

Topical Steroids

Topical Steroids Potency Ranking table

{highest to lowest}

<http://www.dermnetnz.org/treatments/topical-steroids.html>

Topical Steroids

Topical steroids have revolutionized the practice of dermatology since they were introduced in the late 1950s.

Like all medications, topical (cortico)steroids are associated with potential adverse effects (side effects) especially if they are used incorrectly.

The topical steroids can be divided up into four groups according to their strength. As a general rule, use the weakest possible steroid that will do the job. However, sometimes it is appropriate to use a potent preparation for a short time to make sure the skin condition clears completely.

Note:

Topical steroids are prescription medicines regulated by Health Authorities. The products listed here are the generic names of those available in New Zealand currently (May 2004). The products available in other countries may be different. For example, in the USA, the classification of topical steroids places them in seven potency classes. Seek the advice of a pharmacist or your own medical practitioner if you require more information.

Class 1

Very potent (up to 600 times as potent as hydrocortisone)

- Clobetasol propionate
- Betamethasone dipropionate

Class 2

Potent (150-100 times as potent as hydrocortisone)

- Betamethasone valerate
- Betamethasone dipropionate
- Diflucortolone valerate
- Fluticasone valerate
- Hydrocortisone 17-butyrate
- Mometasone furoate
- Methylprednisolone aceponate

Class 3

Moderate (2-25 times as potent as hydrocortisone)

- Aclometasone dipropionate
- Clobetasone butyrate
- Fluocinolone acetonide
- Triamcinolone acetonide

Class 4

Mild

- Hydrocortisone 0.5-2.5%

Topical steroids are also available in combination with salicylic acid to enhance penetration, and with antibacterial and antifungal agents.

Skin absorption of topical steroids

Steroids are absorbed at different rates from different parts of the body. A steroid that works on the face may not work on the palm. But a potent steroid may cause side effects on the face. For example:

- Forearm absorbs 1%
- Armpit absorbs 4%
- Face absorbs 7%
- Eyelids and **genitals absorb 30%**
- Palm absorbs 0.1%
- Sole absorbs 0.05%



Side effects of topical steroids

Internal side effects

If more than 50g of clobetasol propionate, or 500g of hydrocortisone is used per week, sufficient steroid may be absorbed through the skin to result in adrenal gland suppression and/or eventually Cushing's syndrome.

- Adrenal Gland Suppression. Topical steroids can suppress the production of natural steroids, which are essential for healthy living. Stopping the steroids suddenly may then result in illness.
- Cushing's Syndrome If large amounts of steroid are absorbed through the skin, fluid retention, raised blood pressure, diabetes etc. may result.

Skin side effects

Local side effects of topical steroids include:

- Skin thinning (atrophy) and stretch marks ([striae](#)).
- Easy bruising and tearing of the skin.
- [Perioral dermatitis](#) (rash around the mouth).
- Enlarged blood vessels (telangiectasia).

- Susceptibility to skin infections.
- Disguising infection e.g. [tinea incognito](#).
- [Allergy](#) to the steroid cream.

The risk of these side effects depends on the strength of the steroid, the length of application, the site treated, and the nature of the skin problem. If you use a potent steroid cream on your face as a moisturiser, you will develop the side effects within a few weeks. If you use 1% hydrocortisone cream on your hands for 25 years, you will have done no harm at all (except for having wasted a lot of money!)



Bruising



Skin thinning



Prominent capillaries



Stretch marks

Side effects of topical steroids

How to use topical steroids

Ask for specific instructions how to use your topical steroid(s). See DermNet's information about [fingertip units](#). Which one, where, when, how often and for how long? Cream, ointment or lotion? This is particularly important if:

- You are using strong steroids over large areas of your body.
- You have been asked to use plastic to cover treated areas (occlusion).
- Your skin condition persists for more than two or three weeks.
- You are a child.

Topical steroids are very effective medications. They work by reducing inflammation, and when used correctly are very safe.

Apply topical steroids only to the areas affected by the skin disease, and generally only once or twice daily. If your skin is dry, apply an [emollient](#) frequently.

Table 4. Topical steroid potency ranking		
Class	Generic name	Brand name
Class I: (Highest in Potency)	Clobetasol proprionate	Temovate cream 0.05%
		Temovate E emollient 0.05%
		Temovate ointment 0.05%
		Cormax cream 0.05%
		Cormax ointment 0.05%
		Cormax scalp solution 0.05%
		Halobetasol proprionate
		Ultravate cream 0.055
		Ultravate ointment 0.05%
		Betamethasone dipropionate
	Diprolene ointment 0.05%	
	Diflorasone diacetate	Psorcon ointment 0.05%
	Flurandrenolide	Cordran tape
Class II:	Amcinonide	Cyclocort ointment 0.1%
	Betamethasone dipropionate	Diprolene AF cream 0.05%
		Diprosone ointment 0.05%
		Maxivate cream 0.05%
		Maxivate ointment 0.05%
		Mometasone furoate
		Elocon ointment 0.1%
		Diflorasone diacetate
		Maxiflor ointment 0.05%
		Florone ointment 0.05%
		Halcinonide
		Halog cream 0.1%
		Fluocinonide
		Lidex cream 0.05%
		Lidex gel 0.05%
		Lidex ointment 0.05%
		Lidex solution 0.05%
	Desoximetasone	
	Topicort cream 0.25%	
	Topicort gel 0.05%	
	Topicort ointment 0.25%	
Class III:	Triamcinolone acetonide	Aristocort A ointment 0.1%
	Fluticasone propionate	Cutivate ointment 0.0005%
	Amcinonide	Cyclocort cream 0.1%

		Cyclocort lotion 0.1%
	Betamethasone dipropionate	Diprosone cream 0.05%
		Maxivate lotion 0.05%
	Diflorasone diacetate	Maxiflor cream 0.05%
		Florone cream 0.05%
	Halcinonide	Halog ointment 0.1%
		Halog solution 0.1%
	Fluocinonide	Lidex E cream 0.05%
	Desoximetasone	Topicort LP cream 0.05%
	Betamethasone valerate	Valisone ointment 0.1%
Class IV:	Triamcinolone acetonide	Kenalog ointment 0.1%
		Kenalog cream 0.1%
		Aristocort cream 0.1%
		Aristocort ointment 0.1%
	Flurandrenolide	Cordran ointment 0.05%
	Mometasone furoate	Elocon cream 0.1%
		Elocon lotion 0.1%
	Fluocinolone acetonide	Synalar ointment 0.025%
Class V:	Flurandrenolide	Cordran cream 0.05%
		Cordran lotion 0.05%
	Fluticasone propionate	Cutivate cream 0.05%
	Triamcinolone acetonide	Kenalog lotion 0.1%
		Kenalog ointment 0.025%
	Hydrocortisone butyrate	Locoid cream 0.1%
		Locoid ointment 0.1%
		Locoid solution 0.1%
	Fluocinolone acetonide	Synalar cream 0.025%
	Desonide	Tridesilon ointment 0.05%
	Betamethasone valerate	Valisone cream 0.1%
	Hydrocortisone valerate	Westcort cream 0.2%
		Westcort ointment 0.2%
Class VI:	Alclometasone dipropionate	Aclovate cream 0.05%
		Aclovate ointment 0.05%
	Triamcinolone acetonide	Aristocort cream 0.025%
		Kenalog cream 0.025%

		Kenalog lotion 0.025%
	Flumethasone pivolate	Locorten cream 0.03%
	Fluocinolone acetonide	Synalar cream 0.01%
		Synalar lotion 0.01%
		Synalar scalp solution 0.01%
	Desonide	DesOwen cream 0.05%
		DesOwen lotion 0.05%
		DesOwen ointment 0.05%
		Tridesilon cream 0.05%
	Betamethasone valerate	Valisone lotion 0.1%
Class VII:	Hydrocortisone	Hytone cream 1.0%
(Lowest in potency).		Hytone cream 2.5%
		Hytone lotion 1.0%
		Hytone lotion 2.5%
		Hytone ointment 1.0%
		Hytone ointment 2.5%
	Hydrocortisone acetate	Pramosome cream 1.0%
	and Pramoxine HCL 1%	Pramosome cream 2.5%
		Pramosome lotion 1.0%
		Pramosome lotion 2.5%
		Pramosome ointment 1.0%
		Pramosome ointment 2.5%