



Ditch the itch: emollient use in atopic dermatitis

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What is atopic dermatitis?

Atopic dermatitis is commonly referred to as “eczema.” It is a chronic inflammatory condition of the skin that is characterised by:

- pruritic (itchy) lesions, and
- xerosis (dry skin)

An area of thickened skin (lichenification) often occurs as a result of persistent scratching. The chronic itch-scratch cycle can also lead to broken skin, inflammation and infection.

Infants and newborns will usually present with dry skin over the entire body, with reddish (erythematous), scaly, crusted patches occurring over the cheeks, forehead, scalp and lower legs.

Children often present with lichenification due to repeated rubbing or scratching of dry skin, (especially over bony areas, skin folds and the forehead), as well as a generalised xerosis. Redness and scaling also often occur around the eyes and the backs of the knees, the insides of the armpits, elbows and the groin.

Adults generally present with a dry, scaly face, widespread lesions on an erythematous (reddish) background, xerosis and lichenification.

Atopic dermatitis can alternate between periods where the patient experiences symptoms (flares), and periods where the condition temporarily subsides or improves.

Who is affected by atopic dermatitis?

Both children and adults can be affected by atopic dermatitis, although the condition occurs more frequently in infants and children. Infants and children who are affected by atopic dermatitis can have the condition carry on into adulthood. The intense pruritis is the main cause of distress in both children and adults, resulting in disturbed sleep cycles and missed school or work days.

What causes atopic dermatitis?

See Figure 1.

How is atopic dermatitis managed?

Atopic dermatitis is generally managed through the use of emollients (moisturisers) and topical corticosteroids, the aims of which are to:

- Treat the symptoms (itchiness and dryness)
- Prevent the flares
- Repair the skin barrier

Since an improperly functioning skin barrier is the main factor leading to the start and progression of atopic dermatitis, the overall aim of managing the condition would therefore be to maintain and protect the skin barrier.

Maintaining the skin barrier through the daily use of emollients has been shown to:

- Reduce the severity of atopic dermatitis
- Extend the interval between flares (symptoms) and remission (periods where there are no symptoms)
- Reduce the need for topical corticosteroids

What is an emollient?

A common name for an “emollient” is “moisturiser.” The word “emollient” may also describe an ingredient in a moisturiser used to soothe the skin.

Emollients may be classified according to their individual characteristics or functions:

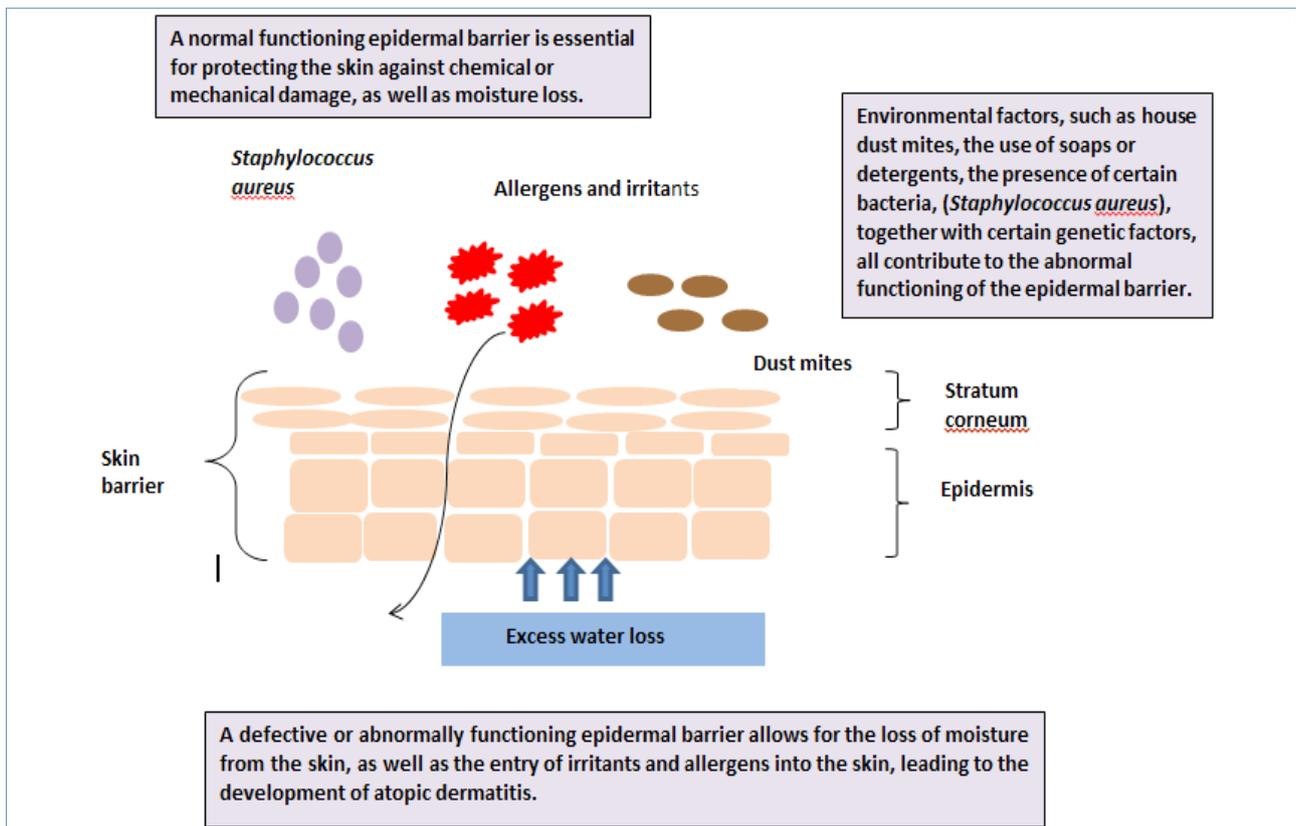


Figure 1.

Image adapted from:

Proksch E, Jensen J. Fitzpatrick's Dermatology in General Medicine. Chapter 47. Skin as an Organ of Protection.

Cork M, Danby S, Vasilopoulos Y, et al. Epidermal Barrier Dysfunction in Atopic Dermatitis. *Journal of Investigative Dermatology* (2009).

Occlusives	Reduce the loss of water from the stratum corneum by forming a thin film or barrier on the skin	e.g. petrolatum, mineral oil, paraffin, silicone
Humectants	Attract moisture (water vapour) to moisturise the skin	e.g. glycerol, urea, sorbitol
Emollients	"Fill the cracks" between skin cells, improve skin flexibility, and smooth the skin	e.g. glyceryl stearate, linoleic acid, collagen, elastin

The ideal emollient for atopic dermatitis would contain a combination of occlusive, emollient and humectant ingredients in order to keep the skin barrier hydrated and protected.

Emollients are available in the form of ointments, creams or lotions. While ointments are more effective against xerosis, many people prefer creams as the less greasy option. Lotions are generally not recommended for use in the management of atopic dermatitis.

Dexeryl® cream is an emollient cream used to protect the skin and to treat the signs and symptoms of xerosis associated with skin diseases such as atopic dermatitis and ichthyosis.

Ingredients, such as:

- White soft paraffin and liquid paraffin form a barrier on the skin's surface, preventing the loss of water through the skin's barrier. The white soft paraffin also protects the skin barrier and aids in skin barrier recovery.
- Glycerol acts as a humectant, attracting water vapour to the skin in order to maintain the balance of moisture.
- Glycerol monostearate acts as an emollient, smoothing the skin.

Dexeryl® cream is used topically by applying a thin layer of cream to the affected area once or twice a day. It should not be applied more than six times daily.

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