

# Choosing the Right Sunscreen in Communities of Color

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## INTRODUCTION

Sunscreen use in skin of color is a topic that continues to require in-depth discussion and dialogue around its practices. In the context of popular culture and media, people of color are often not portrayed in mainstream sunscreen advocacy narratives. Marketing efforts have traditionally focused on the Eurocentric health concerns of fairer skinned individuals. In national marketing campaigns, important sunscreen concerns for communities of color, such as pigmentary disorders, often take the backseat to the skin cancer concerns more prevalent in fair skinned populations. Without proper representation as consumers, this leaves diverse communities to rely on the expertise of trained healthcare professionals to not only inform them of sunscreen's photoprotective benefits but to provide insight on products appropriate for their specific skin needs.

When exploring the benefits of photoprotection in diverse populations, it is noteworthy to state that hyperpigmentation is one of the most common concerns for ethnic patients,<sup>1</sup> and post-inflammatory hyperpigmentation impacts self-esteem and quality of life.<sup>2</sup> Adverse effects of ultraviolet (UV) light exposure in communities of color range from but are not limited to exacerbation of post inflammatory hyperpigmentation (PIH), visible photoaging, and worsening melasma in addition to keratinocyte carcinomas.<sup>3</sup> Melasma, in particular, is worsened by visible light, and a 2015 study demonstrated that tinted formulas containing iron oxide was particularly effective in preventing melasma relapse.<sup>4</sup> Even in the absence of a pigmentary disorder, Dumbuya et al found that iron oxide formulations were more effective in preventing visible light-induced pigmentation compared to non-tinted mineral sunscreens with sun protection factor (SPF) 50 in skin of color patients.<sup>5</sup> Thus, iron oxide-containing, tinted sunscreen, products may play a larger role in the future for darker skinned individuals. Alexis et al placed PIH in the top five of all diagnoses for African Americans, further highlighting the importance of regular sunscreen use to limit the progression of PIH.<sup>1</sup>

Compounds found in chemical sunscreen such as avobenzene, oxybenzone, and octocrylene, have garnered

popularity due to their "invisible" properties that make for desirable application in patients of color. Recent data, however, questioning the safety of chemical sunscreens have sparked public concern. In a clinical trial conducted to analyze the impact of active ingredients in chemical sunscreen application on healthy individuals, increased plasma concentrations were found that surpassed Federal Drug Administration (FDA) safety threshold regulations.<sup>6</sup> The physiological impact of these findings are still under investigation, and their long-term implications are unknown. The absorptive properties of chemical sunscreens may also contain allergens that can potentially aggravate patients with sensitive skin. In light of these findings, sunscreens with mineral based sunscreens such as titanium dioxide and zinc oxide that provide broad-spectrum UV protection, limited skin penetration, and compatibility with sensitive skin may be preferable.<sup>3</sup> While demonstrably safer, these physical blockers may not be as visually appealing for patients of darker Fitzpatrick types due to the potential for white cast formation, which further highlights the need for dermatologists to carefully select the proper products for patients of color.

To further complicate the issue of sunscreen availability, one study demonstrated that sunscreen products were twice as prevalent in non-Hispanic White Chicago neighborhoods compared to Hispanic neighborhoods, and there was a larger selection of product in the non-Hispanic White locations.<sup>7</sup> Thus, people of color may not have access to the diverse array of sunscreen options that may be found in more upscale suburban communities.

With the growing diversity of sunscreen products on the market, are we as dermatologists appropriately educating our diverse patients not just on the need for sunscreen, but also regarding the preferred types of sunscreen for patients of color? Providers should be familiar with sunscreen brands that provide broad spectrum coverage but also accommodate the needs of darker complexions by not leaving an unwanted white cast. Simply telling your patients of color to run to the nearby drug store and pick up sunscreen will not suffice in this

population. Dermatologists should familiarize themselves with other factors that complicate sunscreen selection such as oily skin, which may play a factor in patients of color.

Clinicians unfamiliar with sunscreen products can encourage their patients to look for brands that utilize mineral based and reference “for all complexions” or “skin types” on the label. However, a carefully curated list would be most beneficial for patients. When constructing this list, take into consideration the protective effects iron oxide has on specific concerns for PIH and melasma exacerbation. Iron-oxide sunscreens are often tinted, which is a useful tip that clinicians can share with their patients. A blanket statement on the importance of sunscreen without further inquiry into patient concerns regarding dyspigmentation, skin cancer, and photoaging would be a disservice to this skin of color patient population. Understanding nuances that make sunscreen use appealing and beneficial in diverse patients is the level of expertise people of color seek to encounter when visiting a board-certified dermatologist.

This responsibility does not fall on dermatologists alone. Finding sunscreen brands that meet demands of darker complexions on the market can be very frustrating for patients and physicians alike. It is unacceptable for there to be so few options for people of color to choose from when there is so much product availability and variation for the majority. Dermatology governing bodies and individual dermatologists should leverage relationships with the FDA and sunscreen manufacturers to call to action development of products that satisfy the needs of ethnic groups who remain often overlooked and left out of the conversation. While some sunscreen companies are beginning to engage patients with skin of color through marketing, more companies need to follow suit.

Sunscreen manufacturers must become more transparent in their labeling of products. The overwhelming number of products found in drug stores and online boutiques should enforce labeling that clearly states a sunscreen can be used “for all complexions.” We must call on the action of the FDA to ensure that sunscreen companies are not just stating they are “inclusive,” but are actually effective and visually desirable for all skin types. This may require the FDA to expand recommendations for testing populations and hold clinical trials that are influenced by the criticisms and opinions of darker Fitzpatrick-typed participants. This use of inclusive labeling will not only ensure people of color are aware of the preferred sunscreens for their skin type but will provide a simplified consumer experience when purchasing these products in stores.

Sunscreen use in skin of color is a multi-faceted issue that requires the active attention and participation of all healthcare stakeholders. Apart from popular magazines and celebrity

focused articles, there is currently no specific literary review or database that compiles sunscreen options available for people of color. Stronger efforts toward increasing the diversity of sunscreen products in minority neighborhoods, raising awareness regarding the need for sunscreen for patients of color not solely for skin cancer prevention but also for certain pigmentary disorders and hyperpigmentation purposes, and closing the knowledge gaps of dermatologists regarding the many types of sunscreens and the appropriate indications for their use in this community are initial steps necessary to move towards inclusion. We must rely on dermatologists to be allies in spaces where the needs of diverse populations go unnoticed. Healthcare providers, sunscreen manufacturers, and regulatory government entities must each play a role in ensuring that people of color feel a part of photoprotective efforts and can find products that are essential to their health and overall wellbeing.

## DISCLOSURES

The authors have no conflict of interest to declare.

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