BMJ Best Practice

# Overview of dermatitis

Straight to the point of care

Last updated: Feb 04, 2022

# Table of Contents

# Introduction

Dermatitis is an umbrella term for a range of inflammatory skin conditions of varying etiology. Common manifestations include erythema, scaling, vesicles, itching, and lichenification where there is chronic inflammation.

Each type of dermatitis has distinct signs and symptoms; although, in practice, it may be difficult to differentiate among them and also among other inflammatory skin conditions.

# Related conditions



## ◊ Atopic dermatitis

» see our comprehensive coverage of Atopic dermatitis (https://bestpractice.bmj.com/topics/en-us/87)

Commonly presents with dry, itchy skin. Typically there is erythema, scaling, vesicles, or lichenification in skin flexures. In infants, the extensor surfaces, cheeks, and forehead are preferentially affected.[1] Patients often have a personal or family history of other atopic diseases such as asthma or allergic rhinitis.[1] [2] [3]

Eczema is a chronic, relapsing disease, and educating patients and their families is necessary so that they develop an understanding of basic skin care and how to avoid trigger factors.[4] [5] [6] [7]

*Acute atopic dermatitis on the face of an infant*
*Personal collection of Dr A. Hebert*

## ◊ Contact dermatitis

» see our comprehensive coverage of Contact dermatitis (https://bestpractice.bmj.com/topics/en-us/90)

Irritant contact dermatitis is caused by direct toxicity and can occur in any person without prior sensitization. Allergic contact dermatitis is a delayed hypersensitivity reaction, which requires prior sensitization.[8] Patients generally report pruritus, burning, erythema, swelling, and blistering with acute contact dermatitis, and pruritus, burning, erythema or hyperpigmentation, fissuring, and scaling with chronic contact dermatitis.

## ◊ Poison ivy, oak, and sumac

» see our comprehensive coverage of Poison ivy, oak, and sumac (https://bestpractice.bmj.com/topics/en-us/611)

Poison ivy, oak, and sumac dermatitis is the prototypical allergic contact dermatitis of the northern US. It is caused by skin contact with soluble oleoresins (urushiols) from the poison ivy, oak, and sumac plants ( *Toxicodendron* species), resulting in severe acute dermatitis.[9] [10] [11] [12] Contact can result in a severe, itchy dermatitis, which often persists for 10 to 15 days.

The main goal of treatment is to prevent exposure to poison ivy, oak, and sumac plants by patient education and by wearing protective clothing.[10] [13] [14]

Immediate washing of the skin after inadvertent contact may prevent development of the allergic response.

First-line treatment is corticosteroids: topically for mild to moderate cases, and orally for severe reactions.

## ◊ Dyshidrotic dermatitis

» see our comprehensive coverage of Dyshidrotic dermatitis (https://bestpractice.bmj.com/topics/en-us/91)

Recurrent crops of 1- to 2-mm vesicles, with pruritus on the palms, soles, and/or lateral aspects of the fingers. Pompholyx is a term often used synonymously with dyshidrotic dermatitis, but it is better used to describe more acute, severe eruptions of large bullae on the hands and feet.[15] The common exacerbating factor is irritation, as seen in frequent hand washing, hyperhidrosis, and stress. However, the underlying etiology is unknown.

*Dyshidrotic eczema*
*Photograph courtesy of Dr Spencer Holmes, MD*

## ◊ Seborrheic dermatitis

» see our comprehensive coverage of Seborrheic dermatitis (https://bestpractice.bmj.com/topics/en-us/89)

A common inflammatory skin disorder that usually manifests as erythema and scaling of the scalp, nasolabial folds, and occasionally central face and anterior chest. It tends to worsen with stress.[16] The adult scalp form is commonly termed dandruff or pityriasis capitis. Variable course that seldom completely subsides. An infant form (cradle cap) usually resolves within the first few months of life.

*Seborrheic dermatitis, glabella, with scaling and mild erythema*
*Personal collection of Dr Robert A. Schwartz*

## ◊ Diaper rash

» see our comprehensive coverage of Diaper rash (https://bestpractice.bmj.com/topics/en-us/676)

Primarily an irritant contact dermatitis, diaper rash is inflammation of the skin in the area of the body covered by a diaper. It is most common in the first 2 years of life, but can occur in any person who routinely wears diapers. Recalcitrant diaper rash may signal secondary infection or underlying systemic or dermatologic disorders, and requires further evaluation.

## ◊ Lichen simplex chronicus (LSC)

» see our comprehensive coverage of Lichen simplex chronicus (LSC) (https://bestpractice.bmj.com/topics/en-us/625)

A common cutaneous disorder characterized by well-circumscribed erythematous, often hyperpigmented, patches and plaques of thickened lichenified skin. It most commonly occurs on the neck, ankles, scalp, pubis, vulva, scrotum, and extensor forearms as a result of chronic scratching and rubbing.[17]One or multiple LSC patches or plaques can arise on skin affected by an underlying dermatosis such as atopic dermatitis, allergic contact dermatitis, stasis dermatitis, superficial fungal (tinea and candidiasis) and dermatophyte infections, lichen sclerosis, viral warts, scabies, lice, arthropod bite, or cutaneous neoplasia.[17] [18]

LSC can be a difficult condition to treat, causing frustration in both the patient and physician.[17]

*Secondary lichen simplex chronicus in the setting of atopic dermatitis*
*Personal collection of Dr Swick*

## ◊ Sunburn

» see our comprehensive coverage of Sunburn (https://bestpractice.bmj.com/topics/en-us/613)

An acute inflammatory reaction of the skin induced by overexposure to ultraviolet (UV) radiation. Skin findings include erythema and edema, with or without vesiculation, followed by desquamation. Symptoms include pain and/or pruritus. Acute sunburn is a self-limited condition and typically requires only supportive care. No current treatments can reverse UV-induced skin damage.[19] However, primary prevention is critical, as cellular damage caused by UV radiation is irreversible and may with time increase the risk of skin cancer.

## ◊ Evaluation of pruritus

» see our comprehensive coverage of Evaluation of pruritus (https://bestpractice.bmj.com/topics/en-us/612)

The most subjective symptom in dermatology is itching, which may occur with or without visible skin lesions. A thorough history and complete physical examination are central to the evaluation of pruritus.[20] During clinical evaluation, it is important to identify a possible cause or disease responsible for itching, as well as determining the intensity and timeframe of the pruritus.

## ◊ Evaluation of rash in children

» see our comprehensive coverage of Evaluation of rash in children (https://bestpractice.bmj.com/topics/en-us/857)

Rash in children is common. The differential diagnoses are extensive, ranging from self-limiting conditions (e.g., roseola) to life-threatening illnesses such as meningococcal disease. Initial considerations in evaluating a rash in children include its morphology, duration, and distribution. Age, sex, family history, medications, known allergies, and exposures are also of primary importance.

## ◊ Evaluation of dermatologic disorders in HIV

» see our comprehensive coverage of Evaluation of dermatologic disorders in HIV (https://bestpractice.bmj.com/topics/en-us/855)

The dermatologic manifestations of HIV are protean and often multiple in patients with HIV infection. HIV-specific dermatoses include HIV-related lipodystrophy, eosinophilic folliculitis, oral hairy leukoplakia, papular pruritic eruption of HIV, and HIV photodermatitis. Some skin diseases that appear in non-HIV-infected populations may have altered presentation in people with HIV. Seborrheic dermatitis occurs with strikingly increased prevalence in HIV infection.[21] [22] Atopic dermatitis has a high prevalence in adult as well as pediatric populations with HIV.[23]

REFERENCES

## Key articles


- Eichenfield LF, Tom WL, Chamlin SL, et al. Guidelines of care for the management of atopic dermatitis: section 1. Diagnosis and assessment of atopic dermatitis. J Am Acad Dermatol. 2014 Feb;70(2):338-51. Full text (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4410183) Abstract (http://www.ncbi.nlm.nih.gov/pubmed/24290431?tool=bestpractice.bmj.com)
- National Institute for Health and Care Excellence. Atopic eczema in under 12s: diagnosis and management. Clinical guideline [CG57]. Mar 2021 [internet publication].
- Wollenberg A, Barbarot S, Bieber T, et al. Consensus-based European guidelines for treatment of atopic eczema (atopic dermatitis) in adults and children: part I. J Eur Acad Dermatol Venereol. 2018 May;32(5):657-82. Full text (https://onlinelibrary.wiley.com/doi/10.1111/jdv.14891) Abstract (http://www.ncbi.nlm.nih.gov/pubmed/29676534?tool=bestpractice.bmj.com)
- Mowad CM, Anderson B, Scheinman P, et al. Allergic contact dermatitis: Patient diagnosis and evaluation. J Am Acad Dermatol. 2016 Jun;74(6):1029-40. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/27185421?tool=bestpractice.bmj.com)
- Guin JD, Beaman JH, Baer H. Toxic anacardiaceae. In: Avalos J, Maibach HI, eds. Dermatologic botany. Boca Raton, FL: CRC Press; 1999.
- Guin JD, Beaman JH. Toxicodendrons of the United States. Clin Dermatol. 1986 Apr-Jun;4(2):137-48. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/2941125?tool=bestpractice.bmj.com)
- Millington GWM, Collins A, Lovell CR, et al. British Association of Dermatologists' guidelines for the investigation and management of generalized pruritus in adults without an underlying dermatosis, 2018. Br J Dermatol. 2018 Jan;178(1):34-60. Full text (https://onlinelibrary.wiley.com/doi/10.1111/bjd.16117) Abstract (http://www.ncbi.nlm.nih.gov/pubmed/29357600?tool=bestpractice.bmj.com)


## References


1. Spergel JM, Paller AS. Atopic dermatitis and the atopic march. J Allergy Clin Immunol. 2003 Dec;112(6 Suppl):S118-27. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/14657842?tool=bestpractice.bmj.com)
2. Eichenfield LF, Tom WL, Chamlin SL, et al. Guidelines of care for the management of atopic dermatitis: section 1. Diagnosis and assessment of atopic dermatitis. J Am Acad Dermatol. 2014 Feb;70(2):338-51. Full text (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4410183) Abstract (http://www.ncbi.nlm.nih.gov/pubmed/24290431?tool=bestpractice.bmj.com)
3. National Institute for Health and Care Excellence. Atopic eczema in under 12s: diagnosis and management. Clinical guideline [CG57]. Mar 2021 [internet publication].

4. Simpson EL. Atopic dermatitis: a review of topical treatment options. Cur Med Res Opin. 2010 Mar;26(3):633-40. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/20070141?tool=bestpractice.bmj.com)

5. Levy ML. Atopic dermatitis: understanding the disease and its management. Curr Med Res Opin. 2007 Dec;23(12):3091-103. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/17971284?tool=bestpractice.bmj.com)

6. Darsow U, Wollenberg A, Simon D, et al; European Task Force on Atopic Dermatitis/EADV Eczema Task Force. ETFAD/EADV eczema task force 2009 position paper on diagnosis and treatment of atopic dermatitis. J Eur Acad Dermatol Venereol. 2010 Mar;24(3):317-28. Full text (https://onlinelibrary.wiley.com/doi/full/10.1111/j.1468-3083.2009.03415.x) Abstract (http://www.ncbi.nlm.nih.gov/pubmed/19732254?tool=bestpractice.bmj.com)

7. Wollenberg A, Barbarot S, Bieber T, et al. Consensus-based European guidelines for treatment of atopic eczema (atopic dermatitis) in adults and children: part I. J Eur Acad Dermatol Venereol. 2018 May;32(5):657-82. Full text (https://onlinelibrary.wiley.com/doi/10.1111/jdv.14891) Abstract (http://www.ncbi.nlm.nih.gov/pubmed/29676534?tool=bestpractice.bmj.com)

8. Mowad CM, Anderson B, Scheinman P, et al. Allergic contact dermatitis: Patient diagnosis and evaluation. J Am Acad Dermatol. 2016 Jun;74(6):1029-40. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/27185421?tool=bestpractice.bmj.com)

9. Dannaker C, Maibach HI. Poison ivy and oak dermatitis. In: Lovell CR. Plants and the skin. Oxford, UK: Blackwell Scientific Publications; 1993.

10. Guin JD, Beaman JH, Baer H. Toxic anacardiaceae. In: Avalos J, Maibach HI, eds. Dermatologic botany. Boca Raton, FL: CRC Press; 1999.

11. Rietschel RL, Fowler JF, Fisher AA. Contact dermatitis. Baltimore, MD: Lippincott Williams & Wilkins; 2001.

12. Zug KA, Marks JG. Plants and woods. In: Adams RM. Occupational skin disease. 3rd ed. Philadelphia, PA: WB Saunders Company; 1999.

13. Guin JD. Treatment of toxicodendron dermatitis (poison ivy and poison oak). Skin Therapy Lett. 2001 Apr;6(7):3-5. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/11376396?tool=bestpractice.bmj.com)

14. Guin JD, Beaman JH. Toxicodendrons of the United States. Clin Dermatol. 1986 Apr-Jun;4(2):137-48. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/2941125?tool=bestpractice.bmj.com)

15. Fowler JF Jr, Storrs FJ. Nickel allergy and dyshidrotic eczema: are they related? Am J Contact Dermatol. 2001 Jun;12(2):119-21. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/11381350?tool=bestpractice.bmj.com)

16. Clark GW, Pope SM, Jaboori KA. Diagnosis and treatment of seborrheic dermatitis. Am Fam Physician. 2015 Feb 1;91(3):185-90. Full text (https://www.aafp.org/afp/2015/0201/p185.html) Abstract (http://www.ncbi.nlm.nih.gov/pubmed/25822272?tool=bestpractice.bmj.com)

REFERENCES


17. Lotti T, Buggaiani G, Prignano F. Prurigo nodularis and lichen simplex chronicus. Dermatol Ther. 2008 Jan-Feb;21(1):42-6. Full text (https://onlinelibrary.wiley.com/doi/full/10.1111/j.1529-8019.2008.00168.x) Abstract (http://www.ncbi.nlm.nih.gov/pubmed/18318884?tool=bestpractice.bmj.com)

18. Lynch PJ. Lichen simplex chronicus (atopic/neurodermatitis) of the anogenital region. Dermatol Ther. 2004;17(1):8-19. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/14756886?tool=bestpractice.bmj.com)

19. Han A, Maibach, HI. Management of acute sunburn. Am J Clin Dermatol. 2004;5(1):39-47. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/14979742?tool=bestpractice.bmj.com)

20. Millington GWM, Collins A, Lovell CR, et al. British Association of Dermatologists' guidelines for the investigation and management of generalized pruritus in adults without an underlying dermatosis, 2018. Br J Dermatol. 2018 Jan;178(1):34-60. Full text (https://onlinelibrary.wiley.com/doi/10.1111/bjd.16117) Abstract (http://www.ncbi.nlm.nih.gov/pubmed/29357600?tool=bestpractice.bmj.com)

21. Healy E, Meenan J, Mulcahy F, et al. The spectrum of HIV related skin diseases in an Irish population. Ir Med J. 1993 Nov-Dec;86(6):188-90. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/8106224?tool=bestpractice.bmj.com)

22. Coffin SE, Hodinka RL. Utility of direct immunofluorescence and virus culture for detection of varicella-zoster virus in skin lesions. J Clin Microbiol. 1995 Oct;33(10):2792-5. Full text (https://jcm.asm.org/content/jcm/33/10/2792.full.pdf) Abstract (http://www.ncbi.nlm.nih.gov/pubmed/8567930?tool=bestpractice.bmj.com)

23. Ball LM, Harper JI. Atopic eczema in HIV-seropositive haemophiliacs. Lancet. 1987 Sep 12;2(8559):627-8. Abstract (http://www.ncbi.nlm.nih.gov/pubmed/2887911?tool=bestpractice.bmj.com)

# Images

*Figure 1: Acute atopic dermatitis on the face of an infant*

*Personal collection of Dr A. Hebert*

*Figure 2: Dyshidrotic eczema*

*Photograph courtesy of Dr Spencer Holmes, MD*

*Figure 3: Seborrheic dermatitis, glabella, with scaling and mild erythema*

*Personal collection of Dr Robert A. Schwartz*

*Figure 4: Secondary lichen simplex chronicus in the setting of atopic dermatitis*

*Personal collection of Dr Swick*

# Disclaimer

BMJ Best Practice is intended for licensed medical professionals. BMJ Publishing Group Ltd (BMJ) does not advocate or endorse the use of any drug or therapy contained within this publication nor does it diagnose patients. As a medical professional you retain full responsibility for the care and treatment of your patients and you should use your own clinical judgement and expertise when using this product.

This content is not intended to cover all possible diagnosis methods, treatments, follow up, drugs and any contraindications or side effects. In addition, since such standards and practices in medicine change as new data become available, you should consult a variety of sources. We strongly recommend that you independently verify specified diagnosis, treatments and follow-up and ensure it is appropriate for your patient within your region. In addition, with respect to prescription medication, you are advised to check the product information sheet accompanying each drug to verify conditions of use and identify any changes in dosage schedule or contraindications, particularly if the drug to be administered is new, infrequently used, or has a narrow therapeutic range. You must always check that drugs referenced are licensed for the specified use and at the specified doses in your region.

Information included in BMJ Best Practice is provided on an “as is” basis without any representations, conditions or warranties that it is accurate and up to date. BMJ and its licensors and licensees assume no responsibility for any aspect of treatment administered to any patients with the aid of this information. To the fullest extent permitted by law, BMJ and its licensors and licensees shall not incur any liability, including without limitation, liability for damages, arising from the content. All conditions, warranties and other terms which might otherwise be implied by the law including, without limitation, the warranties of satisfactory quality, fitness for a particular purpose, use of reasonable care and skill and non-infringement of proprietary rights are excluded.

Where BMJ Best Practice has been translated into a language other than English, BMJ does not warrant the accuracy and reliability of the translations or the content provided by third parties (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages). BMJ is not responsible for any errors and omissions arising from translation and adaptation or otherwise.Where BMJ Best Practice lists drug names, it does so by recommended International Nonproprietary Names (rINNs) only. It is possible that certain drug formularies might refer to the same drugs using different names.

Please note that recommended formulations and doses may differ between drug databases drug names and brands, drug formularies, or locations. A local drug formulary should always be consulted for full prescribing information.

Treatment recommendations in BMJ Best Practice are specific to patient groups. Care is advised when selecting the integrated drug formulary as some treatment recommendations are for adults only, and external links to a paediatric formulary do not necessarily advocate use in children (and vice-versa). Always check that you have selected the correct drug formulary for your patient.

Where your version of BMJ Best Practice does not integrate with a local drug formulary, you should consult a local pharmaceutical database for comprehensive drug information including contraindications, drug interactions, and alternative dosing before prescribing.

### Interpretation of numbers

Regardless of the language in which the content is displayed, numerals are displayed according to the original English-language numerical separator standard. For example 4 digit numbers shall not include a comma nor a decimal point; numbers of 5 or more digits shall include commas; and numbers stated to be less than 1 shall be depicted using decimal points. See Figure 1 below for an explanatory table.

BMJ accepts no responsibility for misinterpretation of numbers which comply with this stated numerical separator standard.

This approach is in line with the guidance of the International Bureau of Weights and Measures Service. https://www.bipm.org/en/about-us/



 

**Figure 1 – BMJ Best Practice Numeral Style**

5-digit numerals: 10,000

4-digit numerals: 1000

numerals < 1: 0.25

Our full website and application terms and conditions can be found here: Website Terms and Conditions. http://www.bmj.com/company/legal-information/

**Contact us**

+ 44 (0) 207 111 1105
support@bmj.com

BMJ
BMA House
Tavistock Square
London
WC1H 9JR
UK

BMJ Best Practice

# Contributors:

## // Authors:

**Editorial Team,**

BMJ Publishing Group
DISCLOSURES: This overview has been compiled using the information in existing sub-topics.