THE UNIVERSITY OF BRITISH COLUMBIA
Continuing Professional Development
Faculty of Medicine

**UBC CPD**
Division of Continuing Professional Development
Faculty of Medicine
City Square, 200-555 W 12th Ave
Vancouver BC Canada V5Z 3X7
T 604.675.3777
ubccpd.ca

# Caregiver Education Of Atopic Dermatitis In Children[1]

Video: https://youtu.be/VwipzZh7Dao

## My child has just been diagnosed with atopic dermatitis. What do I need to know?

Atopic dermatitis (sometimes also colloquially referred to as eczema) is a chronic disease, which typically go through periods of flares and remissions. It typically presents with dry, red, and itchy skin and is due to a problem in the skin barrier. There is no blood test to diagnose eczema. Fortunately, most children outgrow it, though some may need to learn to live with it for the majority of their lives.

## Why do some people get atopic dermatitis?

Atopic dermatitis is due to both genetics and the environment. Atopic dermatitis is more common in children with a family history of it along with other atopy conditions (i.e. asthma and allergic rhinitis), though not all patients necessarily have a family history. It is largely a genetic condition due to the dysfunction of the genes that control the skin barrier function. However, environmental factors have been known to trigger flares of atopic dermatitis.

## How can I better understand atopic dermatitis? What is its pathophysiology?

We can think of atopic dermatitis largely as a disease of skin barrier dysfunction. The epidermal barrier is found in the lower layers of the *stratum corneum* (the most superficial layer of the epidermis) and is composed of corneocytes, held together with corneodesmosomes[2] – much like bricks and mortar, respectively. A defective epidermal barrier allows a variety of allergens to penetrate that don't normally penetrate through the skin to do so. This results in the interaction of allergens with the local antigen-presenting cells and immune effector cells, which can result in hyperactivity of the immune system and resultant inflammation.

Thus, the use of moisturizers help to repair this skin barrier dysfunction and the use of topical anti-inflammatory therapies including topical corticosteroids help to reverse this resultant inflammation. These are not just symptomatic treatments but disease-modifying solutions! By sharing this pathophysiology and treatment rationale with parents/caregivers, it can help tremendously in improving adherence.

## Can atopic dermatitis be cured?

While there is no cure for AD, it can be effectively managed with an appropriate treatment plan, such as the Atopic Dermatitis Action Plan.

## How do we treat my child's atopic dermatitis?

The main goal in treating AD is to prevent flares and decrease itching. Because the root of the problem is the skin barrier, a critical part of the treatment for every patient with atopic dermatitis is routine gentle skin care including liberal use of moisturizers. Moisturizers should be applied at least twice daily and immediately after water exposure such as showering or bathing. In general, thicker moisturizers are more effective – for instance, ointments are better than creams and creams better than lotions.

## My child often gets AD flares. What should be done?

Eczema flares can be managed by hydrating the skin with appropriate bathing and liberal moisturizer use, as well as by reducing inflammation with topical anti-inflammatory medications such as topical corticosteroids, which are prescribed based on their strengths. Please ask your physician for a personalized version of your Atopic Dermatitis Action Plan.

## When should treatment for flares begin and end?

Atopic dermatitis flares should be treated as soon as they are noticed, i.e. at the first signs of itch, redness, and scaling. In addition, treatment should not be stopped too soon – the skin should be completely clear before stopping treatment. All too often, treatment is started too early before the skin is fully clear, causing the skin to rapidly worsen again.

## How much topical corticosteroids should be used?

One fingertip unit (FTU) is the amount of topical from the fingertip to the first bend in the finger.

This will generally cover an area equal to two palms.

## What else should I know about topical corticosteroids?

Although there are many different names and percentages of topical steroids, they are not all the same – don't be fooled by their percentages!

Though their side-effect lists may be similar (e.g. skin thinning, straie, dyspigmentation), topical corticosteroids are divided into 7 classes by potency (with class 1 being the most potent and class 7 being the least) and are prescribed carefully based on anatomical location to treat the inflammation of AD.

## What is an approximate timeline for clearance of flares?

Atopic dermatitis lesions should be able to be improved within 2 weeks if the medication is appropriate.

## Besides adhering to prescribed treatments, are there any things my child should avoid?

Yes, it is just as important to attempt to identify and avoid triggers, known as 'atopy triggers'. Common triggers include fragrances in soaps and other self-care products, fabrics such as wool, overheating and sweating, as well as dry, seasonal weather. It is important to note that even when triggers are strictly avoided, flares can still occur.

## Is there anything else to do to prevent or treat flares?

Keeping your child's nails cut short has been advised in order to reduce the itch-scratch cycle.

Bleach baths and wet wraps for flares may also be helpful!

Oral sedating antihistamines can be prescribed and may be helpful in children when AD interferes with nighttime sleeping. Atopic dermatitis has been called "the itch that rashes".

## After the AD flares have cleared, I have noticed some white or dark spots on my child's skin. Are they harmful?

No, these are not harmful and will usually fade with time. Atopic dermatitis can often leave behind lighter or darker spots after being treated and can be referred to as "post-inflammatory hypopigmentation/hyperpigmentation". Usually, this is caused by the AD itself as opposed to the treatment.

## What is the biggest barrier to treating atopic dermatitis?

Great question! The most significant barrier to treatment is poor adherence. Treating atopic dermatitis is a lot of work and requires persistence and diligence. Some children and families do not like the feel of the creams and flexibility may be necessary to find a long-term solution works for them. This is why healthcare provider counselling is so important. Patient education can help to improve adherence and improve this barrier.

## Would allergy testing my child be helpful?

No, broad panel allergy testing is not recommended in routine atopic dermatitis without the presence of signs and symptoms of an IgE-mediated allergy. If you have a specific allergy concern, that is worth discussing with your physician. Children with atopic dermatitis do have higher rates of food allergies, but atopic dermatitis itself is not caused by a food allergy.

Unfortunately, some patients are offered a blood test (called a food sensitivity test) from an alternative healthcare provider (often a naturopath or homeopath). While this may seem helpful, almost all patients who have this testing done have positive test results to multiple foods even though they are not allergic. This testing method has been widely disproven, and does not identify food allergies. This testing often leads to families avoiding health foods when this is not necessary, and putting their child at risk to develop a food allergy through unnecessary avoidance.

## Would a particular diet be recommended for my child with atopic dermatitis?

No, a restrictive diet is not recommended in routine atopic dermatitis without the presence of signs and symptoms of an IgE-mediated allergy. In fact, some children trialed on these restrictive diets may end up with nutritional deficiencies, or end up developing an anaphylactic allergy to the foods they have needlessly avoided.

## Is there anything else I should know?

As per the Atopic Dermatitis Action Plan, it is important to contact a physician if the recommended/prescribed treatments are not working, if there are any signs of infection, and/or if there is a significant impact on quality of life (i.e. difficulty attending school, sleeping, concentrating).

---

# References


1. Weinstein M, Barber K, Bergman J, Drucker AM, Lynde C, Marcoux D, Rehmus W, Cresswell-Melville A. Atopic dermatitis: a practical guide to management. *Health Care Provid Resour.* 2016:1-2.
2. Cork MJ, Danby SG, Vasilopoulos Y, et al. Epidermal Barrier Dysfunction in Atopic Dermatitis. *J Invest Derma.* 2009;129:1892-1908.


# Links

- American Academy of Dermatology: http://www.aad.org/
- Canadian Dermatology Association: http://www.dermatology.ca/
- The Eczema Centre: http://www.eczemacenter.org/
- The Eczema Society of Canada: https://eczemahelp.ca/about-eczema/treating-eczema-atopic-dermatitis/
- National Eczema Society – UK: http://www.eczema.org/

# Acknowledgements


This handout was produced as course material for: **Pediatric Atopic Dermatitis Online Education** https://ubccpd.ca/course/pediatric-atopic-dermatitis. The course was designed in partnership by UBC CPD, Child Health BC, and BC Children's Hospital.

THE UNIVERSITY OF BRITISH COLUMBIA
Continuing Professional Development
Faculty of Medicine

CHILD HEALTH BC
LEAD BENEFACTOR
saveonfoods

BC CHILDREN'S HOSPITAL
An agency of the Provincial Health Services Authority