# Treating childhood

## a topical solution for a topical problem

Emollients, topical corticosteroids and avoidance of triggers remain the mainstays of treatment in children with eczema. Under-use of topical treatment continues to be more of a concern than overuse. This highlights the importance of providing comprehensive education to the child's parents or caregivers and overcoming "corticosteroid phobia". Although most children with eczema can be managed with topical treatments in primary care, referral to secondary care may be required in severe cases.

Eczema, also referred to as atopic eczema or atopic dermatitis, is an itchy inflammatory skin disease most commonly seen in children. It is characterised by pruritis and inflamed, dry, scaling and crusted skin in the acute phase (Figure 1) with lichenification (thickening) and hyperpigmentation of the skin if the condition becomes chronic. Children with eczema will usually experience recurrent flares.

Eczema has been reported to affect approximately 20% of children in New Zealand with disproportionally higher rates among Māori and Pacific children.<sup>1</sup> Over 90% of cases of eczema develop in children before the age of five years and 60% of these cases occur in the first year of life.<sup>2</sup> Although many children experience remission as they grow older, approximately 20 – 40% of those affected in childhood will continue to experience eczema as adults.<sup>1</sup>

The pathogenesis of eczema is complex and it is now thought that skin barrier dysfunction, environmental factors, a genetic predisposition and immune dysfunction all contribute to its development and are closely intertwined.<sup>3</sup> The traditional view, that eczema was primarily an immune-mediated response, has been challenged by recent research that suggests abnormalities in the skin barrier, including mutations in filaggrin (a structural protein), play a major role in the development of eczema.<sup>4, 5</sup>

## The severity of the child's symptoms should guide treatment

The diagnosis of eczema in children is usually based on the patient history and clinical signs, e.g. dry, itchy skin and an early age of onset.<sup>2</sup> After a diagnosis of eczema has been made, treatment is tailored to the severity of the child's symptoms (Table 1, over page).

#### Key management principles for children with eczema

- 1. Provide comprehensive education and support to the child's parents/caregivers
- 2. Advise use of emollients frequently and in large quantities
- 3. Advise use of topical corticosteroids at the appropriate potency for the treatment of flares
- 4. Seek specialist paediatric or dermatological advice in children with severe or persistent eczema





Figure 1: Examples of infants with atopic eczema (Images provided by Dermnet NZ)

Table 1: Eczema management algorithm (adapted from NICE, 2007)<sup>6,7</sup>

ECZEMA SEVERITY CHARACTERISTICS							
Controlled eczema with no active skin involvement	Mild eczema	Moderate eczema	Severe eczema				
Normal skin with no evidence of dryness, redness or itching	in with no Areas of dry skin Areas of dry skin of dryness,						
TREATMENT Controlled eczema							
with no active skin involvement	Mild eczema	Moderate eczema	Severe eczema				
All: <b>Emollients</b> + parent or caregiver education including advice regarding adherence							
	Mild topical corticosteroids, e.g. hydrocortisone 1%	Moderate topical corticosteroids,* e.g. triamcinolone acetonide, clobetasone butyrate <sup>†</sup>	Potent topical corticosteroids, <sup>‡</sup> e.g. hydrocortisone butyrate 0.1%, <sup>**</sup> betamethasone valerate (over age one year), mometasone furoate, methylprednisolone aceponate				
			Consider referral for systemic and additional treatments				

\* Avoid use on face, neck, genitals or axillae for longer than seven to 14 days

- + Clobetasol butyrate (Eumovate partly subsidised) is a moderate potency corticosteroid and should not be confused with clobetasol propionate (Dermol) which is a very potent corticosteroid
- ‡ Avoid use on face, neck, genitals or axillae
- \*\* Hydrocortisone butyrate 0.1% (Locoid) is a potent corticosteroid and should not be confused with hydrocortisone 1%, a mild corticosteroid

## Provide comprehensive education and support to the child's parents/caregivers

Providing educational materials about eczema to parents or caregivers can help to increase their knowledge about their child's condition, and therefore reinforce effective management and help to promote adherence to topical treatments. Practice nurses are often responsible for this education and ongoing support.

A leaflet for parents on how to care for the child's eczema is available from: www.starship.org.nz/media/269759/ caring\_for\_your\_child\_s\_eczema\_june\_2014.pdf

#### **Recommend daily baths using wash-off emollients**

Warm (not hot) baths, once daily, lasting no longer than 10 – 15 minutes are recommended for all children with eczema.<sup>8</sup> Emollients or wash-off emollient products, rather than soaps or detergents, should be used when bathing, and bubble baths avoided. Aqueous cream BP and emulsifying ointment BP (both subsidised) can be used as soap substitutes during bathing.<sup>\*</sup> These products can also be used as wash-off emollients if the household does not have a bath, applied before the child enters the shower and then washed off.

\* Neither aqueous cream BP nor emulsifying ointment BP should be used as a leave-on emollient as both contain sodium lauryl sulphate and can irritate the skin (see: "Which emollient should be prescribed", Page 36).

Ge A video on bathing children with eczema is available from: www.kidshealth.org.nz/eczema-care-bathing

#### Twice-weekly bleach baths are also recommended

Twice-weekly antiseptic baths with diluted sodium hypochlorite (household bleach) can reduce staphylococcal carriage and improve the child's symptoms.<sup>9</sup> Parents can be advised to add 2 mL of plain bleach (2.2% sodium hypochlorite, e.g. "Budget Household Bleach Regular") per litre of bathwater and bathe the child for 10 – 15 minutes, twice a week. A full-sized bath with a 10 cm depth of water holds approximately 80 litres of water, and will therefore require approximately 160 mL of 2.2% bleach. A baby's bath holds approximately 15 litres of water and will require approximately 30 mL of 2.2% bleach. Parents should be advised that bleach baths are safe when the correct amount of bleach is added to the bath, but to avoid contact between the bath water and the child's eyes. Antiseptic bath oils, e.g. Oilatum Plus or QV Flare up, can be used instead of bleach, but are generally more expensive.

After bathing, the child should be rinsed off with fresh water and patted dry with a towel, followed by application of emollients and topical corticosteroids.

A patient leaflet that provides detailed information on how to prepare a bleach bath is available from: www.starship. org.nz/media/269481/bleach\_bath\_handout.pdf

Recent evidence has highlighted the effectiveness of bleach baths in children with eczema, including an improvement in symptoms and reductions in Staphylococcus aureus colonisation. A recent study randomised 42 patients aged two to 30 years with moderate-to-severe eczema to either twiceweekly bleach baths (for ten minutes at a time) or normal baths, for two months. Patients in the bleach bath group had significant reductions in the Eczema Area and Severity Index (EASI)\* scores at both one and two months.9 Reductions in S. aureus density were also observed at one and two months.9 Mild adverse events (burning/stinging) were observed in both treatment groups.9 A recently completed, but as yet unpublished, small randomised controlled trial in New Zealand found improvements in both the EASI and Scoring Atopic Dermatitis (SCORAD) scores in children with atopic eczema who had dilute bleach added to their bath. Children who did not have bleach added to their bath had very little change in their EASI and SCORAD scores.<sup>10</sup>

\* The EASI score is a tool used mainly in a research setting to measure the extent and severity of a patient's eczema.

## Advise about avoiding triggers/irritants

Avoiding triggers and irritants is beneficial during acute eczema flares as well as for long-term management to avoid the "itch-scratch-itch" cycle. Factors that can exacerbate a child's eczema include soaps, detergents, chemicals, abrasive clothing and temperature extremes.<sup>11</sup>

Useful advice that can be given to parents includes:<sup>11</sup>

- Wash new clothes before use to avoid contact with formaldehyde and other chemicals from the manufacturing process that can irritate the skin
- Use mild detergents labelled for sensitive skin when washing clothes and do a second rinse cycle to remove residual detergent. Avoid the use of fabric softeners.
- Dress children in loose cotton clothing and avoid wool or synthetics next to the skin, i.e. use cotton fabrics as a base layer
- Avoid topical products that contain fragrances, alcohol and other ingredients that can dry the skin, e.g. witch hazel

- Encourage children to rinse in fresh water after swimming in a chlorinated pool and follow with application of an emollient
- Keep children's fingernails trimmed to avoid injury from scratching

Although the influence of airborne allergens, e.g. dust mites, in exacerbating eczema is unclear, some parents may wish to reduce this exposure. This can be achieved by encasing the child's mattress, base and pillows in allergen-barrier bedding covers and washing top bedding in hot water (>55°C), or hot ironing, every two weeks.<sup>12</sup>

#### The role of food allergy in eczema is unclear

The role of food allergens in the aetiology of a child's eczema is frequently overestimated, particularly by parents.<sup>13</sup> Food allergy is more likely to be a contributing factor in young infants with severe generalised eczema.<sup>12</sup>

Parents should be advised against putting their child on a very restrictive diet as this is often of limited benefit, and the diet can be expensive to maintain and result in nutritional deficiencies.<sup>12, 14</sup>

Allergy screening with large panels of food allergens is not recommended in children with eczema, as the child is usually atopic and allergy test results can reflect sensitisation to food rather than a clinically relevant allergy.<sup>12, 13</sup> Investigation of potential food allergies in children with eczema is recommended under the following circumstances:<sup>12</sup>

- If there is a history of an immediate allergic reaction following food consumption (this can also occur in a breast fed infant due to maternal ingestion of an allergen)
- If a young child has severe, problematic eczema and is unresponsive to appropriate topical treatment

If food allergy is suspected in a child with eczema, discussion with an immunologist, paediatric dermatologist or paediatrician is recommended, to decide on a course of further investigation, which may include radioallergosorbent test (RAST) or skin prick testing.<sup>12</sup> These tests can be performed in primary care, but results can sometimes be misleading or difficult to interpret.

Gever For further information, see: "Appropriate use of allergy testing in primary care" (Best Tests, Nov 2011).

## Use emollients frequently and in large quantities

Emollients form the basis of treatment for all children with eczema, as they reduce inflammation and support the natural skin barrier. Increased use of emollients has been shown to improve both the child's and parent's quality of life, reduce the child's eczema symptoms and sleep disturbances and decrease the amount of topical corticosteroids required.<sup>15, 16</sup>

Ideally, emollients should be applied **several times a day** to the entire body and continued even when the child's eczema has cleared.<sup>8</sup> Children should be prescribed **250 – 500 g of emollient per week** to provide sufficient product for moisturising, washing and bathing.<sup>8</sup>

Where possible emollients should be dispensed in a pump container or tube, as emollients prescribed in tubs or jars can become contaminated.<sup>8</sup> If tubs or jars are dispensed, advise carers to scoop the emollient from the tub using a clean spoon or spatula to avoid bacterial contamination.

Children should be encouraged to apply their emollients themselves from a young age, as this helps adherence and self-treatment when they start attending school. School-aged children should ideally keep a supply of emollient at school and be encouraged to use it whenever they feel the urge to scratch.

Best practice tip: when prescribing an emollient it is useful to put the monthly quantity of emollient required on prescription (i.e. 2000 g per month). As most subsidised emollients are "stat" dispensed, the pharmacist is generally obliged to give the entire three months supply at the same time. However, if the prescriber wishes to limit the initial supply this can be achieved by endorsing the prescription with "trial period one month".

## Which emollient should be prescribed?

The best choice of emollient is the one preferred by the child/ parent as it is more likely to be used regularly. Emollients have different formulations, including ointments, creams and lotions. The difference is the proportion of oil (lipid) to water in the product. The lipid content is highest in ointments, intermediate in creams and lowest in lotions. As a general rule, the products with the highest lipid content are more effective in treating dry skin, provide better barrier protection and have a longer duration of action,<sup>12</sup> but may be the least convenient due to being the most greasy/sticky on the skin. The current subsidised emollients include three products that contain cetomacrogol derivatives and are considered as slightly-to-moderately greasy creams. These are Fatty Cream (HealthE) and cetomacrogol cream (PSM) which are available in 500 g tubs, and Sorbolene cream (which contains cetomacrogol + 10% glycerol) which is available in 500 g and 1 kg pump dispensers. Other products are available to purchase if the child or parent prefers another formulation. Aqueous cream BP and emulsifying ointment BP should not be used as leave-on emollients.

Ge Further information on emollients including subsidy restrictions is available from:

www.nzfchildren.org.nz/nzf\_6237?searchterm=emollients

#### Practical tips on emollient use

Some useful advice for parents includes:8

- Emollients should be smoothed (not rubbed) onto the child's skin in the direction of hair growth to avoid irritation
- Products in tubs/jars should be discarded after the child has had a skin infection as they may have become contaminated
- Emollients should be continued when topical corticosteroids are being used and can be applied before or after the topical corticosteroid

Geven A patient video on the use of emollients is available from: www.kidshealth.org.nz/eczema-care-moisturisers

# Use sufficient amounts of topical corticosteroids once or twice daily for the treatment of flares

Flares are characteristic of eczema, despite efforts to avoid irritants and apply emollients frequently. Topical corticosteroids are effective for treating flares, and, when used correctly, result in minimal adverse effects.<sup>17</sup> As with emollients, underuse of topical corticosteroids is more common than overuse, and discussing the benefits and risks of topical corticosteroid treatment with the family can assist in overcoming "corticosteroid phobia" (see: "Overcoming corticosteroid phobia", Page 39).

Ge A patient video on use of topical corticosteroids is available from: www.kidshealth.org.nz/eczema-care-steroids

The potency of the corticosteroid prescribed should be matched to the severity of the child's eczema flare (Table 1) and the area of the body affected. It is important that the child's parents are aware of what area of the body the topical corticosteroid should be applied to, particularly if more than one topical corticosteroid has been prescribed, e.g. hydrocortisone for the face and a more potent corticosteroid for eczema on the body.

Best Practice Tip: Note on the prescription the specific area to which the cream needs to be applied, as this will then be put on the dispensing label by the pharmacy.

## Are there any general rules to follow when selecting the appropriate potency?

The potency of the topical corticosteroid should match the severity of the child's symptoms. However, some useful rules of thumb to guide treatment include:

- Low potency corticosteroids (e.g. hydrocortisone cream 1%) should be used as first-line treatment in children of all ages with facial or flexural eczema.<sup>11</sup>
- Moderate potency topical corticosteroids (e.g. triamcinolone acetonide) can be considered as a secondline, short-term (five to seven days) treatment for use on the face in severe cases.<sup>11</sup>
- Infants aged less than one year with eczema on the trunk, legs or arms can usually be managed with a low potency corticosteroid. Pre-school aged children generally require a moderate or potent topical corticosteroid and school-aged children often require a potent topical corticosteroid.<sup>11</sup>
- Potent corticosteroids (e.g. hydrocortisone butyrate 0.1%) should not be prescribed for children aged less than one year and very potent topical corticosteroids, e.g. clobetasol propionate (Dermol), should not be prescribed for children with eczema at any age, without first discussing with a dermatologist.<sup>11</sup>
- In general, short bursts of more potent topical corticosteroids are more effective and have fewer adverse effects than longer term use of lower potency topical corticosteroids
- Mixing a topical corticosteroid with an emollient or another product does not reduce the potency of the topical corticosteroid<sup>8</sup>

Geven For further information on the topical corticosteroids, see: www.nzfchildren.org.nz/nzf\_6272

## How often should topical corticosteroids be applied, and for how long?

Topical corticosteroids should be applied no more than twice a day.<sup>8</sup> Once daily application is sufficient in most cases

(preferably after a bath), as applying treatment more frequently has not been shown to result in significantly better results and may adversely affect patient adherence.<sup>17, 18</sup>

Topical corticosteroids should only be applied to areas of active eczema (including broken skin) and usually discontinued when the flare has resolved (see: "Weekend treatment", opposite).<sup>8</sup> The treatment duration is usually less than two weeks and if the flare does not resolve in this time then the treatment should be reassessed (see below).

What to consider when treatment is not working If there is no improvement in the child's symptoms after seven to 14 days of treatment, or if topical corticosteroids are required most days, then consider the following:<sup>8</sup>

- Poor adherence to treatment, including missed applications or use of an inadequate amount
- The corticosteroid is not potent enough
- Ongoing exposure to irritants, e.g. soap, sodium lauryl sulphate, or a contact allergen
- Secondary bacterial or viral skin infection
- Incorrect initial diagnosis

## How much topical corticosteroid should be prescribed?

An **adult fingertip unit** (FTU) should be used as a guide when prescribing topical corticosteroids and when advising parents about appropriate use (Tables 3 and 4). One FTU is the amount of product (approximately 3 cm or 0.5 g) that will cover an adult index finger, from the tip of the finger to the distal interphalangeal joint, from a tube that has a standard 5 mm nozzle (Figure 2).<sup>19</sup> As a general guide, one adult FTU is enough to treat an area of the child's eczema equal to the surface of two adult hands held side by side with the fingers together.



Figure 2: Fingertip unit (Image provided by Dermnet NZ)

Table 3: Approximate number of adult finger tip units (FTU) of corticosteroid needed per application for children with eczema.<sup>11,20</sup>

	6 months old	12 months old	5 years old	10 years old
One entire arm and hand	1	1.5	2	2.5
One entire leg and foot	1.5	2	3	4.5
Torso (front)	1.5	2	3	3.5
Back and buttocks	1.5	3	3.5	5

Table 4: Approximate weight of product required for a once-daily application of corticosteroid to cover the entire body.<sup>11</sup>

	6 months old	12 months old	5 years old	10 years old
Daily (g)	5	6	10	15
Weekly (g)	35	40	70	100

## Topical corticosteroids can be used as maintenance treatment in children with frequent flares

In most cases, once control of the flare has been achieved, topical corticosteroid treatment can be stopped and emollients continued. However, some children experience frequent flares (two or three per month) and in these cases it may be useful to continue topical corticosteroid treatment between flares.<sup>21</sup> There are two ways to do this – either step down to the lowest potency product that controls symptoms or use the same potency product less frequently, i.e. "weekend treatment".<sup>21</sup>

Weekend treatment can be used to prevent recurrence once control of the initial flare with a topical corticosteroid has been achieved. The topical corticosteroid should be applied once-daily on two consecutive days per week (not necessarily over the weekend, although this is often more convenient).<sup>21</sup> Emollients should be continued every day, including when the corticosteroid is not being applied. This strategy should be reviewed within three to six months to assess effectiveness.<sup>6</sup>

A study that investigated the efficacy of long-term, weekend topical corticosteroid treatment (up to 16 weeks) showed that this treatment reduced the extent and severity of symptoms and reduced the risk of recurrence in children aged four to ten years with a history of severe recurrent eczema.<sup>22</sup>

## Use other pharmacological options as required

Emollients and topical corticosteroids are the evidencebased core treatments for children with eczema, however, other treatment options may be considered in certain circumstances.

## Pimecrolimus can be used as a second-line treatment when topical corticosteroids are contraindicated

Pimecrolimus cream 1% (unsubsidised) is a calcineurin inhibitor that can be used as a second-line treatment for sensitive areas of eczema, e.g. the head, neck and genital area, in children aged three months or older when topical corticosteroids are unable to be used or have been ineffective despite optimal use.<sup>7,8</sup>Treatment should only be applied for short periods – up to three weeks at a time in children aged less than two years and for up to six weeks in children aged two to 18 years.<sup>7</sup>

Pimecrolimus has been shown to be less effective than moderate and potent corticosteroids and has not been compared directly with low potency corticosteroids.<sup>24</sup> A 2011 meta-analysis and systematic review reported that topical

## Overcoming corticosteroid "phobia": appropriate use does not result in skin atrophy

Parents often underutilise topical corticosteroids due to the fear of adverse effects. Skin thinning is commonly cited as the most concerning adverse effect.<sup>23</sup> However, recent evidence suggests this adverse effect has been over-stated.<sup>17, 23</sup>

A 2011 study that investigated the atrophogenic potential of topical corticosteroids in 92 paediatric dermatological patients reported that it was possible to obtain excellent control of symptoms without producing cutaneous atrophy.<sup>23</sup> The children had all received long-term (at least three months) topical corticosteroid treatment.<sup>23</sup> No degree of cutaneous atrophy was observed using a validated five-point dermoscopic scale at any of the 280 body sites measured, even though the children had received treatment for a prolonged period.<sup>23</sup>

An Australasian consensus statement on the adverse effects of topical corticosteroids in paediatric eczema agreed with these findings.<sup>17</sup> The statement reported that what is commonly referred to as skin thinning by parents and non-dermatologists is usually a misinterpretation of active eczema.<sup>17</sup> Other findings from the consensus statement about the use of topical corticosteroids include:<sup>17</sup>

- The fingertip unit should be used as a guide for the amount of corticosteroid to be applied
- Irreversible skin thinning does not occur when topical corticosteroids are used to treat flares and then terminated upon resolution of the flare
- Topical corticosteroids do not result in striae unless used inappropriately, e.g. under occlusion for long periods, or in overdose, and only then at certain body sites, e.g. groin or axillae
- Clinically significant adrenal suppression is very rare with appropriate use
- The hyper- or hypo-pigmentation observed as the child's eczema clears is caused by the eczema and not the topical corticosteroid

Explaining to parents that topical corticosteroids have an anti-inflammatory effect, and are different to anabolic steroids, can also assist in overcoming any steroid phobia the parents may have. corticosteroids appeared to be more effective than calcineurin inhibitors for the prevention of flares in people with atopic eczema.<sup>25</sup>

The benefits and risks of treatments should be discussed with parents as pimecrolimus can cause local irritation, most commonly a short-lasting burning sensation.<sup>7</sup> Other adverse effects include irritation, pruritis and erythema at the application site and also skin infections (most commonly folliculitis).<sup>7</sup>

#### Antibiotics are required for secondary infection

Children with infected eczema require treatment with an oral antibiotic. The antibiotic regimen should be selected based on local resistance patterns and be active against *S. aureus* and streptococci. Skin swabs can be considered in certain circumstances, e.g. in areas with high prevalence rates of methicillin-resistant *S. aureus* (MRSA) or in children who have failed to respond to the first-line antibiotic treatment.

A first-line recommended treatment regimen is:26

- Flucloxacillin 12.5 mg/kg, three times daily, for seven to ten days (maximum 500 mg/dose)
- OR
- Cephalexin 12.5 25 mg/kg, twice daily, for seven to ten days (maximum 500 mg/dose)

Erythromycin 10 mg/kg/dose, four times daily or 20 mg/kg, twice daily is a second-line alternative.<sup>26</sup>

Flucloxacillin syrup can be unpalatable for some children, therefore those who can swallow capsules should be prescribed these in preference to the syrup. It is not recommended that the syrup is mixed with other liquids prior to administration to help improve the taste, but a sweet drink can be given afterwards. As cephalexin is a broader spectrum antibiotic than flucloxacillin, ideally it should be chosen second-line, however, if compliance with flucloxacillin will be problematic, it is a recommended option.

Prescribing topical antibiotics, e.g. fusidic acid, for children with small localised lesions of infected eczema is now generally not recommended due to the high rates of resistance to fusidic acid in the community. Combination steroid, antibiotic and antifungal creams, e.g. Pimafucort (subsidised), may be appropriate for localised infections in certain circumstances, e.g. children with angular chelitis.

A patient handout on infected eczema is available from: www.starship.org.nz/media/269484/infected\_eczema\_ handout.pdf

## Antihistamines: may aid sleep in children with severe itch

Antihistamines are not routinely recommended for treating children with eczema as they do not generally help with the itch.<sup>8</sup> However, a short (< one month) trial of a non-sedating antihistamine, e.g. cetirizine, can be considered in children with moderate-to-severe eczema or when there is associated urticaria.<sup>8</sup> Non-sedating antihistamines are generally not recommended for use in children aged less than two years, with the exception of cetirizine which can be prescribed to children aged one year or older.<sup>7</sup>

During an eczema flare, itch can become severe and a short course of a sedating antihistamine, e.g. promethazine hydrochloride, can be trialled to aid sleep in children aged over two years.<sup>8</sup> The sedating antihistamine should initially be used at night when the child cannot sleep due to the itch and reduced to "as necessary" when the child's symptoms have improved. Sedating antihistamines are contraindicated in children aged less than two years for all indications.<sup>7</sup>

**Best practice tip:** If a child is being prescribed a sedating antihistamine "as required", ensure that an appropriate volume of medicine is indicated on the prescription.

#### Wet wraps: usually now initiated in secondary care

In the past, wet wraps have been recommended to parents as an at-home treatment for children with severe or extensive eczema. However, they are now generally not recommended for use in an outpatient community setting as the benefits of wet wraps over appropriate use of topical corticosteroids has not be proven.<sup>8, 27</sup> Wet wraps have a number of drawbacks including systemic absorption of corticosteroids, high cost, necessity for specialised training to apply the wraps effectively and safely, and an increase in cutaneous infections and folliculitis.<sup>12</sup> They are sometimes used in a hospital setting under specialist supervision and require close monitoring if used with topical corticosteroids.

#### Oral corticosteroids are generally not recommended

Oral corticosteroids (e.g. prednisolone) are not generally recommended for treating children with eczema as there can be significant rebound flaring of eczema when they are withdrawn.<sup>8</sup>

## Seek specialist advice for children with severe or persistent eczema

The majority of children with eczema can be managed in primary care, although seeking specialist paediatric or dermatological advice should be considered in children with severe or persistent eczema. Referral pathways will vary according to the local services available; contact your DHB. Circumstances where discussion with a specialist is recommended include:<sup>8, 11</sup>

- If eczema herpeticum is suspected. Eczema herpeticum is a disseminated viral infection and most cases are due to the *Herpes simplex* virus. It is characterised by rapidly worsening, painful plaques, clustered vesicles or punched out erosions
- If the eczema is severe (or on the face) and the child is not responding to topical corticosteroids. This includes children requiring ongoing daily use of topical steroids to maintain control.
- When phototherapy or systemic treatment, e.g. methotrexate, ciclosporin, is likely to be required
- If a child with bacterially-infected eczema is not responding to appropriate treatment, or has recurrently infected eczema
- Where the eczema is causing the child significant psychological or social problems, e.g. frequent waking at night, school absenteeism
- If the child has suspected immediate food hypersensitivity, poor growth or a severely restricted diet
- Where there is uncertainty over the diagnosis

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## Alternative treatments options are often trialled

The guidance provided in this article is based on the best published international and local evidence for treating children with eczema in the primary care population in New Zealand. It is acknowledged that there are a number of alternative treatment options available, which, although do not have a solid evidence base to support them, may be considered on an individual basis in children for whom resolution of symptoms has been unable to be achieved with conventional means. These strategies often incorporate different combinations of treatments, other formulations/brands of emollients, the use of vitamins and exploring the avoidance of certain foods.

An open and non-judgemental discussion about strategies the parents may wish to pursue can help to ensure that appropriate treatments are selected that do not adversely affect the child's condition.



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