Recent Findings on Skin Cancer and Photoprotection

Five recent studies highlight the efficacy and importance of photoprotection efforts.

1. **Sunless Tanner Use Does Not Preclude UV-Tanning.** Young individuals who use sunless tanners are not necessarily more sun-safe (Arch Dermatol;146(9):987-992). Surveys of more than 1,600 adolescents aged 11 to 18 years and their caregivers found that 10.8 percent of adolescents use sunless tanners. Users of sunless tanners were more likely to be older and female, to perceive a tanned appearance as desirable, and to hold positive beliefs or attitudes about sunless tanners. Use of sunless tanning products was independently associated with indoor tanning and higher frequency of sunburn.

2. **Higher SPF Sunscreens Offer More Protection.** A high SPF may compensate for under-application of sunscreens, new research suggests. The study presented at the AAD Meeting in New Orleans found that SPF levels are directly linearly correlated with the application densities for high SPF formulations (P3104). Researchers tested SPF values of six sunscreen formulations and found that the higher SPF sunscreens provide statistically superior protection than lower SPF sunscreens in real-life situations when patients under-apply the products.

3. **Education on Year-round Sunscreens is Key.** Sunscreen use should not be limited to particular seasons or “sunny” days. A new report finds that the strongest predictors of UV are temporal proximity to noon, deviation from winter solstice, and clear skies, while altitude and latitude and temperature had more modest associations with UV (Arch Dermatol. 146(11):1241-1247). Researchers concluded that future sun safety promotions should encourage adults to wear sunscreen on cloudy days because UV is still high and conditions can change rapidly and to rely more on season and time of day to judge UV.

4. **Long-Term Use of Sunscreens Decreases Melanoma Risks.** Contrary to previous assertions, a new study suggests that consistent use of sunscreens over long periods of time decreases the risk of cutaneous melanoma (American Society of Clinical Oncology, Sept 2010). In 1992, participants were randomly assigned to daily or discretionary sunscreen application to head and arms for four years. Researchers observed participants for 10 years thereafter with questionnaires and/or pathology labs. They found 11 new primary melanomas in the daily sunscreen group and 22 in the discretionary group. In addition, the reduction in invasive melanomas was substantial compared with that for pre-invasive melanomas.

5. **Zinc and Titanium Products Safe for Use.** Amidst controversial claims about organic sunscreens, many patients are reaching for zinc- and titanium-based sunscreens. New research confirms that these elements do not penetrate the skin (P3101, AAD 2011). Using confocal laser scanning microscopy, researchers determined that micronized particles of zinc and titanium in a sunscreen formulation were not detectable in layers of the skin deeper than the stratum corneum and thus are safe for use.