



# Dermatology Essentials

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Julie V. **Schaffer**  
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# **Dermatology Essentials**

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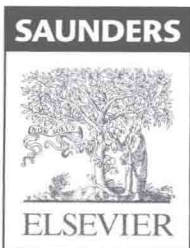
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# Preface

The goal of our *Dermatology Essentials* handbook is to present the broad spectrum of cutaneous diseases in a manner that is straightforward and logical while at the same time maintaining a necessary level of sophistication. The text portion of each section is relatively brief and easy to review, with schematics and tables providing additional and more detailed information. Throughout the handbook are algorithms that present a practical approach to evaluation, differential diagnosis, and treatment of skin disorders. The clinical photographs were chosen with two key objectives in mind – to provide characteristic examples of specific diseases and to offer key teaching points. It is our hope that this handbook will improve the dermatologic care of patients and provide clinicians with greater confidence as they approach patients with cutaneous diseases.

# Acknowledgments

We wish to thank all the dermatologists whose clinical photographs are used in this handbook as well as the textbook *Dermatology*. In particular we thank Kalman Watsky, MD, whose photographs appear throughout the book as well as on the front cover. The team at Elsevier has provided enormous support, including Joanne Scott, Humayra Rahman Khan, Dan Hays, Joanna Souch and Caroline Jones. Special thanks goes to Russell Gabbedy who has always delivered on his promises and found humor in our recurring demands.

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Figure 54.15c.

Chapter 58, Nail Disorders—Nail photos are courtesy of Antonella Tosti, the Yale Dermatology Residents' Slide Collection, Julie V. Schaffer, and Jean L. Bolognia.

# **Dedication**

To our families, in particular our husbands – Dennis, Andy, David and Peter – who provided the indispensable support required to complete this book, from serving as sounding boards to creating quiet time in busy households.

# List of Abbreviations

ABI	Ankle-brachial index	EMG	Electromyography
AI-CTD	Autoimmune connective tissue disease	ESR	Erythrocyte sedimentation rate
AK	Actinic keratosis	G6PD	Glucose-6-phosphate dehydrogenase
ANA	Antinuclear antibody	GI	Gastrointestinal
ART	Anti-retroviral therapy	GVHD	Graft-versus-host disease
BB	Broadband	HIV	Human immunodeficiency virus
BCC	Basal cell carcinoma	HPV	Human papillomavirus
BID	Two times daily	HSCT	Hematopoietic stem cell transplant
BSA	Body surface area	HSV	Herpes simplex virus
CBC	Complete blood count	ICU	Intensive care unit
CMV	Cytomegalovirus	IFE	Immunofixation electrophoresis
CNS	Central nervous system	IL	Interleukin
CO	Carbon monoxide	IM	Intramuscularly
COPD	Chronic obstructive pulmonary disease	IV, iv	Intravenous
CRP	C-reactive protein	IVIg	Intravenous immunoglobulin
CS	Corticosteroids	KA	Keratoacanthoma
CSF	Cerebrospinal fluid	KOH	Potassium hydroxide
CT	Computed tomography	LDH	Lactate dehydrogenase
DDT	Dichlorodiphenyltrichloroethane (an insecticide)	LE	Lupus erythematosus
Dx	Diagnosis	LFTs	Liver function tests
DDx	Differential diagnosis	LPLK	Lichen planus-like keratosis
DEET	N, N-diethyl-meta-toluamide	MEN	Multiple endocrine neoplasia
DFA	Direct fluorescence antibody	MHC	Major histocompatibility complex
DHEAS	Dehydroepiandrosterone sulfate	MRA	Magnetic resonance angiography
DM	Diabetes mellitus	MRI	Magnetic resonance imaging
DVT	Deep vein thrombosis	NB-UVB	Narrowband UVB
EBV	Epstein-Barr virus	NK	Natural killer
ECG	Electrocardiogram	NMSC	Non-melanoma skin cancer
EGFR	Epidermal growth factor receptor	NSAIDs	Nonsteroidal anti-inflammatory drugs
ELISA	Enzyme-linked immunosorbant assay	OTC	Over-the-counter



PAS	Periodic-acid Schiff	STDs	Sexually transmitted diseases
PCR	Polymerase chain reaction	TB	Tuberculosis
PO, po	Per os (oral administration)	TCAs	Tricyclic antidepressants
PPD	Purified protein derivative	TID	Three times daily
PUVA	Psoralen plus ultraviolet A light	TNF	Tumor necrosis factor
RBC	Red blood cell	TSH	Thyroid stimulating hormone
RPR	Rapid plasma reagin (test for syphilis)	TST	Tuberculin skin test
Rx	Treatment	UVA	Ultraviolet A
SC, sc	Subcutaneous	UVB	Ultraviolet B
SCC	Squamous cell carcinoma	UVA1	Ultraviolet A1 (340-400 nm)
SLE	Systemic lupus erythematosus	UVR	Ultraviolet radiation
SPEP	Serum protein electrophoresis	VDRL	Venereal Disease Research Laboratory (test for syphilis)
SSRIs	Selective serotonin reuptake inhibitors	VZV	Varicella zoster virus
		XRT	Radiation therapy

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<b>97</b>	B-Cell Lymphomas of the Skin	950			
<b>98</b>	Cutaneous T-Cell Lymphoma	958			



# Basic Principles of Dermatology

1

- In the approach to the patient with a dermatologic disease, it is important to think initially of broad categories (Fig. 1.1); this allows for a more complete differential diagnosis and a logical approach.
- Key elements of any clinical description include distribution pattern (Table 1.1; Figs. 1.2 and 1.3), type of primary lesion and its topography (Table 1.2; Fig. 1.4), secondary features (Table 1.3), and its consistency via palpation (Tables 1.4 and 1.5).
- If atrophy is present, it should be categorized as epidermal, dermal, and/or subcutaneous (Fig. 1.5).
- Color is also an important feature, and this can be influenced by the skin phototype

DISTRIBUTION PATTERNS OF CUTANEOUS LESIONS
<ul style="list-style-type: none"><li>• Generalized versus localized (see Fig. 1.2)</li><li>• Unilateral versus bilateral</li><li>• If bilateral, symmetric or asymmetric pattern</li><li>• Random versus linear (see Fig. 1.3) or grouped (e.g. herpetiform, clustered)</li><li>• Special patterns – photodistributed versus photoprotected; along cleavage lines; areas of occlusion; areas of pressure; areas in contact with allergens or irritants</li></ul>

Table 1.1 Distribution patterns of cutaneous lesions.

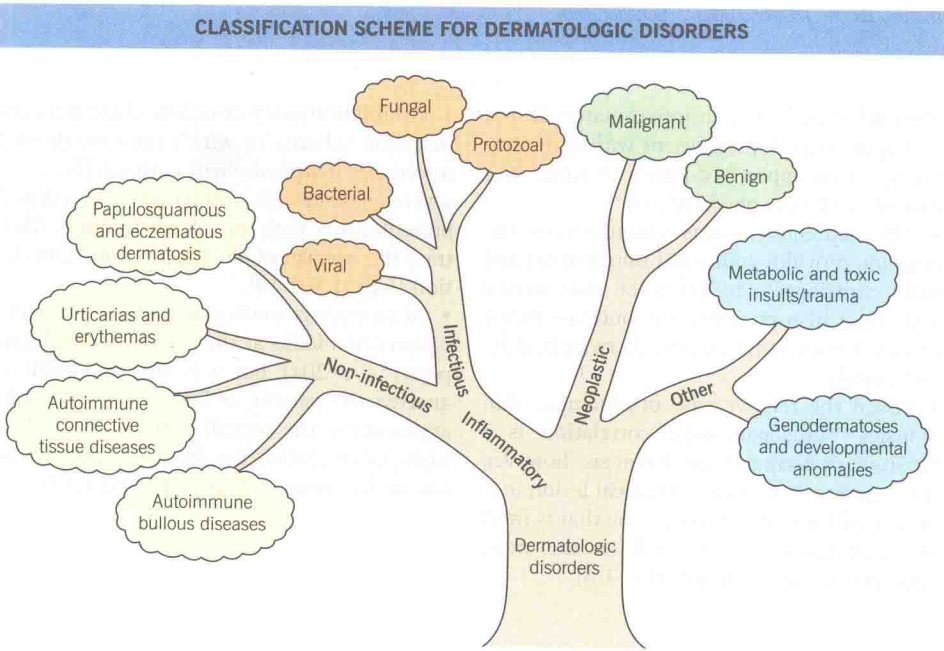
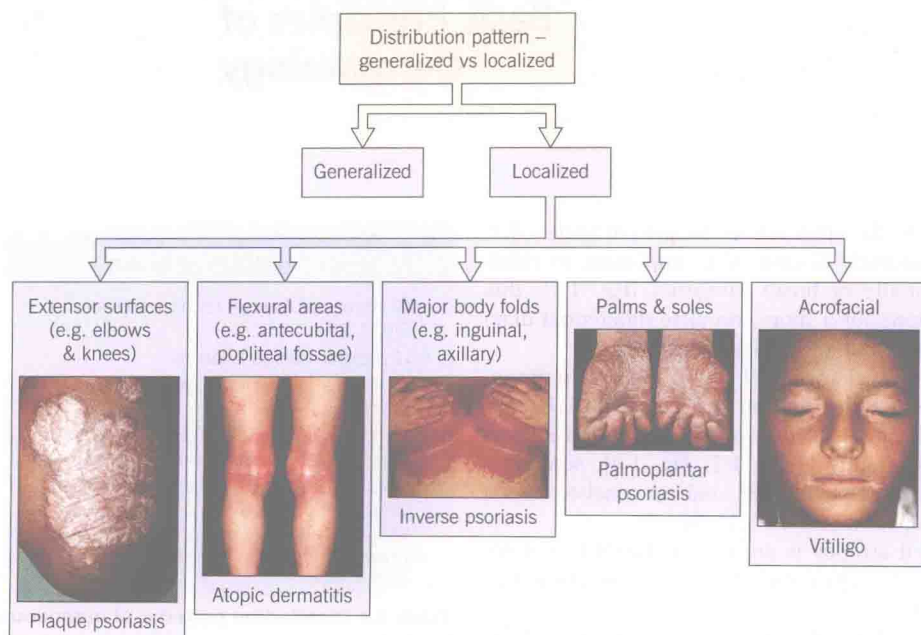


Fig. 1.1 Classification scheme for dermatologic disorders. This scheme is analogous to the structure of a tree with multiple branch points terminating in leaves.

## DISTRIBUTION PATTERN – GENERALIZED VERSUS LOCALIZED



**Fig. 1.2 Distribution pattern – generalized versus localized.** In addition to these patterns, involvement of multiple mucosal sites can be seen. Photographs courtesy, Peter C. M. van de Kerkhof, MD, Thomas Bieber, MD, and Julie V. Schaffer, MD.

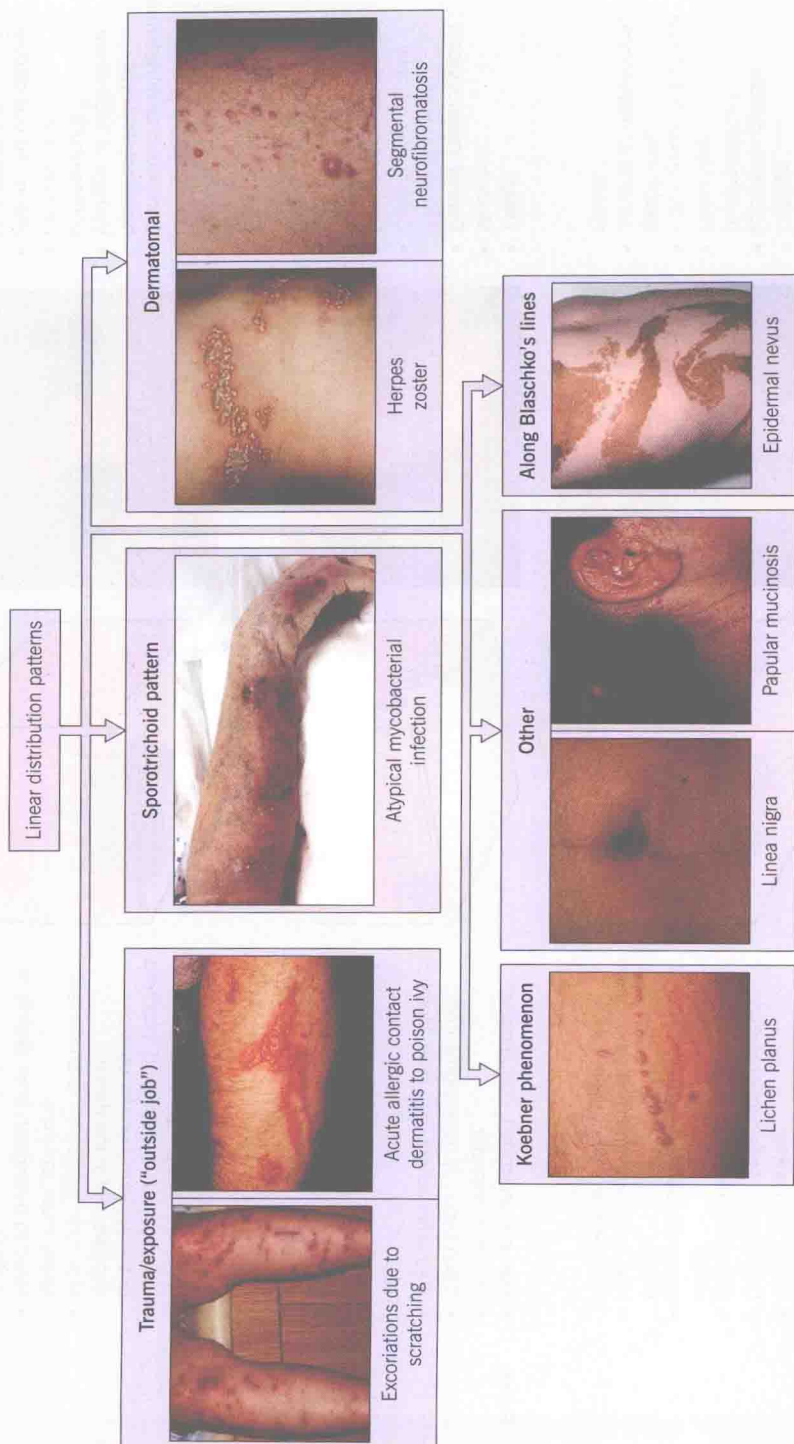
(Appendix) such that an inflammatory lesion that appears pink in a patient with skin phototype I may appear red-brown to violet in a patient with skin phototype IV.

- The acuteness versus chronicity of the eruption provides additional information and with experience can often be determined without a history; Table 1.6 outlines major causes of acute eruptions in otherwise healthy individuals.

- Given the relative ease of obtaining skin biopsies, clinicopathologic correlation is a keystone of dermatologic diagnosis; however, it is important to choose the ideal lesion (e.g. in an inflammatory disorder, one that is fresh but well-developed), as well as the most appropriate type of biopsy (Fig. 1.6).

- For inflammatory disorders, there is a classification schema in which they are divided into major histopathologic patterns (Fig. 1.7); several side-by-side comparisons of clinical presentations with histologic findings illustrate the concept of clinicopathologic correlation (Figs. 1.8–1.13).

- In an analogy to dermatopathology, the clinician often looks at the patient at 'medium-power' (i.e. 20×), but it is also important to analyze the patient at low-power (4×), thus appreciating the overall pattern, as well as high-power (100×); the latter is aided by the use of dermoscopy (Figs. 1.14 and 1.15).



**Fig. 1.3 Linear distribution patterns.** Photographs courtesy, Kathryn Schwarzenberger, MD, Jean L. Bolognia, MD, Whitney High, MD, Joyce Rico, MD, and Louis Fragola, MD.