

Eczema in Children (updated 2011)

Eczema affects over 30 per cent of children before they reach school age and 1-3 per cent of adults in the UK. It is likely that its frequency in Ireland is similar to the UK. It is very often inherited. There is very often a link with asthma and hay fever. Eczema has become more common in recent years, the cause of this is uncertain.

Triggers include specific allergies to foods, overheating, infection, wool next to the skin, cat and dog fur, soaps, detergents, house dust mites and pollen. Extreme hot and cold, humidity, and hormonal changes in women (caused by the menstrual cycle and pregnancy) can also cause a flare-up.

Prevention

The initial approach to treatment of atopic eczema involves the avoidance of exacerbating factors and hydrating the skin. Exacerbating factors include excessive bathing, low humidity environments, dry skin, exposure to solvents and detergents and emotional stress. Avoiding these factors is beneficial for acute flare ups and long term management.

Diet

In adults, food allergies do not appear to be a factor in eczema so avoiding foods is not any benefit. In infants, avoidance of certain foods can be helpful. Common food triggers include eggs, nuts, peanut butter, chocolate, milk, seafood and soya.

Maintaining adequate skin hydration

Evaporation of water on the skin leads to dry skin in patients with eczema; skin hydration is a key component of their overall management. Lotions, which have a high water and low oil content, can worsen dry skin via evaporation and trigger a flare of the disease. However, thick creams (eg. Whelehans Intensive Moisturising Cream, Diprobase[®]) which have a low water content, or ointments (eg. petroleum jelly, Emulsifying Ointment), which have zero water content will better protect against dry skin.

Creams and ointments are best applied immediately after bathing when the skin is well hydrated. Hydration can be improved by soaking in a bath containing a bath additive such as Oilatum[®] for 10 to 20 minutes.

Urea

Urea a hydrating agent naturally found in many emollients sold over the counter in pharmacies including Calmurid[®], Eucerin[®] and Whelehans Intensive Moisturising Cream. There are markedly reduced amounts of urea in dry skin conditions.

Urea is strongly hygroscopic (water-loving) and draws and retains water within skin cells. Urea softens the skin. Urea is beneficial in dry skin conditions where scaling and flaking occur and can be useful in elderly patients. It can also be used in conjunction with corticosteroids to enhance the penetration of skin. Whelehans Intensive Moisturising Cream was developed by our pharmacist in Whelehans Pharmacy because brands such as Calmurid[®] Cream, while effective, are very expensive. Our cream contains 10% urea and is over half the price of brands such as Calmurid[®] Cream. It has proven very effective at preventing and treating eczema.

Treatment

When skin is not inflamed, patients should bathe daily and then immediately apply a moisturiser. Children with inflamed skin may be initially treated with topical corticosteroid such as hydrocortisone 1% cream which can be prescribed by the GP.

The face and skin folds are areas that are at high risk of thinning and marking with corticosteroids so care and moderation is important. The GP may prescribe more potent corticosteroid creams such as Eumovate[®], Betnovate[®] or Dermovate[®] for short periods during bad flare ups but these should only be used for a short period of time. Children are often referred to a skin specialist in more severe cases.

When using a corticosteroid and a moisturiser, it is good practice to use the corticosteroid first and to put on the moisturiser after half an hour to allow the skin time to absorb the corticosteroid.

Children who require therapy to the face or skin folds for more than three weeks should be treated with tacrolimus (Protopic[®] Ointment) rather than a topical corticosteroid by their doctor. Unlike corticosteroids, tacrolimus does not cause thinning of the skin. Treatment with tacrolimus should only be initiated by a dermatologist and continuous long term treatment should be avoided.

Tips for parents

A moisturising cream or ointment is best applied after bathing when the water content of the skin is greatest, and at night to prevent drying. The frequency of application should be increased to at least three to four times a day when the eczema is active. For whole body application, 250g per week may be required in children and 500g in adults. In order to avoid diluting the steroid and spreading it to areas of skin where it is not required, moisturising creams should not be applied immediately after the steroid. Steroid creams and Protopic[®] ointment are best avoided in the presence of infection. When using Protopic[®] ointment, avoid exposing skin to the sun. Weepy or crusted areas are a sign of infection so you should seek treatment immediately. House-dust mite is a common triggering factor for eczema, but unfortunately reduction in dust mite levels needs to be significant before a benefit is seen. Even with daily dusting and vacuuming, the improvement to eczema is likely to be minimal.

Therapies with no evidence base

Supplementation with essential fatty acids, pyridoxine, vitamin E, multivitamins and zinc salts has no proven value. Reactions to washing powders are rare and avoidance of biological washing powders is of no benefit. There is no evidence that probiotics improve eczema.

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