

The Doctor is in

Itching To Talk About Eczema

BY DR. DAVID HILL

Winter brings on a rash of eczema. Also called atopic dermatitis, this itchy, scaly skin condition can ruin more than just baby pictures. But simple measures can often minimize or eliminate symptoms. So let's start from scratch.

Who gets eczema?

Atopic dermatitis is terribly common, affecting between eight and twenty-five percent of the population. Most patients show symptoms early in infancy, and the vast majority gets their first outbreak before age five. Girls outnumber boys, but just barely. Eczema is more common in urban areas and developed countries, and it doesn't discriminate by race or country of origin.

What causes it?

Eczema is a form of allergy, closely related to asthma and allergic rhinitis. Many of the same triggers that make these diseases worse also exacerbate eczema. Dust mites, mold, pollen, dander, eggs, nuts, shellfish, wheat, and soy protein have all been implicated. Additionally, anything that compromises skin integrity can worsen inflammation. Soaps, solvents, detergents, and wool clothing all fall into that category. Other causes of skin breakdown include infections with bacteria like *Staphylococcus* or fungi like *Candida*, *Trichophyton*, or *Pityrosporum*. Some patients are sensitive to excessive sweating or even emotional stress.

Once the skin barrier is compromised a vicious cycle starts: the skin itches; the patient scratches; the scratching damages the skin; and the inflammation worsens. The immune system plays a huge role in eczema, largely through excess activation of white blood cells called T-helper type two. Other white blood cells (eosinophils, mast cells) are involved, as well as an antibody called IgE. These pathways are common to all types of allergies, not just eczema.

Some evidence points to other influences on the immune system. Omega-6-fatty acids in the diet help prevent eczema, which is why breastfeeding is protective. Research also suggests that having normal intestinal flora (*Lactobacillus*) is one genus that populates the healthy gut) may prevent the development of eczema.

Diagnosis:

The eczema rash usually appears as dry, scaling patches often with tiny bumps. The

borders are usually vague, although "nummular" eczema may mimic ringworm. Infants and young children tend to get patches on the cheeks, chest, and back. Older children may have rough thickened skin over the folds of the elbows or knees. Dark-complexioned patients may develop patches of lighter skin (*Pityriasis alba*). Itching is very common. Severe cases are often complicated by staph or strep infections, giving the patches a yellowish weeping or crusty appearance. Most patients have either a personal or family history of allergic rhinitis, asthma, or eczema.

There are no laboratory tests to confirm or rule out eczema, although elevations of IgE or eosinophils in the blood may be suggestive. Severely affected patients may undergo allergy skin testing or blood testing (RAST) to identify specific triggers. Several other rashes may mimic eczema, including ringworm, contact dermatitis, psoriasis, and scabies.

My child has eczema. What should I do?

The most important step is to protect or restore the skin's natural oily barrier against irritants. This means bathing your child less often whenever practical. Many soaps can be quite drying and may contain irritating scents or colors. Cetaphil, Oil of Olay, Aveeno, and Dove are gentler alternatives. You may also whisk a little mineral oil into the bathwater. Be careful to pat, rather than rub the skin dry to avoid irritation.

A moisturizer should go on within three minutes of the bath. The best moisturizers are thick and devoid of artificial scents or colors. Aquaphor, petrolatum (Vaseline), or even Crisco will work, but some people find them too greasy. Lighter alternatives include Eucerin, Neutrogena, Aveeno, or Curel creams or lotions. As a general rule, the thinner the moisturizer the less effective it will be.

I tried moisturizing, but the rash is still bad. What now?

For severe eczema, topical corticosteroids remain the key to therapy. All work by suppressing the body's immune response. Usually very little steroid is absorbed into the bloodstream, so side effects are minimal. But prolonged use of strong steroids can lead to permanent changes in the skin, so ideally we minimize the potency and

duration of steroid therapy. Often over-the-counter hydrocortisone cream or ointment is strong enough to treat an eczema flare. But if this fails, your doctor may prescribe a more potent topical steroid (triamcinolone, betamethasone, and mometasone are examples).

A newer class of immunosuppressive drugs, the calcineurin inhibitors, has also proven effective in treating eczema. There are two: tacrolimus and pimecrolimus (Protopic and Elidel). Both drugs carry an FDA warning about a possible risk of skin cancer or lymphoma, although this risk remains controversial and poorly defined. The FDA does not recommend either cream for children under two years of age or for prolonged use.

It's also important to treat underlying conditions that may worsen eczema. Antihistamines can help stop the itch-scratch cycle, although they have potential side effects of somnolence or agitation, especially in children. Oral or topical antibiotics may be needed to clear up associated skin infections. Antifungal creams may also help, especially at the scalp and neck.

Non-pharmacologic measures that may help include ultraviolet light exposure and dietary supplementation with *Lactobacillus*. Allergy testing may help with diagnosis and allergy avoidance, but immunotherapy (allergy shots) doesn't seem nearly as effective for eczema as for allergic rhinitis and asthma.

Will my child have eczema his or her whole life?

The good news is that the majority of patients do outgrow their eczema by adulthood. In twenty to forty percent, however, the condition may recur.

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