



Topical Treatments for Atopic Dermatitis

ABOUT THIS CHART

Atopic dermatitis (AD), a common form of eczema, can be a challenging condition to manage. This chart was created by the Eczema Society of Canada, in consultation with expert Canadian dermatologists, paediatricians, and pharmacists, with the intention of providing information to health care providers. **This chart is for general information purposes and product monographs should be consulted for full information.**

TOPICAL CORTICOSTEROIDS (TCS)

Topical corticosteroids (TCS) are the first-line treatment for atopic dermatitis. A variety of factors should be considered when prescribing TCS, including disease severity, xerosis (dry skin), patient age, body areas to be treated, patient preference, and cost. TCS should be used with caution around the eye area due to an increased risk of adverse effects. Clinical monitoring for adverse effects is necessary, and patients should be counselled on safe use. **Important Note: Potency scales may vary between different TCS charts. Clinicians are encouraged to review product monographs for full information.**

Examples for some of the products are listed solely for information purposes. Generic products may be available for many of these products.

TCS POTENCY*	DRUG	USUAL DOSAGE	USES/COMMENTS
VII Lowest potency	Hydrocortisone 0.5%, 1%, 2.5% (cream, ointment) (OTC Examples: Gold Bond® 1% Hydrocortisone Eczema Relief Cream; Polysporin® Eczema Essentials® 1% Hydrocortisone Anti-Itch Cream)	Once or twice daily, depending on the product and the body area to be treated.	Generally used: <ul style="list-style-type: none"> • for mild AD • for the face, neck, skin folds, and groin
VI Low potency	Desonide 0.05% (cream, lotion)	Once or twice daily, depending on the product and the body area to be treated.	Generally used: <ul style="list-style-type: none"> • for mild AD • for the face, neck, skin folds, and groin
V Lower- medium potency	Fluocinolone Acetonide 0.01% (oil) (Example: Derma-Smoothe/FS® – <i>Contains peanut oil; See PRECAUTIONS section of product monograph</i>) Hydrocortisone Valerate 0.2% (cream, ointment) (Example: HydroVal) Prednicarbate 0.1% (cream, ointment) (Example: Dermatop®)	Once or twice daily, depending on the product and the body area to be treated.	Generally used: <ul style="list-style-type: none"> • for mild to moderate AD • on body areas • with caution on face, neck, and skin folds (Rarely used on the groin or eye area)
III-IV Medium potency	Clobetasone Butyrate 0.05% (cream) (OTC Example: Spectro® Eczema Care®) Betamethasone Valerate 0.05%, 0.1% (cream, ointment, scalp lotion, foam) (Examples: Betaderm®, Celestoderm® V, Luxiq®) Diflucortolone Valerate 0.1% (cream, oily cream) (Example: Nerisone®) Mometasone Furoate 0.1% (cream, lotion) (Example: Elocom®) Triamcinolone acetonide 0.1% (cream) (Example: Aristocort®)	Once or twice daily, depending on the product and the body area to be treated.	Generally used: <ul style="list-style-type: none"> • for moderate AD • on body areas • with caution on face, neck, and skin folds (Rarely used on the groin or eye area)

TOPICAL CORTICOSTEROIDS (TCS) CONTINUED ...

TCS POTENCY*	DRUG	USUAL DOSAGE	USES/COMMENTS
II High potency	<p>Betamethasone Dipropionate* 0.025%, 0.05% (cream, lotion) (Example: Diprosone[®], Propaderm[®])</p> <p>Desoximetasone 0.05%, 0.25% (cream, ointment, gel) (Example: Topicort[®])</p> <p>Fluocinonide 0.05% (cream, ointment, gel) (Examples Lidex[®], Lyderm[®], Lidemol[®])</p> <p>Mometasone Furoate 0.1% (ointment) (Example: Elocom[®])</p>	Once or twice daily, depending on the product and the body area to be treated.	<p>Generally used:</p> <ul style="list-style-type: none"> • for moderate to severe AD • on lichenified and thickened areas of the body, palms of the hands, and soles of the feet (rarely used on the face, neck, groin, and skin folds)
I Very High Potency	<p>Augmented Betamethasone Dipropionate Glycol 0.05% (lotion, cream, ointment) (Example: Topilene, Diprolene[®] Glycol)</p> <p>Clobetasol Propionate 0.05% (shampoo, cream, topical solution, foam) (Examples: ClobexTM, Dermovate[®], Olux[®]-E[®])</p> <p>Halobetasol Propionate 0.05% (cream, ointment) (Example: UltraVate[®])</p>	Once or twice daily, depending on the product and the body area to be treated.	<ul style="list-style-type: none"> • Generally used for severe AD on the palms of the hands and soles of the feet. • Counsel patients on adverse affects and very close patient monitoring for adverse affects is required.

*Potency class is not necessarily based on effectiveness but is based on degree of vasoconstriction which is agreed on as a marker of topical steroid strength.

CHOOSING A BASE FOR TOPICAL STEROIDS

Steroids may differ in potency based on the vehicle in which they are formulated. Some vehicles should be used only on certain parts of the body. Note that this guidance can also be helpful when counselling patients on moisturizer selection.

OINTMENT	CREAM	LOTIONS/GELS	FOAMS/MOUSSES/SHAMPOOS
<ul style="list-style-type: none"> • Provide more lubrication and occlusion than other preparations • Most useful for treating dry or thick, hyperkeratotic lesions • Their occlusive nature also improves steroid absorption • Ointments should not be used on hairy areas and may cause maceration and folliculitis if used on intertriginous areas (e.g., groin, gluteal cleft, axilla) • Their greasy nature may result in poor patient satisfaction and compliance 	<ul style="list-style-type: none"> • Mixtures of water suspended in oil • Good lubricating qualities, and their ability to vanish into the skin makes them cosmetically appealing • Creams are generally less potent than ointments of the same medication and they often contain preservatives, which can cause irritation stinging, and allergic reaction • Creams are also useful in intertriginous areas where ointments may not be preferred • However, creams do not provide the occlusive effects that ointments provide 	<ul style="list-style-type: none"> • The least greasy and occlusive of all topical steroid vehicles • Some lotions contain alcohol, which has a drying effect on an oozing lesion • Lotions are useful for hairy areas because they penetrate easily and leave little residue • Gels have a jelly-like consistency and are beneficial for exudative inflammation • Gels dry quickly and can be applied on the scalp or other hairy areas and do not cause matting 	<ul style="list-style-type: none"> • Foams, mousses, and shampoos are also effective vehicles for delivering steroids to the scalp • They are easily applied and spread readily, particularly in hairy areas • Foams are usually more expensive

ANTIBIOTIC/CORTICOSTEROID COMBINATIONS

Antibiotic/Corticosteroid combinations are used to address both inflammation and infection in atopic dermatitis. The product monograph should be consulted for full information.

DRUG	USUAL DOSAGE	USES/COMMENTS
Fusidic Acid 2% / Hydrocortisone 1% (cream) (Example: Fucidin® H)	TID A single treatment course should not exceed two weeks duration.	<ul style="list-style-type: none"> • Generally used in mild AD where <i>S. aureus</i> is suspected as a contributing factor. • Hydrocortisone is a Class VII TCS (low potency). • This treatment is not normally used in or near the eyes due to the possibility of conjunctival irritation by fusidic acid. • TCS should be used with caution in the eye area due to potential adverse effects.
Fusidic Acid 2% / Betamethasone Valerate 0.1% (cream) (Example: Fucibet®)	BID A single treatment course should not exceed two weeks duration.	<ul style="list-style-type: none"> • Generally used in moderate AD where secondary bacterial infection caused by <i>S. aureus</i> is suspected as a contributing factor. • A treatment course should last no longer than 2 weeks. • Also, be aware that this cream contains a Class III- IV TCS (medium potency). As such, there may be increased risk of systemic or local adverse effects when it is used over extensive area of skin, on the face, scalp, axillae and scrotum, or under occlusion. • TCS should be used with caution in the eye area due to potential adverse effects and the possibility of conjunctival irritation by fusidic acid.

TOPICAL CALCINEURIN INHIBITORS (TCI)

Topical calcineurin inhibitors (TCI) are second-line anti-inflammatory medications that are recommended for the treatment of atopic dermatitis flares in non-immunocompromised patients 2 years of age and older. The product monograph should be consulted for full information.

DRUG	USUAL DOSAGE	USES/COMMENTS
Pimecrolimus cream 1% (cream) (Example: Elidel®)	BID	<ul style="list-style-type: none"> • Generally used for mild to moderate atopic dermatitis. Pimecrolimus is applied twice daily. Pimecrolimus may be used on all skin surfaces, including the head, neck, and intertriginous areas. Care should be taken to avoid contact with nose, eyes and mouth. • Not indicated for use in children <2 year of age or immunocompromised patients. • Temporary mild stinging and/or burning may occur upon application.
Tacrolimus ointment 0.03%, 0.1% (ointment) (Example: Protopic®)	BID Dosage: Pediatric (2-16 years old) 0.03%; Adult (>16 years old) 0.1% Maintenance dose: Twice weekly in areas where predictable flares occur	<ul style="list-style-type: none"> • Generally used for moderate to severe atopic dermatitis. Tacrolimus ointment is applied twice daily as a thin layer to areas affected by eczema, including the neck, face, and eyelids. • Care should be taken to avoid contact with nose, eyes and mouth. • Not indicated for use in children <2 year of age or immunocompromised patients. • Temporary mild stinging and/or burning may occur upon application.

TOPICAL PHOSPHODIESTERASE TYPE 4 INHIBITOR (PDE4)

Topical Phosphodiesterase Type 4 Inhibitor (PDE4) is a new class of topical medication indicated for the treatment of mild to moderate atopic dermatitis in patients 2 years of age and older. The first topical PDE4 inhibitor crisaborole is a boron-based-small molecule. It is intended for topical use only and not for ophthalmic, oral, or intravaginal use. The product monograph should be consulted for full information.

DRUG	USUAL DOSAGE	USES/COMMENTS
Crisaborole 2% (ointment) (Example: Eucrisa® 2%)	BID	<ul style="list-style-type: none"> • Generally used for mild to moderate AD • Indicated for use in all areas of the body and face • Not indicated for use in children < 2 years of age • Mild stinging or burning may occur upon application

NOTES

- Health care providers and prescribers should consult product monographs for full information including treatment, dosing, and potential adverse effects.
- Steroid potency in this chart is meant to serve as a guide only, and is based on vasoconstrictor studies, information in product monographs, Eichenfield LF, et al. Guidelines of care for the management of atopic dermatitis — Section 2. Journal of the American Academy of Dermatology. 2014;71(1):116-132., RxTx e-Therapeutics (Corticosteroids: Topical; Last Revised December 2017), and expert opinion.
- Medication vehicle impacts potency, such as with an ointment increasing the potency of a topical corticosteroid when compared to a cream.
- Occlusive wraps and bandages increases absorption of medication and should be used with caution under the supervision of the prescribing physician.
- Combination treatments may include a TCS that is either less potent or more potent than appropriate. Check the TCS component potency before prescribing combination treatments.
- Consider consulting a compounding pharmacist if a product is unavailable, as a product may be compounded in the vehicle of the physician's choice (e.g. Hydrocortisone 2% in a cream or ointment base). Inform patients that there will be a varying fee for the compounding and vehicle, it may or may not be covered by their insurance coverage and they should ask for an estimate before filling the prescription.
- Hydrocortisone 0.5%/1% and clobetasone butyrate 0.05% are available without a prescription.
- References available upon request.

LEGEND

- BID** – two times daily
TID – three times daily
TCS – Topical Corticosteroids
TCI – Topical Calcineurin Inhibitors
PDE4 – Phosphodiesterase Type 4

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DISCLAIMERS

1. This chart is provided as a general health information educational guide for health care providers (HCP) only. It is not intended for use by patients and/or caregivers.
2. This table does not provide complete information about the drug categories listed. The specific product monographs should be consulted for detailed information on each drug (for example, contraindications, adverse events, dosing and administration).
3. This chart is for general information purposes only; it is not a substitute for medical advice, diagnosis and treatment provided in the context of a HCP/patient relationship.
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