Eczema

A parent’s guide to atopic eczema and its management
What is eczema?
The word ‘eczema’ is derived from the Greek meaning to ‘boil over’, describing the bubbly and hot appearance of active eczema. The words eczema and dermatitis mean the same, referring to a particular type of skin inflammation, which has potentially multiple different causes. More specifically, atopic eczema refers to a very characteristic itchy skin rash, which typically starts in infancy or childhood. It tends to affect different parts of the skin at different stages of the person’s development, but at some point usually involves the skin creases (flexures) of the arms and legs. It is more common in those with a family history of atopic eczema, asthma or hay fever.

What causes eczema?
Eczema is a complex disease and multiple factors contribute to its development. However, genetic factors play a big role and various environmental triggers (for example, the house dust mite, bacterial toxins, hard water, climatic factors, air-borne allergens and pollution) may aggravate it.
What makes eczema worse?
Eczema tends to follow a fluctuating course. You can expect your child's eczema to flare at times when he/she is 'stressed', for example, by teething pain. It may flare when they are unwell with viral or bacterial infections and after having vaccinations. Anything that tends to dry the skin, eg. soaps, shampoo, bubble baths, detergents or chlorine will aggravate eczema. Contact with wool, synthetic clothing and animal hair will also aggravate it. In teenagers eczema may flare at exam times.

Parts of the body most often involved
Atopic eczema usually starts on the scalp or cheeks in infants. It may even start as cradle cap. It later spreads to the limbs and body and in some children may be widespread for a time. At the crawling stage it is usually worst on the backs of the elbows and the fronts of the knees. When the child is a little older the eczema settles in its characteristic location at the skin creases of the arms and legs. In teenagers and adults it may be worst on the hands.

Is atopic eczema contagious?
Atopic eczema is not contagious per se. However, certain infections, for example, Staphylococcus aureus, herpes simplex (cold sore virus) and mollusca contagiosa (water warts) are more common in people who have eczema. These infections are, of course, contagious and may be spread to others by direct contact or through shared towels etc.

Will my child grow out of the eczema?
Eczema is a chronic condition. The majority of children have mild to moderate disease and do 'grow out of it'. For children with severe eczema this can take several years to happen. It is relatively uncommon for children to have troublesome eczema that continues into adulthood.

General treatment advice
The first principle of eczema treatment is to avoid those things that make eczema worse. Irritants like soaps and bubble bath should be avoided and substituted with an oily or emollient alternative. Allergens like dog dander must be minimised and measures taken to reduce the house dust mite in the child's environment. Clothing and bed covers should be 100% cotton if possible. Heat and perspiration may make the itch intolerable. Therefore the child's environment should be kept cool. In particular, the bedroom should be well ventilated.
Emollients are products that moisturise and soften the dry skin, which is the central problem in atopic eczema. This therapy is a crucial part of your treatment plan for your child. Emollients are safe and can be used frequently. There are many choices on the market at present. In general, when the skin is very dry an oil-based emollient, for example emulsifying ointment or paraffin gel, will be the most efficient. As the skin improves a cream like Silcock's base may be used. Emollients should be considered in three situations. Firstly, they should be used as a moisturiser applied twice or three times daily all over. Care should be taken to apply emollients gently in the direction of the hair (to avoid irritating the hair follicles). Secondly, they should be used instead of soap. Finally, emollients should be used in the bath, ideally on a daily basis. The aim of bathing is to both grease and cleanse the skin. An excellent emollient bath may be prepared by dissolving two spoonfuls (dessert spoonfuls for child, table spoonfuls for adult) of emulsifying ointment in very hot water, whisking it up and adding it to the bath water. There are also very effective, liquid bath additives available which may be more convenient to use. Some of these contain an antiseptic which will help reduce the numbers of bugs on the skin. Regular bathing with emollients is essential to help reduce secondary bacterial infection, a common problem in atopic eczema.

**Topical (ie. creams, ointments) steroids**

There is an understandable fear about the use of topical steroids in children. Obviously, it is important to avoid potent (strong) steroids but the use of 1% Hydrocortisone is safe and in young children it is an
Topical steroids/antibiotics

*Staphylococcus aureus* (Staph. aureus) ‘likes’ and thrives on eczema skin. Swabs taken from eczema and cultured in the laboratory will show a heavy growth of *Staph. aureus* in over 90% of cases. At low density the *Staph. aureus* may respond to treatment of the underlying eczema. At higher density infection with *Staph. aureus* is like ‘fat on a fire’ and acts as a very potent trigger for flaring of eczema. Infection can be recognised by the fact that your child’s eczema may become tender and may have areas of yellowish crusting. If the infection is localised it may be effectively treated with a combined topical steroid/antibiotic (eg. *Fucidin® H, Fucibet®*) preparation. It is important to administer such topical preparations exactly as prescribed and to restrict their use to a maximum of two weeks. Improper use of combined topical steroid/antibiotic preparations encourages the development of resistant bacteria.

Oral antibiotics

In infected eczema the culprit in the majority of people is *Staph. aureus*. In widespread infection an oral antibiotic, usually flucloxacillin will be necessary. For persons with severe eczema, re-infection with *Staph. aureus* occurs frequently, requiring repeat courses of antibiotics. Your doctor will swab the skin to check which bugs are present and also to guide on the prescribing of antibiotics. Many flares of eczema are caused by infection.

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essential part of their therapy. This is because they are not suffering from simple dry skin but also have an inflammatory (ie. red and itchy) skin condition that needs to be controlled by the topical steroid. The steroid ointment or cream is applied to the inflamed (ie. red and itchy) skin only. Most topical steroids may be applied twice daily for 7 to 10 days, then reduced to a once daily application. As the eczema improves they may be gradually withdrawn. Stopping topical steroids abruptly may cause the eczema to flare. Occasionally, your doctor will prescribe higher strength steroids (usually of moderate potency) for use on the body and limbs. Often, more damage is done to your child by failing to use a topical steroid of appropriate strength than by not using one (eg. escalating itch, sleepless nights, chronic scratching, increased damage to the skin, failure to thrive). Potent topical steroids are rarely prescribed for children.
Other treatments
Children who are very distressed with itch and who are causing damage to their skin by scratching may benefit from wet dressings. These are special cotton bandages. The first layer is applied wet over the moisturisers and topical steroids. Then a dry layer is applied. The bandaging helps in the absorption of the topical treatments for your child and at the same time acts as a barrier to soothe itchy skin and prevent damage from scratching. Paste bandages are another option.

Steroids by mouth are rarely used to treat atopic eczema because of potential side effects and the possibility that the eczema will flare when the steroids are stopped. There are strong oral medications like cyclosporin and azathioprine, which may be rarely used for very severely affected people. The risks of side effects and the need for regular monitoring with blood tests makes these treatments generally unsuitable for use in children.

Topical immunomodulators
A new generation of strong treatments for moderate to severe eczema is now available. They act on the skin immune system. In Ireland, tacrolimus is licensed for children over two years old. An improvement in the eczema occurs within one to two weeks. A major advantage of this treatment is that there is no risk of skin thinning. Some children show dramatic improvement. Others find the burning sensation in the skin (which occurs in about half of the children and tends to wear off with continued use) difficult to tolerate. Tacrolimus should not be applied to infected skin and there may be an increased risk of skin infection with herpes simplex. Extra care to protect the skin from sun exposure is required for children using topical immunomodulators. Also, emollients should not be applied to the same area within two hours of applying tacrolimus.

Anti-itch medication
Many children with eczema are particularly itchy at night, leading to disturbed sleep and irritability. Your doctor may prescribe an oral antihistamine syrup to try to control night-time itch and scratching. With continual use, the effectiveness of antihistamines may wear off to some extent. Antihistamines are most effective if used intermittently eg. one week on, one week off or only used during flares of the eczema.
Top 10 Tips

1. Emollients are a central part of the treatment of atopic eczema. Try to integrate the application of emollients into your child’s routine. Consider having small pots of moisturiser available upstairs and downstairs so that they are easily accessible. Encourage yourself by remembering that the regular use of an appropriate emollient may independently improve eczema by 40%. The regular use of emollients will also reduce the need for topical steroids or topical immunomodulators.

2. If your child’s skin is very scratched and open consider gently dabbing on emulsifying ointment to the worst areas before he/she goes into the bath, to reduce discomfort on contact with the water.

3. It is important to have the bath water tepid. Hot water will aggravate the itch. After bathing pat the skin gently rather than rubbing. Rubbing might cause more itch and may excessively remove the emollients.

4. When eczema becomes crusted/infected, a course of antibiotics will be necessary.

5. It is advisable to keep your child from close contact with anyone who suffers from cold sores. For example, persons who suffer recurrent cold sores should not kiss your child. The skin immune system in the child with atopic eczema tends to be slow in fighting herpes simplex (cold sore virus).

Other information

Allergy

Children with atopic eczema have skin that is hypersensitive to a variety of things in their environment, including the house dust mite, animal dander and feathers. Food allergy in very young children is rarely a trigger for their eczema.

Diet

In the majority of children, exclusion diets do not help their eczema. However, some very young children may benefit if they have severe eczema not responsive to the standard treatments. This is especially so if they have got a specific intolerance to food like eggs or cow’s milk. Diets can be useful in such individuals, but they need to be very carefully supervised by a dietician.
Finally, looking after a child with eczema is sometimes not easy. You may feel tired. If one or both of you are exhausted, you may have to skip a treatment. It is important to realise that by applying topical treatment you are also giving your child something he or she craves – your attention.

Treatment times can become a time of laughter and fun. It is worth rewarding yourself and your child from time to time if you are trying to stick with a regular treatment programme. Remember – the results are often worth the effort when you achieve good control of the eczema.
The Eczema Society

Support and further information can be obtained from the National Eczema Society at the address below.

The National Eczema Society
Carmichael House
North Brunswick Street
Dublin 7

A useful website is www.irishhealth.com/eczema

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