

ALLERGIC CONTACT DERMATITIS DUE TO SHOES

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If your dermatologist or allergist has diagnosed you with a possible allergic reaction to shoes, the information below will provide some suggestions.

What is allergic contact dermatitis (ACD)? Why is it so hard to diagnose?

ACD is a type of allergic reaction. In this type of allergy, a substance contacts the skin, and later results in a rash. The rash from poison ivy is one example. The rash classically occurs 2-3 days later, but it may happen just a few hours later, or one week later. This delay is what makes ACD so hard to figure out.

Once the rash occurs, it may last for weeks, and sometimes up to 8 weeks. People may stop using the offending product for 1-2 weeks, but that's usually not long enough to see results.

What substances trigger shoe allergy?

The most common substances that trigger allergy are found in leather, in leather glues, and in rubber glues. Other triggers may be metals, dyes in the socks or shoes, the chemicals in soaps and moisturizers, and even medications used on the rash [such as antibiotic creams or antifungal creams].

1. Chromates are used in the tanning of leather, and patients with this allergy may react to any type of leather shoe.
2. Rubber chemicals can cause problems because of rubber uppers, rubber insoles, and, most commonly, rubber cement [glues]. These types of glues may be used in all types of shoes. Sometimes they attach the insole to the shoe, and can be scraped off. Other times, though, they're used more widely in the shoe. In one example, a patient reacted to a simple pair of canvas shoes. On a hot day, with sweating, the rubber cement used in the shoe leached out of the shoe. The patient reacted to the rubber cement and developed blisters all over the top of her feet.
3. Another common allergen is a type of glue used for leather [and sometimes vinyl] shoes. [p-tertiary-butylphenol formaldehyde resin]
4. The dyes in the socks or shoes can trigger allergic reactions, especially darker dyes. Metal components of shoes can also trigger reactions.
5. Another important cause of allergic reactions are the chemicals found in soaps and lotions.
6. Finally, rashes can be triggered by topical medications, especially antibiotic creams and even antifungal creams. If a person is allergic to Neosporin [a fairly common cause of allergy] and has been using it on their feet, they can develop a rash on their feet. Even if they stop using the Neosporin, some of it may remain in the shoe, and can still cause problems. With this situation, the only remedy is a completely new pair of shoes.

What can I do to avoid these triggers?

Patients who have a possible shoe allergy can do some detective work at home. It can be difficult to identify the triggering shoe because this type of allergic reaction is delayed. It can occur anywhere from a few hours to 7 days following use of a shoe. Once the rash is there, it can take up to 8 weeks to go away.

1. Your dermatologist will prescribe topical steroid ointments to clear up the dermatitis.
2. Use the medications as prescribed. At the same time, start wearing new shoes only. Completely avoid all of your old shoes. In the next section are some suggestions for “less allergenic” shoes that you can wear until your skin clears up.
3. Once your rash clears up, and stays clear even off of the medicated ointments, you can reintroduce your old shoes.
4. When you start wearing your old shoes again, wear only one pair, one at a time, every one week, to try to identify the culprit.

What shoes can I wear to avoid the common triggers?

1. Shoes that contain less allergens include molded plastic shoes [that do not contain any glues], injection-molded PVC shoes or boots [that don't make use of any glues][lehighsafety.com or galeton.com for PVC work boots], or wooden clogs.
2. Another option is molded polyurethane clogs without glues [Klogs.com].
3. If you suspect a leather allergy, you can easily find non-leather shoes. Online, these can be found as "vegan" shoes.
4. Allergy to glues is more difficult. You can wear molded plastic, molded polyurethane, or molded PVC shoes, or can purchase custom-made leather shoes that don't make use of any glues.
5. If the problem is only on the sole of the foot, you may just need to replace your shoe insole. You can remove the insole and scrape off the adhesive. A replacement insole, such as cork or felt, can be inserted using Elmer's Glue-All.

What else should I do?

Since sweating "leaches" chemicals from the shoes, reducing sweating can help. Some patients find that spray-on anti-perspirant to the soles of their feet can be helpful, as long as it doesn't irritate the skin. Look for ones that contain aluminum chloride hexahydrate (6.25% or 20%). Gore-Tex socks may also help to act as a barrier to the allergens.