

## Integrative Approaches to Skin Health

### Overview

This overview explores how Integrative Health can support prevention and treatment of skin problems. Each of us may have different reasons why skin health is important in terms of our Meaning, Aspiration, or Purpose (MAP), and of course, all of this must be considered within the bigger picture of a person's values and goals.

What are some of our options? Every aspect of self-care influences can influence skin health. This includes Nutrition (e.g., eating a Mediterranean or DASH Diet), Mind and Emotions (e.g., stress management approaches), Recharge (optimizing sleep), and Physical Activity (e.g., coming up with a personalized activity plan). It also includes Surroundings (pollution levels, work environment), Personal Development (growing and learning), relationships (Family, Friends and Co-workers), and Spirit and Soul (living with meaning and purpose). Beyond self-care, professional care is also important, including conventional care, such as medications and procedures, as well as complementary and integrative health (CIH) approaches like mind-body techniques, acupuncture, and taking dietary supplements.<sup>1,2</sup>

Note that this overview focuses on reducing risk related to cardiovascular disease (CVD) in general. In addition, there are specific Integrative Health tools focusing on some of the most common skin problems: [acne](#), [skin cancer](#), [rosacea](#), [eczema](#), and [psoriasis](#). The narrative below illustrates how Integrative Health for the heart could look, informed by the latest research we have.

### Meet the Patient

Amy is a 22-year-old college student. Without any way to pay for further education, she started to work at a fast food chain after high school. She is now struggling to both work and meet the demands of university classes. This has become increasingly more difficult for her due to an increased intensity of her eczema. As a young child, Amy had trouble with eczema. As she got older, it seemed to become less of a problem. She has had occasional flares—especially at the changes of seasons. In general, these flares have been mild compared to her childhood eczema. When she initiates treatment with topical steroids at the beginning of a flare, she is generally able to control it. She also suffers from seasonal allergies each spring, and has a strong family history of allergies, asthma, and hay fever.

A couple of months after starting classes at the university, Amy had a really bad flare of eczema that has not been easily controlled with her typical regimen of topical steroids (triamcinolone 0.1% ointment twice a day for 1-2 weeks followed by hydrocortisone 2.5% ointment twice a day until the flare subsides). She usually takes long, hot showers which seem to temporarily ease the itching. Her use of moisturizers is spotty as she often is in a hurry once she gets out of the shower. She occasionally uses a small amount of lotion randomly throughout the day. Amy is

particularly itchy at night. She finds herself distracted in classes which she attributes to the itching and to the lack of good quality sleep. She has been limiting her exercise because sweating stings the inflamed areas, and because she is really tired. She is beginning to wonder if she can pull off getting through college and fulfilling her dream of becoming an engineer.

## Personal Health Inventory

On her Personal Health Inventory (PHI), Amy rates herself a 2 out of 5 for her overall physical well-being and also a 2 for overall mental and emotional well-being. When asked what matters most to her and why she wants to be healthy, Amy responds:

*"I want to feel confident that I can make it through the demands of college and beyond. I want to feel proud of myself, and I want to be a role model for young women in my community. I like being both physically and mentally strong and spending time with my friends and family."*

For the eight areas of self-care, Amy rates herself on where she is, and where she would like to be. Amy decides to first focus on the areas of Recharge and Nutrition by getting more sleep, bringing her lunch to campus, and drinking more water.

For more information, see [Amy's PHI](#).

## Introduction

**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. This overview focuses primarily on eczema as one of the most common skin disorders, and a separate [atopic dermatitis](#) Integrative Health tool is available for it, as are tools for [psoriasis](#), [seborrheic dermatitis](#), [skin cancer](#), [acne](#), and [rosacea](#).

Atopic dermatitis, or eczema, 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 and appears eczema is becoming more common. The incidence in the United States is 11%. It is more prevalent in developed nations and has been found to be associated with higher household education levels, higher household income levels, smaller family size, urban location, and non-Caucasian ethnicity.<sup>3</sup> Eczema is grouped into three age categories: infantile, childhood, and adult. In infants, the face and extensors are typically involved. Childhood and adult eczema tend to affect the flexural areas and is characterized by chronic inflammation with dry, scaly, thickened skin. People with eczema typically have lowered thresholds 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. The hygiene hypothesis was introduced in 1989 and postulates that exposure to microorganisms helps people develop stronger immune systems, and without this exposure, the development of immune tolerance is hindered. This has been supported by multiple studies including one that looks specifically at hygiene practices. It appears that more-frequent washing

and the use of chemical household cleaners increases the risk of developing atopic dermatitis.<sup>4</sup> Environmental pollution—particularly aerosolized small particle pollutants such as pollution from traffic and factories—also appears to play a role in the development of eczema. In a study of 3,000 school children in West Germany the exposure to nitrogen dioxide (NO<sub>2</sub>) was correlated with increased risk of eczema.<sup>5</sup> Similarly, a study of 5,000 children in different cities in France found a positive correlation with fine-particle pollution.<sup>6</sup>

Patients with eczema have identifiable immune dysfunction and are at a higher risk for developing viral infections of the skin, fungal infections of the skin, and increased colonization with *staphylococcus aureus* with potential secondary infection.<sup>7</sup> Exotoxins secreted from *S. aureus* have been found to act as classic antigens as well as superantigens inducing IgE specific antibodies that cross link with proteins in the skin. Concentrations of these IgE autoantibodies have been positively correlated with severity of atopic dermatitis.<sup>8</sup>

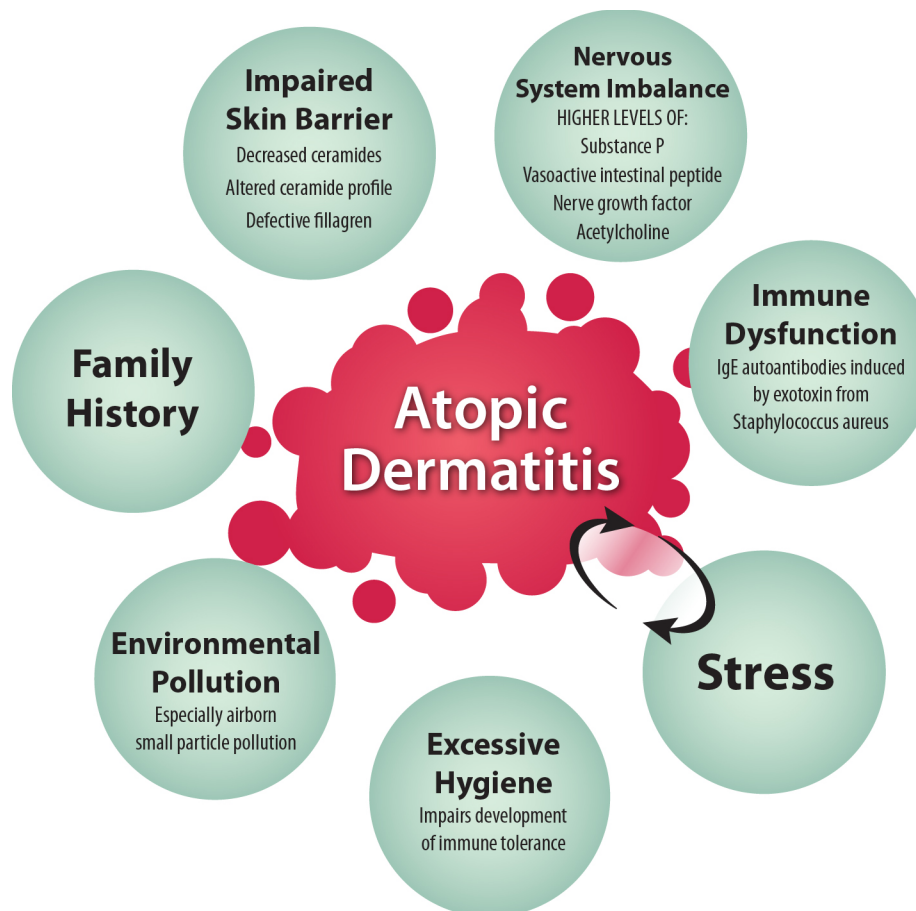
Patients with eczema have shown to have imbalances in the nervous system as well. They have higher levels of vasoactive intestinal peptide, nerve growth factor, and substance P—compounds involved in producing the sensation of itch and in IgE mediated sensitization to allergens.<sup>9</sup> The sensory hypersensitivity seen in patients with atopic dermatitis causes people with this condition to interpret light stimulation as itch rather than light touch.<sup>10</sup> This is significant because the act of scratching itself can lead to the release of substance P (which leads to release of histamine) and proinflammatory cytokines<sup>11</sup> which help to propagate the itch-scratch cycle so characteristic of this disorder.

Additionally, skin affected by eczema has been shown to have increased levels of acetylcholine.<sup>12</sup> Patients with eczema experience itching with exposure to acetylcholine while normal controls experience a burning sensation.<sup>13</sup> Additionally, one of the roles of acetylcholine is to activate sweat glands. Interestingly, people with eczema have a decreased ability to deliver sweat to the surface of the skin in response to heat when compared to normal controls, and a protein made and secreted by sweat glands can be found in the dermis of affected skin, suggesting that the abnormal sweat response may play a role in inducing inflammation in this condition.<sup>14,15</sup> This helps explain why heat and sweat are so irritating to people with eczema.

The skin barrier is also disturbed in patients with eczema. People with this condition have been shown to have increased trans-epidermal water loss and decreased ability to retain water in the epidermis.<sup>16</sup> Ceramides are fatty substances that make up a large part of cell membranes and play a significant role in maintaining hydration in the skin. The skin of people with eczema has been shown to have both decreased levels of total ceramides in the outer epidermis, but also an altered profile of the ceramides present.<sup>17</sup> More recently, fillagren—a protein important in maintaining the integrity of the skin barrier—has been found to be defective in the skin of people with atopic dermatitis as well as other conditions characterized by an impaired skin barrier.<sup>18</sup> Fillagren helps protect from environmental insults as well as water loss through the skin.<sup>19</sup>

Along with the physical symptoms of this condition, atopic dermatitis carries a significant emotional burden as well. There have been many studies looking at the effects atopic dermatitis has on quality of life and psychosocial status. It is clear that there are significant decreases in quality of life and self-esteem as well as increases in sleep disturbances, depression, and anxiety for both the patients and parents of patients with this condition.<sup>20-23</sup> The

fact that stress worsens symptoms of atopic dermatitis can result in a downward spiral, with stress from the atopic dermatitis worsening the flare, which can worsen stress. Societal costs of eczema are also significant and include direct costs due to treatments and health care visits as well as indirect costs from lost days of work and disability claims.<sup>24-26</sup>



## Conventional Approaches

Conventional therapy for eczema typically involves avoidance of irritants and allergens and good skin hydration practices. Topical immunosuppressants such as corticosteroids and tacrolimus/pimecrolimus are typically the mainstay of treatment for mild to moderate flares, while UV phototherapy and a combination of antihistamines can help minimize more significant flares. Appropriate use of antibiotics, either topical or systemic, is important when secondary infection is present. Very severe flares may warrant the use of systemic corticosteroids or other systemic immunosuppressive or biologic agents

Adequate skin hydration is the most basic aspect of care for both 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 to the patient 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. Lotions contain higher water content and are generally not occlusive enough to help retain moisture in the skin. Creams that contain ceramides (which are deficient in eczematous skin) can be especially helpful. Specific over-the-counter products include Aveeno Eczema Therapy, Cetaphil, Curel, 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 is warranted with personal care products that contain fragrances as these can be irritating.

## Self-Care

### Physical Activity

Regular exercise is an important part of any healthy lifestyle. Studies looking at the effects exercise has on systemic inflammatory markers have found that a variety of inflammatory markers decrease with exercise.<sup>27,28</sup> While there do not appear to be any studies looking critically at the effect exercise has on atopic dermatitis specifically, studies evaluating effects on anxiety and depression are favorable.<sup>29,30</sup> Since these mood concerns are often present in patients with eczema, it is worth recommending a personalized exercise plan—especially to patients who have concomitant anxiety and/or depression. One caveat is that for many people with eczema, heat and sweat exacerbate symptoms of itching, and people with atopic dermatitis may limit exercise for this reason. It is important to counsel these people about how to minimize overheating and sweating: swimming, keeping exercise to a moderate level, exercising in a cool environment, exercising with a fan, and having cool towels or a spray bottle on hand. For some people, chlorine may also exacerbate symptoms of eczema. Seeking out a nonchlorinated or saline pool may be helpful. Rinsing immediately after swimming along with good skin hydration practices are especially important for people with eczema who would like to continue swimming. Yoga in particular might be a good place to start since many yoga practices incorporate mindfulness which can help with depression and anxiety.<sup>31,32</sup> Other movement practices that may be helpful include qi gong, Pilates, walking, and strength training. These can be done in a cool environment, and it is relatively easy to control levels of sweating. For more information, see [“Physical Activity,”](#) as well as related tools, such as [“Prescribing Movement”](#) and [“Yoga.”](#)

The guidelines in the table below are a good place to start, but ideally a personal exercise plan should be created and takes into consideration severity of symptom exacerbation and tolerance for exercise.

### World Health Organization Exercise Guidelines<sup>33</sup>

Age	Duration	Exercise
5-17	60 minutes of moderate to vigorous activity per day	Strength training 3 times per week
18-64	150 minutes of moderate or 75 minutes of vigorous activity per week	Strength training at least 2 times per week (Ideal: 300 minutes of moderate or 150 minutes of vigorous activity per week)

Age	Duration	Exercise
60+	Same as for the 18-64 year group, but add activities that improve balance	3 times per week

## Nutrition

### Avoid Food Allergens

The issue of food allergies as triggers for flares of eczema can be confusing since food allergies can induce a variety of allergic reactions.<sup>34</sup> The connection between food sensitivities and eczema has primarily been examined in children and infants. Several studies have found that about 10-30% of children with eczema have food related exacerbations of symptoms.<sup>34-36</sup> The most common foods implicated are milk, eggs, and peanuts with others including soy, wheat, fish, and tree nuts. Testing for these allergies can be done either by atopy patch testing or by measuring food specific IgE antibodies. Both tests have limitations, and elimination diets should be used to confirm the sensitivity.<sup>37,38</sup> For more information, see the "[Elimination Diets](#)" Integrative Health tool.

Once a food sensitivity has been identified and confirmed by elimination, avoidance of the food can minimize flares of eczema. However, care must be taken to make sure that adequate nutrient intake is maintained. When multiple foods are implicated, the risk of nutritional deficiencies increases. It is important to educate patients and their families about maintaining a healthy diet with adequate nutrient intake.<sup>39</sup>

### General Diet

While it seems to make sense that following an anti-inflammatory diet would help minimize the effects of an inflammatory condition of the skin, there have been few studies looking specifically at this issue. Indeed, there is strong evidence that this dietary approach can positively affect other systemic inflammatory conditions, but research looking at anti-inflammatory diets in people with eczema is limited. One study looking at maternal adherence to a Mediterranean diet and infant wheeze and atopic dermatitis in the first year of life did not find any correlation.<sup>40</sup> Researchers from the International Study of Allergies and Asthma in Childhood (ISAAC)—a large multicounty, multiphase cross-sectional study—found a positive correlation between severe eczema and fast food consumption three or more times per week in children (6-7 years) and adolescents (13-14 years). They also found a protective effect with high fruit consumption.<sup>41</sup>

A group of researchers in India looked at 148 adult patients with atopic dermatitis who followed a hypoallergenic diet for three weeks and found significant improvement in parameters of atopic dermatitis.<sup>42</sup> This diet was very restrictive and included only gluten-free foods, potatoes, rice, chicken, beef, pork, thermally modified fruits, and vegetables (excluding parsley and celery). Participants were only allowed to drink plain water, mineral water, or black tea, and all seasonings were avoided.<sup>42</sup> The research group recommended short-term use of the hypoallergenic diet to identify whether or not food allergies play a role in specific patients' atopic dermatitis before focusing on a more typical elimination diet. This study suggests that food sensitivities may play a role in adult eczema as well.

Although information about diet for atopic dermatitis is limited, its overall safety and benefits in other inflammatory conditions is reassuring. It is reasonable to offer information about an anti-inflammatory dietary approach to patients with eczema. A 3-week trial of a hypoallergenic diet or trying an elimination diet may also help some people with eczema. For more information see the "[Choosing a Diet](#)" and "[Elimination Diet](#)" Integrative Health tools.

## Tea

One study looked at 118 people with recalcitrant atopic dermatitis who drank Oolong tea daily for six months. Ten grams of dried tea leaves were steeped for five minutes in 1,000 gm of boiling water then divided into 3 cups and consumed after each meal. After one month, a marked (>50%) or moderate (25%-50%) improvement of the dermatitis was seen in 64% of participants. This was based on comparison between photographs and pruritus intensity.<sup>43</sup> This effect was postulated to be due to the polyphenol content of the tea. While this is promising, more studies will be necessary to clarify the role of tea consumption in atopic dermatitis. Nonetheless, this is a very safe and worthwhile recommendation.

## Recharge

Sleep is extremely important, not only for physical health, but for emotional health as well. Sleep deprivation has been shown to result in increased systemic inflammatory markers.<sup>44</sup> Additionally, people who do not get adequate sleep are more likely to be diagnosed with depression and anxiety,<sup>45,46</sup> and maintaining adequate sleep schedules can be a part of treatment for depression.<sup>45</sup>

People who suffer from eczema commonly complain of poor sleep quality. Indeed, sleep disturbances have been reported in as many as 60% of patients with atopic dermatitis.<sup>21</sup> Children with eczema have increased nocturnal wakefulness, a higher number of shifts between sleep stages, and longer latency to REM onset.<sup>47</sup> One study looked at sleep disturbance in 72 people with atopic dermatitis compared to 32 healthy controls based on data from actigraphy and polysomnography as well as samples looking at melatonin metabolites, cytokines and IgE levels. The objective measures for sleep disturbance positively correlated with severity of atopic dermatitis, and degree of sleep disturbance was significantly associated with lower nocturnal melatonin.<sup>48</sup> A subsequent randomized double-blind placebo-controlled crossover study looked at melatonin supplementation (3mg/d) for 4 weeks vs. placebo in patients between the ages of 1 and 18 with atopic dermatitis who had a body surface area involvement of 5% or more. The 38 people who completed the crossover had significant decreases in objective measures of atopic dermatitis as well as decreased sleep onset while taking melatonin when compared to placebo.<sup>49</sup> It is also true that many of these patients have symptoms of anxiety and depression, which can also contribute to poor sleep. It is unclear if the mood disturbances are due to inadequate and/or poor-quality sleep, or if the sleep disturbances are responsible for mood issues some of these patients have. Likely the situation is a vicious cycle with each aspect feeding the other.

Identifying those patients with sleep disturbances and offering counseling and/or information about good sleep hygiene, including a recommendation for melatonin supplementation along with the physical management of eczema, may offer additional benefit in improving both the disease and quality of life. For more information, see the "[Recharge](#)" Integrative Health tool.

## Spirit & Soul

Identification of what gives a person meaning and purpose in his or her life can help strengthen the therapeutic relationship and create connection between the clinician and patient. Holding this knowledge within that relationship allows for development of more personalized and appropriate therapeutic goals and plans. When therapeutic goals and plans take into consideration an individual's core beliefs, compliance is more likely to occur and the relationship is more likely to be mutually satisfying. For more information, check out the "[Spirit and Soul](#)" overview.

## Mind and Emotions

There are many mind-body approaches to health. The relationship between practitioner and patient is extremely important as is the patient's comfort level with a specific technique. Each of these approaches aim to evoke a deeply relaxed and open state, but techniques differ. An open discussion about which approach is most appealing to a specific patient will help direct an appropriate recommendation.

## Clinical Hypnosis

Trance describes a state of highly focused attention or altered consciousness that taps into deep relaxation and can induce a state of heightened sensitivity to suggestion. This occurs spontaneously when a person is absorbed in an activity or in meditation. Intensification and control of the trance state can be brought about by relaxation and deep breathing. In clinical hypnosis, a trained therapist initially guides a patient through verbal suggestion with specific intentions regarding alleviation of suffering from medical conditions and promotion of healing.<sup>50</sup>

Hypnotherapy can be used for many skin conditions. One study examined 18 adults and 20 children with treatment refractory atopic dermatitis who were treated with hypnotherapy. Significant benefit in both groups was noted by 4 weeks, and benefits lasted up to 2 years in the adults and up to 18 months in the children.<sup>51</sup>

The American Society of Clinical Hypnosis offers a [listing of certified professionals](#). More information is available in the "[Clinical Hypnosis](#)" Integrative Health tool.

## Biofeedback

Biofeedback can help those skin disorders which have associated dysfunction of the autonomic nervous system. EMG (electromyography) can augment relaxation training which positively affects skin conditions that are triggered by emotional states.<sup>50</sup> One case controlled study looking at the response to biofeedback of eight patients with atopic dermatitis found mixed results.<sup>52</sup> This study had significant limitations and reveals the need for good-quality investigations.

## Psychotherapy

Cognitive Behavioral Therapy (CBT) focuses on changing injurious thoughts and/or behaviors. This type of therapy can be helpful in alleviating conditions with a strong psychophysiological component, including eczema. It can help alleviate the negative psychological impact of chronic skin disease.<sup>53</sup>



## Dietary Supplements & Herbal Remedies

**Note:** 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.

### Oral Supplementation

#### Gamma Linolenic Acid

Essential fatty acid deficiency can cause eczema-like skin changes including dry, scaly, itchy skin with impaired barrier function. Replenishing these essential nutrients reverses the skin problems seen in deficiency states. This led people to consider potential abnormalities in essential fatty acid metabolism in people with atopic dermatitis. At least some patients with eczema may have decreased levels or defects in delta-6-desaturase—an enzyme involved in converting linoleic acid (found in seed and corn oils) to gamma-linolenic acid (GLA). GLA is an omega-6-polyunsaturated fatty acid that is converted to dihomo-GLA which is important in the formation of anti-inflammatory prostaglandins in the skin.<sup>54,55</sup>

Given these findings, it would make sense that supplementation with GLA (found in borage oil, evening primrose oil, hemp oil, and black current oil) should help with the management of eczema. However, studies looking at use—particularly of borage oil and evening primrose oil—have been conflicting. A recent Cochrane review looking specifically at studies evaluating borage and evening primrose use in eczema found no benefit.<sup>56</sup> Many of the included studies were small and flawed. Overall these products are generally safe, with GI side effects being the most commonly reported. However, there may be increased risk of bleeding when taken concomitantly with other anticoagulants.

Recommended doses for GLA for ages 18 and up is up to 920 mg daily. In children younger than 18, the recommended dose is 360-460 mg daily.<sup>57 58</sup>

#### Omega-3 Fatty Acids

Omega-3 fatty acids are known to promote an anti-inflammatory profile of leukotrienes and prostaglandins. DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid) are found in fish oil and do not require modification by the enzyme delta-6-desaturase to be activated. Other sources including flax seeds, hemp seed, nuts, leafy green vegetables, soybeans, and algae do require delta-6-desaturase activity. This enzyme is also used by the omega-6 fatty acids, which promote proinflammatory leukotrienes and prostaglandins. If the ratio of omega-6 to omega-3 fatty acids is too high, the benefit of additional omega-3 fatty acids is negated from an inflammatory standpoint.<sup>59</sup>

Evidence for use of omega-3 supplementation in atopic dermatitis is limited but promising. Thirty-one patients with moderate to severe atopic dermatitis experienced decreases in itching, scaling, and subjective severity after receiving 10 gm of fish oil/day (containing EPA) for 12 weeks.<sup>60</sup> An epidemiologic study looking at Korean children found that those who had atopic dermatitis had lower omega-3 to omega-6 ratios.<sup>61</sup> Additionally, it appears from many studies that fish and fish oil consumption during pregnancy and lactation decreases the risk of developing eczema in infants, but evidence is not as strong for supplementation of infants.<sup>62</sup>

Recommended doses of fish oil supplementation are 2-4 gm daily for treatment of active inflammatory conditions and 1 gm daily for prevention.<sup>59</sup>

## Probiotics and Prebiotics

Many studies support that probiotic supplementation (*Lactobacillus rhamnosus* GG in particular) in pregnant or breastfeeding mothers and infants prevents the development of and reduces the severity of atopic dermatitis.<sup>63-65</sup> However, the use of probiotics for treatment of established atopic dermatitis is not well studied, and the research that does exist is generally not promising. There is one good study looking at the use of a specific strain of *Lactobacillus salivarius* (LS01) in 38 adult patients with atopic dermatitis over 16 weeks. These researchers found significant clinical improvement in the treated group versus the control group, as well as differences in the cytokine profiles of the two groups favoring the treated group.<sup>66</sup>

There are many strains of probiotics, and comparing studies is difficult since most use different strains. Hopefully, research will continue in this area to help illuminate the specific doses and strains which are likely to be most helpful in specific skin conditions like atopic dermatitis. For more information, see the Integrative Health tool, "[Promoting a Healthy Microbiome with Food and Probiotics.](#)"

## Topical Application

### Glycyrrhetic Acid

Glycyrrhetic acid is a component from licorice root that has inhibitory activity on the enzyme 11-beta-hydroxysteroid dehydrogenase which is responsible for inactivating cortisol. It has been shown to potentiate the action of hydrocortisone in the skin.<sup>67</sup> It has also been shown to have anti-inflammatory properties as well as ability to decrease IgE related skin diseases in mice,<sup>68</sup> and to inhibit histamine synthesis in mast cells in vitro.<sup>69</sup>

Atopiclair is a topical prescription cream that contains 2% glycyrrhetic acid as well as vitis vinefra (a grapevine extract which is high in antioxidants and enzymes that prevent degradation of proteins in the skin) and telmestine (which contains several classes of enzymes that inhibit the degradation of compounds important to the structure of the skin). Purified shea butter and hyaluronic acid are also present in this preparation and are high quality emollients. Several studies looking at use three times a day have found it to be beneficial in patients with mild to moderate atopic dermatitis.<sup>70-73</sup> Stinging and burning occurred in some people using this preparation.

### 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, chamomile has been called "alles Zustraut," which means "capable of anything." It has long been used to treat skin inflammation and it appears to have similar efficacy as 0.25% hydrocortisone. While good clinical studies are lacking, it does appear to have anti-inflammatory, anti-microbial, and antioxidant properties. Additionally, flavonoids present in chamomile have been shown to prevent histamine release from basophils.<sup>74</sup>

Chamomile can be found in cream or ointment formulations and should contain 20 gm of essential oil per 100 gm of the base. Chamomile can also be used in the bath by adding 5 gm

powder or 0.8 gm alcoholic extract per liter of water. Poultices can be prepared by steeping 6 gm dried powdered flower heads in 150 mg boiled water. Cool, then apply as a poultice for 1 hour twice a day.

There have been many reports of allergic contact dermatitis and irritation from chamomile. Although anyone can develop a contact dermatitis to chamomile, people who are known to be allergic to other members of the Composite family are at a higher risk, and should probably avoid products containing calendula—especially in areas of skin breakdown.

## Calendula

*Calendula officinalis* is commonly known as marigold and is also in the Composite family. It has been used historically to sooth irritated skin. Calendula can be found as a 2%-5% ointment/cream or as a tincture. A 1:1 tincture in 40% alcohol or a 1:5 tincture in 90% alcohol should be diluted with boiled water to a 1:3 ratio in order to be applied on the skin. 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, and should probably avoid products containing calendula, especially in areas of skin breakdown. There are no studies looking specifically at calendula use in atopic dermatitis, but it has been suggested to have antibiotic, antiviral, anti-inflammatory, and antioxidant properties.

## Food Grade Oils

Oils intended for consumption can work really well as occlusive moisturizers. Almond oil, avocado oil, apricot kernel oil, grapeseed oil, sunflower oil, jojoba oil, and coconut oil all work well. Some shea butter preparations can contain trace amounts of latex so should not be suggested for patients with latex allergy, but plain shea butter can function really well as an occlusive moisturizer. The only risk is contact dermatitis. Of course, any food allergies (such as tree nuts) should be taken into consideration when choosing an oil for topical application.

## Complementary Approaches

### Chinese Medicine

Chinese medicine (CM) is a system that has been around for over 2,000 years. It is rooted in the ancient philosophy of Taoism, and holds 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 CM, including acupuncture, herbal medicine, dietary recommendation, moxibustion (burning of Chinese herbs over specific locations on the body), tui na (Chinese massage), tai chi, and qi gong (specific movements or postures coordinated with breathing and mental focus).<sup>75</sup> Similar healing traditions exist in Japan and Korea, but they have developed distinctive features.

In the United States, acupuncture and Chinese herbal therapies are the most commonly utilized and studied CM techniques. When evaluating evidence for individual aspects of CM, consideration should be given to the fact that CM is a system, and practitioners often combine different techniques to maximize effectiveness—for example, prescribing herbs with acupuncture treatments. This is described in more detail in Chapter 18 of the [Passport to Whole Health](#).

A recently updated Cochrane review looked at 28 studies that examined the use of systemic or topical Chinese herbs alone for treatment of atopic dermatitis. Most of the studies were assessed as having a high risk for bias—especially in blinding. There were significant inconsistencies among the studies which led the authors to recommend interpreting any positive effect cautiously. Regardless of the shortcomings of the studies included in the review, many did show some improvement. Side effects were mild and generally resolved once the treatment was stopped. One participant was withdrawn due to exacerbation of the condition after starting the herbal treatment. The review authors' conclusion was that there is not conclusive evidence that Chinese herbs—either taken by mouth or applied topically—can reduce the severity of eczema.<sup>76</sup>

Larger and better quality studies may help clarify the benefit Chinese herbs might have in this condition. However, it is important to recognize that these types of therapies tend to be individually tailored to a specific patient's constellation of symptoms, and do not lend themselves well to randomized double-blinded controlled studies where all patients receive the same herbs at the same doses. A more complete discussion of the challenges faced in studying aspects of complementary and alternative medicine (CAM) is offered in [Passport to Whole Health](#), Chapter 14 Introduction to Complementary and Integrative Health Approaches." For more information on Chinese medicine approaches in general, go to [Passport to Whole Health](#) Chapter 18, "Whole Medical Systems."

Acupuncture has shown more consistent promise in studies. Several groups have confirmed that acupuncture reduces histamine-induced itch in healthy subjects.<sup>77-80</sup> One blinded, placebo controlled crossover study found significant decreases in Type I hypersensitivity related itch in 30 adults with atopic dermatitis treated with acupuncture.<sup>81</sup> Another study looked at subjective sensation of itch, along with quantitative evaluation of allergen-induced basophil activation. Ten patients with eczema (five in test group and five in control group) found significant decreases in both.<sup>82</sup>

Studies combining acupuncture with herbal treatments also have shown significant benefit. One group looked at 20 patients ages 13-47 with atopic dermatitis who underwent 12 weeks of treatment with acupuncture sessions twice a week and a Chinese herbal formulation taken 3 times a day. The herbal formulations were created from a list of 39 CM herbs and tailored to each patient based on his or her CM diagnoses. By the end of the study, all patients had improvement in the Eczema Area and Severity Index (EASI) with the mean decrease in the score being 63.5%. The mean Dermatology Life Quality Index decreased an average of 39.1% in 78.8% of participants and the Visual Analogue Scale decreased by an average of 44.7%.<sup>83</sup> Additionally, a Korean group treated 28 inpatients with severe atopic dermatitis with a combination of acupuncture, systemic herbs and topical herbal wet wraps and found significant improvement.<sup>84</sup>

When looking for a CM practitioner, one should inquire about certification and education. Any practitioner should at minimum have state licensure. The NCCAOM (National Certification Commission for Acupuncture and Oriental Medicine) has strict certification requirements and members are required to recertify every 4 years. For a list of practitioners certified by this agency, go to the [NCCAOM website](#).

## 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. Healing Touch practitioners place their hands above or gently on the patient in order to detect and manipulate the patient's energy field. In the United States, healing touch is now recognized as a standardized practice with certification requirements. Reiki treatments consist of a healer placing hands lightly on the patient or just above the patient in specific locations and holding them there for some amount of time. There are several schools of Reiki, and practitioner's techniques can vary. Currently, there is no specific standardized certification available for Reiki. Spiritual and faith healing is based on the belief that divine energy can direct healing, and that this divine energy can be called through displays of faith via prayer and/or rituals, or dispensed through connection with faith healers.

Energy medicine is a very subtle approach to facilitating healing and it is 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. For more information, see Chapter 17 of [Passport to Whole Health](#) on energy medicine.

## 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. It is based on the principles of treating "like with like" (a substance that causes a set of symptoms in healthy people can be used to treat those same symptoms in a diseased person) and "law of minimum dose" (the premise that the lower the dose of a medication, the greater the effectiveness). Remedy selection takes into consideration the patient's symptoms, personality traits, physical and psychological states, and life history.

Research evaluating homeopathy for atopic dermatitis has been mixed. One study of 17 patients with intractable atopic dermatitis not responding to conventional therapy found those patients benefited from the addition of pulsatilla to their conventional regimens.<sup>85</sup> The same author found similar results when individualized homeopathic remedies were added to a conventional medical approach in a series of 60 Japanese patients with chronic skin disease, including 25 patients with atopic dermatitis.<sup>86</sup> The most commonly used remedies in this study were pulsatilla, sulfur, and lycopodium with an additional 14 different remedies included. One observational study, comparing disease-related outcomes as well as cost of care between 48 children treated with homeopathy for atopic dermatitis and 87 children treated conventionally, found no difference in disease outcomes but did find increased costs.<sup>87</sup> Good-quality studies are difficult to find, and this area clearly needs more and better quality research before definitive statements can be made about the effectiveness of this modality regarding atopic dermatitis.

Because exacerbations of a condition are a potential adverse reaction, especially early on in therapy, 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). More information is available in “Whole Systems of Medicine,” Chapter 18 of the [Passport to Whole Health](#).

## Personal Health Plan

**Name:** Amy

### Meaning, Aspiration, Purpose (MAP):

My mission is to take control of my life and to help others do the same for their lives.

### My Goals:

- Optimize skin care
- Learn to manage stress and anxiety in healthy ways
- Improve sleep quality and diet
- Reach out to others

### Mindful Awareness:

- Explore medical hypnosis as a way to learn to access the trance state more regularly. Meeting with a hypnosis therapist several times to evolve into an at-home self-hypnosis practice.
- Explore breathwork with the CD “Breathing: The Master Key to Self-Healing” by Dr. Andrew Weil.

### Areas of Self-Care:

- Physical Activity
  - Try to find ways to exercise throughout the day. Examples could include walking more briskly between classes and lifting weights or stretching during study breaks.
  - Take the time to take care of my skin, especially after a workout. Lukewarm water bathing with application of an appropriate thick moisturizer immediately after can go a long way to keeping the skin barrier strong. Limit exposure to irritants by using a pH neutral soap only when necessary. Minimize flares with early use of topical steroids.
- Personal Development
  - Reframe my approach to personal responsibilities. What are they and how are they helping me fulfill my dreams? This can help keep a positive attitude about how much is going on and give a point of focus when things start to feel overwhelming.
  - Keeping a journal about goals and progress can help keep life in perspective and can be a reminder to recognize the joy along this journey.
- Nutrition

- Eliminate soda from diet—instead drink tea or water. Using tea bag, cucumber, mint, or fruit to flavor water might help make that transition easier.
- Eliminate or minimize fast and processed foods from diet. Try to eat mostly fruits and vegetables with whole grains and lean protein. Aim to get 40 gm of fiber per day. Explore anti-inflammatory diets and Mediterranean type diets. Consider omega-3 supplements.
- Recharge
  - Create an evening pre-sleep ritual that is soothing and relaxing. Avoid screens (TV, computer, smartphone) up to an hour before bed and make sure the bedroom is cool and dark. Limit caffeine (particularly after noon) and alcohol. Use breathwork and/or self-hypnosis or Guided Imagery to help relax before sleep.
- Spirit and Soul
  - It might be helpful to reconnect with the religious community. Taking time to acknowledge the spiritual nature of life may help maintain a more positive outlook. This could also be a good source of community and offer a way to connect with others.

## Professional Care: Conventional and Complementary

- Prevention/Screening
  - Up-to-date
- Treatment (e.g., conventional and complementary approaches, medications, and supplements)
  - Triamcinolone ointment
  - Betamethasone dipropionate ointment
  - GLA supplements
- Skill building and education
  - Journal
  - Breathwork
  - Anti-inflammatory diet

## Referrals/Consults

- Medical hypnotherapist

## Resources

- Review the [Environmental Working Group](#) website for tips on avoiding toxic exposures in pregnancy. Information is also available there on shopping for organic produce.
- *The Natural Pregnancy Book: Herbs, Nutrition, and Other Holistic Choices* by Aviva Jill Romm, MD
- [Fish: What Pregnant Women and Parents Should Know](#): Advice by FDA and EPA

- [The National Center for Complementary and Alternative Medicine](#) website contains free information to help in choosing safe dietary supplements

## My Support Team

- Dermatologist
- Medical hypnotist
- Family
- Minister

## Follow-Up with Amy

Through the process of completing her Personalized Health Inventory (PHI), Amy realized that she was so busy trying to meet all of the demands of life that she wasn't taking time for self-care. She was also so run down that she was not able to live the life she wanted to live, or to be the kind of role model she wanted to be. She became motivated to learn what she could about how to take care of her skin, and, after doing some research on her own, she met with a dermatologist. With the new information, she created an evening ritual that consisted of a brief shower followed by application of almond oil or coconut oil to her entire body. She continued her triamcinolone twice a day on any patches of eczema that showed up and was given a slightly stronger steroid for more severe flares.

For two weeks after her appointment, she kept a symptom diary which included general food intake (anything new or in a larger quantity than usual) and a stress and activity log. She realized that she felt on edge most of the time. She met with a medical hypnotist who helped her learn to relax and, along with her twice weekly sessions of self-hypnosis (with the aid of CDs recommended by her hypnotist), she started incorporating some breathwork into her evening routine which really helps her settle down at night. She now turns off her TV and computer and turns on quiet relaxing music 30 minutes before bed. She has started to keep a pad of paper on her bedside table. When her mind starts to race in the evening, she writes her thoughts down, which helps her to let go of them. She is sleeping much better and wakes up most days feeling refreshed. These practices have made her feel more in control of her emotions and she is noticing that she is less reactive in her interactions with others—especially her loved ones.

She also saw that she was eating a lot of processed foods and drinking a lot of soda. She switched from coffee to tea and gave up soda in favor of water sometimes flavored with fruit or herbs. She committed to an anti-inflammatory dietary approach. Though she occasionally stops for fast food, she doesn't eat that type of food regularly. She has learned to have quick healthy options on hand that she can take with her for her long days of classes. Her improved diet helps her feel more energized. She also started taking supplemental GLA. She isn't sure, but she feels like it might be helping.

Amy has always been pretty fit, and regular exercise is something she had always enjoyed in the past. Now that her skin is in better shape, sweat doesn't bother her as much. She has more energy (which she attributes to better diet and sleep) and has joined a fitness class twice a week. She also makes sure that she is walking at least an hour a day which she fits in between classes.



She has recently contacted her old minister and, though she doesn't attend church regularly, she has gotten involved in a mentorship program for at-risk teen girls sponsored by her old church. She meets with the girls once a month and leaves those meetings feeling hopeful about life.

Overall her grades are better and she feels like she is thriving. She knows what she needs to do to prevent and minimize the effects of eczema flares. Now when she experiences a flare, she is able to control the flare instead of the flare controlling her.

## Integrative Health Tools

- [Acne](#)
- [Atopic Dermatitis](#)
- [Psoriasis](#)
- [Rosacea](#)
- [Seborrheic Dermatitis](#)
- [Skin Cancer](#)
- [Supplements for Skin Health](#)

## Resources

- [National Eczema Foundation](#)
- [American Society of Clinical Hypnosis](#)
- [National Certification Commission for Acupuncture and Oriental Medicine](#)

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