

The Practical Management of Atopic Eczema in Children

Foods Matter, April 2008 ~ Ann Marie Powell, Consultant Dermatologist at Guy's and St Thomas' Hospital, gave a hugely helpful talk at the Action Against Allergy eczema workshop in January. She suggests a management plan for eczematous children – although much of her advice is also suitable for adults ... Eczema is an itchy skin condition characterised by dry, red and inflamed skin. In eczema the normal skin barrier function is disrupted (dryness) leading to over-activation of the immune system within the skin (redness) and subsequently to stimulation of itch nerves ...

The commonest form of eczema seen in childhood (affecting one in five school children) is atopic eczema, so-called because it associates with other atopic conditions such as asthma, allergic rhinitis and food allergy. It is a multi-factorial disease with genetic, environmental and other triggers playing varying roles in different individuals. There are common principles applicable to the management of most forms of eczema.

Principles of management

1. Emollients (restore barrier and offer some itch relief)
2. Use emollients to wash
3. Avoid aggravating factors
4. Actively treat eczema
5. Prevent and treat secondary infection

Emollients

The main purpose of emollients is to encourage the build-up of water within the outer layer of the skin, the stratum corneum; they smooth, soften and to some extent soothe the skin by trapping moisture in the skin or drawing water into it.

There is a huge range of emollients, all of which contain some fat, wax or oil. Their consistency is affected by ambient temperature, whether they contain wax or oil, and in what proportion to water. Although the regular application of an emollient in eczema is nonnegotiable there is plenty of room for compromise around which product and when.

How to use an emollient

Ideally emollients should be applied in the morning and evening but some people, especially if they prefer less greasy emollients, will benefit from more regular applications.

Emollients are applied gently (no need to rub them into the skin) in a downward direction on the arms and legs with the direction of hair growth, to prevent white heads around hair follicles. The most important application is the one immediately after washing.

Choosing the best emollient

The most important feature of any emollient is that it is useable – you are more likely to use a product regularly if you like it. It is worth trying several products and keeping an open mind. As a general rule greasy or heavy products are most effective at retaining water in the skin, most closely mimicking the action of the body's natural emollients but not everyone likes using them. To increase their effectiveness they are occasionally used under 'wet-wraps'.

Different emollients might be suitable at different times of the day. A lighter cream may be easier for school children during the day saving the greasier ointment for nighttime.

Similarly different emollients may be appropriate at different times of the year, with greasy products being less well tolerated during hot weather.

Attitude to treatment

For children, eczema emollients become a way of life (just as brushing teeth should be) so make this routine as enjoyable as possible; praise co-operation and try hard not to scold treatment refusal (sometimes treatments sting).

Set aside a dedicated treatment time and place and avoid interruptions – tell other siblings and callers 'This is Jenny/Johnny's special skin treatment time, I will help you afterwards'.

As early as possible encourage independence and autonomy, first perhaps with a plastic doll your child can treat while you treat their skin. Offer your child a choice and help them to treat themselves.

Washing and baths

Bath-time is great fun for children and is a key part of eczema management.

1. Firstly the bath should be tepid (as for a new baby); warm water will aggravate an itch.
2. It should last no more than 15-minutes (no wrinkly prunes).
3. The cardinal rule is to avoid detergents or anything that lathers and forms bubbles, which break down the skin barrier further. Frequent hand washing makes hands dry and chapped and this happens more quickly to eczematous skin.
4. Instead of soap use an emollient to help trap moisture in the skin. As very greasy products may be difficult to apply in the bath you may do better with a cream or lotion, applied with a face-cloth in the bath or allover before getting into the bath. Remember they make the bath slippery so get a bath mat. If your child has suffered frequent skin infections, this is a time when antiseptic products may be added.
5. After the bath, pat dry and immediately (within a couple of minutes) apply your emollient all over. Most children bath once a day, bathing twice daily (if you have the time and energy) helps some children with dry itchy skin. A dab of greasy emollient on broken skin can stop it stinging in the bath.

Swimming with eczema

All children need to learn to swim but swimming pools are often full of biocides and other chemicals that can aggravate eczema. Shower well and apply plenty of emollients after swimming. A few dabs of a waxy emollient before swimming will help to protect sensitive spots like eye-lids, but too much emollient before swimming will make your child difficult to handle in the water and will not be popular with other swimmers.

Aggravating factors

Many of the things that make eczema worse are obvious. If the skin barrier is not working avoid anything that breaks it down further – detergents, soaps and things that irritate normal skin.

Avoid overheating infants and toddlers as this makes their skin red and itchy. When older children are charging around and ‘over-excited’, their skin becomes itchy (have some soothing cream handy).

Different climate conditions suit different people. Often the winter is worse for eczema, maybe because central heating dries the air. Children with eczema do not normally tolerate sudden climate changes well, although parents commonly report an improvement in symptoms during sea-side holidays.

Allergies

There are different types of immune response to allergies. We can accurately test for most immediate allergic reactions (such as peanut or cat allergy) and for most contact allergies – such as nickel in earrings.

In atopic eczema it is useful to think about allergies and to exclude obvious allergens but, in the absence of clear clues, indiscriminate allergy testing is rarely helpful. Occasionally if severe eczema is failing to respond to normal treatments, it is worth considering an exclusion diet but only under the supervision of a children’s dietician (and your doctor), in order to prevent nutritional deficiencies and maintain a healthy balanced diet. Dietary restriction for eczema that is not significantly improving the skin condition should be abandoned.

Infections

Breaches in the skin barrier can permit infections (bacterial, viral and fungal) to flourish. Sudden changes in your child’s eczema or unusual, atypical features can indicate infection. Many skin infections can be treated with topical preparations (usually prescribed by your doctor), although occasionally medicines are needed.

Skin infections often cause a flare of eczema as the skin’s immune system rallies to fight the infection causing more inflammation and stimulating the itch nerves. Frequent skin infections may justify the regular use of antiseptic preparations as preventers.

Psychological factors

Where psychological factors are felt to play a significant role in eczema, interventions to improve ‘ coping mechanisms’ can be helpful.

Children learn their coping mechanisms from the adults around them and they will also pick up on those adults’ attitude to their eczema. Because eczema itself is stressful, adults should be non-judgemental about it. It is not your child’s fault that they have eczema and certainly not their fault if they scratch when their eczema is itchy. Children

like to feel they are on the side of the 'goodguys', so speak about eczema and scratching fingers in the third person.

Physical stresses such as lack of sleep, teething, colds and other infections can lead to a flare of eczema, which can be particularly difficult and frustrating for parents. Recruit help where it is available.

Actively treat eczema

However, not even the most careful management of eczema will clear it and flare-ups are inevitable. When your child has red, inflamed and itchy skin it needs to be actively treated to clear it (putting the fire out rather than just dampening it down). Inadequately treated eczema flares up again as soon as the treatment stops.

Subsequent flares can be controlled with rapid, short and sharp treatment, while a sedating antihistamine may help suppress night-time itchiness.

The cornerstone of active eczema treatment is topical steroids – hydrocortisone. They are applied once or twice per day, they should be prescribed and supervised by your doctor.

Topical steroids can have side effects: they can make the treated area temporarily paler; when used on large areas they may be absorbed into the blood, and chronic use can lead to skin thinning. However with supervision these complications are less likely to occur.

Children requiring large amounts of topical steroids may be candidates for other treatments (see below).

And it must be remembered that uncontrolled eczema is not only distressing but can have complications. In children it affects sleep and the calorie requirements of inflamed skin, may result in poor growth and poor concentration.

Topical immunomodulators (such as tacrolimus or pimecrolimus) can be tried for children over two years with moderate to severe eczema.

A small proportion of eczematous children benefit from phototherapy (light treatment) given at hospital.

Tablets by mouth are sometimes prescribed to control severe eczema. The most common (excluding antibiotics for infections) include short courses of steroids or longer courses of immunosuppressive drugs such as azathioprine. These drugs require frequent monitoring.

Self-help

Treatments labelled as 'natural', 'organic' or 'herbal' while intuitively exactly what we are programmed to believe are best for our children, do not necessarily make suitable topical preparations. Plant products can still be irritant, allergenic and even toxic.

Beware of internet or mailorder products claiming to 'cure' eczema. The regulatory authorities regularly draw clinicians' attention to scams with unscrupulous traders selling 'herbal' or 'natural' products that contain prescription medication (often topical steroids).

Chinese herbal treatments and homeopathy can show benefit for some patients but it is important to take advice from a reputable and experienced therapist and recognise that all active treatments have potential side-effects.

Will my child have eczema forever?

The natural trend is for the majority of children to 'outgrow' their eczema and in general the outlook is very favourable and the chances are increased if the eczema is controlled rather than becoming chronic and intractable.

Children with eczema in infancy are at increased risk of developing asthma, food allergies and hay-fever. The single most important way to reduce your child's chance of developing asthma is to avoid exposing them to cigarette smoke.

With time as your child's eczema becomes less troublesome regular emollients will help maintain their healthy skin. Their choice of hobby or career may increase their risk of eczema relapse (activities associated with exposure to irritants, allergens etc) but with anticipation and guidance this can be avoided.

For further information talk to your doctor, health visitor or The National Eczema Society www.eczema.org

NICE Guidelines on the management of atopic eczema in children (December 2007) www.nice.org.uk