

Atopic Dermatitis/Eczema in Children

Symptoms

Eczema, also known as 'atopic eczema' or 'atopic dermatitis', is a skin condition causing inflammation and intense irritation. Eczema symptoms tend to be caused by dry skin. The skin becomes hot, itchy and inflamed; it may also be red and appear irritated.

In young children, patches of dry, scaly skin, or (less commonly) wet, weepy skin, can appear anywhere on the body. In older children, the eczema usually appears on wrists, ankles, elbows, knees and face, including the eyelids.

Skin that is affected by eczema gets sore and broken when it is scratched, and can look wet and may bleed. This scratching is hard to avoid since the main distressing symptom of eczema is unbearable itching but, once the skin gets broken and cracked, infections can set in, causing even more discomfort.

Disease

This skin condition can affect any age range, and it is thought to be caused by a defect in the skin barrier that makes it more susceptible to inflammation and allows allergens to make contact with the immune system.

Eczema can affect a child's quality of life significantly and may also affect sleep patterns; this can make children irritable and frustrated, but good management can help alleviate these problems. This skin condition is well understood and dermatologists (skin doctors) have developed effective skin treatment regimens to control and manage the symptoms. It can, though, take some time to find the most suitable therapy for each child, and many children do struggle with the embarrassment and daily frustration of the symptoms in the meantime.

Diagnosis

Generally, GPs can diagnose eczema and differentiate whether you or your child have eczema.

Some people have triggers for their eczema such as allergies to house dust mite, pets, or certain foods. Seasons of the year (for example, in winter), or even emotional responses (such as stress), may cause eczema to worsen. However, a large number of eczema sufferers are not able to link a cause to their symptoms. It is essential that any known triggers are avoided, and sometimes keeping a 'trigger symptom' diary at home may help you to realise what might be causing flares. Important things to consider include bubble baths, shampoos, make-up products, and face paints.



If further investigation is needed, or the skin's condition is not improving with treatment, your GP may make a referral to see a dermatologist to pinpoint the exact cause of the condition. Allergy tests (either skin prick testing or a blood test) may help to identify allergens involved in flares.



Can Food Allergies Cause Eczema?

No. Children are born with the tendency to have eczema and many things can make their eczema worse. These are known as “triggers” for the eczema. Foods can be triggers for eczema especially in infants but the foods are not the primary cause of the eczema.

Treatment of Eczema

Emollients

Emollient lotions and creams are prescribed for eczema and dry skin, and are, in their simplest form, mixtures of oil and water. Some emollients may also contain slight amounts of antibacterial chemicals (to avoid infection in broken skin), or steroids (to reduce inflammation).

Emollient products range in their consistency, from being runny lotions to thick creams, and while they can be a very cooling and soothing treatment for eczema, the stickiness of the thicker products can sometimes make them a source of annoyance for children. It is important to find a product that is suitable for your child to tolerate.

Dry skin is more susceptible to eczema, and once the skin barrier is broken, it is open to potential infection and further irritation from allergens. Scratching also causes the body to release histamine, which further aggravates the symptoms. Emollients work to reduce eczema symptoms by creating a protective barrier on the top layer of the skin, moisturising it and reducing water loss. The oil also provides lubrication so that the dry skin, which is often itchy and rough, will not be as easily irritated.

Although emollients do not stop the underlying cause of eczema, they calm and soothe the skin, and give it time to repair itself. For emollients to work effectively, they need to be used as part of a regular treatment regimen. This means that they should be applied at set times of day, and should be used whether they appear to be needed or not.

Eczema can flare up at any time, in some instances due to infection, stress or allergens, but also for no obvious reason. Even when emollients are used, there may be times when eczema seems to get worse. However, regular treatment can help to minimise the number and severity of flare ups.

Emollients should be continued for as long as possible, even when all traces of eczema have vanished. By keeping the skin moisturised, it will be better hydrated, and with less chance of the skin barrier being broken, the risk of allergens and other irritants causing eczema is reduced.

Emollients are available as lotions, creams, ointments, shower and bath products, and soap substitutes. These products should be used every day as emollients support the skin's barrier function by helping it to retain water and form a protective layer against allergens or bacteria. They can also help to relieve the 'itchy' symptoms typical of eczema.

Water can have a drying effect on skin, and so emollients are also available as bath products, which help to hydrate and protect the skin while soaking in the water. In addition, soap can also make eczema worse because it dries the skin further. Soap substitute emollients can also be prescribed, which can be rubbed on and rinsed off skin just like liquid soap.

You may find that your child has several creams if their eczema symptoms vary, and some children have different creams for different times. For example, a child going to nursery may use a less oily cream in the morning and during the day, and use a thicker treatment at night.

How to use

- You need to understand how and when to apply your child's treatments, so ask your healthcare professional for advice or a demonstration.
- Make sure your hands are clean, as well as your child's if they are going to help, because skin with eczema is vulnerable to infection. Many emollient creams come in dispensers with a pump top, but if not, use a spoon or similar utensil to dispense the emollient onto your hand. **DON'T PUT YOUR HAND** in the tub, as you will then transfer bacteria from your hand and the child's into the emollient container!
- Dab the cream over the affected area, and then smooth the cream in a downward direction so that the hair follicles are not irritated.
- After the cream has been applied, make sure that all bowls and other equipment are washed in hot, soapy water and kept only for use with the eczema treatment.
- It is particularly important to use emollients after a bath or shower. Gently dab the skin of your child dry and then seal the moisture into the skin with plenty of emollient.
- Most soaps strip the skin of its natural oils so you may be prescribed emollients to be used in the bath. Most emollients may be applied before a bath then rinsed off, which will clean the skin.





Topical Steroid Creams

It is sometimes necessary to apply topical corticosteroids (e.g. hydrocortisone), as these reduce inflammation in the skin.

Many people worry when steroids are mentioned as a treatment option because of stories they may have heard in the media, particularly related to anabolic steroid abuse in sports. These, however, are not the same steroids that are used as medical treatments and, when used as directed by a physician, steroids have an important role to play in treating a range of ailments, including eczema.

Topical steroids are safe to use but it is important to always follow the instructions provided, making sure you understand which areas you apply the cream to. If you have any questions, then ask your doctor or nurse for further advice and information.

Steroid creams only need to be applied to the inflamed areas of skin. One finger tip of cream (where the cream is squeezed along the finger tip as far as the first joint) is usually enough to cover an area of skin twice the size of an adult's hand.

Sometimes emollients and other creams (i.e. steroids and antibiotics) are needed in combination. It is important to leave an adequate gap between applying the different creams to allow one cream to be absorbed before applying another. If creams are applied too soon after each other they may be diluted, and healing and control of the symptoms can take longer. Steroid creams, when used for a long time at a high dose, can cause skin to be thinned. This will not happen when steroid creams are prescribed at the appropriate strength, with less potent steroids being prescribed on the face than on the body. It is also important to use steroid creams as early into flares as possible, as this will avoid the need for higher strength preparations, required when the eczema is severe. Doctors are also increasingly using steroid creams proactively for only a couple of days a week ('weekend therapy'), even when the eczema is well controlled, to prevent future flares, as this has been shown to reduce the amount of steroids needed in the long-term.

Wet Wraps

Sometimes, you may need to use special pyjama-like garments (known as 'wet wraps') for your child. These are used if a child has not responded to the usual topical application of emollients and steroids. Wet wraps can also be useful if the child suffers from itch at night and cannot sleep. The wraps allow them to have a better quality of sleep during times when the eczema is particularly bad. There are various ways of applying these garments and your nurse or doctor will be able to demonstrate the best way of application.

It is important to follow the advice of your treating practitioner for the length of time of wet wrap treatment, and it is a good idea to have your child's skin re-assessed when the treatment comes to an end.

Calcineurin Inhibitors

Calcineurin inhibitors are an alternative to steroid creams. There are two different preparations, Tacrolimus (0.03% and 0.1%) and 1% Pimecrolimus (also known as Protopic® and Elidel®), licensed for use in children over the age of two. Like steroid creams, they reduce the skin inflammation and can lessen itching.

These creams are suitable for use on almost every part of the body, as they do not thin the skin, and are often used when steroids have proved unsuccessful, or are not suitable, for example, on sensitive skin around the eyes. Emollients should continue to be used as well as these creams.

A common side effect of these creams is a shortlived burning sensation on application, which is harmless and generally settles down after a few applications. These drugs are thought to be safe and effective in the short-term, but their safety for long-term use has yet to be proven.

Good Practice

- ▶ Despite our best efforts, as children get older the chore of a twice daily skin cream regimen can become annoying for everyone, especially if their symptoms have improved. Remember that the symptoms have improved because the eczema is under control, so you and your child should feel pleased. Without the cream, it may flare up again. You now want to keep up the routine so that your hard work at keeping your child's skin healthy and hydrated is not ruined. It is important, therefore, to continue praising your child and raising their self-esteem regarding how well they have taken part in their treatment as this may help to keep up their motivation.
- ▶ Current medical guidance advises the best way to manage eczema and improve the quality of life for sufferers is to identify and avoid triggers while using the most suitable emollients, even when the skin is in good condition. Having a stepwise approach in place, where patients can use other treatments when necessary, provides a good support system to keep the eczema under control.
- ▶ Sometimes people react to the other ingredients in the creams, so any changes or worsening of skin condition needs to be reported to your doctor.
- ▶ Frequency of application of emollient varies but it could be two to four times a day. It can be useful to have extra emollients available should your child need them when they are away from home. For example, keep spares at school, at relatives' homes, or in the car.
- ▶ Don't be concerned about requesting emollient prescriptions through your GP. The skin can take a large amount of hydration, and it is not uncommon to use up to 250-500g of emollient per week. It is good to



be able to use an emollient instead of other stronger medications to control your child's eczema. However, there are times when other medications are needed if the eczema has flared up.

- ▶ Sometimes alternative treatments to emollients, steroid and calcineurin inhibitor creams may be offered, such as phototherapy, immunosuppressive medication or dietetic advice. These are all specialist areas which you will need to discuss in depth with your health care practitioner.
- ▶ It is important to be aware of, and look for, the signs of bacterial infections (weeping and crusting), since the skin of children with eczema is more prone to infection due to the cracks and constant scratching.
- ▶ Severe eczema can sometimes lead to a hospital stay to treat serious skin infection and help the child respond to treatment.

Tips

- ▶ Baths and creams should be undertaken before application of wet wraps, and the skin should be patted dry, rather than rubbed, to avoid friction which could start irritation and scratching.
- ▶ Ointments can be messy, so prepare by covering up your clothes and the area in which the treatment will take place. For example, wear an apron or old shirt over your clothes, and place towels on the bed if this is where you are going to administer the treatment.
- ▶ If your child is very young and does not like the treatment, it can be very helpful to encourage them to help in putting on any lotions. This is also good for helping them to understand their condition as they get older.
- ▶ If your child does not cooperate easily with the treatment, try to keep talking to them, tell them a story, sing a song, or listen to a DVD – anything to keep their mind occupied. Try to remain calm yourself and don't get flustered if your child does not want to cooperate. Aim for a small improvement in applying the treatment each day and over time your child will get more used to it as a regular activity. The important thing is to make it as pleasant as possible.
- ▶ Some parents decorate the tubs and pots of emollients with stickers to make them look more fun and less clinical. It can help to personalise the jars so that the child feels that it is special and that they have some participation in their treatment.
- ▶ Check the ingredients of any other skin products your child uses, and if they want to have bubble baths, etc. with their favourite characters on, try cutting out the characters and sticking them onto their prescribed skincare bottles. Alternatively, for older children emollients can be dispensed into more fashionable bathroom containers.
- ▶ Younger children can be helped by showing how dolls (made from hard plastic so they can be cleaned) can have the treatment applied. They can even put cream on the doll, while you are applying the treatments to them. This increases their understanding and allows them to feel involved.



- ▶ Many manufacturers give away activities, star charts and rewards for wet wrap patients so it may be worth contacting them. Your practice nurse or doctor may be able to help you with this.
- ▶ Remember to involve siblings so that they are included during treatment time.



Self Help

- ▶ Bacterial infections cannot always be avoided, since it is important that children with eczema take part in as many activities as their friends. However, there may be times when covering the affected area will help reduce infection, such as when playing in a sand pit, or playing sport. If necessary, discuss with teachers at school to find out if your child can do sport in tracksuit bottoms or long-sleeved tops.
- ▶ When outside take care not to allow skin to become sunburnt. There are specially formulated sunscreens available for eczema sufferers that do not contain some of the ingredients which may make the skin become more irritated; for further information contact the Allergy UK helpline. You should still keep up your child's skin care regimen of emollients and other creams and check with your doctor the suitability of sunscreens.
- ▶ There are now specialist clothing ranges available for eczema sufferers. For example, many children now wear UV sun suits (for further details contact Allergy UK). Cool cotton or silk fibre clothes are ideal for eczema sufferers, as these allow the skin to remain cool and less irritated.
- ▶ Your child may prefer to wear trousers rather than skirts or shorts if they are concerned about the look of the eczema on their legs.
- ▶ Some specific brands of clothing are available on prescription. However, this would need further discussion with your prescribing doctor.
- ▶ When taking part in sports and showering afterwards, make sure emollients are used. This is particularly important to apply emollients before swimming, as the emollient acts as a barrier and chlorine may adversely affect the skin and cause irritation. When your child is out of the pool, shower the pool water off and re-apply emollient.
- ▶ Keep nails short and clean and try to keep your child distracted from scratching. Keep your home cool, as a hot environment increases itching.
- ▶ Make sure you are aware if your child is worrying about something, as eczema can be exacerbated by anxiety and other forms of stress.
- ▶ Make sure you keep the school informed about your child's treatment, and that teachers are aware of any extra care needs for your child. Talk to the SENCO or school nurse for extra advice and help.

Last updated: October 2013

Next review date: October 2016

Version 3