What kinds of treatments help?

MOISTURIZERS. Ointments such as petroleum jelly are best unless they're too thick and cause discomfort. Creams may be fine for moderately dry skin or in hot, humid weather. Apply them to wet skin, immediately after bathing. Lotions are not rich enough and often have a net drying effect on AD skin.

CORTICOSTEROIDS. Often called topical ("applied to the skin") steroids, these are cortisone-like medications used in creams or ointments that your doctor may prescribe (e.g. hydrocortisone, mometasone, desonide, triamcinolone). They are not the same as the anabolic steroids some athletes misuse. Corticosteroid medicines are very helpful. Often they are the only treatment that can calm the inflamed skin. Use of steroid ointments and creams requires good judgment and careful supervision. They come in many strengths from mild to super-potent. Hydrocortisone, a very mild steroid, is quite safe. The more potent ones can cause thinned skin, stretch marks and even growth retardation or suppression of the adrenal gland if used too many days in the same areas of the body. Parents should monitor the child's use. Ask the doctor about potency and side effects of prescribed corticosteroid medicines and follow the product insert instructions carefully.

Topical Immunomodulators (TIMs)

This family of topical medications has been available for the past 10 years. TIMs work to inhibit the skin's inflammatory response (which is what causes the redness and also contributes to itching). At this time there are two FDA approved non-steroid drugs: tacrolimus and pimecrolimus. TIMs are not steroids and do not cause thinning of the skin but they can suppress the immune system in the skin so that the use of sun protection for the children receiving this therapy is recommended.

For children less than two years of age these medications are only used off-label and as always, with any medication, they should be used with careful supervision of a physician. Tacrolimus and pimecrolimus both currently have a "black box" warning, which is a precautionary statement given to the medication by the Food and Drug Administration.

TAR PREPARATIONS. Tar creams or bath emulsions can be helpful for mild inflammation.

ANTIBIOTICS. Oral or topical antibiotics reduce the surface bacterial infections that may accompany flares of AD.

ANTIHISTAMINES. Often prescribed to reduce itching, these medicines may cause drowsiness but seem to help some children, largely due to their sleep-inducing side effects.

When will my child outgrow atopic dermatitis?

For any given child, it is difficult to predict. The majority of babies with AD will lose most of the problem by adolescence, often before grade school. A small number will have severe AD into adulthood. Many have remissions that last for years. The dry skin tendency often remains. Most people learn to use moisturizers to keep their dermatitis controlled. Occasional episodes of AD may occur during times of stress or with jobs that expose the skin to irritants and wet work.

National Eczema Association

For a complimentary copy of the NEA quarterly magazine, *The Advocate*, and an eczema information package, please contact us. We are always here to help!

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This information sets forth current opinions from recognized authorities, but it does not dictate an exclusive treatment course. Persons with questions about a medical condition should consult a physician who is knowledgeable about that condition.

The National Eczema Association (NEA) improves the health and quality of life for individuals with eczema through research, support, and education. NEA is entirely supported through individual and corporate contributions and is a 501(c)(3) tax-exempt organization. NEA is the only organization in the United States advocating solely for eczema patients.

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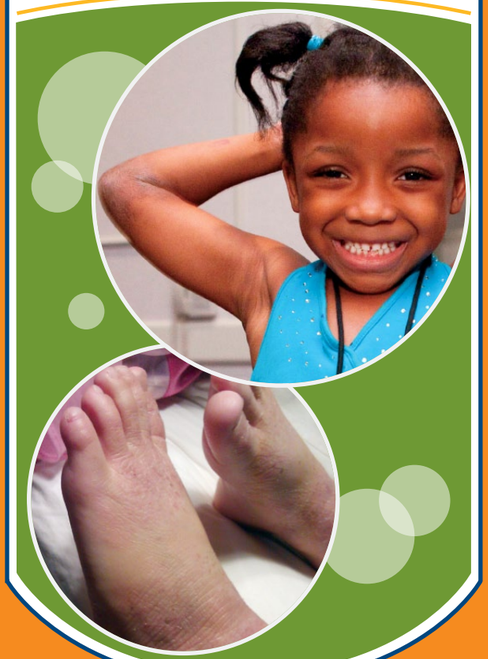
ATOPIC DERMATITIS *in* CHILDREN



National Eczema Association

Atopic Dermatitis in Children

Atopic dermatitis (AD), often called eczema (pronounced "EK-zema") or atopic eczema is a very common skin disease. It affects around 10% of all infants and children. The exact cause is not known, but AD results from a combination of family heredity and a variety of conditions in everyday life that triggers the red, itchy rash.

How do we know if it's atopic dermatitis?

1. **TIME OF ONSET.** This type of eczema usually begins during the first year of life and almost always within the first five years. It's seldom present at birth, but it often comes on during the first six weeks. Other rashes also can start at any time, but most rashes disappear within a few days to weeks. AD tends to persist. It may wax and wane, but it keeps coming back.
2. **ITCHING.** Atopic dermatitis is a very itchy rash. Much of the skin damage comes from scratching and rubbing that the child cannot control.
3. **THE LOCATION OF THE RASH** can also help us recognize AD. In babies, the rash usually starts on the face or over elbows and knees, places that are easy to scratch and rub. It may spread to involve all areas of the body, although moisture in the diaper region protects the skin barrier. Later in childhood, the rash is typically in the elbow and knee folds. Sometimes it only affects the hands, and at least 70% of people with AD have hand eczema at some time in their life. Rashes on the feet, scalp or behind the ears are other clues that might point to AD. Be advised, though, that these symptoms may also indicate other conditions, such as seborrheic dermatitis.
4. **THE APPEARANCE OF THE RASH** is probably the least helpful clue, because it may be very different from one person to another. Scratch marks are often seen, along with scaly dry skin. The skin may become infected and show yellow crusts or little, pinpoint, pus-containing bumps. The skin also may thicken from long-term scratching and rubbing.
5. **HEREDITY.** If other family members or relatives have AD, asthma or hay fever, the diagnosis of AD is more likely.

THE BOTTOM LINE: Be sure to get your child diagnosed by a physician before assuming that the condition is atopic dermatitis.

The Atopic Triad

AD falls into a category of diseases called Atopy, a term originally used to describe the allergic conditions asthma and hay fever. AD was included in the atopic category because it often affects people who either suffer from asthma and/or hay fever or have family members who do. Physicians often refer to these three conditions as the "atopic triad."

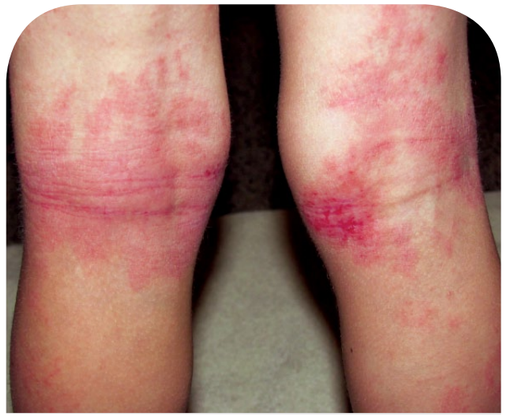
Does it run in families?

AD is a familial disease, though the exact way it passes from parents to children is unclear. If one parent has AD, or any of the other atopic diseases (asthma, hay fever), the chances are about 50% that the child will have one or more of the diseases. If both parents are atopic, chances are even greater that their child will have it. However, the connection is not an absolute one: As many as 30% of the affected patients have no family members with any of these allergic disorders.

What causes atopic dermatitis?

AD is not contagious. People with AD cannot "give" it to someone else.

AD inflammation results from too many reactive inflammatory cells in the skin. Research is seeking the reason why these cells over-react. Patients with AD (asthma or hay fever) are born with these over-reactive cells. When something triggers them, they don't turn off as they should. We try to control AD by controlling the trigger factors that "turn on" inflamed skin, or by "damping the flames" with anti-inflammatory therapies.



What are trigger factors?

Trigger factors may be different in different people. Most children get worse when they get a cold or other infection. Most have worse problems in the winter; but others simply cannot stand the sweating during hot, humid summer weather. Let's look at the trigger factors that seem to affect every child with AD.

DRY SKIN. The skin's main function is to provide a barrier against dirt, germs and chemicals from the outside. We don't notice this barrier unless it gets dry, and then it's scaly rough and tight. Dry skin is brittle - moist skin is soft and flexible. People with AD have a defect in their skin so it won't stay moist. It is especially bad in winter when the heat is on in the house and the humidity drops. Other things that dry the skin are too much bathing without proper moisturizing. The challenge: Prevent skin dryness.

IRRITANTS. Irritants are any of the substances outside the body that can cause burning, redness, itching or dryness of the skin. The challenge: Avoid irritating substances.

STRESS. Emotional stress comes from many situations. People with AD often react to stress by having red flushing and itching. Special problems for children with AD include frustration, anger or fear. And, of course, AD itself, and its treatments, are a source of stress! The challenge: Recognize stress and reduce it.

HEAT AND SWEATING. Most people with atopic dermatitis notice that when they get hot, they itch. They have a type of prickly heat that doesn't occur just in humid summertime but anytime they sweat. It can happen from exercise, from too many warm bedclothes, or rapid changes in temperature from cold to warm.

INFECTIONS. Bacterial "staph" infections are the most common, especially on arms and legs. Such infections might be suspected if areas are weeping or crusted or if small "pus-bumps" are seen. A common virus infection of children, Molluscum sp., tends to be more severe in children with AD. Molluscum infections look like small bumps, often with a central white core. Herpes infections (such as fever blisters or cold sores) and fungus (ringworm or athlete's foot) can also trigger AD. If some lesions look different ask your doctor. If they turn out to be infected, they can be treated with antibiotics or other, effective medications. These are generally benign, superficial infections for AD patients and they do not seem to be especially contagious for other people. The challenge: Recognize and treat pustules or crusted lesions in consultation with a physician.

ALLERGENS. Allergens are materials (such as pollen, pet dander, foods, or dust) that cause allergic responses. Allergic diseases such as asthma and hay fever, which flare quickly, are easy to tie to allergens. Allergic symptoms, such as itching and hives, appear soon after exposure to airborne allergens and last only briefly. But the slower, continuing, chronic eczema of AD may be difficult to tie to specific allergens. Food allergies can trigger flares, especially for children with moderate to severe AD. Pollens, dust mites, and pets can seldom be shown to trigger eczema in young children. Of the available tests for allergy, scratch tests and RAST tests are only brief reactions and do not diagnose allergen-triggered eczema. Patch tests, by contrast, can diagnose eczema response in some cases such as allergies to skin care products.

Are there other trigger factors?

Children with AD will be helped by reducing the major trigger factors described above. But individuals may be subject to other trigger factors, and it is important to be alert for these as well.

How can you avoid trigger factors?

1. Keep the skin barrier intact. MOISTURIZE!
2. Wear soft clothes that "breathe." Avoid fabrics of wool, nylon, or stiff material.
3. If sweating causes itching, find ways to keep cooler: Reduce exertion, especially during times of flare. Layer clothing and adjust to temperature change. Don't overheat rooms, especially the bedroom. Use light bedclothes.
4. When itching from sweating, dust, pollen or other exposures, take a cooling shower or tub bath, and don't forget to moisturize afterwards, within 3 minutes after the child has been gently toweled. Refer to the NEA Bathing & Moisturizing educational brochure for more information.
5. Learn to recognize signs of infection and treat early.
6. If you suspect food allergy, be systematic. Likely offenders are eggs, milk, peanuts, soy, wheat and seafood, but any food can do it. Can you exclude the most likely offender for a week? Substitute hydrolysate (e.g. Alimentum® or Nutramagen®) for cow's milk formula. Keep a food diary. When the skin clears up, try the food. Watch for signs of itching or redness over the next two hours. Eliminate a food group if it causes hives or face swelling. Don't exclude multiple food groups at the same time – it's rare to have more than one or two food allergies that impact the eczema, and your child can get malnourished with prolonged avoidance of many foods. Always make sure that any food manipulation is performed with the advice of a physician.
7. With allergy-prone kids furry animals are a risk. If you must have pets, keep them outside or at least off beds, rugs and furniture where the child plays. Dust mites collect in bedroom carpets and bedding. Simple control measures include coverings for pillows and mattresses, removing bedroom carpets and frequent washing of bedclothes in hot water.
8. Think about stress-causing events and ways to cope with them. Review problems with your doctor or a mental health professional. Consider clinicians who specialize in approaches including mindfulness. Try to make AD treatments part of a daily, family routine. Encourage children with AD to do what they can on their own.