

Decision Aid for children with eczema and their caregivers



What is eczema?

Eczema, also known as atopic dermatitis, is a skin condition that causes an itchy rash. Eczema can flare (worsen) when exposed to certain triggers, such as changes in the weather, a viral infection, rough materials like some wool, fragrances (such as in lotions) and harsh soaps, detergents, and cleaning products. Allergens like dust mites, pet dander, and pollen can also be triggers. Food can be a trigger, although this happens rarely. Treatment for eczema may include medication. Your doctor may also talk to you about how to avoid triggers.^{1,2,3}

ECZEMA TRIGGERS



Harsh soaps



Changes
in seasons



Viral and Other
Infections



Allergens
*(such as pet dander,
dust, pollen, or from
certain products)*



Sweating



Psychological
Stress

Overview of this Decision Aid

In the following pages, you will see different eczema treatment options based on the severity of your eczema: mild eczema, moderate eczema, and severe eczema. (NOTE: Throughout this tool, we refer to “your eczema,” but this phrase can also mean “your child’s eczema.” We also provide treatment options for dry skin, which is a common problem among individuals with eczema).

ECZEMA SKIN CARE



Moisturization



Baths



Wet
wraps



Topical or systemic
treatments

Do I have to treat my eczema?

Leaving eczema untreated is an option. However, untreated eczema can cause more inflammation and itchiness and may impact mental and physical health, such as by causing sleep disruption or increasing the risk of depression and anxiety. Untreated eczema can also lead to complications like skin infections, and untreated eczema on the face might increase the risk of food allergies and other allergic conditions.

There is no cure for eczema. Treatment for eczema depends on the severity of the condition, and its location on the body. The photos below are examples of mild, moderate and severe eczema.

“It’s basically just for everybody, a trial and error, what works for you, what doesn’t. Everyone’s skin is different. So, not everyone’s going to know what exactly your skin routine is.”

– WHAT PATIENTS SAY ABOUT
TREATING ECZEMA

MILD



MODERATE



SEVERE



Eczema Treatment Options

What is important to you when it comes to treating your eczema? Fill out the Patient Values Worksheet at the end of this document and discuss your values with your health care provider.

Moisturization

Skin affected by eczema has a weak barrier and cannot properly hold moisture, keep out irritating substances, or support growth of normal, protective skin germs. Keeping your skin moisturized can help protect it and promote normal function.⁴

- There is no limit to the amount and frequency of moisturizer applied.
- If your hands are dry or have eczema, moisturize every time they become wet, such as after washing.
- If you use a prescription topical medication, apply it as directed, before you moisturize.
- Apply a thick layer of moisturizer all over your skin quickly after bathing or showering to “lock in” moisture and protect the skin barrier.
- Moisturizers contain a mixture of oil and water. The more the oil, the better the moisturizer for dry skin. Ointments (Vaseline, Aquaphor) have the most oil, then creams, Vanicream, Eucerin, Cetaphil), then lotions (which are mostly water).
- Moisturizers that are fragrance- and dye-free are the least likely to cause skin allergies.

Bathing

A daily bath (or shower) can be useful as a way to get moisture into the skin. Baths (or showers) *without moisturizer* right afterwards can dry the skin. Baths should not be too hot and should be limited to under 10 minutes if possible.



Dilute Bleach Baths

Twice weekly to daily dilute bleach baths can be an easy and inexpensive maintenance treatment to control skin inflammation and reduce crusting if the eczema is moderate or severe.

- Make sure to apply medication and moisturize after soaks.
- Continue with regular skin routine.

Special areas like hands and feet can be soaked outside bathtub (see pictures above).

Colloidal Oatmeal Bath Additive

Colloidal oatmeal* is soothing, anti-inflammatory, and can help to retain skin moisture.^{5,6} To use in the bath, add finely ground oatmeal or ready-made 100% natural colloidal oatmeal to your bath.

*Do not use oatmeal or food proteins on skin when your child has a food allergy.

Topical Treatments

For Mild to Severe Eczema

When treating mild eczema, you should continue trigger avoidance and the basic treatments listed under Moisturization and Bathing, and your physician may recommend adding one or more of the topical treatments described below to treat active rash. Discuss these treatments with your health care provider to decide which topical treatment is best for you.^{7,8} Use the Eczema Action Plan at the end of this document to make a treatment plan.

Topical treatments are creams, ointments, lotions, hydrogels, oils, or sprays that are applied to the skin. Ointments are used frequently because they are the most moisturizing and are well tolerated. Topical (cortico)steroids are also frequently used. Steroids range in strength from over-the-counter hydrocortisone to prescription super potent steroids for severe flares. Most individuals with mild eczema can use the topical medication until their eczema clears, with moisturizers between flares. Regardless of severity, the body location of the eczema can affect the choice of medication. The face, and especially the thin-skinned eyelids, are sensitive to medication effects. As a result, only mild topical steroids or nonsteroidal medications are used on the face.

	No treatment	Corticosteroid ☆	Calcineurin inhibitor (tacrolimus/Protopic; pimecrolimus/ Elidel) ^{9,10,11}	Phosphodiesterase(PDE) 4 inhibitor (crisaborole/ Eucrisa) ¹²	Janus Kinase (JAK) inhibitor (ruxolitinib/ Opzelura) ^{13,14}	Wet wrap therapy ^Δ	
Notable Side Effects	Itchy, red skin; increased infection risk	Common side effects: None Occasional burning and stinging Side effects associated with long-term, frequent application: stretch marks; reversible skin thinning, local hair growth, spider veins, eczema recurrence	Early FDA warning, but now shown to be very safe, even in children;* discuss with your physician. Burning, stinging	Burning, stinging	Infections FDA warning for all JAK inhibitors [#] ; discuss with your physician	Wet feeling Can increase absorption of topical steroid Risk of infection if not used properly	
Cost	-	\$-\$	\$-\$	\$\$\$	\$\$\$\$	\$	
Speed of Results	-	Days to weeks					Immediate
Duration of Results	-	Eczema often recurs when treatment is stopped					Temporary effects
Convenience	-	Apply as prescribed, typically up to 2 times per day					Inconvenient to apply
	-	Can be used on multiple body parts with different levels of severity	-	-	Limit use to 20% or less of body surface area	Recommended on top of other treatment options	
Age Group+	-	Any age	Any age+	3 months and up	12 years and up	Any age	

*The topical calcineurin inhibitors were given a boxed warning for a possible increased risk of lymphoma. Clinical studies in the past 15 years suggest that there is no association with lymphoma^{9,10} and it can be used safely without the risks seen with topical steroids. Discuss with your health care provider for more information.

+Medications are often used in younger children "off-label," meaning beyond what was approved by the FDA. FDA approval for corticosteroids varies by product and calcineurin inhibitors are approved for patients > or = 2 years old.

#JAK inhibitors have been associated with serious infections, heart and vascular system effects, blood clots, and increased risk of death in adults with rheumatoid arthritis. The boxed warning is for the entire class and primarily refers to these medications when taken by mouth. Topical use to up to 20% of body surface area has not been associated with safety risk.

Δ Moisten the clothing or gauze in warm water until they are slightly damp. Next, wrap the moist dressing around the affected area. Then gently wrap a dry layer (of pajamas or gauze) over the wet one.

☆ The most commonly recommended treatment.

How much medicine to use?

One adult fingertip unit is enough to spread on an entire palm (including fingers) of an adult.

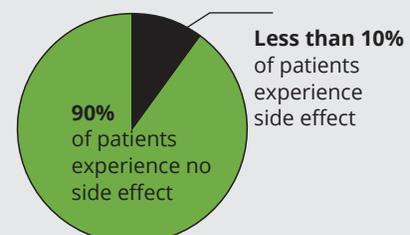


1 Fingertip Unit (FTU)
From fingertip to first crease



1 Palm
From fingertip to wrist crease

Corticosteroid Use — Risk of Side Effects¹⁵



Systemic Treatments

For Moderate to Severe Eczema

Stronger topical steroids are needed to bring the skin redness and itch under control; lower strength topical steroids or non-corticosteroids are used to maintain control. Stopping or reducing corticosteroids is often followed by worsening. **For topical treatments, see previous page.** If you are not responding well to topical treatment, your health care provider may: 1) recommend stronger topical medication, 2) consider another diagnosis, or 3) refer you to a specialist.

If you are using adequate amounts of topical medication as recommended and still have itch and skin redness, a systemic treatment option may be needed to manage your eczema. There are certain bacteria, such as *Staphylococcus aureus* (staph) that are known to be a trigger for eczema, and treatment may include antibiotics if clinical infection is recognized.

Systemic Treatments

	No treatment	Dupilumab (Dupixent®) (IL-4 receptor antagonist) ^{16,17} ☆	*Systemic immunosuppressants (such as cyclosporine, methotrexate) (By mouth or injection)	Phototherapy/Light therapy (Narrowband UVB) ¹⁸	Upadacitinib (Rinvoq®) (JAK inhibitor) ^{19,20}
Some Side Effects and Recommended Monitoring	Itchy, red skin, rashes, sleep disturbance, increased risk of infections	Low risk of reaction at the site of injection; eye dryness or inflammation Good safety data for up to 5 years; longer term unknown	Depends on the specific medication. Numerous potential side effects. Requires laboratory monitoring	Eye damage, skin cancer risk low	Requires laboratory monitoring, including bloodwork to rule out infection before starting, #Discuss boxed warning with your physician
Cost	-	\$\$\$\$	\$\$-\$	\$\$-\$\$\$	\$\$\$\$
Speed of Results	-	2-12 weeks ¹⁵	Speed: Cyclosporine within 6 weeks, methotrexate at least 6 weeks, but up to 3-6 months for maximal effect.	3-8 weeks	2-4 weeks
Duration of Results	-	Long lasting results with continued use	Duration: Cyclosporine: 3-12 months Methotrexate: usually up to 2 years	Long lasting results with continued use	Unknown
Convenience	-	At home or in office injections required every 2 to 4 weeks. No lab testing needed	Requires blood monitoring by a health care provider ³	Time consuming and limited availability. Largely used for maintenance and too inconvenient for most	Oral medicine, given daily
Age Group	-	6 months and up	Any age, but no non-steroidal immunosuppressants are FDA approved for eczema	Depends on tolerability	12 years and up

*Systemic immunosuppressants are contraindicated for almost all children; cyclosporine was used in the past because it is fastest acting, followed by use of phototherapy or an alternative systemic immunosuppressant, most often methotrexate. However, dupilumab is now the treatment of choice.

#FDA warning: this treatment may cause serious infections, malignancy, thrombosis, and cardiovascular risk.

☆ The most commonly recommended treatment.

REFERENCES

- American Academy of Dermatology (2022). Atopic Dermatitis Clinical Guidelines. Retrieved from: <https://www.aad.org/member/clinical-quality/guidelines/atopic-dermatitis>
- Fishbein, A. B., Silverberg, J. I., Wilson, E. J., & Ong, P. Y. (2020). Update on Atopic Dermatitis: Diagnosis, Severity Assessment, and Treatment Selection. *The Journal of Allergy and Clinical Immunology: In Practice*, 8(1), 91–101.
- Boguniewicz, M., Fonacier, L., Guttman-Yassky, E., Ong, P. Y., Silverberg, J., & Farrar, J. R. (2018). Atopic dermatitis yardstick: Practical recommendations for an evolving therapeutic landscape. *Annals of Allergy, Asthma & Immunology*, 120(1), 10–22.e2.
- Moisturizing for Eczema. Retrieved from National Eczema Association website: <https://nationaleczema.org/eczema/treatment/moisturizing/>
- CFR - Code of Federal Regulations Title 21. <https://www.accessdata.fda.gov/scripts/cdrh/cdoci/cftr/cfrsearch.cfm?CFRPart=347&showFR=1>
- Soltan, M., Hojati, M., Vafaei, S.-Y., Almadimoghaddam, D., Mohammadi, Y., & Mehrpooya, M. (2020). The efficacy of colloidal oatmeal cream 1% as add-on therapy in the management of chronic irritant hand eczema: a double-blind study. *Clinical, Cosmetic and Investigational Dermatology*, 13, 241–251.
- Buys, L. M. (2007). Treatment Options for Atopic Dermatitis. *American Family Physician*, 75(4), 529–528. <https://www.aafp.org/afp/2007/0215/p523.html#:~:text=Clinical%20trials%20have%20shown%20that>
- Controlling Your Eczema (Atopic Dermatitis). ACAAI Public Website. https://acaai.org/resource/controlling-your-eczema-atopic-dermatitis/#g_4
- Ashcroft, D. M., Dimmock, P., Garside, R., Stein, K., & Williams, H. C. (2005). Efficacy and tolerability of topical pimecrolimus and tacrolimus in the treatment of atopic dermatitis: meta-analysis of randomised controlled trials. *BMJ*, 330(7490), 516.
- Astellas Pharma, U. S. Protopic® (Tacrolimus) ointment 0.03% and ointment 0.1% (US prescribing information). Product monograph, Protopic Revised January 2011.
- Eichenfield, L. F., & Beck, L. (2003). Elidel (pimecrolimus) cream 1%: A nonsteroidal topical agent for the treatment of atopic dermatitis. *Journal of Allergy and Clinical Immunology*, 111(5), 1153–1168.
- Palter, A. S., Tom, W. L., Lebowitz, M. G., Blumenthal, R. L., Boguniewicz, M., Call, R. S., Eichenfield, L. F., Forsha, D. W., Rees, W. C., Simpson, E. L., Spellman, M. C., Stein Gold, L. F., Zaenglein, A. L., Hughes, M. H., Zane, L. T., & Hebert, A. A. (2016). Efficacy and safety of crisaborole ointment, a novel, nonsteroidal phosphodiesterase 4 (PDE4) inhibitor for the topical treatment of atopic dermatitis (AD) in children and adults. *Journal of the American Academy of Dermatology*, 75(3), 494–503.e6.
- Opzelura (ruxolitinib) cream - accessdata.fda.gov. https://www.accessdata.fda.gov/drugsatfda_docs/applletter/2021/215309Orig1s000ltr.pdf
- Papp, K., Szepietowski, J. C., Kirck, L., Toth, D., Eichenfield, L. F., Leung, D. Y. M., Forman, S. B., Venturana, M. E., Sun, K., Kuligowski, M. E., & Simpson, E. L. (2021). Efficacy and safety of ruxolitinib cream for the treatment of atopic dermatitis: Results from 2 phase 3, randomized, double-blind studies. *Journal of the American Academy of Dermatology*, 85(4), 863–872.
- Fishbein, A. B., Mueller, K., Lor, J., Smith, P., Palter, A. S., & Kaat, A. (2019). Systematic Review and Meta-analysis Comparing Topical Corticosteroids With Vehicle/Moisturizer in Childhood Atopic Dermatitis. *Journal of Pediatric Nursing*, 47, 36–43.
- Simpson, E. L., Palter, A. S., Siegfried, E. C., Boguniewicz, M., Sher, L., Gooderham, M. J., Beck, L. A., Guttman-Yassky, E., Pariser, D., Blauvelt, A., Weisman, J., Lockshin, B., Hulst, T., Zhang, Q., Kamal, M. A., Davis, J. D., Akinlade, B., Staudinger, H., Hamilton, J. D., & Graham, N. M. H. (2019). Efficacy and safety of dupilumab in adolescents with uncontrolled moderate to severe atopic dermatitis. *JAMA Dermatology*, 156(1), 44–56.
- Palter, A. S., Siegfried, E. C., Thaji, D., Wollenberg, A., Cork, M. J., Arkwright, P. D., ... & Shumel, B. (2020). Efficacy and safety of dupilumab with concomitant topical corticosteroids in children 6 to 11 years old with severe atopic dermatitis: A randomized, double-blind, placebo-controlled phase 3 trial. *Journal of the American Academy of Dermatology*, 83(5), 1282–93.
- Meduri, N. B., Vandergriff, T., Rasmussen, H., & Jacobs, H. (2007). Phototherapy in the management of atopic dermatitis: a systematic review. *Photodermatology, Photoimmunology & Photomedicine*, 23(4), 106–112.
- Guttman-Yassky, E., Teixeira, H. D., Simpson, E. L., Papp, K. A., Pangan, A. L., Blauvelt, A., Irvine, A. D. (2021). Once-daily upadacitinib versus placebo in adolescents and adults with moderate-to-severe atopic dermatitis (Measure Up 1 and Measure Up 2): results from two replicate double-blind, randomised controlled phase 3 trials. *Lancet*, 397(10290), 2151–2168.
- Simpson, E. L., Papp, K. A., Blauvelt, A., Chu, C. Y., Hong, H. C., Katoh, N., Calimlim, B. M., Thyssen, J. P., Chiou, A. S., Bissonnette, R., Stein Gold, L. F., Wegzyn, C., Hu, X., Liu, M., Liu, J., Tenorio, A. R., Chu, A. D., & Guttman-Yassky, E. (2022). Efficacy and Safety of Upadacitinib in Patients With Moderate to Severe Atopic Dermatitis: Analysis of Follow-up Data From the Measure Up 1 and Measure Up 2 Randomized Clinical Trials. *JAMA Dermatology*, 158(4), 404–413.

This research was made possible by an unrestricted grant from Pfizer and the American College of Allergy, Asthma and Immunology.
 This document has not been reviewed by the FDA.

ECZEMA UNDER CONTROL:

(Skin soft, supple, maybe some dryness or temporary skin darkening or lightening)

- Step 1: Bathe (5-10 minutes) in lukewarm water every day or every other day
- Step 2: Pat skin dry and apply moisturizer within 3 minutes of finishing bath to seal in moisture
- Step 3: Apply moisturizer 2 more times during the day to skin that feels dry or often flares

If you have moderate to severe eczema, clear skin with topical steroids and then try preventive (proactive) treatment 2-3 times weekly of mid-strength topical steroid or calcineurin inhibitor to skin areas that would flare without continued medications.

_____ Use on _____ Apply _____ times _____
(BODY PART)

_____ Use on _____ Apply _____ times _____
(BODY PART)

If symptoms do not improve ADD:

FLARE TREATMENT *(redness, some itch)*

_____ Use on _____ Apply _____ times _____
(BODY PART)

(Maximum _____ days)

_____ Use on _____ Apply _____ times _____
(BODY PART)

With improvement decrease to mild treatment

When to call your doctor:

- Signs of infection *(such as oozing, crusting, pus bumps, increased skin pain, fever).*
- Eczema does not improve or worsens despite following the treatment plan.
- Sudden worsening



Contact information:

ECZEMA UNDER CONTROL:

(Skin soft, supple, may be some dryness or temporary skin darkening or lightening)

- Step 1: Bathe (5-10 minutes) in lukewarm water (+ bleach) every day or every other day
- Step 2: Pat skin dry and apply moisturizer within 2-3 minutes after bath to seal in moisture
- Step 3: Apply moisturizer 2 more times during the day to skin that feels dry or often flares

If you have moderate to severe eczema, clear skin with topical steroids and then try preventive (proactive) treatment 2-3 times weekly of mid-strength topical steroid or calcineurin inhibitor to skin areas that would flare without continued medications.

PROACTIVE TREATMENT

_____ Use on _____ Apply _____ times _____
 (BODY PART)

If flaring
ADD:

MILD FLARE TREATMENT *(redness, some itch)*

_____ Use on _____ Apply _____ times _____
 (BODY PART)

(Maximum _____ days)

_____ Use on _____ Apply _____ times _____
 (BODY PART)

Flares under control, decrease to dry skin care

If symptoms do not improve
ADD:

SEVERE FLARE TREATMENT *(very itchy rash)*

_____ Use on _____ Apply _____ times _____
 (BODY PART)

(Maximum _____ days)

_____ Use on _____ Apply _____ times _____
 (BODY PART)

With improvement decrease to mild treatment

When to call your doctor:

- Signs of infection *(such as oozing, crusting, pus bumps, increased skin pain, fever).*
- Eczema does not improve or worsens despite following the treatment plan.
- Sudden worsening

Contact information:

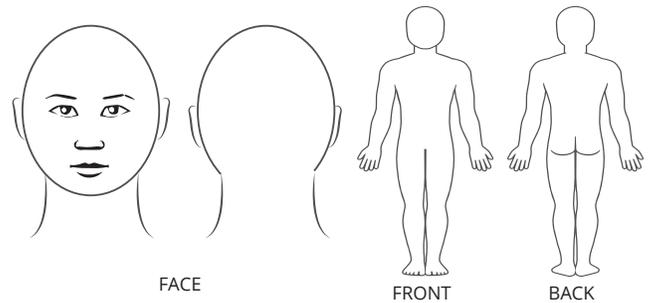


Take a moment to respond to the questions below. Your responses may help you and your health care provider to select the best treatment for your eczema.

The figures below show the body areas most commonly affected by eczema. Put an "X" where you have eczema and circle the areas where you want treatment for your eczema.

Below are some common symptoms of eczema. Which of these symptoms of eczema are most bothersome to you? (check all that apply)

- Redness
- Itch
- Rough/bumpy skin
- Dry skin
- Other - please specify: _____



Below are some ways eczema symptoms affect people's lives.

Which of these do you experience? (check all that apply)

- Disturbing sleep
- Avoiding swimming or other sports
- Feeling embarrassed, self-conscious, upset, or sad
- Having to wear different or special clothes
- Interfering with your school time
- Having other people call you names, tease you, bully you, ask you questions, or avoid you because of your skin

How important are the following factors to you when picking an eczema treatment?

Rate each on a scale of 1 to 5 (1 meaning not that important; 5 meaning extremely important)

Cost	1	2	3	4	5
Speed of results	1	2	3	4	5
Duration of results	1	2	3	4	5
Side effects	1	2	3	4	5
Convenience	1	2	3	4	5
Proven efficacy in clinical studies	1	2	3	4	5
Scent/odor	1	2	3	4	5
Sticky/tacky feeling	1	2	3	4	5
<i>For severe disease only:</i>					
How you get the medication (topical, oral, a shot)	1	2	3	4	5

Trigger Avoidance

Trigger avoidance is an important part of controlling your eczema. Common eczema triggers are changes in the weather, a viral infection, rough materials like wool, or heavily fragranced lotions, soaps, detergents, and cleaning products. Allergens like dust mites, pet dander, and pollen can also be triggers.

What triggers bother your eczema? **Circle the images above and discuss with your health care provider.**



Harsh soaps



Changes in seasons



Viral and Other Infections



Allergens
(such as pet dander, dust, pollen, or from certain products)



Sweating



Psychological Stress