



What you need to know about

ECZEMA



The Irish Skin Foundation is a national charity with a mission to improve quality of life for people with skin conditions, promote skin health and the prevention of skin disease through support, advocacy and by raising awareness.

We hope you find this booklet about eczema helpful and informative. If you would like more information, visit our website www.irishskin.ie or call our Helpline on (01) 486-6280.



Welcome to your guide to living with eczema

What you need to know about

ECZEMA



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What is eczema?

Before we begin, let's explain three simple words that can cause a lot of confusion - eczema, dermatitis and atopic.

Eczema comes from a Greek word that means 'to boil'.

Dermatitis means inflammation of the skin.

Atopic or atopy relates to hypersensitivity reactions to something in the environment.

You will often hear the words eczema and dermatitis used interchangeably. Eczema and dermatitis are umbrella terms used to describe a number of conditions that cause the skin to become inflamed or irritated.

Atopic eczema (or atopic dermatitis) is the most common form of eczema, and is the main focus of this booklet. Other types include irritant and allergic contact dermatitis.

For information about other types of eczema, please contact the Irish Skin Foundation

Atopic eczema

Atopic eczema is a common, non-contagious inflammatory skin condition. It is recognisable by red, dry, itchy skin, which can sometimes weep, become blistered, crusted and thickened. Atopic eczema is most often seen on the inner sides of the arms at the elbow creases and wrists, behind the knees, and on the face and neck, but can affect other parts of the body.



It can start at any time of life but is most common in childhood, affecting approximately **one in five children** and **one in 12 adults** in Ireland. It affects males and females equally.

The major symptom of atopic eczema is an intense itch. Scratching only provides temporary relief, and leads to more itching and scratching. This is often referred to as the **itch scratch cycle**, where itch leads to scratching and scratching makes the skin itchy. Scratching worsens eczema, and can make the skin more vulnerable to infection. The intense itch can also interfere with sleep, and negatively impact on a person's quality of life.

What causes atopic eczema?

While the exact cause is not known, certain factors are thought to be important in its development. These include a weakened skin barrier, as well as altered inflammatory and allergy responses. Atopic eczema can run in families and frequently occurs alongside other atopic conditions, including hay fever and asthma.

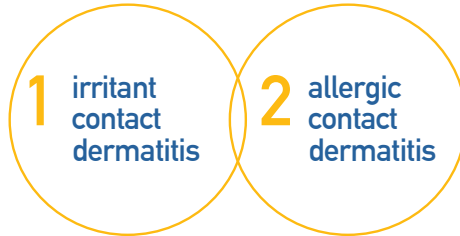


During a 'flare up', when eczema is very active, symptoms such as redness, dryness and itch worsen, while at other times, symptoms settle. A flare may be triggered by environmental irritants such as soap or detergents, changes in temperature, or allergens like animal dander, but sometimes no cause can be identified. Although there is no cure yet, treatments are available to manage the condition.

Contact dermatitis

Contact dermatitis describes a particular pattern of inflammation, which is caused by a substance or product that comes in contact with the skin and causes irritation.

There are two main types:



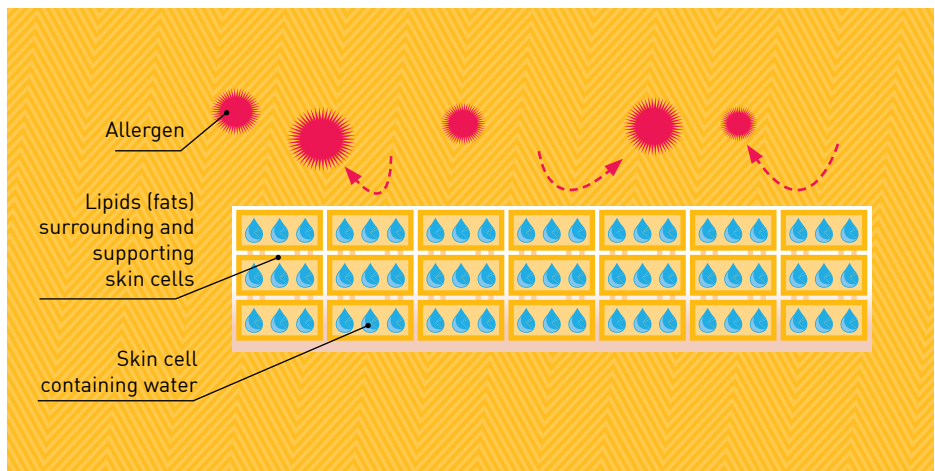
Irritant contact dermatitis can develop when the skin comes into frequent or prolonged contact with irritant substances, such as detergents, that damage the outer layer of the skin. **Allergic contact dermatitis** can develop where a person has developed a sensitivity to a particular substance. These substances cause the immune system to react and results in the skin becoming red and itchy. Common substances are cosmetic ingredients, hair dyes, fragrances, cement, nickel, rubber, plants and glues.

Why is my skin dry?

The skin acts as a barrier preventing water loss, as well as entry of irritants (such as soap) or allergens (such as the house dust mite).

In healthy skin (diagram A), the skin cells are plump with water, tightly packed together and surrounded by lipids (fats) that provide support. The skin appears smooth and supple.

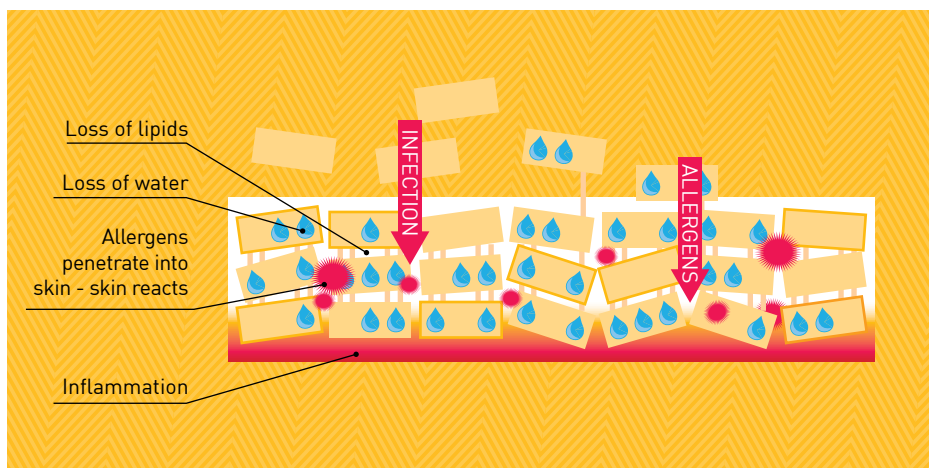
Diagram A Healthy skin: strong skin barrier



Adapted from Cork et al, 2006, with kind permission of Professor Michael Cork (University of Sheffield).

In atopic eczema (diagram B), the skin's protective barrier is weakened and appears dry, tight, brittle or rough. It has fewer natural moisturising factors so the skin cells are less able to retain water, the lipids (fats and oils) that surround and support the cells break down more quickly, and the cells that increase stability of the skin work less well. Gaps open between the skin cells allowing moisture to be lost and irritants or allergens to pass through the skin more easily. In eczema, some common everyday substances e.g. soap, contribute to the weakening of the skin's barrier and should be avoided.

Diagram B Eczema: weakened skin barrier



Adapted from Cork et al, 2006, with kind permission of Professor Michael Cork (University of Sheffield).

Eczema triggers

Atopic eczema can be triggered by lots of different things. Common examples include soap, bubble bath, shampoo, washing up liquid, laundry detergents, fragrance and temperature changes. Other more individual eczema triggers can include:

Changes/
extremes in humidity

House dust mites

Synthetic clothing

Family stress

Lack of sleep

Fragrance

Detergents

Tree and grass
pollens

Temperature
changes

Wool

Mould

Teething

Sweating



Soap

Animal dander

Essential Daily Care:

The importance of emollient treatment

Emollients are moisturisers which are used in two ways - applied directly to the skin as a leave-on moisturiser, and as a soap substitute instead of soap and shower gel.

Used several times a day, emollients help to:

Products applied directly to the skin are referred to as topical treatments.

- 1 soothe dry, itchy skin
- 2 repair the skin's barrier, thereby preventing entry of irritants and allergens which can trigger eczema flares
- 3 increase the effectiveness of prescribed treatments
- 4 reduce the requirement for topical corticosteroids

Soap substitutes – emollient wash products

Avoid using ordinary soaps and bubble bath as they dry out the skin by stripping away its natural oils. Instead, choose emollient wash products when hand washing, bathing or showering which leave the skin coated with a protective film afterwards. These products cleanse but do not lather like ordinary soap.

A higher price doesn't necessarily indicate a better product - ask your healthcare professional for advice.

Skin pH

pH is a measure of acidity and alkalinity, ranging on a scale from 0 (most acidic) to 14 (the most alkaline). Healthy skin is naturally acidic, with a pH of around 5.5. This acidity plays an important role in skin barrier function and skin health. Soaps and detergents raise skin pH which disrupts this delicate balance.

Using an emollient in the bath

Follow one of the following two options:

- Emollients such as Silcock's Base or Emulsifying Ointment are usually sold in tubs and need to be diluted before use. Take two tablespoons of emollient out of the container using a clean spoon, NOT fingers (to prevent contamination), and transfer into a jug. Add hot water and whisk with a fork for five minutes before adding to the bath.
- A bath additive solution can simply be poured into the bath - ask your healthcare professional for an appropriate recommendation.

Emollient wash products can make the bath or shower surface slippery, so extra care is needed

How to choose an emollient

Leave-on moisturisers, applied directly to your skin.

The best emollients are ones that you (or your child) prefer to use and will continue to use every day, so finding the right emollient for you may be a matter of trial and error. Your healthcare professional will be able to advise you about the different emollient products available.

Aqueous Cream

Aqueous cream was originally developed as a soap substitute. Until recently however, it was used as both a soap substitute and a moisturiser.

It is now known that when used as a moisturiser, aqueous cream can irritate the skin and make eczema worse. For this reason it is recommended that aqueous cream is used as a soap substitute only.



Applying emollients to the skin

Emollients should be applied several times every day and are an **essential** part of your long-term skincare regime, even when your skin is clear.

- Emollients should be applied in a smooth, downward motion, in the direction of hair growth, after a bath/shower and before going to bed.
- Emollients come as lotions, creams and ointments. However, ointments work better when the skin is very dry. Sometimes, you may need to use more than one product. You may choose to use an ointment at night and cream or lotion during the day.
- Medical opinion differs about the sequence in which you should apply emollients and topical steroids. Your doctor or nurse may advise a steroid-first approach or an emollient-first approach, depending on the custom and practice of the clinic. We recommend that you be guided by your healthcare professional but whichever approach is advised, do your best to leave at least 15-30 minutes between applications so the first preparation has time to sink in.



Managing flares

While emollient treatment provides the foundation of eczema management, during flare-ups, symptoms such as redness, dryness and itch worsen and other treatments such as **topical corticosteroids** (topical steroids) may be prescribed. Topical steroids were first introduced in the 1950s, and still remain an extremely valuable and effective treatment used to control eczema symptoms and restore quality of life.

Sometimes people worry about side effects, but when used appropriately as prescribed by your doctor - i.e. the correct strength, to the correct body area, for the correct length of time - topical steroids are a safe and effective treatment.

Steroid strength

Topical steroids come in four strengths, ranging from mild to very potent:



Group 1

(mildly potent)



Group 2

(moderately potent)



Group 3

(potent)



Group 4

(very potent)

The strength of steroid prescribed by your doctor is influenced by several factors:

- Age
- Severity of eczema
- Body site
- Size of affected area
- Occlusive dressings

Topical steroids may be prescribed as an ointment, cream, lotion or gel, depending on the location and appearance of eczema. Ointments are usually prescribed for dry areas while creams are indicated when eczema is moist or wet.

You may be given more than one topical steroid to treat your condition. Make sure that you are clear which preparation to use on which part of your body. Wash hands thoroughly before and after use. Generally, apply mild steroid first to face and/or body folds (flexures) before applying stronger steroid to other areas. If in doubt, talk to your healthcare professional.



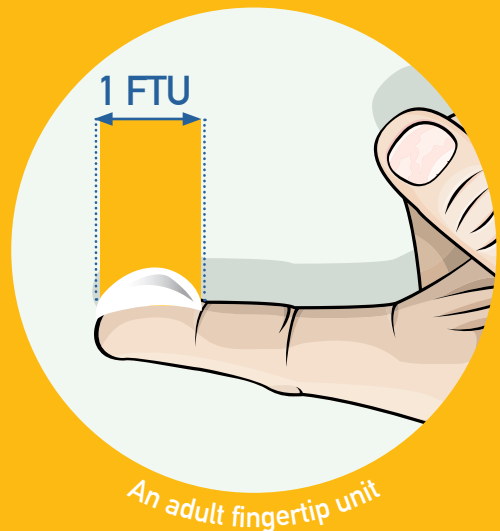
Steroid use - step up/ step down approach

Generally speaking, you will be prescribed the lowest-strength steroid that is effective to manage your eczema. However, this may be 'stepped up' to a higher-strength if necessary during a flare, to bring the eczema under control, before 'stepping down' slowly to a lower-strength steroid as the eczema settles.

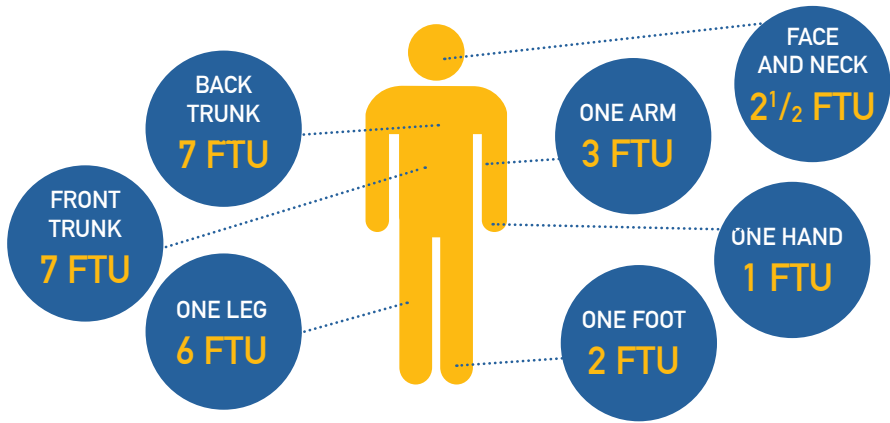
The correct use of topical steroids - stepping up and stepping down as advised by your doctor, reduces the risk of side effects and improves control. An improvement in symptoms should be seen within 3-5 days, but topical steroids should continue to be used until the flare has settled. The frequency of application is then tapered and stopped. If symptoms are not improving, seek the advice of your healthcare professional.

Quantity - Fingertip Unit (FTU)

Ask your healthcare professional to explain how to apply topical steroids and how much to apply. You may be asked to use the 'fingertip unit'. A 'fingertip unit' (FTU) refers to the amount of ointment or cream applied from the end of an adult index finger, to the first joint, and is equivalent to approximately 0.5grams. The diagrams that follow show how many FTU of ointment or cream are required to cover each area of the body for an adult and child.



Topical corticosteroids - adults








Adapted from Long and Finlay, *Clinical and Experimental Dermatology* 1991[®], with permission from John Wiley and Sons

Topical steroids come in four strengths, ranging from mild to very potent. They are prescribed according to the severity and part of the body affected by eczema. It is important to follow the advice of your healthcare professional, and use a step up or step down approach, using the weakest topical steroids that control your eczema.

Topical corticosteroids - child

The diagram of the child (below) shows how many adult 'fingertip units' (FTUs) of cream or ointment are required to cover each area of the child's body.

| |  |  |  |  |  |
|------------|---|---|---|---|---|
| | Face & neck | Arm & hand | Leg & foot | Trunk (front) | Trunk (back) inc. buttocks |
| AGE | NUMBER OF FTUs | | | | |
| 3-6 months | 1 | 1 | 1 ½ | 1 | 1 ½ |
| 1-2 years | 1 ½ | 1 ½ | 2 | 2 | 3 |
| 3-5 years | 1 ½ | 2 | 3 | 3 | 3 ½ |
| 6-10 years | 2 | 2 ½ | 4 ½ | 3 ½ | 5 |

Adapted from Long, Mills and Finlay, *British Journal of Dermatology* 1998[®], with permission from John Wiley and Sons



Atopic skin is more vulnerable to infection. Seek **urgent medical advice** if skin becomes:

- wet or weepy, with yellow/brownish crusts
- very sore, with clusters of painful itchy blisters, particularly if there has been contact with someone who has a cold sore

Bleach baths

If your doctor thinks that infection may be driving eczema flares, he/she may recommend adding bleach to the bath twice a week. Follow the dilution instructions specified by your doctor, as the wrong dilution can cause damage to the skin. Bleach bath treatment must only be used under strict medical advice.



Topical - non steroid: Calcineurin inhibitors

Calcineurin inhibitors – **Protopic®** (0.03% and 0.1%) contains the active ingredient tacrolimus, which is a class of medicine known as a topical immunomodulator. It acts on the immune system by blocking a chemical called calcineurin to reduce inflammation of the skin. It may be prescribed as an alternative to topical steroids, or for areas of the body where the skin is more susceptible to side effects, such as the face, eyelids, under arms or groin.

Your doctor will discuss the strength of protopic - 0.03% (weaker) or 0.1% (stronger), the amount required (number of fingertip units), and the frequency of treatment with you.

Continue to use emollients, but leave at least one hour between application of emollient and applying protopic.

Sun protection is important. Minimise exposure of the skin to sunlight and other forms of ultraviolet light treatment or sunbeds, must be avoided.

Stinging on application is the most common side-effect, but this usually settles within a few days. Protopic **should not be applied** to infected (sore, weeping or crusted) skin.



*Talk to your
doctor about
the benefits
and risks of
treatment.*

Antihistamines

Disrupted sleep caused by itching can have an effect on the whole family. Some people with eczema find sedating antihistamines helpful in reducing sleep disruption caused by the intense itching during a flare. Sedating antihistamines are sometimes prescribed to be taken at night for short periods of time. Always follow medical advice carefully on usage.



Bandaging

Cotton bandages or garments (cotton vests/leggings) worn over creams can be used on the body or part of the body (an arm or leg), to moisturise and protect the skin from scratching, and allow the skin to heal. Sometimes these can be applied as 'wet wraps' - consisting of a dry outer layer and a warm wet inner layer, which may be helpful for short periods of time. Medicated paste bandages may also be helpful for some patients, to protect and soothe irritated skin.

Bandages or garments should not be used on infected skin.

For further information on garments, contact us directly at the Irish Skin Foundation.

Phototherapy

Ultraviolet light is found in sunlight. Phototherapy is a form of artificial ultraviolet light treatment, comprising of either ultraviolet A (UVA) or ultraviolet B (UVB) wavelengths of light, delivered in hospital Dermatology Day Care centres. Phototherapy has been specially designed to treat certain skin conditions, and may help to lessen the itch and inflammation associated with eczema.

Narrowband UVB is the most common type of phototherapy used to treat eczema. Another form called PUVA (Psoralen and UVA), may also be prescribed. PUVA is an acronym for psoralen combined with ultraviolet light A (UVA). UVA must be combined with a light sensitising medication such as psoralen to be effective.

If your eczema has not responded to topical therapy, your dermatologist may recommend phototherapy. This process involves exposing the affected skin to artificial UV light for a set length of time on a regular schedule - typically UVB therapy is given 3 times a week while PUVA is usually twice a week. Exposure time depends on the patient's skin type, as well as UVA or UVB strength. Your doctor will discuss the frequency and the estimated number of treatment sessions with you. Protective eye shields must be worn during treatment. For PUVA, patients must wear protective sunglasses for 12 hours following every treatment.

Although phototherapy may help to improve symptoms, it may cause side effects, the most common of which is a sunburn-type reaction. Talk to your doctor about the benefits and risks of treatment. Phototherapy may be inconvenient and time consuming for some patients.



Stronger treatment - medicines that work inside your body

Oral steroids

Occasionally, if eczema has flared badly, your doctor may prescribe a short course of oral steroids. They can be effective but are not recommended for long-term use due to risk of side effects.

Immunosuppressant medications

In circumstances where eczema is severe or widespread, and has not responded to topical or UV light treatments, your doctor may recommend an immunosuppressant medication. These work by suppressing the overactive immune system response in eczema. Some examples include:

- Azathioprine
- Ciclosporin
- Methotrexate
- Mycophenolate mofetil

These medicines may come in the form of a liquid, a tablet or an injection, and are given under the close supervision of a healthcare professional.

Talk to your doctor about the benefits and risks of any medication that you take. Details about these treatments can be found in the patient information leaflets of the British Association of Dermatologists:
<http://www.bad.org.uk/for-the-public/patient-information-leaflets>

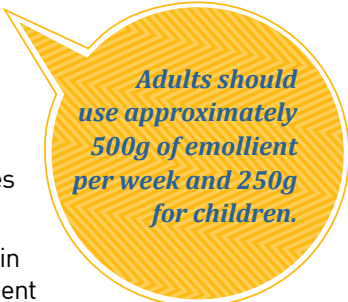
You may need immunisations before starting treatment. For details about the immunisation recommendations for children and adult patients treated with immune-suppressing medicines (e.g. for the flu or chicken pox vaccines) see the British Association of Dermatologists:
<http://www.bad.org.uk/for-the-public/patient-information-leaflets/immunisation>

New hope on the horizon


Ensure that you stay in touch with your doctor as ongoing clinical research into new treatments for eczema promises to yield results in the coming years.

Top tips for managing your eczema

1. Establish a good daily skincare routine and try to stick to it.
2. Don't stop moisturising when your skin is clear.
3. Apply emollients in a smooth, downward motion in the direction of hair growth.
4. Teach your child how to apply their emollients correctly from a young age.
5. Remember – avoid soap!
6. Ideally, shampoos should be clear, pH neutral and fragrance free.
7. Your bath or shower should be a lukewarm temperature; 5-7 minutes bathing is enough.
8. After your bath/shower, pat your skin dry. It is a great time to apply emollient all over.
9. If you can't reach your back, sponges with long handles can be useful. Remember to wash them after every application.
10. Dry skin itches – take your moisturisers everywhere. Keep a supply at work, in your handbag, in your child's schoolbag, at the crèche and school.
11. When eczema flares, treat at the first sign of symptoms.
12. Use topical steroids for eczema flares as recommended by your healthcare professional. Keep a diary of how much you are using.
13. As your child grows, ask for a review – they may need adjustment of their treatment.
14. If skin becomes wet, weepy, red and very itchy – think infection and seek medical advice.
15. Always keep fingernails short.
16. Wear cotton clothing where possible.




Adults should use approximately 500g of emollient per week and 250g for children.

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17. During warm weather or exercise, stay cool; remember sweat can aggravate eczema.
 18. Protect your skin from changes in temperature, e.g. during colder weather wrap up well when moving from centrally-heated environments into cold outdoor conditions.
 19. When it comes to washing clothes, there is no evidence to support the use of non-biological detergent or avoidance of biological detergents.

Rinse cycles will remove almost all of the residue assuming machines are not overloaded and are working properly.

Avoid fabric conditioner.

20. Avoid fragranced candles and plug-in air-freshener around the home.
21. Avoid chemical sprays and harsh household cleaning products.
22. Reduce the dust mite at home; dust and vacuum regularly, wash bedding weekly at 60 degrees and replace curtains and carpets if possible.
23. Children's soft toys should be washed regularly (follow manufacturers' instructions but temperature must reach 60° C), or put them in the freezer for 24 hours to kill house dust mites.
24. When the pollen count is high, avoid hanging clothes and bed linen out to dry.
25. Freshly dry-cleaned clothes should be removed from plastic and allowed to air for 24 hours before wearing, to reduce the risk of possible chemical irritation of the skin.
26. Protect your hands - wear cotton gloves under protective gloves if you work with chemicals or cement. Wear barrier hand-cream if you need to constantly wash your hands.



If you think your eczema is affected by something at work, discuss this with your occupational health department or your healthcare professional.



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This booklet has been prepared by the Irish Skin Foundation in consultation with people with eczema, dermatology nurses and consultant dermatologists.



IRISH SKIN
FOUNDATION

Supporting people with skin conditions

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