid (nizatidine)</b>	2
<b>Bonine (meclizine)</b>	2
<b>Brompheniramine (Alka-Seltzer Plus, Contac, Dimetane, Dimetapp, Vicks Dayquil)</b>	2
<b>Chlorpheniramine (Allerest, Comtrex, Contac, Coracidin, Sinarest, Sinutab, Theraflu, Triaminic, Pediacare, Tylenol Allergy, Tylenol Cold, Vicks 44)</b>	2
<b>Claritin (loratidine) or Claritin D or Claritin D24</b>	7
<b>Diphenhydramine (Actifed, Benadryl, Benylin, Tylenol Allergy, Tylenol Flu, etc.)</b>	2
<b>Dramamine (diphenhydramine)</b>	2
<b>Hydroxyzine (Atarax, Vistaril)</b>	2
<b>Pepcid (famotidine);</b>	2
<b>Periactin, cyproheptadine</b>	2
<b>Phenergan, promethazine</b>	2
<b>Semprex (acrivistine)and Semprex-D</b>	2
<b>Tagamet, Cimetidine</b>	2
<b>Tavist (clemastine) and Tavist-D</b>	2
<b>Trinilin (azatadine)</b>	2
<b>Zantac (ranitidine)</b>	2
<b>Zyrtec (cetirizine)</b>	7
<b>Any antihistamine not listed above. Check <u>all</u> over-the-counter cold or allergy remedies.</b>	2

**Beta-blockers** are medications used to treat high blood pressure, certain heart problems, and migraine headache. Beta-blockers increase the risk of an adverse reaction during skin testing. If you are taking a beta-blocker and are unable to stop it for forty-eight hours before skin testing, it will be necessary to perform an allergy blood test to evaluate your allergic problems. This class of medication includes: **Betapace, Blocadren, Brevibloc, Cartrol Filmtabs, Inderal, Inderide, Kerlone, Levatol, Lopressor, Sectral, Tenoretic, Tenormin, Timolide, Toprol-XL, Zebeta, Ziac.**

**DO NOT STOP TAKING CORTICOSTEROID NASAL SPRAYS, NASOCROM, OR ANY MEDICATION PRESCRIBED FOR ASTHMA.**

Steven Machtinger, M.D.

[skintesting:antihistamines]



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Fellow American Academy of Allergy, Asthma, & Immunology . Consultant in Allergy and Asthma of Children and Adults

### All About Skin Testing: A Letter from Your Doctor

Why have you come to see me? Your mom or dad, or your doctor, thinks that you have a problem with allergies. Allergies don't cause infections like germs do but they can make you feel sick. Allergies in your nose make it stuffy, runny, and sneezy. You may want to rub it all the time to make the itching stop. Eye allergies make your eyes itch, burn, and tear. Allergies in your lungs are called asthma (say AZ-mah). If you have asthma, you cough when you run hard and sometimes even when you're just sitting around. Coughing may wake you up at night. Sometimes, you may feel like there's a heavy weight on your chest making it hard to breathe. Allergies can also effect your skin and your stomach. Some kids have just one kind of allergy. Others have several kinds at the same time. You might have had one type of allergy when you were younger, and a different kind now.

You came here for several reasons. I can help you figure out if the reason why you feel sick is because of allergies. If it is, then we'll figure out the kind of allergies you have. Next, we'll figure out what you are allergic to. You can be allergic to many different things. Some of these things you see everyday like trees, grass, pets like cats and dogs, insects, and foods like peanuts and eggs. Other things are all around us but they're so small you may not have noticed them like mold and a very tiny animal called a dust mite. If you don't have allergies, being around these things won't make you sick. Once we determine what type of allergy you have and what's causing you to feel sick, we can plan how to make you feel better.

Working as an allergy doctor is a lot like being a detective. We have to look for clues to help decide which things that can cause allergy are responsible for making you feel sick. After the nurse has measured your height, weight, blood pressure, and heart rate, I'll ask you and your parent many questions about you and how you got sick. You may also have filled out a question sheet about you that came in the mail. The story of how you get sick and exactly how you feel when you are sick is very important. Try to remember everything you can. Next, I'll examine you for signs of allergy. I'll look at your skin and in your eyes, ears, mouth, and even your nose. I'll listen to your chest while you breath deeply in and out. Then, you'll be ready for some tests.

Breathing tests measure how well your lungs work. This is a test that you will enjoy. You'll blow into a white cardboard tube connected to a computer. On the computer screen is a birthday cake with twelve candles. With one breath try to blow out as many candles as you can. Here's the secret. Take a really deep breath. Place the end of the cardboard in your mouth and seal your lips around it. When the nurse says "Go!", blow as hard as you can for as long as you can. Watch the candle flames go out one by one. Remember to wait for the nurse to say "Go!". Don't worry if you can't blow all the candles out. You'll get a few tries. If you still can't blow out ten or more candles, you'll breath a special medicine through a machine called a nebulizer. The medicine will make your lungs work better if you have asthma. It comes out of a tube in the nebulizer and looks like mist. The medicine won't hurt you. Place the tube in your mouth and breathe deeply and slowly. It will take about ten minutes to breathe all of the medicine. If you feel a little dizzy, stop breathing the mist for a few minutes. When you're done, you can try to blow out all candles on the cake again.

Skin tests are to allergy doctors as fingerprints are to detectives. A positive skin test means that we may have identified an allergy culprit that is making you feel sick. A negative skin test means that the substance tested cannot harm you. Here's how skin tests work. Little drops of liquid are placed on your arms or back. Each drop contains a different allergy substance. The skin under the drop is pricked with a plastic point. This lets a very small amount of the allergy substance get under your skin. When you have an allergy to the tested substance, allergy cells in your skin called mast cells are activated. The activated mast cells cause a little red, itchy bump to appear at the test spot. The bump looks and feels like a mosquito bite. Don't worry, it will only last for an hour or two. The bigger the itchy bump, the more allergic you are to the test substance. If you're not allergic to the substance no bump appears. It's as simple as that.

No one likes being pricked over and over again even with a plastic point. That's why we use a special testing device called the multitest. The multitest has eight legs and each leg has a pod foot. Each foot is loaded with a different drop of allergy substance. After your skin is cleaned with alcohol and a cotton ball, the multitest is placed on a clean area and massaged into the skin. It takes about two seconds to get eight skin tests on. It feels like something between a prick and a tickle; we call it a prickle! Most kids don't think it hurts or, if it does, just a little and only for an instant. If you're worried that the test might hurt, try this. When the nurse is about to apply the multitest onto your skin she'll say "1..2..3!". When she says "three", you say "eeeeeeee..." as she places the multitest on your skin. Some kids say that helps a lot so it's worth a try. With your help this part of the test takes about one minute.

Now that all the tests are on your skin, you'll have to remain still for about twenty minutes. You may want to scratch any itchy spots that appear. Don't do it! Ask your parent to blow on the spot instead. After twenty minutes, we'll come in to the room, wipe off all the drops of liquid and grade the tests. Each test is graded from zero to four. A score of three means that you have an allergy to the test substance. A score of four means you have an even bigger allergy to the substance. A score of two is uncertain while a score of one or zero means you don't have an allergy to the test substance. All the test results are recorded on a test score sheet. You get a copy of the test score sheet to keep. After grading the tests we'll wash off your back with a little alcohol. That will feel cold. Then we apply an anti-itch cream to any itchy spots. Now you can scratch if you want.

Sometimes an X-ray is needed to complete our detective work and, once in a while, a blood test. After all the tests are complete, I'll sit down with you and your parents to discuss the best way to make you feel better. That's a good time to ask questions, but you can ask questions at any time. It's interesting and fun to find out about what's happening to your body that makes you feel sick. It's even more interesting to find out how to make your body well. My staff and I hope that you will want to help us discover the best way to make you feel well and keep you healthy.

Your allergy doctor,



Steven Machtinger, M.D.

[skintestpediatric.1]



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### ALLERGY SKIN TESTS

#### What are allergy skin tests?

Skin tests are a medical procedure used in an allergy evaluation to provide several types of information.

Skin tests may:

- (1) help confirm that a person's symptoms are due to allergies
- (2) determine the cause of the allergic symptoms
- (3) help direct avoidance measures to relieve allergy symptoms
- (4) determine the ingredients to be placed in allergy injections (immunotherapy).

#### How are skin tests performed?

Two types of skin tests may be performed. The preliminary test is called an intracutaneous test (commonly called a prick test). Small drops of solutions, each containing a different protein substance (*allergens*), are placed on the arms or back. These allergens are derived from plant pollens, animal skin or saliva, mold spores, insects, foods, or antibiotics. The skin under each drop of solution is gently abraded with a sterile, plastic device. If you are allergic to a specific substance, mast cells in the skin will release histamine. The histamine causes local nerve endings to send a message to the brain perceived as itching. At the same time, small amounts of plasma (the liquid part of the blood) leaks from blood vessels near the mast cells. This results in local swelling and redness. This positive reaction resembles a mosquito bite. It may persist for a few hours. Nothing happens at the site of negative reactions.

Intradermal tests are performed only on the arms. In this test the allergenic substances are deposited under the superficial outer layer of skin using a syringe and a very small needle. Intradermal tests are more sensitive than intracutaneous tests but they are a little less specific. This means that some positive tests may not be clinically relevant. Quality control tests to establish the appearance of both a negative and a positive reaction on your skin are performed for both intracutaneous and intradermal tests.

#### How are test results recorded and interpreted?

A positive test is one that has a central bump (*wheal*) surrounded by a red, itchy spot (*flare*). Positive intracutaneous tests are graded at "3+" and "4+". A "3+" test is about the size of the positive control while a "4+" is considerably larger. Tests graded at "0" to "1+" are considered negative. Two plus results are indeterminate requiring an intradermal test for confirmation. Intradermal tests are measured in the diameters of both their wheals and flares. These are compared to the positive and negative control tests. A positive skin test does not necessarily indicate that the test substance is the cause of your allergy problem. Each test must be interpreted in terms of the allergy history.

#### How much time is required for testing?

Tests are read about twenty minutes after they are placed on or under the skin. Allow an hour or more for preparation and interpretation, especially if intradermal tests are performed immediately after intracutaneous tests.

#### Are tests painful?

Intracutaneous tests prickle rather than inducing pain when placed on the skin. Intradermal tests often sting a little. It's similar to having a splinter removed. Once tests are in place, you may experience itching but you won't have any additional pain. We apply a small amount of anti-itch cream at the end of the procedure to reduce itching.

**Is testing safe?**

Severe local or systemic reaction or infection due to intracutaneous testing is extremely rare. Local reactions to intradermal tests, especially with mold allergens, may persist for several days and may be uncomfortable. Systemic reactions which include hives throughout your body, wheezing and trouble breathing, or a severe allergic reaction termed anaphylaxis occur uncommonly with intradermal testing. **Patients at highest risk for such reactions are those with asthma who are actively wheezing.** For that reason, I listen to the chests of all patients before beginning allergy testing. If any question persists, spirometry, a measure of lung function, will be performed prior to testing.

**Can pregnant women be tested?**

Our policy is not to test women during pregnancy. If you are pregnant or think you might be pregnant, please tell us prior to beginning skin testing.

**When should I not be tested?**

**Persons with asthma who are wheezing or coughing should not be tested unless I determine that your lung function is adequate for safety.**

Persons taking **beta blockers**, a type of medication for high blood pressure, run a higher risk of systemic reactions. Please inform us if you are taking any medication for high blood pressure.

**Antihistamines** may interfere with interpretation of tests and need to be avoided for a variable amount of time prior to testing. **Claritin, Allegra, Seldane, and Zyrtec** should be stopped one week before testing. **Hismanol** should be stopped at least three weeks before testing. All other antihistamines should be withheld for at least twenty-four hours before testing. Some anti-ulcer medications (**Tagomet, Zantac, Pepcid, Axid**) are antihistamines and should be stopped 24 hours before testing. **Sudafed, and all corticosteroid and bronchodilator sprays** do not affect testing; their use may be continued.

Skin testing is usually not helpful for persons with chronic urticaria.

**Does my referral cover allergy testing?**

Additional approval from your primary care physician and your insurance plan are usually necessary for coverage of testing. That's why we schedule testing for the second visit. Even if you are "covered" you may still have a significant co-pay. We will assist you in obtaining authorization. Check with our receptionists

if you have any questions.

**Attestation:**

I have read the above material about allergy skin testing and understand the rationale, potential benefits, and potential risks. I have had an opportunity to discuss any concerns or questions with Dr. Machtinger or his designates and they have been answered to my satisfaction.

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Name (Print)

\_\_\_\_\_  
Signature

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Parent's name, if minor (Print)

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Parent's signature, if minor

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Witness (Print name and title)

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