

Allergy Testing

Allergic reactions play a significant role in a number of rashes. The most obvious is when the substance causing the allergy, called the *allergen*, causes a rash after coming into direct contact with the skin. The rash of 'poison ivy' would be a classic example of this. Another such example would be seen when a metal allergy causes someone to break out when they wear jewelry. These are both examples of a *contact dermatitis* – that is, the breakout is caused by the allergen directly contacting the skin and the rash tends to be limited only to the allergen exposure site.

Another type of allergy occurs when we inhale or ingest an allergen, thereby causing a *systemic* reaction. A common example of 'inhaling' an allergen occurs when a patient feels very itchy and sneezes after mowing the grass and breathing in aerosolized bits of cut grass. An example of 'ingesting' an allergen would occur when someone who is allergic to a certain food, such as peanuts, accidentally eats a meal containing peanuts and then breaks out in hives.

If your doctor is concerned that an allergen might be playing a role with your rash, there are a number of factors that must be taken into consideration:

First, not all rashes are caused purely by an allergen. *Eczema* is a perfect example of a rash which *may* be - but isn't always - aggravated by an allergen. If the doctor feels that the manner in which a patient's *eczema* is flaring suggests that an allergen may be playing a role, then allergy testing may be considered. However, such testing *may* or *may not* prove helpful. The truth is that sometimes rashes will simply flare for a number of reasons *other than allergies*. Even if an *eczema* patient's allergy testing is positive and that allergen is avoided, the patient will likely still break out occasionally, though hopefully not as bad or as often.

Second, not all allergies are tested the same way. If a rash tends to be localized to just one or a few specific areas (and *if* an allergen is playing a role), then it would often be due to a *contact* allergen. If a rash tends to break out 'all over' (and *if* an allergen is playing a role), it may be due to a *systemic* allergen. Testing for these two types of allergens is very different.

Contact allergens are tested by performing what is called a 'patch' test. This involves applying adhesive stickers to the skin which are kept in place for a few days. You can't sweat heavily, get them wet, or perform any activity which might loosen them from the skin. The patches are removed a few days after application, and the sites are then evaluated to see if any areas of the test application are showing a reaction.

Systemic allergens are tested by one of two methods. One method is by 'pricking' the skin with samples of the suspected allergens. This type of testing is usually performed by an allergy doctor.

The other method is by performing a blood test which looks for the levels of your immune system's reaction to specific allergens. Although the 'skin prick' test and the blood test often provide comparable results, the reality is that some patients may show a negative result to one and a positive result with another. When in doubt, patients will sometimes need *both* types of testing to be sure.

Third – and this is important – not all allergens are easily identified. All allergy tests look for reactions to *specific* allergens. For example, a basic food allergy blood test might look *specifically* for reaction to fish, milk, egg, wheat, soy, and peanut - but it won't detect if you're allergic to bananas. To do that, a test would have to be *specifically* ordered to look for that reaction. The typical 'patch' test looks for reactions to the 30 or so most common *contact* allergens – but if you're allergic to a substance which isn't on that test, your results may be negative. Unfortunately, if a patient's traditional allergy testing is negative, but an allergen is still suspected, sometimes the only option available for additional testing is referral to an allergy specialist.

Because of the above issues, **we tend to reserve allergy testing for times when someone has chronic, recurrent dermatitis which isn't easily controlled with occasional use of medication.**

Generally speaking, allergy testing if won't be ordered if...

- 1) You've had a rash for just a few weeks, since the majority of such rashes resolve with treatment and rarely recur.
- 2) You know based on experience which allergen is causing your rash. For example, if you know a certain perfume makes you break out, there's no need to prove the obvious.
- 3) You have a rash which is likely due to an allergy, but you're completely unwilling or unable to make the lifestyle changes necessary to avoid the allergen. For example, consider a patient who works as a mechanic and seems to be reacting to a work-related allergen. If this patient were to tell us that, no matter what the allergy testing shows, he is unwilling or unable to wear gloves, change job duties, etc., then allergy testing is of little benefit. The focus instead for this patient would instead be on *management* of the rash itself. Allergy testing is only beneficial if it results in improving or preventing the rash through avoidance of known allergens or by allowing for allergen-specific treatment measures such as 'allergy shots'.

We've created this handout to help you better understand how and why allergy testing is performed. Your doctor will talk to you about how these considerations may affect your particular situation.