# "Dermatitis" Defined

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***Background:*** **The term "dermatitis" can be defined narrowly or broadly, clinically or histologically. A common and costly condition, dermatitis is underresourced compared to other chronic skin conditions. The lack of a collectively understood definition of dermatitis and its subcategories could be the primary barrier.**

***Objective:*** **To investigate how dermatologists define the term "dermatitis" and determine if a consensus on the definition of this term and other related terms exists.**

***Methods:*** **A seven-question survey of dermatologists nationwide was conducted.**

***Results:*** **Of respondents ($n = 122$), half consider dermatitis to be any inflammation of the skin. Nearly half (47.5%) use the term interchangeably with "eczema." Virtually all (> 96%) endorse the subcategory "atopic" under the terms "dermatitis" and "eczema," but the subcategories "contact," "drug hypersensitivity," and "occupational" are more highly endorsed under the term "dermatitis" than under the term "eczema." Over half (55.7%) personally consider "dermatitis" to have a broad meaning, and even more (62.3%) believe that dermatologists as a whole define the term broadly.**

***Conclusion:*** **There is a lack of consensus among experts in defining dermatitis, eczema, and their related subcategories.**

DERMATITIS, narrowly defined, is characterized clinically by acute pruritus, erythema, and vesiculation and by chronic lichenification, hyperkeratosis, and fissuring. Some use the term more broadly to describe any inflammation of the skin. Histologically, dermatitis, when narrowly defined, denotes spongiosis. A broader definition may include "interface dermatitis" in connective tissue disease or papulosquamous disorders such as lichen planus. The terms "dermatitis" and "eczema" are sometimes used interchangeably.[1] Others use the term "eczema" only to refer to atopic dermatitis.[2]

Atopic dermatitis is one of the most common types of dermatitis. In a cross-sectional study performed among servicemen and servicewomen deployed in Operation Iraqi Freedom, eczematous dermatitis was by far the most prevalent diagnosis (17%).[3] Direct costs alone associated with atopic dermatitis (doctor visits, medicine, hospitalizations) exceed $3 billion (US) per year; this figure does not include indirect costs (over-the-counter remedies, days lost from work), which make up 75% of total costs.[4]

Among clinicians and researchers, there is a consensus that eczema is underresourced as compared to other chronic diseases.[5] The barrier to research and patient advocacy in this area is presumably due to the lack of a comprehensive (ie, clear and collectively understood) definition of eczema.[5] The discussion can be expanded to include the eczema or dermatitis subcategories (including atopic, contact, systemic hypersensitivity, etc).

In this study, a survey was designed to investigate how dermatologists nationwide define and clinically categorize the terms "dermatitis" and "eczema."

## Materials and Methods

A seven-question survey was created by the authors (Fig 1). The survey was validated for clarity and intent by four full-time faculty members and residents in the Department of Dermatology at University Hospitals Case Medical Center (UHMC). The survey was administered with the SurveyMonkey Web-based survey tool available at <http://www.surveymonkey.com>. The UHMC Institutional Review Board reviewed the protocol and considered it exempt. The study group was drawn from the membership rosters of the Association of Professors of Dermatology (APD) and the American Contact Dermatitis Society (ACDS). The survey Web link was made available via E-mail to the study group, which consisted of 246 APD members and 522 ACDS members. The survey remained open for collection for approximately 2 weeks. Completed surveys were identifiable only by Internet Protocol (IP)

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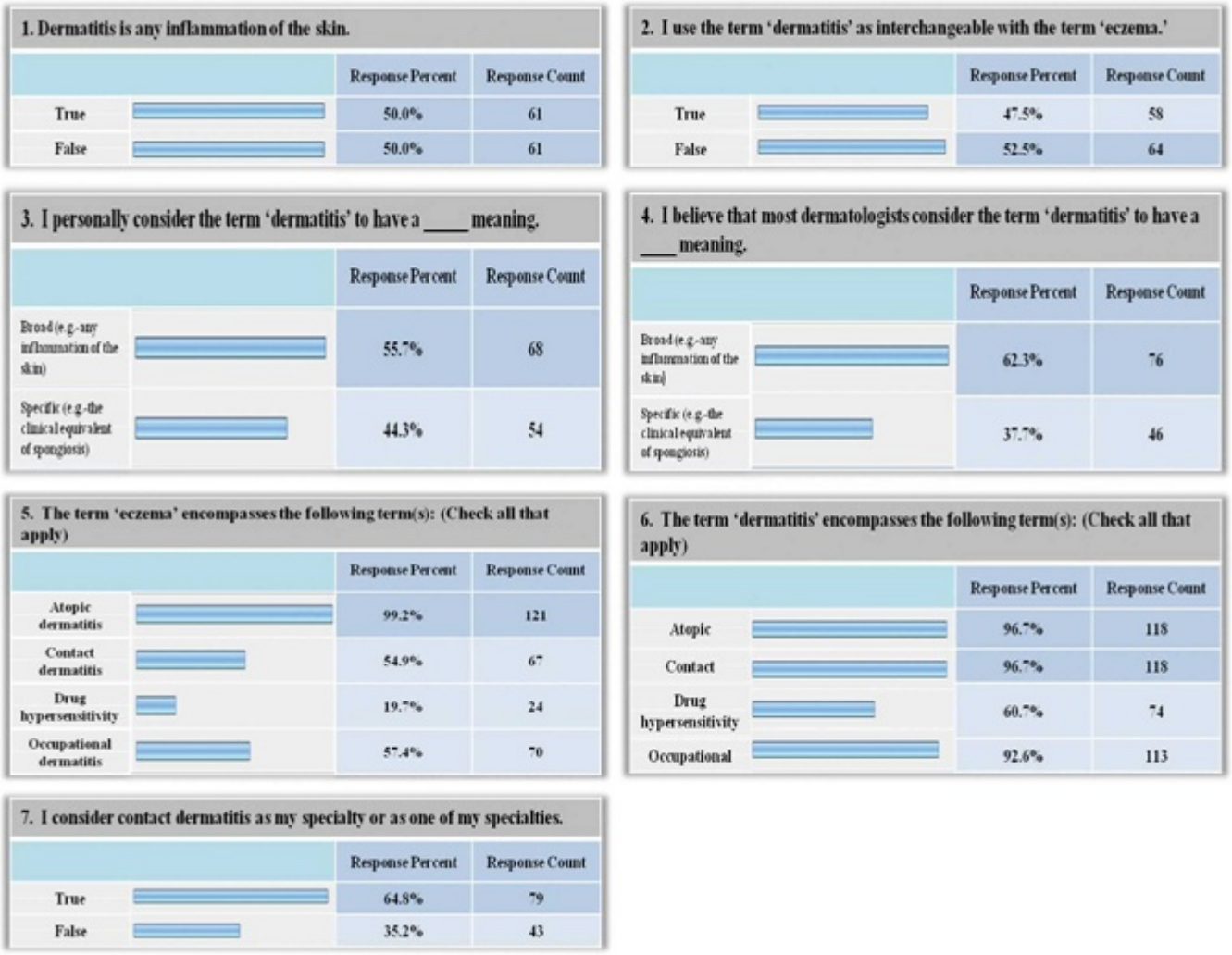



**Figure 1.** Summary of survey responses.

addresses, such that any results from duplicate IP addresses could be corrected in the event of duplicate submission. SurveyMonkey analysis provided a response summary including the response count and percent for each question, in addition to filter and crosstab features. Respondents were stratified into two groups according to whether they identified themselves (in question 7) as specializing in contact dermatitis.

A two-tailed *z* test was performed on the answers to questions 1, 2, 3, and 4 when stratified in this manner.

## Results

On survey closure, 122 responses had been received and were available for analysis; 54 responses from the APD E-mail list were received, and 68 were received from the ACDS. The results are summarized in Figure 1.

Stratified according to responses to question 7, 79 respondents identified themselves as specializing in contact dermatitis, and 43 indicated that they did not specialize in contact dermatitis. Two-tailed *z* test evaluation revealed a *p* value greater than .05 for all questions (ie, questions 1, 2, 3, and 4). There was no statistically significant difference in the manner in which the two groups responded.

## Discussion

At first glance, the sentence "dermatitis is any inflammation of the skin" may seem a simple statement. Dermatologists nationwide, however, are split on the validity of this definition. Exactly 50% endorse this statement as true; the other half consider it false (see Fig 1). The reason for this disagreement could be vague phrasing but is more likely a lack of consensus on the

definition of the term ''dermatitis.'' Similarly, nearly half of respondents reported using the terms ''dermatitis'' and ''eczema'' interchangeably, and half did not. Using these terms interchangeably implies that one defines the two terms in the same manner—as identical or as exceedingly similar. Whether respondents also considered the terms to be mutually exclusive was fleshed out further in question 5, which asked which conditions ''eczema'' encompasses. Dermatologists universally said that eczema includes atopic dermatitis, but 54.9% and 57.4% respectively said that eczema also includes contact dermatitis and occupational dermatitis. ''Eczema'' cannot exclusively refer to atopic dermatitis when such impressive percentages go to the contact and occupational subcategories as well.

Atopic dermatitis was virtually equally endorsed under the terms ''eczema'' and ''dermatitis'' (both $>$ 96%). However, the terms ''contact,'' ''drug hypersensitivity,'' and ''occupational'' were more highly endorsed under the term ''dermatitis'' than they were under the term ''eczema.''

Sixty-two percent of respondents thought dermatologists as a whole think of dermatitis broadly, versus only 44.3% who said they personally define dermatitis broadly; rather, they considered dermatitis to have a specific meaning or to be the clinical equivalent of spongiosis. This discrepancy between how one personally views the issue versus how one feels one's colleagues as a whole view the issue is a notable point. The lack of consensus in the dermatologic community as to the meaning of these terms perhaps pushes individual physicians to adopt what they consider a personal approach to the subject, both academically and clinically.

Because 61% of respondents included drug hypersensitivity among the conditions encompassed by the term ''dermatitis'' but 44% defined dermatitis as the clinical equivalent of spongiosis, then 17% either believe that spongiosis is consistent with drug hypersensitivity or do not use the term ''dermatitis'' consistently themselves.

One respondent commented that he views dermatitis as acute and eczema as chronic, a notion that was not addressed by this survey.

The limitations of the study may include its small size and the brevity of the survey. The survey was beta-tested for clarity and leading opinions by UHMC faculty members.

## Conclusion

There is a lack of consensus among experts as to the definitions of the terms ''dermatitis'' and ''eczema.'' Disagreement also surrounds the subcategories these terms encompass. Although the objective of this study was to determine if dermatologists are in consensus, a global goal of the study was to achieve a working definition that would be accepted as a standard in the field. Dermatitis and eczema conditions are extremely common, and proper terminology is necessary for appropriate research funding and patient advocacy.

We recommend using the terms ''dermatitis'' and ''eczema'' with a preceding qualifier or descriptor. Some dermatologists use just the term ''eczema'' to imply atopic dermatitis, but others do not, so specificity is required for widespread understanding. This issue is much more than semantics. Without comprehensive definitions of the terms ''dermatitis,'' ''eczema,'' and what they encompass, research completed in the field will continue to be difficult to understand, translate, and compare.

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