

# WHICH BLOCKS FOR YOU?



*Sun safety is vital to your skins youth!*

By Dr. Todd Schlesinger

not absorbed and either reflects sunlight off the skin or scatters it. A list of common sunscreen ingredients may be found in Table 1.

In 1999, the FDA came under pressure to enforce mandatory standards for sunscreen as dermatology groups, cancer organizations and various other agencies made a push for tighter regulation. With the rising incidence of skin cancer and death rates from melanoma, the FDA developed draft guidelines that contained a list of allowed sunscreen ingredients and required manufacturers to test their products for SPF, and provided methods to determine the water-resistance of a sunscreen. Unfortunately, those guidelines only applied to ultraviolet B (UVB), just one component of the harmful rays of the sun. Ultraviolet A (UVA) rays, now known to be a cause of premature aging and a major contributor to skin cancer development were left out of the picture, while other countries had already adopted stricter standards. The FDA's passivity soon prompted watchdog organizations such as the Environmental Working Group (EWG) to charge that U.S. sunscreen manufacturers were free to market products without first proving their effectiveness.

Skin cancer diagnoses are on the rise as more than one million cases of skin cancer will be diagnosed this year. Since May is Melanoma Awareness Month, I thought it would be a good time to highlight some new information about sunscreen and make you aware of some things you can do to reduce your risk of getting skin cancer.

There has been a lot of controversy surrounding sunscreen, how well it works to block the various harmful rays of the sun and how long it lasts. Sunscreen is defined as a topically applied product with a Sun Protection Factor (SPF) of 2 or above. Sunblock has to have an SPF of 12 or higher and must contain a physical block. Many products contain a mixture of physical and chemical block ingredients. A chemical block can be absorbed by the skin. When it absorbs sunlight, it protects the skin but is degraded over time. A physical block sits on the skin's surface, is

In 2006, nine class action lawsuits were filed in California against five manufacturers of sunscreens (Coppertone, Hawaiian Tropic, Neutrogena, Bullfrog, and Banana Boat) claiming fraud, false advertising and misleading claims. Continued urging by U.S. congress in the form of letters to the agency resulted in the most recent monograph issued by the FDA, which primarily regulates all sunscreen products on the market in the United States.

The new monograph contains several components including a list of permitted active sunscreen ingredients, what concentrations they may be used at, and what combinations of ingredients may and may not be used. Additionally, the FDA proposed to have a cap on UVB SPF ratings of 50+ and suggested a 4-star UVA rating system based on tests both in the lab and in the real world. The previous cap of 30+ was felt to be inadequate to provide proper protection

according to many dermatologists. The American Academy of Dermatology proposed a higher cap mainly because studies suggested that people apply less sunscreen than has been traditionally used in tests, resulting in a lower SPF. The new monograph is not in force at this time as there is a commentary period followed by an 18 month time period given to manufacturers to comply with the new regulations.

Another new sunscreen development was the FDA approval of sun protection products containing Mexoryl SX (ecamsule) and avobenzone, both UVA filtering ingredients. Table 2 lists some products containing Mexoryl SX that are currently available in the United States.



When recommending sunscreen to my patients, I tell them to use a broad-spectrum UVA and UVB sunscreen that contains among other things a combination of zinc oxide, titanium dioxide or Mexoryl. The Blue Lizard and SkinCeuticals sunscreens are highly rated and contain a micronized version of zinc oxide that is virtually colorless when applied to the skin. I also tell them to check the expiration dates on products. Often, it is best to purchase new sunscreen at the start of each summer as extreme temperatures, such as being in a hot car or at the beach, can shorten a sunscreen's useful life.

Key things to remember about skin cancer prevention: apply sunscreen 30 minutes before going outside to allow it to penetrate to the lower layers of the skin; avoid the sun between the hours of 10 AM and 4PM when UV rays are most direct; reapply sunscreen liberally and often, especially after sweating or getting wet; limit your sun exposure time and get an annual skin exam by a board-certified dermatologist. Other must-have sun protection includes sunglasses and physician-endorsed sun protective hats and clothing.

During the month of May, I will be part of a team of dermatologists going to Columbia to provide skin cancer screening to our statehouse members in addition to providing public screenings at no charge in conjunction with Roper St. Francis Healthcare.

## TABLE 1:

Ingredient Name	Absorbed Rays
Aminobenzoic acid	UVB
Avobenzone	UVAI
Cinoxate	UVB
Dioxybenzonw	UVB, UVAIL
Ecamsule	UVAIL
Ensulizole	UVB
Homosalate	UVB
Meradimate	UVAIL
Octocrylene	UVB
Octinoxate	UVB
Octisalate	UVB
Oxybenzone	UVB, UVAIL
Padimate O	UVB
Sulisobenzone	UVB, UVAIL
Titanium dioxide	Physical (UVA, UVB)
Trolamine salicylate	UVB
Zinc oxide	Physical (UVA, UVB)

## TABLE 2:

### Mexoryl SX Products in US

SkinCeuticals Active Defense SPF 15  
 La Roche-Posay Antihelios  
 L'Oréal RevitaLift UV  
 Vichy Capital Soleil  
 Lancôme UV Expert 20



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