

ATOPIC DERMATITIS

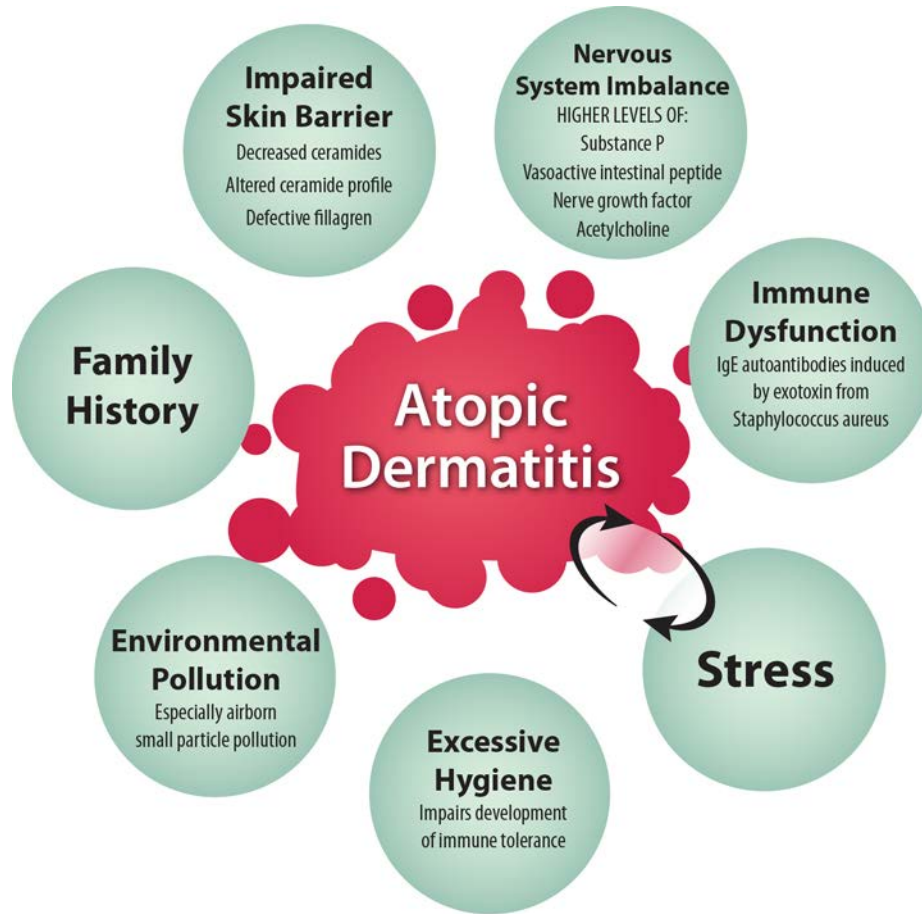
BACKGROUND

Note: The terms atopic dermatitis and eczema are used interchangeably in this document and refer to chronically itchy and inflamed skin, which may be accompanied by hay fever and/or asthma.

Atopic dermatitis is a chronic and relapsing dermatitis that typically shows up during infancy or early childhood. It affects 5%-20% of the childhood population around the world. Atopic dermatitis appears to be increasingly common and is more prevalent in developed countries and in urban locations. Eczema is grouped into three age categories: infantile, childhood, and adult. In infants, the face and extensors are typically involved. Childhood and adult eczema tends to affect the flexural areas and is characterized by more chronic inflammation with dry, scaly, thickened skin. People with eczema typically have a lower tolerance for skin irritants. Heat and perspiration are the most common offenders with wool and emotional stress close behind.

There are many factors at play in the development of eczema. Family history (especially maternal history) is a strong predictive risk factor, but there appear to be many environmental factors as well, including insufficient exposure to microorganisms in early childhood and excessive exposure to airborne pollution.[1,2] People with eczema have problems with their skin barrier, which puts them at risk for increased evaporation of moisture from the skin and decreased ability to maintain skin moisture. They also have an increased risk of developing skin infections due to bacteria, viruses, and fungus. The skin nervous system in people who have atopic dermatitis is hyper-reactive as well, and this condition makes it more likely that a person will experience the sensation of itch.

Along with the physical symptoms of this condition, atopic dermatitis carries a significant emotional burden. People with atopic dermatitis have been found to have a significantly decreased quality of life and self-esteem, as well as increased sleep disturbances, depression, and anxiety.[3] The fact that stress worsens symptoms of atopic dermatitis[4] can result in a downward spiral with stress from the atopic dermatitis worsening the flare, which can worsen stress.



TREATMENT

SKIN CARE

Adequate skin hydration is the most basic aspect of care for both the prevention of eczema flares and for treatment of active disease. This begins with minimizing contact with irritants—including hot water. Both frequency and duration of bathing should be limited, and the lowest water temperature tolerable should be used. Generous amounts of thick cream or ointment should be applied to the skin immediately after bathing while the skin is still slightly damp. A good rule is to look for an emollient that is scooped from a tub or squeezed from a tube (a cream or ointment). Creams that contain ceramides (which are deficient in eczematous skin) can be especially helpful. Specific products that can be purchased over the counter include Aveeno Eczema Therapy, Cetaphil, Currel, and CeraVe. Soaps should be pH neutral. Specific brands include Dove, Earth Friendly, Pears natural glycerin soap, Clearly Natural glycerin soap, and South of France glycerin soap. Caution should be taken with personal care products that contain fragrances because these can be irritating.

FOOD AND DRINK

Healthy dietary choices are important for overall health. Anti-inflammatory or Mediterranean-style dietary approaches have been found to enhance many aspects of health—especially in the setting of inflammatory diseases. Atopic dermatitis is an inflammatory condition and may improve when dietary choices better align with foods that inhibit rather than promote inflammation. For more information, refer to [Anti-Inflammatory Diet](#).

The question of food allergies as potential triggers for flares of eczema often comes up, and the issue can be confusing. It appears that 10%-30% of children with eczema may have food-related flares. The most common foods involved are milk, eggs, and peanuts; other foods include soy, wheat, fish, and tree nuts.[5] Tests for these sensitivities are not perfect, and any positive allergen test should be confirmed by an elimination diet. Once a food sensitivity has been identified and confirmed by elimination, avoidance of the food can minimize flares of eczema. For more information, refer to [Elimination Diet](#).

SUPPLEMENTS

Note: Please refer to the [Passport to Whole Health](#), Chapter 15 on Dietary Supplements for more information about how to determine whether or not a specific supplement is appropriate for a given individual. Supplements are not regulated with the same degree of oversight as medications, and it is important that clinicians keep this in mind. Products vary greatly in terms of accuracy of labeling, presence of adulterants, and the legitimacy of claims made by the manufacturer.

GAMMA-LINOLENIC ACID (GLA)

GLA is an omega-6 polyunsaturated fatty acid that has anti-inflammatory properties. It is found in borage oil, evening primrose oil, hemp oil, and black current oil. Some patients with eczema may have a decreased ability to convert linoleic acid (found in seed and corn oils) to GLA. It makes sense that supplementation with GLA should help with the management of eczema. However, research has been conflicting. Overall, GLA is safe. Gastrointestinal side effects are the most common and are generally reversible. There may be increased risk of bleeding when taken along with other blood thinners.

Dose[6,7]:

- 920 milligrams daily for people 18 and older
- 360-460 milligrams daily for people younger than 18

OMEGA-3 FATTY ACIDS

Omega-3 fatty acids have been shown to decrease the production of inflammatory compounds. DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid) are types of omega-3 fatty acids found in fish oil and do not need to be modified by the body. Plant sources of omega-3 fatty acids do need to be modified by enzymes in the body and include

flaxseeds, hemp seeds, nuts, leafy green vegetables, soybeans, and algae. Ideally, omega-3 fatty acids would come from foods such as fatty fish (salmon, mackerel, and sardines), flaxseeds, and walnuts. When that is not possible, supplements can be helpful. The omega-3's found in flax are not as potent in terms of anti-inflammatory effects as those in fish oil. For more information, refer to the section on fats in [Food and Drink](#).

Dose[8]:

- 1 tablespoon of flax oil daily for every 100 pounds
- 1-2 tablespoon(s) ground flaxseeds daily
- 1-2 gram(s) fish oil capsules twice a day

PROBIOTICS AND PREBIOTICS

Many studies conclude that probiotic supplementation (*Lactobacillus rhamnosus* GG in particular) in pregnant or breastfeeding mothers and infants may prevent or reduce the severity of atopic dermatitis.[9] However, the benefit of probiotic supplementation for the treatment of established atopic dermatitis is not clear.

There are many strains of probiotics, and comparing studies is difficult since most use different strains and different concentrations. Hopefully, more research will be done to help clarify the specific doses and strains that are most likely to be helpful in specific skin conditions like atopic dermatitis.

For more information, refer to [Promoting a Healthy Microbiome with Food and Probiotics](#).

TOPICAL BOTANICALS

Glycyrrhetic acid. Glycyrrhetic acid comes from the licorice root and has anti-inflammatory properties as well as an ability to inhibit the release of compounds that are associated with flares of atopic dermatitis.

- **Dose[10]:** 2% cream or ointment

Chamomile. Chamomile is a member of the Composite family, which includes plants such as rhubarb, chrysanthemum, aster, daisy, sunflower, zinnia, dandelion, echinacea, and many others. In Germany, it has been called alles Zustraut, which means “capable of anything.” Chamomile has been used to treat skin inflammation, and it has been assessed to have a potency similar to 0.25% hydrocortisone. While good clinical studies are lacking, it does appear to have anti-inflammatory, antimicrobial, and antioxidant properties. There have been many reports of allergic contact dermatitis and irritation from chamomile. It should be avoided in people who are allergic to any of the plants in the Composite family.

Dose[11]:

- Creams or ointments should contain 20 grams of essential oil per 100 grams of the vehicle

- Bath: Add 5 grams powder or 0.8 gram alcoholic extract per liter of water
- Poultice: 6 grams dried powdered flower heads in 150 milliter boiled water; apply rags soaked in this preparation for 1 hour twice a day

Calendula. *Calendula officinalis* is commonly known as marigold and has been used historically to soothe irritated skin. Studies looking specifically at the usefulness of calendula in atopic dermatitis are lacking. Calendula appears to have antibiotic, antiviral, anti-inflammatory, and antioxidant properties.

Although anyone can develop a contact dermatitis to calendula, people who are known to be allergic to other members of the Composite family are at a higher risk. They should avoid products containing calendula—especially in areas of skin breakdown.

Dose[12]:

- 2%-5% ointment/cream
- 1:1 tincture in 40% alcohol or 1:5 tincture in 90% alcohol*
- *Dilute with boiled water to a 1:3 ratio in order to be applied on the skin.

Food grade oils. Oils intended for consumption can work really well as occlusive moisturizers. Almond oil, avocado oil, apricot kernel oil, coconut oil, and shea butter tend to be well tolerated. Some shea butter preparations can contain trace amounts of latex and should be avoided by people who have a latex allergy. There is a potential risk of contact dermatitis, and any food allergies (such as to tree nuts) should be taken into consideration when choosing an oil for topical application.

OTHER THERAPIES TO CONSIDER

LIFESTYLE CHOICES

Regular exercise and good sleep are important for all aspects of overall health. Many people with atopic dermatitis suffer from sleep disturbances. It is important to address good sleep hygiene along with the skin-related issues. For more information, refer to [Hints for Encouraging Health Sleep](#).

MIND-BODY

There are numerous mind-body approaches to health. Three of the more common modalities include hypnosis, biofeedback, and cognitive behavioral therapy. Medical hypnotherapists help guide people into a deeply relaxed trance state and make suggestions with specific intentions regarding the alleviation of suffering and promotion of healing. Biofeedback uses technology to help patients learn to relax by teaching them to control their autonomic nervous system. Cognitive behavioral therapy helps bring inaccurate or negative thinking into awareness so challenges can be seen more clearly and responded to in a more effective manner.[13] For more information about mind-body tools, refer to [Power of Mind](#).

All of these modalities can be especially beneficial in skin conditions that are triggered or worsened by stress, including atopic dermatitis. The relationship between practitioner and patient is extremely important, and it is crucial to find a practitioner that one can work with comfortably.

TRADITIONAL CHINESE MEDICINE (TCM)

TCM is a health system that has been around for over 2,500 years. It is based on the premise that Qi is a vital energy that maintains health and balance in the body. Two opposing but complementary forces—yin and yang—support health when they are in harmony and are responsible for disease when they are out of balance. There are several techniques used in the scope of TCM, with acupuncture and herbal medicine being the most common in the United States. As a system, the techniques are best used in combination by skilled practitioners. Acupuncture and TCM herbs have been shown to be effective for people with atopic dermatitis in a number of studies.[14-16]

When looking for a TCM practitioner, one should inquire about certification and education. Any practitioner should have state licensure at the very minimum. The National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM) has strict certification requirements, and members are required to recertify every 4 years. Practitioners certified by this agency can be found here, <http://www.nccaom.org/find-a-practitioner-directory/>. For more information, refer to [Acupuncture and Traditional Chinese Medicine](#).

ENERGY MEDICINE

The field of energy medicine is broad and encompasses therapies that manipulate subtle energy fields imperceptible to most people. It is based on the premise that healing energy can be channeled into another person via hands on, hands off, and/or distant techniques. Healing touch (or therapeutic touch), reiki, and spiritual or faith healing are the most well known in the United States. Energy medicine is a very subtle approach to facilitating healing and difficult to study. The evidence supporting this area of healing is shaky, but the risks are minimal and many people do find energetic approaches to healing beneficial—especially in decreasing anxiety, worry, and fatigue, which are common in people who have atopic dermatitis. Healing Touch is available in many VAs and would be a good place to start for people interested in this modality. Refer to [Energy Medicine \(Biofield Therapies\)](#) to learn more.

HOMEOPATHY

Homeopathy is a medical system that treats disease with highly diluted substances with the goal of triggering the body's innate ability to heal. Remedy selection takes into consideration the patient's symptoms, personality traits, physical and psychological states, and life history. Although research is limited, homeopathy can be helpful for some patients with atopic dermatitis.[17,18] Because worsening of a condition is a possible adverse reaction, especially early in treatment, it is important to work with a well-trained and

qualified homeopathic practitioner. One should look for a practitioner who is certified by at least one of the following organizations: Council for Homeopathic Certification (CHC), North American Society of Homeopaths (NASH), American Board of Homeotherapeutics (ABHt), or Homeopathic Academy of Naturopathic Physicians (HANP). For more information, refer to [Homeopathy](#).

PREVENTION OVERVIEW: ATOPIC DERMATITIS

- Take gentle care of your skin.
 - Bathe in lukewarm water with gentle soaps.
 - Apply thick creams or ointments while skin is still slightly damp.
- Take an anti-inflammatory dietary approach, and reduce intake of refined carbohydrates.
- Consider taking an omega-3 supplement.
- Consider taking a good-quality multivitamin that contains appropriate doses of zinc, vitamin A, and vitamin E.
- Learn about different approaches to stress management.

AUTHOR(S)

“Atopic Dermatitis” was written by [Apple Bodemer](#), MD (2014).

This Whole Health tool was made possible through a collaborative effort between the University of Wisconsin Integrative Health Program, VA Office of Patient Centered Care and Cultural Transformation, and Pacific Institute for Research and Evaluation.

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