

ECZEMA

THE ITCH THAT RASHES

by Flora Krasnoshtein

Eczema is a general term encompassing different chronic relapsing inflammatory skin conditions associated with epidermal barrier dysfunction. Atopic dermatitis, or atopic eczema is often referred to as “the itch that rashes.

What causes eczema?

While the cause is not known, evidence suggests that a clear genetic link exists—when both parents are affected, there is a greater than 80% chance that their children will have the condition as well. Generally, eczema is a trait of complex interactions of genetic and environmental factors, believed to be a manifestation of an abnormal immune response. In people with eczema, the inflammatory response to irritating substances overacts, triggering itching and scratching. While there is no cure for it, the condition can be managed well with treatment and lifestyle modification.

Clinical features of eczema

- Skin that itches, as well as rashes
- Scratching, extremely dry skin, inflammation, exudation (the “weeping” of clear fluid)
- Early age of onset
- Personal or family history of atopy (asthma, allergic rhinitis, food allergies or eczema)
- Duration longer than six weeks
- Skin lichenification (thick leathery skin occurring over time as a protection against scratching)
- Exacerbations (“flare-ups”) and remissions

Managing eczema

There is no cure for eczema, but in most cases, it can be controlled with proper treatment that focuses on symptomatic relief including skin hydration and reduction of itching. Therapy Management involves avoidance of potential irritants, gently cleansing the skin of surface dirt, bacteria and sweat, hydrating the skin with an emollient treatment that provides or restores a protective barrier against

irritants, and careful use of topical anti-inflammatory agents. Awareness and prompt treatment of secondary infection are key. The goals of eczema therapy are:

- To gently cleanse and moisturize the skin and restore the skin’s protection against irritants.
- To reduce skin dryness, therefore helping to avoid irritation, itchiness and scratching that causes weeping and flare-ups.
- To teach patients how to avoid the triggers that cause flare-ups and how to keep skin clean and moisturized to reduce eczema episodes.
- To help patients manage their eczema to reduce the need for corticosteroids and other second-line treatments.
- To help patients enjoy an improved quality of life by managing their condition.

The standard of treatment for mild to moderate eczema is the use of emollients (used to help relieve dry skin by providing an oily layer over the skin and help trap moisture) and topical corticosteroids (used to help reduce inflammation). Moderate to severe eczema that has not responded to topical treatment may require the addition of second-line agents such as topical or systemic calcineurin inhibitors (tacrolimus and pimecrolimus), ultraviolet (UV) phototherapy, or systemic immunosuppressants (cyclosporine and azathioprine) and mycophenolate mofetil. (See Treatment options for eczema.)

Pharmacists can help reduce the need for topical corticosteroids and second-line treatments by educating patients on the importance of understanding their triggers and keeping their skin clean of irritants, moisturized to prevent the dryness that causes itching and protected against future irritations.

Breaking the itch-scratch cycle

Increasingly, clinicians are recognizing the importance of a multidisciplinary approach to the management of eczema, which includes medication, patient and family education on the condition, proper skin care, and ways to avoid triggers such as irritants and allergens. Patients also need to understand that by keeping their skin gently cleansed, effectively moisturized and protected, they can avoid the irritating and often painful cycle of itching, scratching and treatment.

Lifestyle modifications are believed to be the first line of defence in controlling eczema, regardless of its severity. By taking the following simple precautions, patients can help to reduce the severity and frequency of eczema flare-ups, avoid outbreaks or reduce the need for anti-inflammatory medications.

- Moisturize regularly by applying a moisturizer/

The “4 R’s” of eczema management

RECOGNIZE

Diagnosis—First, recognize that eczema is a combination of skin barrier dysfunction and an inflammatory response.

Understand that skin barrier is impaired and that treatment must begin immediately to stop the itch-scratch cycle and prevent damage.

REMOVE

Triggers—Eliminate the triggers that initiated the response or damaged the skin barrier, and clean the skin to remove dirt and bacteria before initiating treatment. Help patients identify and remove internal or external triggers that cause eczema flares, and instruct them on the use of mild cleansers, containing a blend of emollients and humectants, to rehydrate and protect the skin barrier.

RESTORE

Skin barrier function—Skin care management, which includes the use of a good moisturizer, can help restore the skin barrier and decrease the need for medications. Help patients understand the importance of restoring the skin barrier and maintaining a healthy state through regular use of gentle cleansers and moisturizers. Help them choose moisturizers with humectants (e.g., glycerin, urea) and emollients (e.g., dimethicone, silicone, cetyl alcohol, oils).

REGULATE

Immune induced inflammation—A treatment regimen of topical corticosteroids in combination with a good moisturizer during a skin flare-up is essential to help control the inflammation and help restore the skin barrier.

Ensure that patients understand how to use topical corticosteroids as directed, and know to use them only when other therapies (e.g., emollients) no longer produce relief. To help reduce the use of topical corticosteroids, instruct the patient on the use of a good-quality moisturizer.

Treatment options for eczema

TREATMENT	BENEFITS	COMMON SIDE EFFECTS
Emollients	Relieve dry skin, reduce itching which leads to scratching, irritation and the need for more treatment	
Corticosteroids (topical and systemic)	Help reduce inflammation and prevent scratching	<ul style="list-style-type: none"> • Topical: Skin thinning and atrophy, stretch marks, small red spots, dilation of blood vessels, growth retardation in children and changes in bone density in adults • Systemic: New flare-ups can develop when treatment is discontinued; diminished effectiveness
Calcineurin inhibitors (tacrolimus and pimecrolimus)	Help reduce inflammation	<ul style="list-style-type: none"> • Sensation of skin burning and irritation; risk of tumour development long-term
Ultraviolet (UV) phototherapy	Helps relieve moderate to severe cases	<ul style="list-style-type: none"> • Photoaging and increased risk of skin cancer
Immunosuppressants (cyclosporine, azathioprine, mycophenolate mofetil)	Help reduce inflammation	<ul style="list-style-type: none"> • Cyclosporine: Nephrotoxicity, immunosuppression, predisposition to cancer (cutaneous non-melanoma skin cancer and lymphoma) • Azathioprine: Nausea, bone marrow and hepatic toxicity • Mycophenolate mofetil: Gastrointestinal disturbance, increased risk of herpetic infections, and inhibition of hematopoietic and immune system (leukopenia, lymphopenia, anemia)
Sedative antihistamines	Help control severe itch and enable a restful sleep	<ul style="list-style-type: none"> • Drowsiness
Antibiotic ointment or cream	Help treat a bacterial infection of an eczema-affected skin	<ul style="list-style-type: none"> • Possible development of antibiotic resistance by colonized bacteria

Resources

Eczema Society of Canada

<http://70.47.127.244/eczema-help/>

Eczema/atopic dermatitis. American Academy of Dermatology. www.aad.org/public/publications/pamphlets/skin_eczema.html

EczemaNet. American Academy of Dermatology. www.skincarephysicians.com/eczemanet/index.html

Patient's guide to eczema. Skin Care Guide.ca. www.skincareguide.ca/eczema_guide/index.html

Eczema guide: Your prescription for eczema treatment information. Eczema Guide.ca. www.eczemaguide.ca

allergies (e.g., pollens, moulds, mites, animal dander).

- Limit contact with anything that may irritate skin (e.g., soaps, bubble bath, perfumes, cosmetics, laundry detergents, chlorine, fabric softeners, household cleaners, rough or synthetic fabrics, plants, jewellery).
- Avoid any foods that seem to trigger eczema flare-ups.
- Apply cold compresses to the skin to help relieve the itch.
- Follow a treatment regimen by moisturizing and using medications as directed by a doctor or pharmacist.

Approach to counselling

Pharmacists are encouraged to utilize the “4 R’s” approach of eczema management in discussions with patients who

present with eczema. This approach can help patients reduce the number and duration of flares. (See Eczema management, on page S36)

When to refer patients to the doctor

- First-line treatments are unsuccessful—A patient has not responded to topical corticosteroids and emollient plus lifestyle modifications
- Development of complications—A patient is experiencing secondary bacterial infection, eczema herpeticum (herpes simplex virus infection) or skin atrophy induced by an overuse of topical corticosteroids.

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emollient as often as every four hours at least three to four times a day; avoid lotions and personal-care products containing alcohol.

- Cleanse the skin gently to remove sweat, bacteria, dirt and dust which can trigger flare-ups. Bathe no more than once a day in warm or cool water and a mild cleanser. Cleansers should be formulated with a 5.5 pH and a blend of emollients and humectants. (e.g., Aquaril, Cetaphil Cleanser, Seaquanil, Spectroderm, Spectro Jel). Avoid lotions and personal-care products containing alcohol, fragrances and irritating surfactants or exfoliants.
- While the skin is still damp, and as often as every four hours, apply a gentle moisturizer containing a blend of emollients (cetyl alcohol, dimethicone, oils) and humectants (glycerin, urea).
- Limit exposure to sudden changes in temperature or humidity to prevent overheating and sweating; a drop in humidity can lead to dry skin and flare-ups.
- Avoid environmental factors that trigger

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