# Eczema - Draft

## What is it?

### Bricks and Mortar Theory

Eczema is a genetic defect in the skin. Healthy skin is like the bricks in a wall and the skin makes oils that fill the gap like the grout fills between bricks. In eczema this barrier is thought to be the problem. The gaps let the allergens irritate and infections in more easily.

### [[1]](#footnote-1)“Eczema definition and scope of pathway

Atopic eczema (atopic dermatitis) is a persistent inflammatory itchy skin condition that develops in early childhood in the majority of cases. It is typically an episodic disease of exacerbation (flares, which may occur as frequently as two or three per month) and remissions, except for severe cases where it may be continuous.

Diagnostic criteria for eczema are well defined. Atopic eczema should be diagnosed when a child has an itchy skin condition plus three or more of the following:

* visible flexural dermatitis involving the skin creases, such as the bends of the elbows
* personal history of flexural dermatitis (or dermatitis on the cheeks and/or extensor areas in children aged 18 months or under)
* personal history of dry skin in the last 12 months
* personal history of asthma or allergic rhinitis (or history of atopic disease in a first degree relative of children aged under four years)
* onset of signs and symptoms under the age of two years (this criterion should not be used in children aged under four years).”

Healthcare professionals should also be aware that in Asian, black Caribbean and black African children, atopic eczema may present differently; it can cause skin darkening as opposed to skin reddening (erythema) and can affect the extensor surfaces rather than the flexures. Discoid (circular) or follicular (around hair follicles) patterns of eczema may be more common.

By 5 years, it is thought that 85% of children will "grow out of" the symptoms of eczema

## What Makes It Worse

* Heat: overheating rom, blankets on bed, “too warm clothing” warm to hot showers or baths. Let the child dress with cooler clothes than the parent!
* Dryness!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
* Irritation from chemicals, soaps, detergents
* Itch!
* Food allergies
* Environmental allergens eg dust mite, pollens
* Roughness – nylon, wool seams and labels.
* Viral illnesses: this can be a viral URTI or HSV in the skin
* Secondary bacterial infections

## Principals of management

### Moisturiser

**Lots and Lots and Lots!!!!!**

This is vital. If eczema control worsens over time, it is usually because the family have stopped using enough moisturizer.

**Infant needs 125 g/week**

**Child needs 250 g/week**

**Adults need 500/g/week**

WCH Dermatologists recommend Epaderm ointment for the severe case. It is available from Independence Australia (<https://www.independenceaustralia.com/>) 1300 704 456 I understand they have free delivery.

Others are also available – Medihoney, Dermeze, etc

#### Bath Oils

These are useful instead of drying soap

#### Wet Wraps

Used if needing lots of steroids or child is having trouble sleeping or if flare not controlled within 48 hours of starting steroids

Instructions on RCH website (<http://www.rch.org.au/uploadedFiles/Main/Content/clinicalguide/Eczema_Wet_dressings.pdf>)

They use crepe bandage. Can also use slightly too tight singlet, T-Shirt etc. The parent may need to cut the neck to get it overhead.

### Manage Itch

#### Antihistamine

Zyrtec/Claratyne OK from 6 months

Phenergan from 2 years

#### Nails

Keep filed smooth to stop itch

#### Relaxation music

Helps the child sleep and not itch

YouTube has many

“Relax Melodies” App – can have on phone and use as going about day too!

### Topical Steroids

**More is never better.** More damages the skin.

Use it like a woman dabs expensive eye cream around her eyes. If not enough then need it more often. I use BD at home and TDS when a child is admitted.

On Face: never stronger than 1% hydrocortisone.

Ointments are less irritating than cream but stronger.

* The potency of topical corticosteroids should be tailored to the severity of the child's atopic eczema, which may vary according to body site. They should be used as follows:
  + use mild potency for mild atopic eczema
  + use moderate potency for moderate atopic eczema
  + use potent for severe atopic eczema
  + use mild potency for the face and neck, except for short-term (3–5 days) use of moderate potency for severe flares
  + use moderate or potent preparations for short periods only (7–14 days) for flares in vulnerable sites such as axillae and groin
  + do not use very potent preparations in children without specialist dermatological advice.

**Strongly warn parents** NEVER put steroids on a rash they have not seen before. Chicken pox and viral skin infections can multiply. Fungus will temporarily be suppressed and then come back worse. Hydrazole for the nappy area is worth considering.

### Oral Steroids/Admission

Have no role. Admit to WCH if you think the child is this severe. During an admission the child will be under the general paediatricians. They will receive education in wet wraps, swabs for infection, oral antibiotics and the dermatologists will be consulted and allergists if required.

### Eczema Herpeticum

* HSV and other viruses such as Coxsackie will make eczema worse. Swabs for HSV are worth considering. Children with atopic eczema and their parents or carers should be offered information on how to recognise eczema herpeticum. Signs of eczema herpeticum are:
  + areas of rapidly worsening, painful eczema
  + clustered blisters consistent with early-stage cold sores
  + punched-out erosions (circular, depressed, ulcerated lesions) usually 1–3 mm that are uniform in appearance (these may coalesce to form larger areas of erosion with crusting)
  + possible fever, lethargy or distress.[[2]](#footnote-2)

### Secondary Bacterial Infection

Assume the eczema is secondarily infected if it is severe and/or not responding to correct management. Treat with Flucloxacillin (goodly dose not low dose) if not allergic and swab.

* Referral for specialist dermatological advice is recommended for children with atopic eczema if:
  + the diagnosis is, or has become, uncertain
  + management has not controlled the atopic eczema satisfactorily based on a subjective assessment by the child, parent or carer (for example, the child is having 1–2 weeks of flares per month or is reacting adversely to many emollients)
  + atopic eczema on the face has not responded to appropriate treatment
  + the child or parent/carer may benefit from specialist advice on treatment application (for example, bandaging techniques)
  + contact allergic dermatitis is suspected (for example, persistent atopic eczema or facial, eyelid or hand atopic eczema)
  + the atopic eczema is giving rise to significant social or psychological problems for the child or parent/carer (for example, sleep disturbance, poor school attendance)
  + atopic eczema is associated with severe and recurrent infections, especially deep abscesses or pneumonia.[[3]](#footnote-3)

### Nutritional Assessment

Loss of skin cells can result in iron deficiency and failure to thrive.

Need to consider iron in diet

Red meat: such as beef mince and beef sausages

Dark green vegetables: such as peas, green beans, broccoli, spinach & bok choy

Need to measure weight for length & may need to plot on WHO weight for length graphs (<http://www.who.int/childgrowth/standards/weight_for_length/en/>)

1. http://www.rcpch.ac.uk/allergy/eczema [↑](#footnote-ref-1)
2. http://www.nice.org.uk/guidance/CG57/chapter/Key-priorities-for-implementation [↑](#footnote-ref-2)
3. http://www.nice.org.uk/guidance/CG57/chapter/Key-priorities-for-implementation [↑](#footnote-ref-3)