過敏病科中心
Allergy Centre

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Allergy Centre

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Service Hours
Mon, Tue, Thu & Fri : 9:00 am – 6:00 pm
Wed & Sat : 9:00 am – 1:00 pm
(except in the second and fourth week of each month, the Centre will close all day Wednesdays but open all day Saturdays)
Closed on Sundays and Public Holidays

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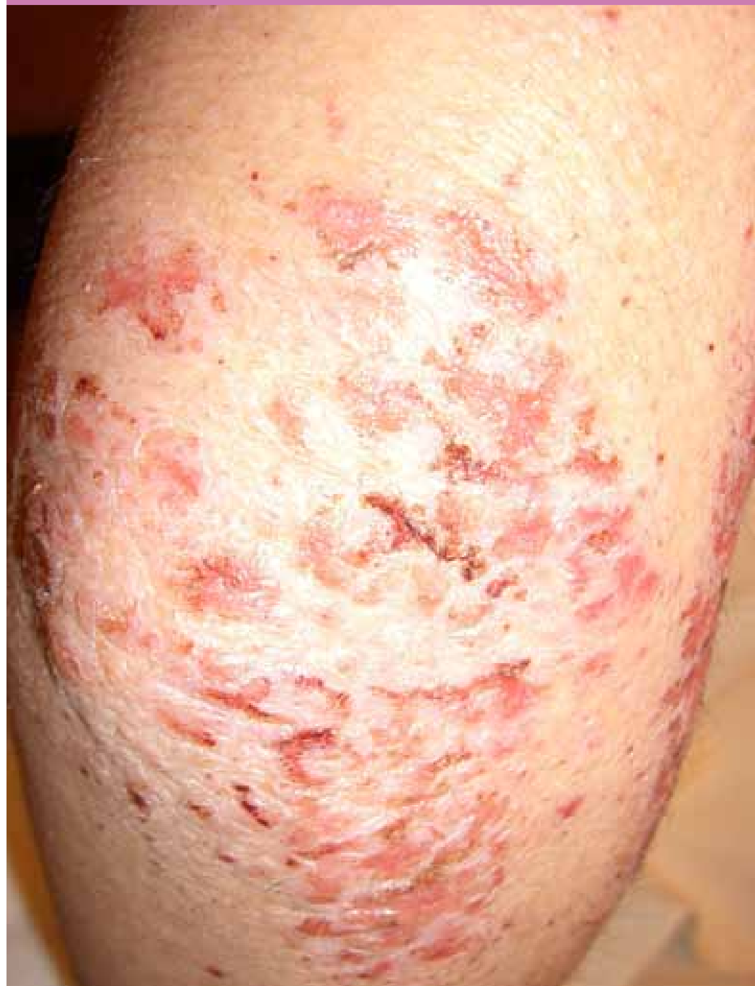
Eczema



養和醫院
Hong Kong Sanatorium & Hospital

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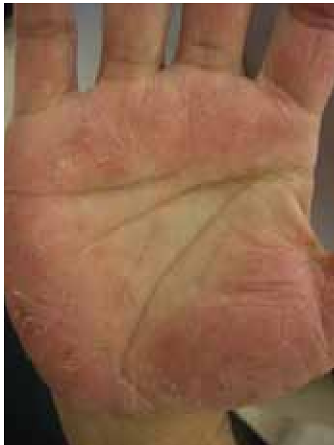
Eczema

The main symptom of eczema is itching, which can be severe and persistent, especially at night. Scratching the affected area of skin usually causes a rash. The rash is red and patchy and may be long-lasting (chronic) or come and go (recurring). The rash may:

- Ooze fluid or crust over. This can happen when the skin is rubbed or scratched or if a skin infection is present
- Be scaly and dry, red, and itchy
- Become tough and thick from constant scratching (lichenification)

How bad your symptoms are depends on how large an area of skin is affected, how much you scratch the rash, and whether the rash gets infected.

The areas most often affected are the face, scalp, neck, arms, and legs. The rash is also common in areas that bend, such as the back of the knees and inside of the elbows. Rashes in the groin area are rare. There may be age-related differences in the way the rash looks and behaves, for instance in infants the rash often affects the face only.



Causes

One of the hallmarks of eczema is excessive skin dryness, which seems to be due a lack of certain skin proteins. Any factor that promotes dryness is likely to exacerbate eczema. Common triggers include the following:

- Foods
- Substances that cause contact dermatitis (e.g. nickel in jewellery)
- Harsh soaps and detergents
- Solvents
- Low humidity
- Lotions
- Rough wool clothing
- Sweating
- Occlusive rubber or plastic gloves
- Rubbing
- Staphylococcal bacteria
- Repeated wetting and drying of the skin (food handling)

Diagnosis of trigger factors

This requires a detailed clinical history of trigger factors for the eczema supplemented by skin prick tests, patch tests and/or blood tests (RASTs) to identify possible allergens.

Treatment

Treatment for eczema can be managed at home by changing laundry detergents or soaps that may be causing the irritant. Avoid tight-fitting or rough clothing. Avoid scratching the affected area and applying over-the-counter anti-inflammatory topical agents. Medical treatments include prescription of emollients (moisturizers), immunomodulatory medications (e.g. Protopic or Elidel) and topical steroid creams. Antibiotics may have to be prescribed to clear the affected irritation and anti-histamines may be required

to help itching. If there is food allergy or intolerance, dietary exclusion should be instituted with the help of a specialist dietitian. In our experience at HKSH, we find that milk and egg are the main causes of infantile eczema.

If the eczema is severe, it is often advisable to use a burst of quite strong topical medicines to control the skin inflammation while searching for causes of the eczema. As soon as possible after the severe eczema is controlled a much lower intensity maintenance treatment regimen can be established to sustain a healthy skin. In rare instances systemic steroids and immunodulators may be required (e.g. cyclosporine, azathioprine).

Steroids

Topical steroids are often used in addition to emollients (moisturizers) for treating eczema and patients are often very concerned about using them. Topical steroids reduce skin inflammation and a short course will usually clear a flare-up of eczema. Side-effects are unlikely to occur with short courses. Steroid medicines that reduce inflammation are sometimes called corticosteroids. They are very different to the anabolic steroids which are used by some bodybuilders and athletes.

What types of topical steroids are there?

There are many types and brands of topical steroid. However, they are generally grouped into four categories depending on their strength - mild, moderately potent, potent and very potent. There are various brands and types in each category. For example, hydrocortisone cream 1% is a commonly used steroid cream and is classed as a mild topical steroid. The greater the strength (potency), the more effect it has on reducing inflammation but the greater the risk of side-effects with continued use.

Creams are usually best to treat moist or weeping areas of skin. Ointments are usually best to treat areas of skin which are dry or thickened. Lotions may be useful to treat hairy areas such as the scalp.

When and how are topical steroids used?

As a rule, a course of topical steroid is used when one or more patches of eczema flare up. The aim of treatment is to clear the flare-up and then to stop the steroid treatment.

It is common practice to use the lowest strength topical steroid which clears the flare-up. So, for example, hydrocortisone 1% is often used, especially when treating children. This often works well. If there is no improvement after 3-7 days, a stronger topical steroid is usually then prescribed. For severe flare-ups a stronger topical steroid may be prescribed from the outset.

Sometimes two or more preparations of different strengths are used at the same time. For example, a mild steroid for the face and a moderately strong steroid for patches of eczema on the thicker skin of the arms or legs. A very strong topical steroid is often needed for eczema on the palms and soles of the feet of adults because these areas have thick skin.

You should use topical steroids until the flare-up has completely gone and then stop it. In many cases, a course of treatment for 7-14 days is enough to clear a flare-up of eczema. In some cases, a longer course is needed.

Many people with eczema require a course of topical steroids every now and then to clear a flare-up. The frequency of flare-ups and the number of times a course of topical steroids is needed varies greatly from person to person.

After you finish a course of topical steroid, continue to use emollients every day to help prevent a further flare-up.

Short bursts of high-strength steroid as an alternative

For adults, a short course of a strong topical steroid may be an option to treat a mild-to-moderate flare-up of eczema. A strong topical steroid often works quicker than a mild one. (This is in contrast to the traditional method of using the lowest strength wherever possible. However, using a high strength for a short period can be more convenient and is safe.) This is the approach we normally use at HKSH.

Short-duration treatment to prevent flare-ups (weekend therapy)

Some people have frequent flare-ups of eczema. In this situation, one option that might help is to apply steroid cream on the usual sites of flare-ups for two days every week. This is often called weekend therapy. This aims to prevent a flare-up from occurring. In the long run, it can mean that the total amount of topical steroid used is less than if each flare-up were treated as and when it occurred. You may wish to discuss this option with your doctor.

Topical steroids are usually applied once a day (sometimes twice a day - your doctor will advise). Rub a small amount (see 'Getting the dose right - the fingertip unit', below) on to areas of skin which are inflamed. (This is different to emollients which should be applied liberally all over.) Gently rub the cream or ointment into the skin until it has disappeared. Then wash your hands (unless your hands are the treated area).

Getting the dose right - the fingertip unit

The amount of topical steroid that you should apply is commonly measured by fingertip units (FTUs). One FTU is the amount of topical steroid that is squeezed out from a standard tube along an adult's fingertip. (This assumes the tube has a standard 5 mm nozzle.) A finger tip is from the very end of the finger to the first crease in the finger.

One FTU is enough to treat an area of skin twice the size of the flat of an adult's hand with the fingers together.

Two FTUs are about the same as 1 g of topical steroid. For example, say you treat an area of skin the size of eight adult hands. You will need four FTUs for each dose. (This is 2 g per dose. If the dose is once a day, then a 30 g tube should last for about 15 days of treatment.)

The following are further examples:

Area of skin to be treated (adults)	Size is roughly	FTUs each dose (adults)
A hand and fingers (front and back)	About 2 adult hands	1 FTU
Front of chest and abdomen	About 14 adult hands	7 FTUs
Back and buttocks	About 14 adult hands	7 FTUs
Face and neck	About 5 adult hands	2.5 FTUs
An entire arm and hand	About 8 adult hands	4 FTUs
An entire leg and foot	About 16 adult hands	8 FTUs

Fingertip units and children

An FTU of cream or ointment is measured on an adult index finger before being rubbed on to a child. Again, one FTU is used to treat an area of skin on a child, equivalent to twice the size of the flat of an adult's hand with the fingers together. You can gauge the amount of topical steroid to use by using your (adult) hand to measure the amount of skin affected on the child. From this you can work out the amount of topical steroid to use.

The following gives a rough guide:

For a 3 to 6 month-old child	
Entire face and neck	1 FTU
An entire arm and hand	1 FTU
An entire leg and foot	1.5 FTUs
The entire front of chest and abdomen	1 FTU
The entire back including buttocks	1.5 FTUs

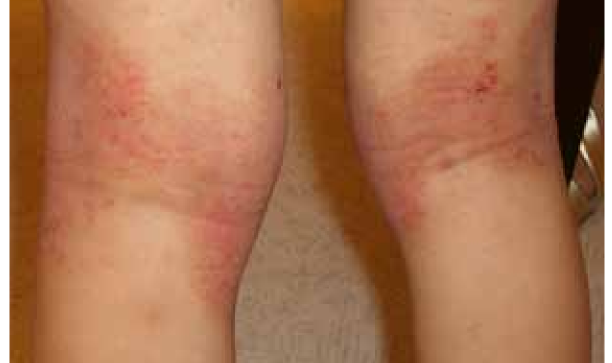
For 1 to 2 year-old child	
Entire face and neck	1.5 FTUs
An entire arm and hand	1.5 FTUs
An entire leg and foot	2 FTUs
The entire front of chest and abdomen	2 FTUs
The entire back including buttocks	3 FTUs

For a 3 to 5 year-old child	
Entire face and neck	1.5 FTUs
An entire arm and hand	2 FTUs
An entire leg and foot	3 FTUs
The entire front of chest and abdomen	3 FTUs
The entire back including buttocks	3.5 FTUs

For a 6 to 10 year-old child	
Entire face and neck	2 FTUs
An entire arm and hand	2.5 FTUs
An entire leg and foot	4.5 FTUs
The entire front of chest and abdomen	3.5 FTUs
The entire back including buttocks	5 FTUs

Using topical steroids and emollients together

Most people with eczema will also use emollients (moisturisers). Emollients are different to topical steroids, and should be used and applied in a different way. When using the two treatments, apply the emollient first. Then wait 10-15 minutes before applying a topical steroid. That is, the emollient should be allowed to absorb before a topical steroid is applied (the skin should be moist or slightly tacky but not slippery, when applying the steroid).



Are there any side-effects from topical steroids?

Short courses of topical steroids (less than four weeks) usually cause no problems. Problems may develop if topical steroids are used for long periods, or if short courses of stronger steroids are repeated often. The main concern is if strong steroids are used on a long-term basis. Side-effects from mild topical steroids are uncommon.

- Thinning of the skin has always been considered a common problem. However, recent research suggests that this mainly occurs when high-strength steroids are used under airtight dressings. In normal regular use skin thinning is unlikely and, if it does occur, it often reverses when the topical steroid is stopped
- With long-term use of topical steroid the skin may develop permanent striae (like stretch marks), bruising, discolouration, or thin spidery blood vessels (telangiectasia)

- Topical steroids may trigger or worsen other skin disorders such as acne, rosacea and perioral dermatitis
- Some topical steroid gets through the skin and into the bloodstream. The amount is usually small and usually causes no problems unless strong topical steroids are used regularly on large areas of the skin. The main concern is with children who need frequent courses of strong topical steroids. The steroid can have an effect on growth. Therefore, children who need repeated courses of strong topical steroids should have their growth monitored
- Occasionally, some people become sensitized (allergic) to an ingredient in a topical cream (such as a preservative). This can make the skin inflammation worse rather than better

Two common mistakes when using topical steroids

Some people use too little

A common mistake is to be too cautious about topical steroids. Some parents undertreat their children's eczema because of an unfounded fear of topical steroids. They may not apply the steroid as often as prescribed, or at the strength needed to clear the flare-up. This may actually lead to using more steroid in the long-term, as the inflamed skin may never completely clear. So, you may end up applying a topical steroid on and off (perhaps every few days) for quite some time. The child may be distressed or uncomfortable for this period if the inflammation does not clear properly. A flare-up is more likely to clear fully if topical steroids are used correctly.

Some people use too much

Only use topical steroids for eczema as directed by your doctor. Some people continue to use topical steroids each day in the long term after the eczema has cleared to "keep the eczema away". This is not normally needed. Some people, with severe eczema, may require continuous steroid treatment but this should be under the close supervision of a doctor. However, all people with eczema should use emollients (moisturisers) every day to help prevent further flare-ups of eczema.

Further help and information

1. www.patient.co.uk/health/Topical-Steroids-for-Eczema.htm
2. National Eczema Society (UK) www.eczema.org