Topical steroids factsheet

Topical corticosteroids are the most common treatment for eczema flare-ups (inflammation in eczema). They have been used to treat and control eczema flare-ups for over 50 years and are recommended in NHS guidance as a first-line treatment for eczema. In order for them to work effectively, they need to form part of a programme of treatments. A good skincare routine must be in place, involving the use of emollients to moisturise the skin and soap substitutes to cleanse it. Contact with substances that may dry or irritate the skin further should be reduced as far as possible. For some people with eczema, the regular use of emollient preparations is all that is needed to keep their condition under control. However, for most people, topical steroids will need to be used for short treatment bursts, at the correct strength to match the person's age, severity of eczema and body area, to bring an eczema flare-up under control.

What are topical steroids?

'Topical' means applied directly to the skin. 'Steroids' are a group of natural hormones, produced in the body by a variety of different glands. They are also produced synthetically as medicines and given as injections and in tablet form. Topical steroids act on the skin to reduce inflammation and speed up the healing of the skin. They also help to make the skin less red, hot, itchy and sore. They are not, however, a cure for eczema.

Topical steroid preparations are available as creams, ointments, lotions, foams, gels, mousses, shampoos and tape, and come in different strengths or potencies. Which topical steroid/s you are prescribed will depend on the severity of your eczema, your age, the part of your body that is affected and any other treatments you are using.

When your eczema is very dry, it is likely that your healthcare professional will prescribe an ointment-based preparation. Creams, which are light and cooling, may be used to treat moist, weepy or 'wet' eczema. Lotions are easiest to apply on hairy areas of the body.

There are two types of topical steroid that can be bought over the counter from a pharmacy without a prescription: 1% hydrocortisone cream, a mildly potent topical steroid, and Eumovate (clobetasone butyrate 0.05%), a moderately potent topical steroid cream (see *Table 1*).

A registered pharmacy can sell hydrocortisone and Eumovate as pharmacy (P) medicines; a prescription is not required, but they must be supplied under the supervision of a pharmacist for treating mild to moderate eczema as well as allergic and irritant contact dermatitis and insect bites. When topical steroids are supplied in this way (i.e. without a prescription), they should NOT be used on the eyes or face, on broken or infected skin, on the anal or genital areas, in pregnancy, or by anyone under the age of 10 years (hydrocortisone) and 12 years (Eumovate) – usage of this kind requires the guidance of a healthcare professional. Hydrocortisone and Eumovate can only be bought in small tubes – enough to treat small areas of eczema. Most people with eczema will need larger tubes, which are only available on prescription (sizes 30g, 50g-100g).

Topical steroid potencies

In the UK topical steroid preparations are divided into four categories according to how strong or potent they are. The terms used are 'mild', 'moderately potent', 'potent' and 'very potent'. The potency of topical steroids is determined by the amount of vasoconstriction (narrowing of the blood vessels) they produce. It also relates to the degree to which the topical steroid inhibits inflammation, and its potential for causing side effects. It can be difficult for the person with eczema or the parent of a child with eczema to work out

the potency of a product, since the labelled percentage of steroid on the packaging does not relate to the potency and may sometimes imply a less potent product. The potency of the topical steroid may be stated in the patient information leaflet (PIL) inside the packaging. One way of understanding the strength of different steroid preparations is to note that 'moderately potent' is twice as potent as hydrocortisone 1%; 'potent' is 10 times more potent; and 'very potent' 50 times more potent. If you are not sure of the potency of a steroid preparation, ask your pharmacist. A list is provided in this factsheet, but new preparations may not be included.

The potency of the steroid you are given will be based on several factors:

- *Age:* Babies and children with mild to moderate eczema are usually prescribed mild topical steroids. Sometimes, when eczema is more severe or there is no response to a mild steroid, moderate to potent topical steroids may be prescribed for short periods and under medical supervision.
- *Severity of the eczema:* A mild or moderately potent steroid may be replaced by a stronger potency if the eczema flares up, with very potent steroids prescribed by specialists for very severe flares.
- *Body site:* Areas of thick skin, such as the feet and the hands, can be treated with potent preparations. For thinner skin, such as the face and genital areas, mild and moderately potent preparations are commonly prescribed; a potent steroid will only be used for severe, unresponsive eczema in these areas, usually for a limited period. If the steroid is applied to the body folds, (e.g. armpits, skin between buttocks), the occlusive effect increases its potency, so milder preparations should be used.
- *Size of the affected area:* A weaker strength might be prescribed when a large area of skin requires treatment.
- *Other treatments:* If bandaging forms part of the treatment, a weaker steroid may be chosen because bandaging will increase the potency of the steroid.

NB. You may be given more than one topical steroid to treat eczema in different areas of the body. Make sure that you are clear which preparation to use where. If in doubt, talk to your pharmacist or contact your doctor/nurse.

Table 1 shows topical steroids listed alphabetically by trade name according to their strength.

Table 1: **Topical steroids**

Trade name This is the name chosen by the manufacturer – it is in big print on the tube. The following are examples of trade names, but this is not a complete list. You will also find that some topical steroids do not have a trade name – only a generic name.	**Generic name** This is the official name of the steroid – it is usually written in smaller print on the tube.	**Strength** Potency – this is not indicated on the tube but may be stated in the PIL inside the packaging.
Dermacort® (available only over the counter)	Hydrocortisone 0.1%	Mild
Dioderm®	Hydrocortisone 0.1%	Mild
Hc45® (available only over the counter)	Hydrocortisone 1%	Mild
Hydrocortisone 0.5%	Hydrocortisone 0.5%	Mild
Hydrocortisone 1%	Hydrocortisone 1%	Mild
Hydrocortisone 2.5%	Hydrocortisone 2.5%	Mild
Mildison Lipocream®	Hydrocortisone 1%	Mild
Synalar 1 in 10®	Fluocinolone acetonide 0.0025%	Mild
Zenoxone® cream	Hydrocortisone 1%	Mild

Table 1: **Topical steroids** continued

Trade name This is the name chosen by the manufacturer – it is in big print on the tube. The following are examples of trade names, but this is not a complete list. You will also find that some topical steroids do not have a trade name – only a generic name.	**Generic name** This is the official name of the steroid – it is usually written in smaller print on the tube.	**Strength** Potency – this is not indicated on the tube but may be stated in the PIL inside the packaging.
Alphaderm®	Hydrocortisone 1%, urea 10%	Moderate
Betnovate-RD®	Betamethasone valerate 0.025%	Moderate
Clobavate®	Clobetasone butyrate 0.05%	Moderate
Eumovate®	Clobetasone butyrate 0.05%	Moderate
Haelan® (available as cream, ointment and tape)	Fludroxycortide 0.0125%	Moderate
Modrasone®	Alclometasone dipropionate 0.05%	Moderate
Synalar 1 in 4®	Fluocinolone acetonide 0.00625%	Moderate
Ultralanum Plain®	Fluocortolone hexanoate 0.25%	Potent
Betacap® (scalp application)	Betamethasone valerate 0.1%	Potent
Beclometasone dipropionate	Beclometasone dipropionate 0.025%	Potent
Betnovate®	Betamethasone valerate 0.1%	Potent
Bettamousse® (scalp application)	Contains 1.2 mg betamethasone valerate 0.1%, per gram	Potent
Cutivate® ointment	Fluticasone propionate 0.005%	Potent
Cutivate® cream	Fluticasone propionate 0.05%	Potent
Diprosalic® (ointment and scalp preparation)	Betamethasone dipropionate 0.05%	Potent
Diprosone®	Betamethasone dipropionate 0.05%	Potent
Elocon®	Mometasone furoate 0.1%	Potent
Locoid® (available as scalp application and lotion 'Locid Crelo')	Hydrocortisone butyrate 0.1%	Potent
Metosyn®	Fluocinonide 0.05%	Potent
Nerisone®	Diflucortolone valerate 0.1%	Potent
Synalar®	Fluocinolone acetonide 0.025%	Potent
Clarelux® (scalp application)	Clobetasol propionate 0.05%	Very potent
Dermovate®	Clobetasol propionate 0.05%	Very potent
Etrivex® (shampoo)	Clobetasol propionate 0.05%	Very potent
Nerisone Forte®	Diflucortolone valerate 0.3%	Very potent

If your healthcare professional feels that your eczema could be infected, you may be prescribed a combination preparation that contains ingredients aimed at fighting the infection (see Table 2 below).

Table 2: Topical steroids with antimicrobial effects

Trade name This is the name chosen by the manufacturer – it is in big print on the tube. The following are examples of trade names, but this is not a complete list. You will also find that some topical steroids do not have a trade name – only a generic name.	**Generic name** This is the official name of the steroid – it is usually written in smaller print on the tube.	**Main anti-microbial effect** Which type of infection it is used for.	**Added antimicrobials**	**Strength** Potency – this is not indicated on the tube but may be stated in the PIL inside the packaging.
Canesten HC®	Hydrocortisone 1%	Antifungal	Clotrimazole	Mild
Daktacort®	Hydrocortisone 1%	Antifungal	Miconazole nitrate	Mild
Fucidin H®	Hydrocortisone 1%	Antibacterial	Fusidic acid	Mild
Nystaform HC®	Hydrocortisone 0.5%	Antibacterial Antifungal	Chlorhexidine Nystatin	Mild
Terra-Cortril®	Hydrocortisone 1%	Antibacterial	Oxytetracycline	Mild
Timodine®	Hydrocortisone 0.5%	Antibacterial Antifungal	Benzalkonium chloride Nystatin	Mild
Trimovate®	Clobetasone butyrate 0.05%	Antibacterial Antifungal	Oxytetracycline Nystatin	Moderate
Aureocort®	Triamcinolone acetonide 0.1%	Antibacterial	Chlortetracycline hydrochloride	Potent
Betamathasone and clioquinol	Betamethasone valerate 0.1%	Antibacterial	Clioquinol	Potent
Betamethasone and neomycin	Betamethasone valerate 0.1%	Antibacterial	Neomycin sulphate	Potent
Fucibet®	Betamethasone valerate 0.1%	Antibacterial	Fucidic acid	Potent
Lotriderm®	Betamethasone dipropionate 0.064%	Antifungal	Clotrimazole	Potent
Synalar C®	Fluocinolone acetonide 0.025%	Antibacterial	Clioquinol	Potent
Synalar N®	Fluocinolone acetonide 0.025%	Antifungal	Neomycin sulphate	Potent
Clobetasol with neomycin and nystatin	Clobetasol propionate 0.05%	Antibacterial Antifungal	Neomycin Nystatin	Very potent

These topical steroids are sometimes used for short bursts if infection is suspected. They are not usually used for continuous long-term eczema treatment.

Application

It is important to use the correct amount of topical steroid for your eczema, as instructed by your healthcare professional. NICE recommends that topical steroids are applied once a day for children under 12 years. Older children and adults will generally be instructed to apply a topical steroid 1-2 times a day for short bursts of treatment, and then stop or step down use when the eczema flare-up settles. Research into using topical steroids has shown they are just as effective when used once a day; however prescription labels often state twice a day. Application in the evening is preferable. An example of a short treatment burst would be application every night for one week and then every other day for a second week. If used over long periods of time, treatment with potent topical steroids is unlikely to be stopped abruptly and people will be 'stepped down' to lower potency preparations until their flare-up settles.

Some people with more severe eczema whose eczema flares very frequently are prescribed topical steroids to apply on 2 consecutive days a week on the areas where their eczema usually flares. This is known as 'weekend therapy' and can help to prevent the almost continuous flare cycle, meaning that in the long run less topical steroid would be needed to control the eczema than if each flare were treated as it occurred.

Using steroids more frequently or for longer periods of time than advised by your healthcare professional will not be of benefit in controlling your eczema and could be harmful to the skin on a long-term basis. Conversely, not using enough topical steroid or using very small amounts continuously often results in it not working so well and perhaps more being used in the long-term.

There are no standard rules regarding whether to apply a steroid preparation before or after an emollient. When eczema is flaring, a topical steroid can be applied after bathing/showering. Pat the skin dry and apply topical steroid to the red areas, then wait at least 10 minutes (ideally 20-30 minutes if you have time) and apply emollient all over your skin. If your skin is very dry, you can use emollient first to treat dry skin, which helps prepare the skin, followed by the steroid. However, whichever order you choose, it is important that you leave a gap between the two treatments. The reason for this is to avoid diluting the topical steroid with the emollient and spreading it to areas that don't need it.

Topical steroids should be applied with clean hands in a thin layer so that the skin just glistens. It can sometimes be difficult to judge how much steroid to use – there are guidelines on the amount required to cover body areas that are affected by eczema. These are based on the Finger Tip Unit (FTU), which is the amount of cream or ointment that just covers the end of an adult finger from the tip to the crease of the first joint when squeezed from an ordinary tube nozzle (*see Figure 1*). One FTU is enough to cover an area of skin the size of two adult hands with the fingers together. Different parts of the body require different amounts of topical steroid. For example, in an adult one arm will need 3 FTUs while a 4-year old child will require 1 FTU for an arm and hand (*see Figures 2 and 3*). Adjustments will be required if only a small part of the larger area is affected by eczema. Further information is often provided in the leaflet supplied with your treatment. Any unused steroid cream or ointment should be discarded. Wash your hands after applying steroids unless there is eczema on the fingers.

All steroids will be marked with a use-by-date and should not be used after the time stated. You will usually be given a set period of time in which to use the preparation. Any steroid that remains unused at the end of a treatment burst should not be passed on for use by anyone else.

Repeat prescriptions of topical steroids are not generally advised in new cases of eczema since the condition can alter, and it is important for a healthcare professional to examine the skin to reassess the suitability of the treatment. If you have long-standing eczema, you will discuss a management plan with your healthcare professional, and topical steroids are then often prescribed on a repeat prescription, with regular reviews.

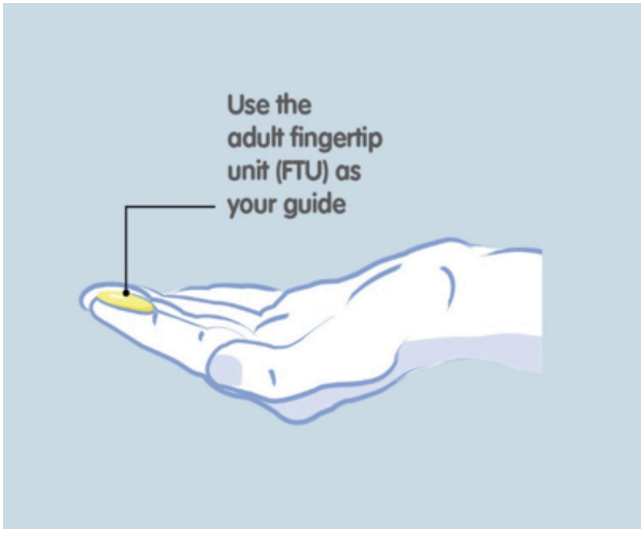


Figure 1 Measuring an FTU

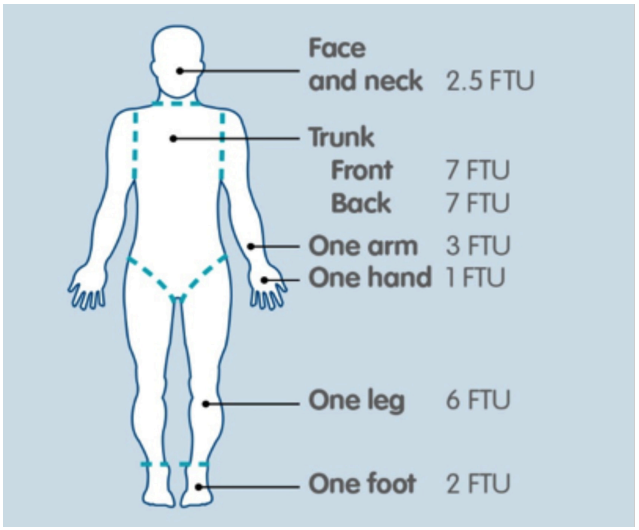
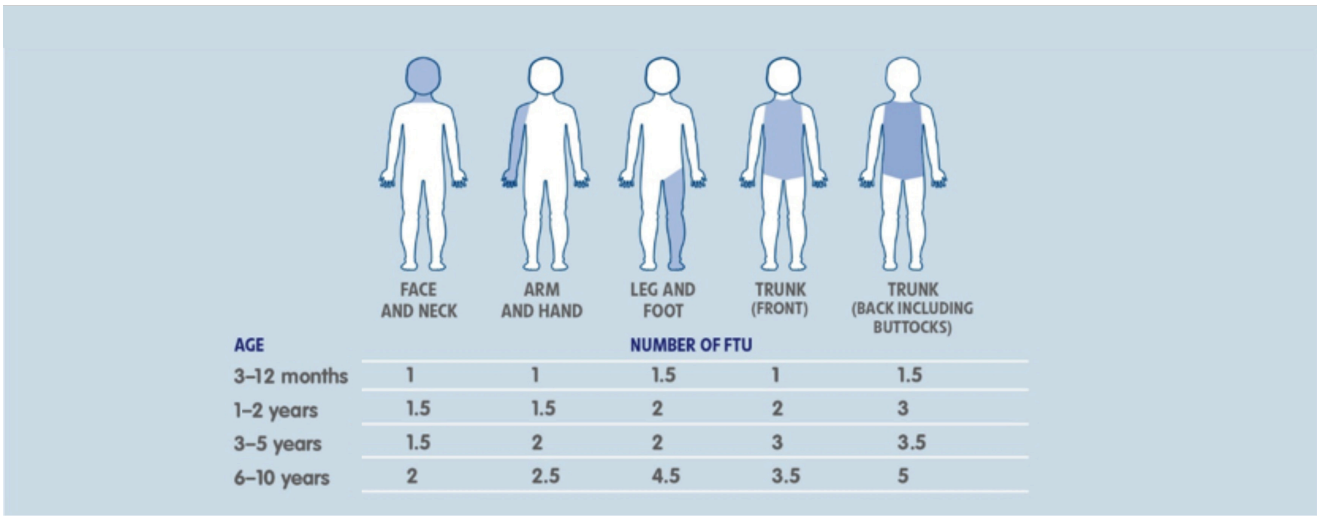


Figure 2 Number of FTUs for different parts of an adult's body



AGE	NUMBER OF FTU				
3–12 months	1	1	1.5	1	1.5
1–2 years	1.5	1.5	2	2	3
3–5 years	1.5	2	2	3	3.5
6–10 years	2	2.5	4.5	3.5	5

Figure 3 Number of FTUs for different parts of a child's body

Are topical steroids a safe treatment?

Topical steroids, used appropriately and under supervision, are a safe and effective treatment for eczema. The likelihood of side effects occurring is directly related to the potency of the preparation, where it is being used, the condition of the skin on which it is used and the age of the person concerned. Pregnant women should consult a healthcare professional regarding the advisability of continued use of their usual topical steroid preparation. All these factors will be taken into consideration when a prescription is given to treat eczema.

Hydrocortisone 0.05%, 0.1%, 0.5% or 1% is extremely unlikely to cause adverse effects and can be used as prescribed on the face and in young children. Be careful not to confuse this with hydrocortisone butyrate, which is a potent topical steroid.

If used over long periods of time, topical steroids can thin the skin, making it appear transparent, fragile and susceptible to bruising; blood vessels may become more prominent, and the skin can lose its elasticity, developing 'stretch marks'. Other possible side effects include increased hair growth of very fine hair and perioral dermatitis (i.e. a spotty rash around the mouth). However, it should be stressed that these effects usually only occur

when potent steroids have been applied for a long period of time, either to the face or to covered parts of the body such as the flexures. Skin thinning can also occur when steroids have been applied under occlusion (e.g. under bandages or gloved hands). For these reasons, topical steroid use is limited to short periods of time under the supervision of a doctor or nurse.

It is important to bear in mind that these effects take several weeks to develop and will be avoided if potent preparations are limited in use and replaced by less potent preparations once they have brought a 'flare-up' of eczema under control. Keeping up a good daily routine of using complete emollient therapy for washing, bathing and moisturising to constantly repair the skin barrier and prevent dry skin has been shown to reduce the amount of topical steroid required for some people.

There is also a small risk from topical steroids being absorbed into the blood through the skin. Again, the likelihood of this occurring is directly linked to the amount of steroid used and the age of the person involved. The main problem relating to the absorption of steroids is a slowing down of growth in children by the suppression of adrenal glands. It is for this reason that strong steroids will only be prescribed for short periods of time for young children, and if required over long periods, only under the supervision of, and monitored by, a hospital specialist.

Allergy to the steroid itself or to the base of the preparation can sometimes occur. If the eczema gets worse after using a particular steroid, let your doctor/nurse know. Also be aware that topical steroids can suppress the symptoms of skin infection, so always check with your healthcare professional if in doubt.

Fear of side effects can make people under-treat their eczema by stopping a treatment too soon or not using the steroid they have been given. This can be detrimental to the overall management of the condition and may mean that a stronger preparation has to be used to bring the eczema under control again.

Summary

Under the supervision of a healthcare professional, and used properly in combination with a good overall management routine, topical steroids are a valuable treatment for eczema.

Topical steroids have been in widespread use for over 50 years and although side effects can occur, this is usually because treatment has been used incorrectly.

The use of a stronger topical steroid for a short period of time and decreasing the strength as the condition improves, will bring most flare-ups of eczema under control. If it does not, it is likely that other problems, such as infection, dryness of the skin or regular contact with a known allergen are playing a role.

Most packs of ointments and creams contain instructions on how to use the topical steroid properly; if you are ever in doubt as to how to use your treatment, do not hesitate to ask either your doctor/nurse or the pharmacist who supplied it.

Finally, it is important not to forget that emollients need to become an accepted part of the daily skincare routine. They soothe, moisturise and protect the skin, providing the basis for everyday management of eczema, and helping to reduce the need for topical steroid preparations.

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National Eczema Society is the UK charity for everyone affected by eczema. We help support people with eczema, providing information and advice, which we deliver through our website, social media, campaigns, publications and nurse-supported Helpline. We also provide a voice for people with eczema, raising awareness of the condition, supporting research into new treatments and campaigning for better medical care.

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