

Eczema—Causes and Cures

Frances A. Taylor, MA, CHom

ABSTRACT

The term eczema is used for a range of persistent or recurring skin rashes. The form that is classified as atopic dermatitis is the one most often associated with the use of the term eczema. The rash of eczema does not appear unless the skin is scratched. Although it is more common in children, both children and adults can have eczema, and the exact cause is attributed to many different things. In some cases the cause is considered to be unknown. Contributing factors that affect eczema are known and include allergies to pollen, mold, dust, animal dander, food, and tobacco; dry air, particularly winter air, with little moisture; harsh soaps and detergents; coarse fabrics; skin care products that contain alcohol; emotional stress; and excessive heat and sweating. Genetic makeup also plays a role. Because of the broad range of substances that can be treated with NAET®, it is very effective in treating and in most cases, eliminating eczema in all of its forms.

INTRODUCTION

Eczema, a form of dermatitis, is an inflammation of the upper layers of the skin and is broadly applied to a large range of recurring or persistent skin rashes. These rashes are characterized by redness, skin edema, itching and dryness, and are sometimes accompanied by crusting, flaking, blistering, cracking, and oozing or bleeding. Temporary skin discoloration can appear and scarring is rare, but possible in severe cases. Eczema is not contagious and comes and goes in cycles (Lehrer, 2005; Wikipedia, 2007).

Eczema is often referred to as the “itch that rashes,” because the rash does not appear unless the skin is scratched. Scratching does give a sense of temporary relief, but constant scratching can lead to problems. Open sores and fissures can become infected, sometimes with streptococcal or

staphylococcal bacteria. Chronic scratching can cause the skin to thicken and take on a leathery texture. This is called lichenification (American Academy of Dermatology, 2005). The skin can become more pigmented, or in the case of dark skinned people, less pigmented (Krohn and Taylor, 2002). Sometimes the eczema and skin conditions produced by scratching lead to suspicion of home abuse in younger children or self-mutilation in older children (Wikipedia, 2007). Eczema is an irritating, distressing, disfiguring skin condition that can have a profound impact on a person’s mental, physical, and emotional health; life-style; and happiness (Nambudripad, 2001).

As many as 10 percent to 20 percent of the world population is affected by eczema during childhood. One in 10 people in the world will be affected by it at some point in

their lives (Hyde, 2006). In the United Kingdom, up to one-fifth of school age children have eczema as do one in twelve of adults (National Eczema Society, 2007). It is estimated that 15 million people in the United States have this chronic, relapsing, and very itchy rash, and 10 percent to 20 percent of all infants have eczema. In approximately half of these children, the eczema improves by the time they are between 5 and 15 years of age. Others will have it in some form for the rest of their lives (American Academy of Family Physicians, 2006).

CLASSIFICATIONS OF ECZEMA

Eczema is a group of skin conditions and is classified in different ways by different medical groups. The classifications listed below are one of the common ways of classifying eczema (Mayo Clinic, 2005, National Eczema Society, 2007, National Institute of Arthritis and Musculoskeletal and Skin Diseases, 2005, Wikipedia, 2007).

Common Forms of Eczema

Atopic eczema – sometimes called atopic dermatitis. It is the most common type of eczema with the rash particularly noticeable on the face and scalp, neck, inside of elbows, behind knees, and on the buttocks.

Allergic contact eczema – includes allergic dermatitis, irritant dermatitis, and phototoxic dermatitis. Allergic dermatitis is caused by a delayed reaction to an allergen, such as poison ivy. Irritant dermatitis is the most common and is the direct reaction to a substance such as a solvent. Phototoxic dermatitis occurs after exposure to sunlight.

Xerotic eczema – is serious dry skin that turns into eczema. It is worse in dry winter weather and is common among older people.

Seborrheic eczema – causes scaling of the scalp and eyebrows. There can be pimples and red patches, and it affects adults between the ages of 20 and 40. In infants it is a thick yellow crusty scalp rash called cradle cap. It is unpleasant to look at, but does not usually itch.

Less Common Forms of Eczema

Dyshidrotic eczema – is sometimes called housewife's eczema and occurs only on palms, soles, and sides of fingers and toes. Vesicles, tiny opaque bumps, thicken and crack. The itching is worse at night and in warm weather.

Discoid eczema – also called nummular eczema and is characterized by a rash that has clear boundaries. It can be circular and mistaken for ringworm. Usually worse in winter, it can be either an oozing or a dry rash, and is often on the lower legs.

Venous eczema – occurs in cases of impaired circulation and is common in the ankles of people over 50. There is the usual itching as well as redness, scaling, and darkening of the skin.

Dermatitis herpetiformis – is directly related to celiac disease. It manifests as a symmetrical rash on the arms, thighs, knees, and back and is intensely itchy.

Neurodermatitis – a thickened, pigmented eczema patch resulting from habitual rubbing and scratching. There usually is only one itchy spot.

Autoeczematization – a reaction to an infection with bacteria, viruses, parasites, or fungi. The cause determines its appearance, and it always occurs some distance from the original infection.

There are other rare eczematous disorders such as those that result from underlying disease, such as lymphoma, those overlaid by viral infections such as herpes, and malabsorption syndromes.

CAUSES OF ECZEMA

The causes of eczema depend on the type of eczema and are many and varied. The causes given depend on the philosophy of the reporting authority, and many of them say the cause is unknown. A number of health conditions, allergies, genetic factors, physical and mental stress, and irritants can cause dermatitis or eczema (Mayo Clinic, 2005).

Atopic refers to a hereditary tendency to experience immediate allergic reactions because of the presence of an antibody in the skin (American Academy of Dermatology, 2005). Dermatitis means that the skin is inflamed, red, and sore (Homeier, 2005). Atopic dermatitis, or atopic eczema, has genetic implications in that it often runs in families in which other members have hay fever and asthma. It usually begins in infancy and can last through childhood and adolescence. Teens with eczema may be encouraged to know that their eczema usually clears up by age 25 (Hyde, 2006). Stress does not cause atopic dermatitis or eczema, but can exacerbate it. (U.S. National Library of Medicine, 2007, Krohn and Taylor, 2002)

Contact dermatitis results from direct contact with an irritant or allergen. Laundry soap, skin soaps, and cleaning products are frequent culprits. Rubber, metals, jewelry, perfume, and cosmetics can also be allergens. Weeds, such as poison ivy, and topical creams, such as antibiotic creams, can cause a dermatitis. Just a brief exposure to a small amount of an allergen can trigger a dermatitis (Mayo Clinic, 2005). In adulthood eczema can be worsened when there are allergens or irritants in the workplace. There is disagreement over whether irritants are just irritants or are allergens in addition. Itching can be triggered by soaps, detergents, disinfectants, contact with juices from fresh fruits and meats, dust mites, and animal

saliva and danders (American Academy of Dermatology, 2005).

Patients with eczema may have some abnormalities of the immune system that cause a decreased ability to kill bacteria and other organisms. Many people who suffer from eczema have difficulty in converting linoleic acid to gammalinoleic acid. Seborrheic dermatitis is common in people with oily skin or hair. In adults the condition may be caused by yeast growth in which the skin becomes red, inflamed, and starts to flake. Some people with eczema have low stomach acid (Krohn and Taylor, 2002). Impaired circulation, varicose veins, and edema are thought to be the cause of venous eczema and can predispose to leg ulcers. Fluid accumulates in the tissues just under the skin and causes extra pressure against the skin from underneath. This interferes with the ability of the body to nourish the skin (Mayo Clinic, 2005, Wikipedia, 2007).

Allergy plays a role in eczema. Serum IgE (immunoglobulin E) is increased in 80 to 85 percent of patients with eczema and their eosinophils are elevated. They frequently have allergies to foods and pollens that can be demonstrated with testing. Half of children with eczema develop asthma and pollen allergies plague three-fourths of them. Some children have both asthma and pollen allergies. Increased levels of histamine are released by children who eat food to which they are allergic. Food allergen specific T-cells have been cultured from eczema lesions (Krohn and Taylor, 2002).

Children with eczema react to food challenges with itchy, red rashes, hives, flushing, and red skin. They may also have nausea, vomiting, abdominal pain, and diarrhea. Respiratory symptoms, including nasal congestion, rhinorrhea, sneezing, tightness of the throat, hoarseness, and wheezing are also possible. Children with asthma and eczema can continue to have chronic and severe eczema as adults. It is possible for children and adults to be sensitive to a food that has never caused obvious symptoms. Eating large quantities of the food at one sitting or reintroducing it into the diet after not consuming it for a period of time can trigger symptoms (Krohn and Taylor, 2002).

Scientists lead by the University of Dundee have discovered a gene that causes genetic skin conditions. Eczema patients lack the gene that should protect the skin by keeping water in and foreign organisms and substances out. The gene produces a protein called filaggrin, which is normally found in large quantities on the outer layers of the skin. This protein is essential for skin barrier function. Reduction or complete absence of this protein causes impaired formation of the skin barrier. The skin dries out too easily and the poorly formed skin barrier flakes off. The "leaky skin" allows the immune system to "see" foreign substances, leading to asthma when these substances enter the lungs (University of Dundee, 2006).

.DIAGNOSIS OF ECZEMA

Diagnosis of eczema is usually based on the appearance of the inflamed, itchy skin in the areas commonly affected by eczema. These areas include the face, chest, and other skin crease areas (Wikipedia, 2005). Infants may have red, weepy patches on the cheeks that may spread to the rest of the face, scalp, neck, wrists, hands, and the outside surface of the arms. The antecubital fossa (inside area of the elbow) and popliteal fossa (area behind the knee) are affected in toddlers to children up to age eight. The eczema can spread from this area to the wrists, behind the ears, on the scalp, face and neck, forehead, eyelids, and the tops of the hands and feet (but not the palms or soles). Spared areas tend to be those that cannot be scratched. The diaper area and skin covered by dressings does not develop eczema. This seems to indicate that scratching is necessary for the development of the rash of eczema (Krohn and Taylor, 2002)

In older children the skin is generally dry and the hair on the lateral third of the eyebrows can be thinned. The skin may become more pigmented, scaly, and very thick and crusty. Often these children may have Dennie's lines or Morgan's fold, which is a wrinkle or fold of skin just below the eyelid. Rubbing or scratching the skin makes it thicker and thick platelike scales can develop on the shins or other areas (Krohn and Taylor, 2002).

Information regarding family history, dietary habits, lifestyle habits, allergic tendencies, prescribed drug intake, and any chemical or material exposure at home or the workplace are also factors in making a diagnosis. Blood tests, skin patch testing, and skin biopsies can also be diagnostic (Wikipedia, 2005). There is no specific test available to diagnose eczema definitively (Homeier, 2005).

PREVENTION AND MANAGEMENT OF ECZEMA

Eczema outbreaks can be avoided or minimized by moisturizing frequently, avoiding sudden changes in temperature or humidity; avoiding sweating or overheating; reducing stress; avoiding scratchy material; and avoiding harsh soaps, detergents, and solvents. Being aware of and avoiding foods that may cause outbreaks can also be helpful. In addition, avoiding environmental factors that trigger allergies, such as pollens, molds, dust mites, and animal dander, will reduce eczema outbreaks (American Academy of Dermatology, 2005).

Eczema is usually worse in the winter and better in the summer. Harsh climates tend to exacerbate it and low humidity seems to increase the risk that people will develop eczema.

Warm climates with moderate humidity seem to make it easier for people to control their eczema. Wading or swimming in the ocean, when possible, is helpful for eczema. When people live in areas of low humidity, adding moisture to the air with a humidifier will make eczema easier to control (Krohn and Taylor, 2002). However, care must be exercised to be certain mold does not grow in the humidifier (Krohn, Taylor, and Larson, 2000).

Avoiding dry skin can help prevent bouts of eczema. This includes anything that dries the skin such as normal soaps and bubble baths that can remove moisture from the skin. Bathing daily may need to be avoided. Any baths taken should be limited to 15 to 20 minutes, using warm, rather than hot water. Deodorant and antibacterial soaps are usually more drying to the skin. Soaps with an oil or fat base that will clean without excessively removing natural oils are the best soap for a person with eczema to use. Any soap should be used sparingly and only on areas where it is necessary, such as the underarms, genital areas, hands and feet. Clear water should be used elsewhere. The skin should be dried carefully, patting only with a towel. Rubbing the skin with a towel will remove the oil of the skin needed to keep in moisture (Krohn and Taylor, 2002; Mayo Clinic, 2005; Wikipedia, 2007)

Moisturizing is extremely important. While the skin is still damp, moisture absorbed during the bath must be sealed in with an oil or cream. Fragrance free barrier type moisturizers such as Vaseline or Aquaphor can be helpful. Attention must be paid to legs, arms, back, and the sides of the body. For dry skin a lubricating cream, such as Eucerin, may be helpful (Krohn and Taylor, 2002; Mayo Clinic, 2005; Wikipedia, 2007).

Drinking sufficient water can also help keep the skin moisturized (Homeier, 2005).

Scratching must be avoided as it causes and makes the rash of eczema worse. Infants will try to scratch by rubbing their faces against their bedclothes and cribs. Adults and children will scratch any area they can reach. Trimming nails and wearing gloves at night may be necessary for both children and adults. Adults will need to wear gloves when doing housework and other chores in which they may be exposed to irritants or in which affected areas may get wet. Cotton gloves under rubber or plastic gloves may be necessary as rubber and plastic exposures can exacerbate eczema. Clothing should help avoid excessive sweating, and smooth-textured cotton clothing can help avoid irritation. All irritants must be avoided and may include wool carpeting, wool fibers, and some man-made fibers; some bedding and clothing; perfumes, makeup, fabric softener, and harsh soaps and detergents; dust and dust mites, and tobacco smoke (Krohn and Taylor, 2002; Mayo Clinic, 2005; NIAMS, 2005; Wikipedia, 2007).

TREATMENT OF ECZEMA

Reducing or eliminating the itching is very important to the treatment of eczema. Cold compresses applied to the itchy skin can help relieve itching (American Academy of Dermatology, 2005). Oatmeal as a colloid in the bath will relieve itching (Wikipedia, 2007). Epsom salt baths once or twice a day can also reduce itching (Nambudripad, 2001). An occasional use of antihistamines can lower the intensity of itching and scratching, which in turn reduce damage and irritation to the skin. Some relief may be obtained by applying capsaicin to the skin. It acts as a counter irritant. Agents that act on nerve transmission, like menthol, can also help with itching. Corticosteroid creams are helpful, but must be used sparingly to avoid thinning and fragility of the skin that prolonged use on the face and genitals can cause. These creams should be used only in short or medium term control of eczema. Antibiotics may be needed if an infection results from a bacterial invasion of cracked skin. Ultraviolet light therapy alone or in combination with Psoralen can help control eczema (Krohn and Taylor, 2002; Mayo Clinic, 2005; Wikipedia, 2007).

Protopic and Elidel are topical immunomodulators prescribed to treat eczema. These ointments suppress the immune system in the affected area. Some practitioners believe this suppression can have possible adverse health effects. In addition, there is controversy concerning the possible risk that these ointments could trigger lymph node or skin cancer. However, eczema dramatically improves with the use of these preparations and improves the lives of the sufferers. There can be side effects with these ointments, including flushing, photosensitivity reactions, and possible drug interaction with alcohol consumption (Wikipedia, 2007).

Acupuncture can be helpful for eczema, as can some herbs. Traditional Chinese medicine and Western herbalism suggest herbs both for oral and topical use (Wikipedia, 2007). The homeopathic remedy, Sulphur is an old treatment for eczema, but some practitioners feel it can be suppressive (Wikipedia, 2007). Homeopathic remedies, particularly Graphites, Petroleum, or Psorinum are very helpful in treating eczema, but the practitioner should take a careful history and prescribe based on keynotes for the remedy (Krohn and Taylor, 2002).

The best treatment for eczema is to address the allergic component of this condition. Allergy seems to play a role in almost every type of eczema, particularly atopic dermatitis and contact dermatitis. Food allergy plays a large role in atopic dermatitis. Patients can be allergic to whole foods; phenolic food compounds; spices; and food dyes, additives,

and preservatives. The rash of eczema results after their consuming these allergens. Acute reactions to foods may have to be treated first with NAET®, followed by testing and treatment for the NAET® basics (Nambudripad, 2001, 2002, 2004). In addition to spices, common food dyes, additives, and preservatives must be tested and treated if found to be a problem. If the eczema persists, phenolic food compounds should be tested as well as other foods the patient is eating.

Testing and treatment for phenolics will encourage complete resolution of eczema. Some eczema will not totally clear unless phenolics are tested and treated (Clinical experience). Phenolics are compounds that occur naturally in both animal and plant foods and are called phenolic food compounds when they occur in food. Phenolics have a benzene ring with at least one (or more) hydroxide group attached to the ring. Some of these compounds have other functional derivatives or chemical groups attached, causing them to be classified into different chemical families, but the compounds are still basically phenolics. Phenolics give the foods their taste and smell, and in some cases their color (Ber, 1983; Harborne and Baxter, 1993; Krohn, Taylor, and Larson, 2000; Shahidi and Nacz, 2004). Patients should be tested and treated for the phenolics to which they are positive. In many cases treating for gallic acid, coumarin, rutin, and quercetin will be enough for the eczema to clear. For other patients testing and treatment for additional phenolics will be necessary (Clinical experience).

Many babies have eczema. If they are breast fed, babies with eczema may be allergic to what their mother is eating. The food a mother eats appears in breast milk 2 to 6 hours after consumption (Taylor, 2005).. Surrogate NAET® testing and treatment of the babies for these foods will allow the eczema to clear (Nambudripad, 2001, 2005a). If the babies are fed formula, surrogate testing for and NAET® treatment of the offending formula results in resolution of symptoms. Rash under the diaper area can indicate an allergy to the diaper whether it is a cotton diaper or one of the disposable diapers. NAET® treatment for the diaper material will resolve this problem (Nambudripad, 2001, 2002).

Because of the role environmental substances play in the contact dermatitis type of eczema, pollens; animal danders, hair, and saliva; and mold, dust, and dust mites must be tested and treated. Cosmetics, metals, plants, fibers of clothes and bed linens, and drugs are possible culprits. In addition, any chemical to which the person is exposed, including cleaning products and those used in manufacturing processes must be considered. Because of the versatility of NAET®, all of these substances can be treated if they are a causative factor in eczema (Nambudripad, 2001, 2005b, 2006; Krohn and Taylor, 2002; Krohn, Taylor, and Larson, 2000).

CONCLUSION

There are many types of eczema and many different causes and triggers are given for eczema. However, a major factor in eczema, if not the total cause in some forms of eczema, is allergy. Diet and food allergy appear to play a large role, particularly in atopic dermatitis. Patients can be allergic to whole foods; phenolic food compounds; spices; and food dyes, additives, and preservatives. When some people consume these allergens, their response is an eczematous rash. Many patients respond with contact dermatitis if exposed to chemicals or environmental substances to which they are sensitive. NAET® treatment for any substance to which the patient tests positive, whether it is a food, chemical, or environmental substance will result in clearing of the eczema.

ACKNOWLEDGEMENTS

Thanks to my eczematous patients who have taught me so much and allowed me to help them by treating their problem.

Thanks to Dr. Devi Nambudripad whose development of NAET® has given us such a wonderful tool to treat so many different conditions.

Thanks to Dr. Jacqueline Krohn whose practice affords me so many fascinating opportunities to help patients and who supports me in so many endeavors.

REFERENCES

- American Academy of Dermatology. *EczemaNet*. AAD, 2005. <http://www.skincarephysicians.com/eczemanet/whatis.html>.
- American Academy of Family Physicians. *Eczema: Tips on How to Care for Your Skin*.
- AAFP, 2006. <http://familydoctor.org/176.xml>.
- Ber, Abram. "Neutralization of phenolic (aromatic) food compounds in the holistic general practice." *The Journal of Orthomolecular Psychiatry*. Volume 12 (4): 283-291, 1983.
- Harborne, Jeffrey B., and Herbert Baxter, Editors. *Phytochemical Dictionary – A Handbook of Bioactive Compounds from Plants*. Washington, DC: Taylor and Francis, 1993.
- Homeier, Barbara P., Reviewer. *Eczema*. KidsHealth for Parents. Nemours Foundation, 2005. http://www.kidshealth.org/parent/medical/allergies/eczema_atopic_dermatitis.html.
- Hyde, Patricia, Reviewer. *All About Eczema*. TeensHealth. Nemours Foundation, 2006.

<p>http://www.kidshealth.org/teen/your_body/skin_stuff/eczema.html.</p> <p>Krohn, Jacqueline, and Frances Taylor. <i>Phenolics and Other Allergens</i>. Los Alamos, NM: K and T Books, 2001.</p> <p>Krohn, Jacqueline, and Frances Taylor. <i>Finding the Right Treatment</i>, Second Edition. Port Roberts, WA: Hartley and Marks, 2002.</p> <p>Krohn, Jacqueline; Frances Taylor; and Erla Mae Larson. <i>Allergy Relief and Prevention</i>, Third Edition. Port Roberts, WA: Hartley and Marks, 2000.</p> <p>Lehrer, Michael S., Reviewer. <i>Eczema</i>. MedlinePlus, 2005. http://www.nlm.nih.gov/medlineplus/ency/article/000853.htm.</p> <p>Mayo Clinic Staff. <i>Dermatitis/Eczema</i>. Mayo Clinic, 2005. http://www.mayoclinic.com/print/dermatitis-eczema/DS00339/DSECTION=all&METHOD...</p> <p>Nambudripad, Devi. <i>Say Good-Bye to Children's Allergies</i>. Buena Park, CA: Delta Publishing Company, 2001.</p> <p>Nambudripad, Devi. <i>Say Good-bye to Illness</i>. Third Edition. Buena Park, CA: Delta Publishing Company, 2002.</p> <p>Nambudripad, Devi. <i>The NAET Guide Book</i>, Sixth Edition. Buena Park, CA: Delta Publishing Company, 2004.</p> <p>Nambudripad, Devi, Editor-in-Chief. <i>The Journal of NAET Energetics and Complimentary Medicine</i>, Volume 1, Number 1, 2005a.</p> <p>Nambudripad, Devi. <i>Freedom from Environmental Sensitivities</i>. Buena Park, CA: Delta Publishing Company, 2005b.</p>	<p>Nambudripad, Devi. <i>Freedom from Chemical Sensitivities</i>. Buena Park, CA: Delta Publishing Company, 2006.</p> <p>Nambudripad, Devi, <i>Freedom From Eczema</i>. Buena Park, CA: Delta Publishing Company, 2007</p> <p>National Eczema Society. <i>Eczema: Frequently Asked Questions</i>. United Kingdom, 2007. http://www.eczema.org/faqfile.htm.</p> <p>NIAMS. <i>Health Topics: What is Atopic Dermatitis?</i> National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, MD, 2005. http://www.niams.nih.gov/hi/topics/dermatitis/ffdermatitis.htm.</p> <p>Shahidi, Fereidoon, and Marian Naczki. <i>Phenolics in Food and Nutraceuticals</i>. Boca Raton, FL: CRC Press, 2004.</p> <p>Taylor, Frances. "NAET®: Coat of Many Colors." <i>The Journal of NAET Energetic and Complementary Medicine</i>, Volume 1, Number 1, 2005.</p> <p>US National Library of Medicine. <i>Eczema</i>. MedlinePlus, 2007. http://www.nlm.nih.gov/medlineplus/eczema.html.</p> <p>Wikipedia. <i>Eczema</i>. 15:09, 3 April 2007. http://en.wikipedia.org/wik/Eczema.</p> <p>For Reprints Frances A. Taylor, MA, CHom Los Alamos Medical Center, Suite 136 3917 West Road Los Alamos, NM 87544 E-mail: FTallergy@aol.com</p>
--	---