

Itching and scratching

How to control
eczema-related itching



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Itching and scratching

How to control eczema-related itching

About this booklet

For most people, itching is the worst and most uncomfortable symptom of eczema and can often be the most difficult to treat. Itching may also lead to sleep problems for both the person with eczema and their family.

This booklet explains why eczema makes you itch, how itching and scratching affect your skin, and what you can do to be more comfortable during the day and get a better night's sleep.

Why does eczema itch?

The sensation of itch in eczema occurs when inflammation causes free nerve fibres to stimulate nerve endings called C fibres in the top layer of the skin (the epidermis). The nerve endings can be stimulated by different factors,

including external irritants, dry skin, eczema flares and chemical mediators in the skin.

Chemical mediators act as messengers. When a chemical mediator is introduced into the skin, it acts directly, on nerve endings in the upper layers of the skin, or indirectly, through cells that play a role in causing itch. Several chemical itch mediators have been identified in atopic eczema. One example is neuropeptides.

People often think histamine is to blame for itch in atopic eczema, but the actual role of histamine is limited. In atopic eczema, the nerve fibres that transmit itch (both directly and indirectly) are insensitive to histamine. This explains why antihistamine tablets do not help with reducing itch for most people with atopic eczema, although sedating antihistamines can help restore sleep.

Itch is not always a straightforward physical response in the body. There is another type of itch called a psychogenic itch. This means that the itch is also stimulated by psychological factors; these may be conscious or unconscious urges to scratch, brought about by habit or in response to stress.

It is scratching that damages the skin, not the itch. When the skin itches, the response is to scratch and this can

Once I started scratching, I found that it was impossible to stop. The advice and help from the National Eczema Society have helped me to cope with these distressing bouts.

RUTH, AGED 24

become an unconscious, conditioned response. In other words, this is a learnt human behaviour and quickly becomes an automatic reaction, even in very small babies.

Once you have started to scratch, you will probably find that you continue to do so and this leads to what is called the itch–scratch–damage cycle (see below).



Intense scratching often relieves the itch – some people even find it pleasurable (this can be another reason why trying to stop scratching is so hard) – until damage occurs when the skin is broken, and itch is replaced by pain, causing a person to stop. In the meantime their eczema has been made a whole lot worse.

What does scratching do to the skin?

At first, scratching the skin produces redness or the skin becoming darker than a person's usual skin colour,

depending on skin tone. A rash and irritation may follow. If scratching continues, the skin can become broken and bleed. Once the skin has been broken, there is a risk of infection. Broken skin also allows irritants (e.g. fragrance, soaps and detergents) and allergens (e.g. pollens and animal dander) to enter the skin easily and cause a reaction, which in turn will make the itching worse and may cause the eczema to flare up.

If someone has been scratching the same area for a long time, the skin will start to thicken – this is called lichenification. The skin looks like leather and can take weeks or months to return to its normal thickness. Lichenification causes the affected skin to become lighter or darker. This is often more noticeable in people of colour. These lighter or darker patches will eventually fade, but this may take months.

Sometimes people with eczema develop itchy lumps on their skin, which can be red or darker than their normal skin colour, depending on skin tone. This is known as nodular prurigo and is related to eczema.

Fortunately, skin that has been scratched will heal well and scarring is unusual unless the skin has been constantly picked and scratching has been intense. This means the deeper layers of the skin (dermis) will be damaged and dermal damage will scar. The best way to avoid scarring is to control itch.

What makes itching worse?

All types of eczema can cause itch. There is an interactive network between the skin and the nervous and immune systems. When eczema flares, the skin becomes red or darker than a person's normal skin colour, depending on skin tone, and sore. Inflammation is driven by a variety of chemical mediators, including a neuropeptide called substance P. Inflammation increases blood flow, which also contributes to generating intense itch.

In addition, there are many triggers that can make the itch worse:

- *Dry skin* will always be itchy skin, and reducing dry skin is therefore a first-line approach to reducing itch. Dry skin, due to a defective skin barrier in atopic eczema, leads to trans-epidermal water loss (TEWL), i.e. loss of water through the skin. We know that TEWL increases at night, so this is one of the reasons why itching is worse then.
- *Temperature*: Changes in temperature can often cause the skin to itch (e.g. it is quite common for the temperature of the skin to change when you are getting dressed or undressed, and when you are in bed at night). Moving from hot to cold environments and vice versa can also cause itch (e.g. on a cold day going into a centrally heated house). Hot, dry heat on

a summer's day can also cause itching, coupled with perspiration.

- *Overheating*: Night-time overheating in children is a feature of atopic eczema and can lead to loss of sleep for all the family. Applying emollients, especially ointments, too thickly can also cause overheating by blocking skin pores.
- *Central heating*: Bedrooms and bathrooms that are too warm (above 18°C) may lead to overheating.
- *Sweat* is a known irritant for people with eczema, who often find that they itch more after sporting activities. Perspiration can be a problem for children who are simply running around during play.
- *Clothing*: Some clothing material can be very irritating to the skin. For example, wool has quite coarse, stiff fibres and these can irritate the skin, causing it to itch. Rough seams, labels and loose threads can have the same effect. Clothes made from synthetic material can make the skin hot, leading to itch. It is important to remember this when buying your child's school uniform as many are made from synthetic materials to increase durability. Wherever possible, choose 100% cotton and dress in thin layers to avoid overheating.
- *Irritants*: Many substances irritate the skin and cause it to itch. Fragrance, soap and detergents are common causes of irritation, leading

to itching. Household cleaning products and other chemicals, which may be handled at work, as well as certain foods touched during food preparation, can also be a problem.

- **Allergens:** Many people with eczema come to know which substances can affect their skin – usually through trial and error. Allergens such as house-dust-mite droppings, pet dander and pollen can make itching much worse. But it is important to remember that not everyone with eczema will react to the same things, and some people will find that they are unaffected by certain allergens. Certain chemicals can also be a problem for some people. If an allergic trigger is suspected – this may be a contact allergy (caused by something that touches the skin) or an ingested allergy (e.g. food allergy, which is rare over the age of 2 years) – a referral to a specialist may be made. Allergy tests in a hospital setting may include patch testing, skin prick testing or specific IgE testing (previously known as RAST). Allergy testing should be performed by specialists and not by 'high street' practitioners.
- **Psychological factors:** Stressful situations can have an effect on itching. People may itch in response to certain feelings and, for children in particular, tiredness can make eczema more irritated.



Coping with the itch

Treatments for itching

Eczema flares will always cause itch, but your healthcare professional can prescribe treatments that will help control and reduce it. Alongside treatments, the practical tips on pages 6-7 will help.

Emollients

Emollients help to keep the skin well moisturised, reducing dryness and forming a thin layer on the skin that helps to prevent water loss through the skin barrier. Emollients can be applied as often as necessary. Aim to apply your emollient at least twice a day, but more often than this if the skin is very dry. *Remember, dry skin will always be itchy skin!* There is a wide range of emollients on the market, many of which are available on prescription. It may be a case of trial and error to find the emollient that suits you or your child best. Some emollients contain anti-itching ingredients,

called lauromacrogols, which are local anaesthetics. Daily use of an emollient that suits you is the best way to relieve itchy skin.

It is important to use emollients as soap substitutes for washing and in the bath or shower. Washing water should be tepid, as hot water can cause itching.

Bath emollients are available to buy but do not add any extra benefit to using emollients as soap substitutes. Oats are a traditional remedy for itching, and a muslin sack of oats can be attached to a running tap, for a soothing bath.

Topical steroids

If the eczema and itching fail to respond to emollients alone, an additional treatment – usually a topical steroid – may need to be prescribed as a short-term treatment to help reduce the irritation and control the flare. If the skin is itchier than usual and becoming red or darker than your usual skin colour, depending on skin tone, this is an eczema flare. Topical steroids reduce the eczema flare and itching, and therefore prevent damage from scratching. Sometimes people with very itchy skin are worried topical steroids may damage their skin and therefore avoid using them. This may actually prolong the eczema flare, cause more itching and scratching, and lead to long-term skin damage due to the eczema itself. Before deciding which topical steroid to prescribe, the healthcare professional will take into account the age of the patient, the area of the body affected by the eczema,

the severity of the eczema and other medications being taken. Usually they will start with the lowest potency (strength) topical steroid required to bring the eczema flare back under control. Depending on the response, the steroids may be stepped down or up in potency. Topical steroids should be used for short treatment bursts and applied in fingertip units (or a thin layer), so an adequate amount is used to treat the flare. Always follow the instructions of your healthcare professional.

Topical calcineurin inhibitors

Topical calcineurin inhibitors (TCIs), also known as topical immunomodulators, are second-line, non-steroidal treatments for treating eczema flares and helping to prevent flares through maintenance. Their brand names are Elidel (pimecrolimus) cream and Protopic (tacrolimus) ointment. TCIs act on the cells in the body and the skin to dampen down the immune system, which helps to reduce inflammation and makes the skin less itchy and red or darker than a person's normal skin colour, depending on skin tone. They are applied to the skin for up to six weeks to treat flares, and then can be used twice a week for maintenance, to try to prevent further flares. They are licensed for use in treating atopic eczema in adults and children of 2 years of age and over.

Paste bandages and wet wraps

Paste bandages and wet wrapping can both be helpful in reducing the itch–scratch–damage cycle (especially at night, when scratching is often an unconscious action in sleep).

Practical tips to reduce the itch

- Use emollients frequently enough to prevent dry skin. Sometimes, thick applications of ointments can block skin pores and actually cause more itching, so apply often but lightly (but enough to make the skin glisten). Emollients will help to keep the skin intact and well moisturised, reducing irritation from allergens and irritants. Reapply before the skin becomes dry again.
- Always apply emollients in smooth, downward strokes. Do not rub them into the skin as this can make itching worse. For children, try to make putting on emollients a positive experience, encouraging them to stroke and soothe on their own emollients – use reward charts, sticking on stars for moisturising and not scratching. Children can decorate their emollient pots and dispensers to make them more fun to use.
- Keep nails short, and make sure there are no jagged edges.
- Avoid plain water for washing and bathing. Always use a soap substitute or your usual leave-on emollient to wash with and then rinse off.
- A daily tepid emollient bath using your emollient as a soap substitute is very helpful. Water alone can cause itching, so your emollient should always be used whenever you wash your skin. Some people living in hard water areas report that the water affects their skin. While research indicates that hard water may contribute to the development of eczema in infancy, there is not yet evidence to show that it worsens existing symptoms in adults. Using emollients for washing in the bath or shower should counteract any effects of hard water.
- After washing and bathing, pat the skin dry with a soft towel rather than rubbing.
- Use cotton sheets and blankets on beds, or low-tog (4.5) duvets filled with manmade fibre, not feathers, to prevent overheating in bed.
- Try cotton gloves or mittens, and for babies/children, use all-in-one sleep-suits with built-in mittens to reduce the damage from scratching the skin, especially at night. Sleeves with silk or cotton mitts can also be useful.
- The Centre of Evidence Based Dermatology at the University of Nottingham has created stories to help children break the itch-scratch cycle. You can access these at: www.nottingham.ac.uk/research/groups/cebd/resources/psychology-and-eczema.aspx.

- Aim to distract yourself or your child from the itch. Watch a DVD, read a book, go out or give children toys to play with or an activity to do.
- Try not to say 'Don't scratch' to children or adults who are scratching. A lot of scratching is done without the person even realising that they are doing it. Shouting at or nagging someone who is scratching could create resentment and distress and increase feelings of stress. Instead, offer to help moisturise and turn it into a soothing action.

Try to substitute some other action for scratching. You may find it helpful to press a nail onto the skin or pinch the skin gently instead of scratching. Clenching fists and counting to 10 also works well, especially for children. Parents and partners sometimes find that if they moisturise and massage the skin gently for their child or partner, it helps to cut down on potential skin damage.

- For very itchy patches of skin, some people find a bag of frozen peas or something similar wrapped in a towel and placed on the skin will help. Avoid putting ice directly onto the skin. Children might enjoy painting a picture on a flat stone and giving



it a name. This can then be placed on itchy areas to cool the skin.

- Applying cool emollient creams, lotions or gels (not ointments) that have been kept in the fridge may help, although some people find that warm emollients are the most soothing (but don't warm in the microwave, on the hob or in the oven, or allow to get too hot!).
- Keep cool. Use several light cotton layers, rather than having one heavy and warm layer of clothing or bedding – that way, you can adjust the temperature to suit you. Keep bedrooms cool and ventilate rooms on a regular basis.
- Talk regularly to your dermatologist, GP or nurse about your treatments to make sure that you are using what is best for you at that time and that you are adequately treating your eczema flares.

Paste bandages and wet wrapping – especially wet wrapping – should only be used if recommended by health professionals trained in the management of eczema. It is essential that you are given a demonstration of how to apply paste bandages and wet wraps. Wrapping and bandaging can be very time-consuming and should not be used to treat mild eczema. Wraps and bandages should not be used if the skin is infected. Covering up the skin with bandages and wraps makes topical steroids more potent, so only use topical steroids under bandages and wraps if advised by your healthcare professional. Topical calcineurin inhibitors, tacrolimus (Protopic) and pimecrolimus (Elidel), should not be used under paste bandages and wet wraps.

See National Eczema Society's Paste Bandages and Wet Wraps booklet for more information, which you can download from the National Eczema Society website.

Habit reversal

Habit reversal (also called 'the combined approach') is a behavioural technique that is taught to patients by either a psychologist or dermatology specialist



(doctor or nurse). The programme works well in older children and adults and is mainly for people with long-term atopic eczema.

The treatment helps people to realise when and why they are scratching and then to find an alternative to scratching. They are encouraged to look again at the treatments that they are using and to identify triggers in order to reduce the amount that they scratch. In the long term this means less damage to the skin and a reduced need for topical steroids and other treatments. Ask your GP if local dermatology or psychology departments offer habit reversal and if you can be referred. Sadly, there are only a few dermatology centres around the UK offering habit reversal.

For more information about habit reversal, please see: www.atopicskindisease.com. There is also a self-help book available: *The Eczema Solution*, written by Sue Armstrong-Jones and published by Vermilion.

Hypnotherapy

Hypnotherapy is not the same as the stage hypnosis that you might have seen on television. Hypnotherapy or clinical hypnosis is a procedure whereby a health professional or researcher suggests that a person experiences changes in sensations, perceptions, thoughts or behaviour. There are many different ways to do this, including suggestions for relaxation, calmness and well-being. Children can also benefit from hypnotherapy.

There have been some studies investigating the use of hypnotherapy to reduce itching in people who have eczema. There does seem to be some benefit in that it helps people to 'see' their itch and to learn to control it.

It is important to find a properly qualified hypnotherapist who is either registered with the British Society of Clinical and Academic Hypnosis (www.bscah.com) or the British Society of Clinical Hypnosis (www.bsich.org.uk). Members of the British Society of Clinical and Academic Hypnosis are healthcare professionals in their own right (e.g. doctors, dentists, psychologists, nurses, or other healthcare professionals).

Sleep disturbance

If you or your child has eczema, it is likely that you or they will at some point have disturbed sleep. Waking in the night can lead to a relentless succession of broken nights over weeks or months, leaving you and your child utterly exhausted and irritable. The waking in the night disturbs not just the person with eczema but affects other family members as well. In one study that looked at families with a child with eczema, the child, the parents and the siblings were all affected by sleep disturbance. In severe cases the night-time itching and scratching may lead not only to tiredness and irritability but to lack of concentration at – or absences from – work and school. Tension and stress can also arise within a family or

between partners. People with eczema and their parents or partners can be deprived of proper sleep for long periods of time. Inevitably, this will affect every aspect of life.

Why does eczema affect sleep?

Many people scratch in their sleep and will sometimes wake up because of this. One piece of research showed that children with atopic eczema spent 13–136 minutes each night scratching, and scratched 20–97 times. This is much more than happens with people who do not have eczema.

During the day, it is often possible to distract yourself or your child when feeling the need to scratch, but even so it can be hard to resist the temptation. At night, distraction is much more difficult.

Once in bed, people with eczema can get very hot and this can cause them to itch. Sometimes a fan can help. People with atopic eczema may be affected by the droppings of house-dust mites, which live unseen in mattresses and bedding. Again, this can mean increased itchiness at night, so do use protective covers (ones that go all the way round, rather than just covering the top and sides of the mattress) and try to avoid sleeping on old mattresses.

Waking at night can become a habit. Children will sometimes disturb their parents at night in order to receive comfort and attention, and this can make life difficult. Try to avoid letting your child climb into bed with you.



When you have more than one person in the bed, the environment will become very hot and this will make the child itch more. It is better to go to the child's room to give comfort and then be firm and let the child fall asleep in their own room. For advice on establishing good bedtime and sleep routines, visit The Sleep Charity's website: www.thesleepcharity.org.uk.

If you are disturbing your partner at night by scratching or being restless, it may be worth having an alternative place to sleep for a few nights when your eczema is very bad.

Treatments for sleep disturbance

Antihistamines

Sedating antihistamines that cause drowsiness can be useful at night. Ideally, they should only be used for a few days at a time when the eczema is very severe and you or your child is having a lot of trouble sleeping. They can be used safely in the long term.

There are a few to choose from: some can be bought over the counter from your pharmacist and others

are available only on prescription. Non-sedating antihistamines are used to treat allergy and urticaria (hives) to block histamine pathways. Unfortunately they do not work well on eczema itch, which does not have the same direct histamine link.

You need to take an antihistamine about one hour before going to bed as this will give it time to work and make it less likely that you will have a hangover effect in the morning.

Some antihistamines are only suitable for children over 2 years, and *for all children antihistamines must be prescribed by your healthcare professional*. Please note that in some cases these can make children more active instead of drowsy.

You should talk to your healthcare professional before giving your child antihistamines, or before taking them yourself.

If you are intending to start a family or are pregnant, always check with your healthcare professional regarding which antihistamines are safe for you to use.



Practical tips for sleep

- If you or your child is itchy enough to wake at night, it may be that the eczema is not being well controlled. Ensure that you are applying plenty of moisturiser and use topical steroid as prescribed by your healthcare professional. For further advice on managing eczema flares and using topical steroids, please see National Eczema Society's Topical steroids factsheet, which you can download from the National Eczema Society website.
- Avoid the use of soap when washing, and ensure that bedding and clothing that touch the skin are made of cotton (ideally 100%), bamboo or silk. Remember to use low-tog, fibre-filled duvets, all year round – in the summer you or your child will probably only need a sheet.
- Paste bandages and wet wraps can help to protect the skin from scratching and rubbing (see page 5).
- Keep emollients at hand at night and put them on as soon as you or your child wakes up itching.
- Keep bedrooms cool, especially at night (18°C or below).
- You or your child should wear loose-fitting pyjamas or a light cotton nightdress.
- About an hour before going to bed, take a bath or shower in tepid water, then apply plenty of moisturiser to soothe and cool the skin.
- Do not apply too thick a layer of emollient as this can block the skin pores and make you or your child hot and sweaty.
- If you or your child has atopic eczema and you know – or strongly suspect – that you are sensitive to house-dust-mite droppings, you may find it useful to try to reduce house-dust-mite levels by vacuuming frequently, dusting with a damp cloth and using house-dust-mite-proof covers for the mattress and bedding.
- If you have pets, do not allow them in the bedroom as dander can irritate eczema and set off a bout of itching. The advice about vacuuming frequently and damp dusting applies equally to areas where pets have been, and it is important to wash hands and moisturise after handling animals.
- Sometimes disturbed sleep can cause a lot of tension in families and between partners. Talking about the effect that eczema is having upon sleep and being honest about how you feel is vital.

Further information from National Eczema Society

More information than can be given in a booklet of this size is available from National Eczema Society. We have other booklets including:

- **Childhood Atopic Eczema**
- **Living with Eczema**
- **A Guide for Teenagers with Eczema**
- **All about Contact Dermatitis**
- **Paste Bandages and Wet Wraps**

Booklets and factsheets can be downloaded from our website or ordered from our Helpline.

Website: www.eczema.org

Helpline: Telephone* **0800 448 0818**
(Monday to Friday 10am to 4pm)

** Calls are free from UK landlines. Charges vary from mobiles.*

Email: helpline@eczema.org

We are proud of the wealth of information available on our website and recommend you visit it whenever you need information. You can also check out our Facebook, Instagram and Twitter pages for eczema tips and news.

Our confidential telephone and email Helpline is at the heart of our work, providing information, support and reassurance to thousands of people struggling to cope with eczema. We

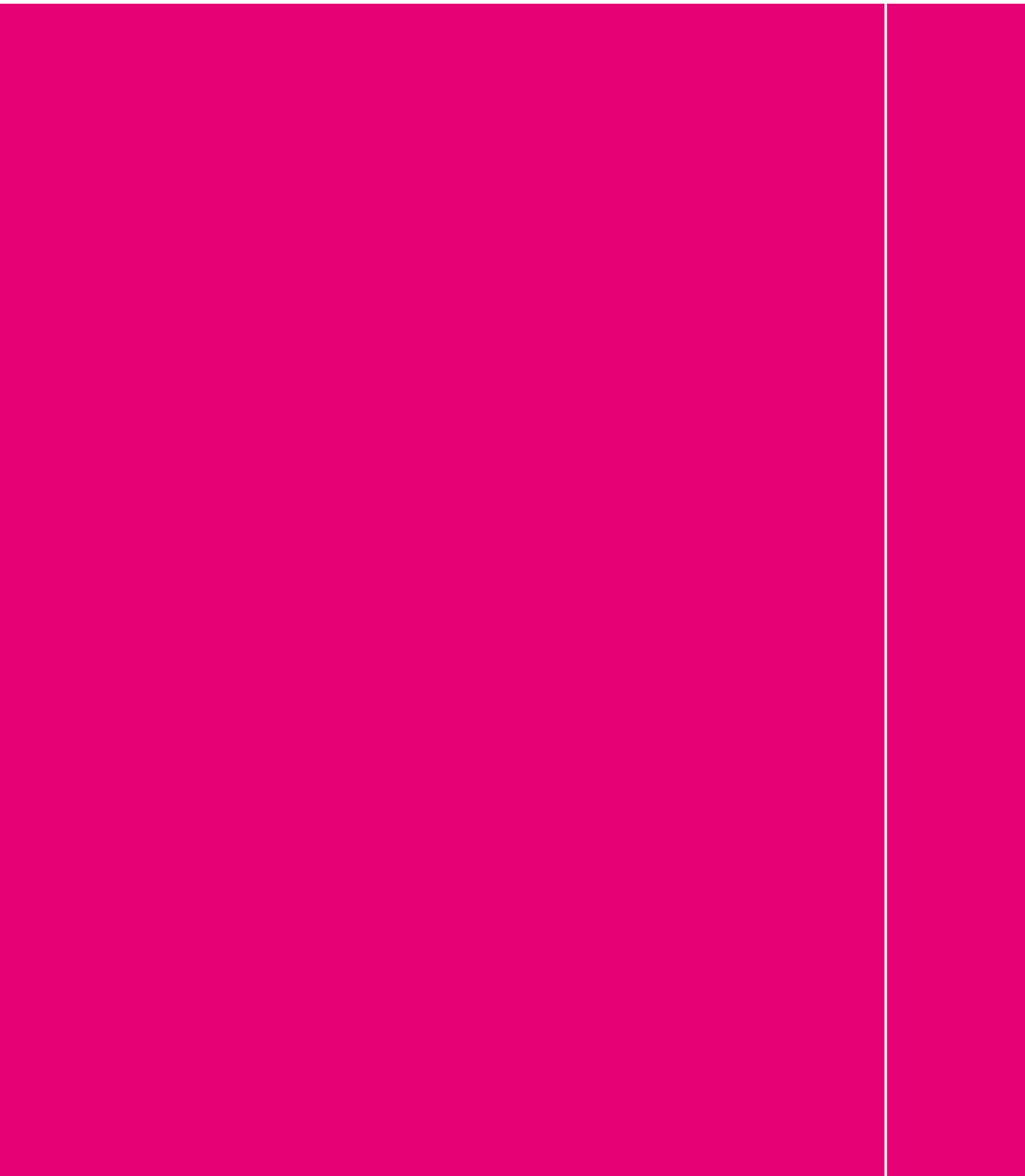
are not medically qualified and do not diagnose, prescribe, give medical advice or opinions on treatments prescribed by your healthcare professional. We do, however, offer a wealth of practical information about the day-to-day management of eczema and the different treatment options available.

The Helpline is open to all UK residents who are affected by eczema. Please allow five working days for us to reply to emails. We are not able to answer queries from non-UK residents as terminology, healthcare systems and treatments may differ in your country of residence, which may cause confusion.

In addition, National Eczema Society publishes *Exchange*, a quarterly magazine packed with:

- articles on eczema management
- features by people with eczema sharing their experiences
- treatment and research news
- experts' replies to your questions.

You can subscribe to *Exchange* for £25 p.a. at www.eczema.org or by calling our administrative office on **020-7281 3553**.





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The information in this booklet is only a general guide. Individual circumstances differ and National Eczema Society does not prescribe, give medical advice or endorse products or treatments. We hope you will find the information useful but it does not replace and should not replace the essential guidance given by your doctor and other healthcare professionals.

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