

# Mnemonics to Help Identify Melanoma

By Julie K. Karen, MD



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When diagnosed and treated at an early stage, all skin cancers, including melanoma are highly curable. As dermatologists, we devote hours each day to evaluating every millimeter of our patients' skin for lesions that demonstrate clinical or dermoscopic features of melanoma. The rapidity with which melanoma can progress means that even consistent annual skin examinations paired with perfect diagnostic accuracy would not guarantee zero mortality.

Therefore, it is prudent for us to educate our patients (and the public in general) about the warning signs of skin cancer to increase their chances of detecting a suspicious lesion before it is too late. Monthly self-examinations are important, but most patients are terrified of their own skin and find the task daunting. Regrettably, it is estimated that less than 20% of the population currently performs self-examination. [1]

Several mnemonics assist in simplifying common diagnostic features of melanoma. In 1985, the Skin Cancer Foundation widely propagated the "ABCDs of melanoma", raising widespread awareness of the warning signs of this potentially deadly skin cancer. [2] The message was clear: lesions demonstrating asymmetry, border irregularity, color variability (heterogeneity), and/or large (>6 mm) diameter should warrant prompt professional evaluation and consideration of biopsy.

Twenty-five years later, the same pigmented lesion experts at NYU who had coined the initial mnemonic expanded it to the ABCDEs of melanoma. [3] Inclusion of E for evolution helped to capture nodular melanomas

(classically among the most aggressive of melanomas, characterized by rapid, vertical growth). Nodular melanomas often lack the ABCDs and thus appear more clinically banal/homogenous. Furthermore, asking individuals to focus on lesions that demonstrated change (evolution in size, shape, color, or symptoms) paid tribute to the fact that while most melanomas (70 to 80 percent) arise on previously normal appearing skin, 20 to 30 percent arise in pre-existing nevi.

The ABCDEs has recently undergone further evolution among pigmented lesion experts. Spearheaded by two dermatologists with expertise in skin cancer (Dr. Elizabeth Hale and Dr. Stuart Goldsmith), “D for darkness” has been highlighted as a common and critical feature of many melanomas. [4] Darkness, importantly, sometimes stands alone as a warning sign for melanoma. While it is true that lesion diameter has some relevance (larger nevi are more likely to progress to melanoma relative to their smaller benign counterparts), encouraging the public to ignore smaller lesions may result in failure to diagnose melanoma at the earliest and most curable stage.

In retort, some argue that not all melanomas are dark. Indeed, a rare form, amelanotic melanomas, can be faint pink or pearly white. These lesions are often missed due to their atypical features. However, most melanomas are dark and their contrast to less pigmented background skin is readily identifiable.

Whether diameter should persist as a major criterion is also up for debate. A good rule of thumb is to urge individuals to pay close attention to clinically atypical lesions that are larger than 6 mm (a pencil eraser); however, new or evolving lesions warrant close attention and prompt evaluation irrespective of their size.

An additional useful mnemonic to share with patients is “new, changing or unusual.” This simple yet relevant catchphrase was first coined in 2019 amidst the Skin Cancer Foundation’s The Big See campaign. Unlike the ABCDEs, this mnemonic’s focus on those lesions that are new, evolving, or distinct from all other lesions on an individual’s skin empowers individuals to potentially detect less common, but often aggressive forms of skin cancer, including Merkel Cell Carcinoma.

Encouraging our patients to perform self-examination and equipping them with these potentially lifesaving tools should be routine.

1. Weinstock MA, Martin RA, Risica PM, et al. Thorough skin examination for the early detection of melanoma. *American Journal of Preventive Medicine*. 1999;17(3):169.
2. Rigel DS, Friedman RJ. The rationale of the ABCDs of early melanoma. *J Am Acad Dermatol*. 1993 Dec;29(6):1060-1
3. Rigel DS, Friedman RJ, Kopf AW, Polsky D. ABCDE – an evolving concept in the early detection of melanoma. *Arch Dermatol*. 2005 Aug;141(8):1032.
4. Ask the expert: why have your “ABCDEs” for the warning signs of melanoma changed? [www.skincancer.org](http://www.skincancer.org)