



## **Skin of Color: Post-Inflammatory Hyperpigmentation (PIH)**

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Post-inflammatory hyperpigmentation (PIH) is one of the most common skin problems that patients with skin of color experience. The term 'PIH' simply means a dark mark or patch on the skin that results from inflammation. There are many types of inflammatory processes that lead to PIH in skin of color patients, and they range from rashes to insect bites, to even cosmetic procedures. However, acne is the most common reason for PIH to develop in the skin of color patient.

All patients are seeking new and better treatments to lighten PIH. Although skin lightening and exfoliating creams, as well as procedures such as chemical peels and lasers, can help to lighten the dark areas of PIH, many patients and their physicians forget the critical importance of sun protection in the treatment.

Why is sun protection important in the treatment of PIH? Unfortunately, exposure to the sun stimulates the melanocytes that produce the dark pigmentation, which, in turn, will make the dark area even darker. This will make it more difficult for the treatment to be effective.

An 18-week study, performed by Chu, looked at the ability of a broad spectrum SPF 30 sunscreen applied to the face and body to lighten patches of PIH by blocking ultraviolet B and ultraviolet A rays. They found that after only eight weeks of sunscreen use, the PIH lightened significantly. This lightening occurred without the use of prescription creams or procedures. This study demonstrates that just by blocking ultraviolet A and B rays, PIH can and does improve.

There is new research that evaluated the effect of visible light on pigmentation in skin of color patients. These investigators demonstrated that visible light can produce pigmentation that is very dark in color and lasts longer than pigmentation caused by ultraviolet A light. This has very important clinical implication on the management of PIH and other pigmentary disorders, such as melasma.

Thus, patients with PIH should consider using sunscreens that not only block ultraviolet A and B rays, but they should choose those with better coverage in the visible light range. Although opaque physical sunscreens are much more effective in the visible light range than chemical sunscreens, the addition of a visible light absorber, such as 1% iron oxide, can substantially increase protection from the sun. This new information may provide an easy and helpful way to improve PIH in skin of color patients.