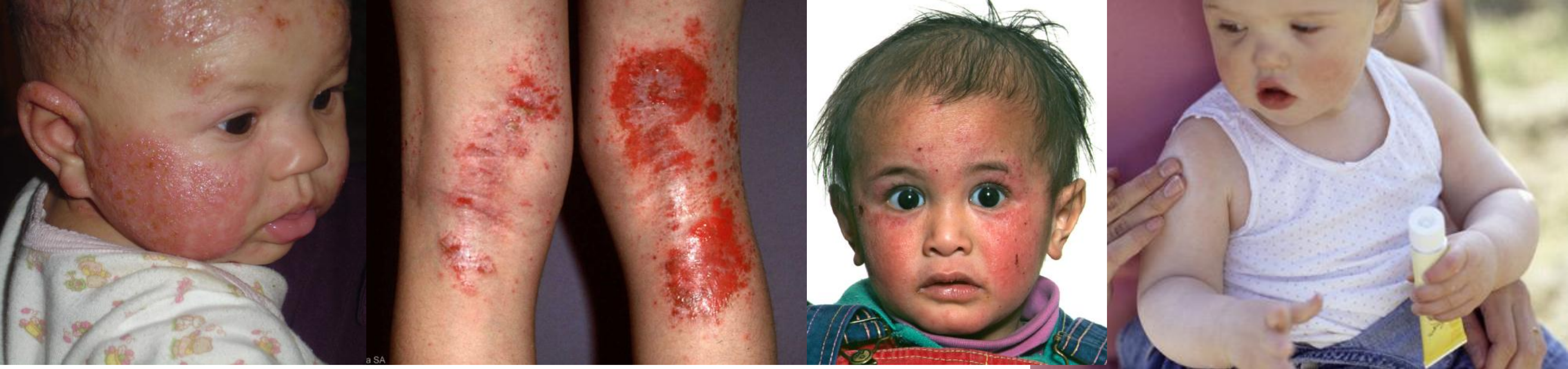


SYSTEMIC TREATMENT OF ECZEMA

Dr Diana Purvis
Paediatric Dermatologist

Systemic treatment

- Assessment of severity
- How to recognise treatment is failing
- Indications for referral
- Systemic treatments
  - Phototherapy
  - Methotrexate, Azathioprine, Cyclosporin

Assessment of eczema severity

Skin and physical severity		Impact on quality of life	
Clear	Normal skin	None	No impact
Mild	Areas of dry skin Occasional itch +/- red patches	Mild	Little impact
Moderate	Areas of dry skin Frequent itch Red patches +/- excoriation +/- lichenification	Moderate	Moderate impact on activities and psychosocial Occasional sleep disturbance
Severe	Widespread dry skin Widespread redness Incessant itching +/- excoriation +/- lichenification +/- pigmentation	Severe	Severe limitation of activities Psychosocial dysfunction Sleep disturb nightly

ECZEMA ASSESSMENT

life Life Improvement For Eczema

National Eczema Association

Patient Name ______________________ Date of Birth __________ Date __________

This form helps your physician understand how eczema has affected you/your child in the past few months. Please fill it out as accurately as possible. There are no right or wrong answers, and any information you provide is confidential. Circle the number that most closely matches your situation.

1. How often do you/your child have the rash/eczema?

Yearly	Every few months	Monthly	Weekly	Daily
1	2	3	4	5

2. How often do you/your child itch from eczema?

Never	Rarely	Sometimes	Often	All the time
0	1	2	3	4

3. How often does eczema interfere with sleep?

Never	Rarely	Sometimes	Often	All the time
0	1	2	3	4

4. How often does having eczema interfere with work, school, or recreational activities?

Never	Rarely	Sometimes	Often	All the time
0	1	2	3	4

5. How often does having eczema affect daily friendships, social life, or family/friend gatherings?

Never	Rarely	Sometimes	Often	All the time
0	1	2	3	4

6. How often does having eczema make you/your child sad, embarrassed, or upset?

Never	Rarely	Sometimes	Often	All the time
0	1	2	3	4

Score: add score for each component above (maximum of 25)

1-8 Mild 9-16 Moderate 17-25 Severe __________ Total Score

Please provide any additional information or comments on the impact eczema has on your life.

____

____

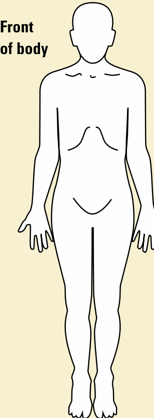
____

If additional space is needed, please write on back of page.

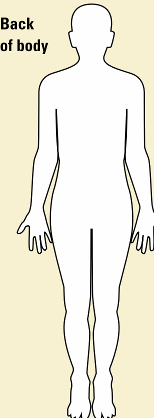
Body Surface Area

Please shade the areas where you have recently experienced eczema.

Front of body



Back of body



Goals of eczema management

- Skin care to support barrier function
- Reduction of bacterial infection
- Treatment of inflammation
- Avoidance of triggers

Goals of eczema management

- Minimise itch
- Allow normal sleep
- Allow normal activities
- Minimise infections
- Manageable treatment programme
- Acceptable side effects

- If these goals are not being met – re-evaluate

Reassess

- Adherence
- Avoiding irritants (eg soap, SLS)
- Adequate amount and potency of topical steroid
- Active infection
- Allergy: contact dermatitis to topical products, aeroallergens, photocontact allergy
- Alternative diagnosis

Goals of eczema management

- Minimise itch
- Allow normal sleep
- Allow normal activities
- Minimise infections
- Manageable treatment programme
- Acceptable side effects
- Minimal psychosocial impact

Goals of eczema management

- Minimise itch
- Allow normal sleep
- Allow normal activities
- Minimise infections
- Manageable treatment programme
- Acceptable side effects
- Minimal psychosocial impact

- Persistent itch
- Waking 2 or more nights a week
- Missing school/sports
- Frequent skin infections
- Unable to maintain adherence
- Potential side effects
- Psychosocial impact

If these goals are not being met – refer to a dermatologist

Indications for referral for dermatologist advice [NICE guidelines 2007]

1. Primary care management has not controlled the eczema satisfactorily
2. Eczema on the face has not responded to appropriate treatment
3. The child or parent/carer may benefit from specialist advice on treatment application
4. Contact allergic dermatitis is suspected
5. The eczema is giving rise to significant social or psychological problems for the child or parent/carer
6. Eczema is associated with severe and recurrent infection

[continued]

Indications for referral for dermatologist advice [NICE guidelines 2007]

7. The diagnosis of eczema is, or has become, uncertain
    - Onset before one month of age
        - Erythroderma in a neonate must be referred to a dermatologist
    - Associated with failure to thrive
    - Hair, nail or teeth abnormalities
    - Generalised scale

Systemic treatments

- Oral steroids
  - Effective but significant rebound
  - Taper over many months
  - Not recommended

- Phototherapy
  - Narrowband UVB
  - Safe, painless
  - Limited due to compliance in younger children
  - Attendence at dermatology department 2-3 times per week for 6–12 weeks

Phototherapy

Systemic treatments

- Methotrexate
  - Effective, case series
  - 10mg/m2 per week for 1-2 years
  - Liver and blood count
- Cyclosporin
  - Effective, randomised controlled trial
  - 3-5mg/kg for up to 1 year
  - Concern re renal effects and hypertension
- Azathioprine
  - Effective, case series
  - 2.5-3mg/kg for 2 years
  - Liver and blood count
  - Check TPMT (thiopurine methyltransferase) prior

- Mycophenolate mofetil
- IV immunoglobulin
- Omalizumab

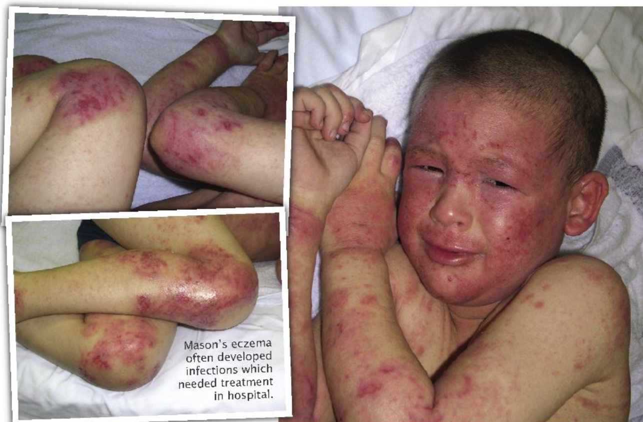
Immuno drugs give life back

Mason's mother chronicles his journey with severe allergies. By Hayley Ng

Our journey with eczema began when Mason (six) was referred to a specialist at the age of five months; we had a thorough consultation and walked out feeling confident we would get it under control, armed with Mason's first dose of hydrocortisone cream. Unfortunately this was only a temporary fix and over the next few years Mason had good times and bad, with no one thing ever being able to control his eczema. It was like he quickly developed immunity to any new product we tried on his skin.

When he was three years old we moved to Timaru and things seemed to be getting on track again for him, but again, it was short-lived. While at daycare at the age of three-and-a-half years, Mason was fed someone else's lunch, which was when

Mason spent every second week in hospital with complications of eczema.



Mason's eczema often developed infections which needed treatment in hospital.

Kids just get on with it as they don't know any different – they deal with things like this a lot better than most adults ever would.

we found out he was extremely allergic to kiwifruit. You could barely see his eyes as his face was so swollen. I rushed him to the doctor and he was given Redipred and sent home. It was after another similar reaction to walnuts, and constant refusals from our doctor when I requested further testing, that we ended up changing GPs and struck gold. An allergy test was done and it showed Mason had allergic reactions to grass, eggs, cod fish and tree nuts, with the biggest allergy being dairy. We were instantly referred to an excellent paediatrician here at Timaru Hospital.

Hospital visits

From the age of four to five-and-a-half years, Mason spent almost every other week in hospital due to his skin being badly infected and cracked so deeply it became step of his care and willing to give anything a try to help us out. Our usual routine at the hospital was to bathe Mason in potassium permanganate (a mild antiseptic with astringent properties used to treat weeping skin conditions), then cover him in hydrocortisone cream and allow this to sink in. Then, we applied a hefty amount of emulsifying ointment and covered Mason with wet wraps. This process was done twice a day. The wet-wrapping would show some improvement in Mason's skin but upon leaving the sterile environment of the hospital, all the hard work would be undone by the harshness of the weather and life outside in the real world. It was during one of these hospital visits his allergy testing was redone: he had jumped to a whopping 28 allergies with eggs now the main allergy, with a lot more aero allergies added.

The closest doctor for us was in Christchurch. The day we went up there, Mason wasn't feeling his best. We arrived with my mother as the support person for the day and went in with high hopes of getting some answers and much-needed help. However, this was not to be: the doctor straight out refused to discuss immunotherapy – even when I asked for some information to take away, I was refused. I was gutted, all that way for nothing! The doctor just wanted to send us off with more creams, all of which we had already used and had minimal success with. But the day didn't end there: the entire two-hour drive home was a nightmare. Mason wasn't able to stop itching and it just seemed to be getting worse as the drive went on.

Once home I gave him antihistamine,

pox. He was put in isolation for a week – his eczema was so bad we couldn't clearly see the chicken pox.

A successful treatment

Eventually, photos of Mason's eczema were taken and sent to a paediatric immunologist and a dermatologist at Starship Children's Hospital. They requested we meet them and ended up treating him with immunotherapy, which was fantastic. There are a few different types of immunosuppressant medications but the best fit for Mason was Methotrexate (see box). The side effects are a bit scary but not common, so we agreed we would try it as sleepless nights and constant itching was no life for a wee boy who was still trying to attend school and be a normal kid. One of the minor side effects of Methotrexate is lack of energy, so we were advised to start the medication on a Friday night, giving Mason the weekend to relax around the house if needed.

Methotrexate has to be taken at the same time every week, followed by a folic acid tablet taken a few days afterwards, which helps reduce the possible side-effects of nausea and fatigue. Methotrexate is only a mild suppressant but still carries risks like any other medication. Regular blood tests to monitor blood count, kidney function and liver function are needed.

A few weeks after starting the medication Mason came down with a nasty cough that very quickly took over and ended with him in hospital, unconscious, with pneumonia. He didn't wake up for over eight hours, which made for the most terrifying time of our lives, but in typical Mason fashion he bounced back very quickly. He has one more year left of immunotherapy.

As emotional as these times have been, the difference in him and his skin since he has been on the Methotrexate is amazing. However, it's not a quick fix – he still has creams – but simple things like being able to go swimming without stinging skin and not having dried, cracked, itchy lips and eyes in the harsh winter wind has made his life much better. He still has problem areas on his legs and arms but they are bearable as he doesn't feel the urge to scratch them all day long.

Mason is a now a very energetic, happy boy. The positive side to kids going through this sort of thing at a young age is that they don't know anything different, and just get on with it. In fact they deal with it a lot better than most adults ever would.

IMMUNOTHERAPY

Immunosuppressants are powerful medicines that dampen down the activity of the body's immune system. They can be helpful for controlling severe eczema because they suppress the over-activity of the immune system that inflames the skin. They are used to treat severe eczema that has not responded to conventional treatments, such as topical steroids.

After successful immunotherapy treatment Mason enjoys an active, healthy life.

"Transformational!"