



A Message From the President

Fall is here, and children are heading back to school. For many children and adolescents, sun protection ends with the summer, but that is a mistake parents can't let happen. Sun safety is essential in every season. It is especially important for children, whose skin is particularly sensitive to the sun.

The sun's ultraviolet A (UVA) and ultraviolet B (UVB) radiation, both of which are key causes of skin cancer, are always present. While UVB rays are most intense in summer, up to 95 percent of the UV radiation reaching the earth is UVA, which is emitted in about equal intensity throughout the year.

Just one blistering sunburn (which can occur at any time of the year) in childhood or adolescence more than doubles a child's chances of developing melanoma later in life. In fact, your child can burn even when the day is overcast — up to 80 percent of the sun's dangerous UV radiation can penetrate clouds.

Help keep your children sun-safe even after summer is over by following these tips:

1. Cover Up: Dress children in sun-protective clothes, such as long-sleeved shirts and long pants made of bright- or dark-colored, tightly woven fabrics. Dark blue denim, for example, provides very effective protection, as well as comfort and style.

2. Slather on Sunscreen: Make sure children apply sunscreen with an SPF of 15 or higher 30 minutes before leaving for school, and, if the administration permits it, encourage children to reapply it before all outdoor activities.

3. Seek the Shade: The sun is most intense between 10 AM and 4 PM. Teach children to seek the shade during recess and to wear a broad-brimmed hat and UV-blocking sunglasses when heading to or from school.

For more in-depth information, The Skin Cancer Foundation has a free educational resource online for children in grades 6-8. The SunSational Guide to Smart Sun Safety: Fun in the Sun 101 (www.SkinCancer.org/School) provides age-appropriate, medically reviewed information about UV radiation, the dangers of tanning, vitamin D, and more. The 3-D videos and quizzes are designed to appeal to students, and the curriculum meets National Health Education Standards and National Science Education Standards for teachers. We hope you and your family will take advantage of all this valuable and entertaining information. Best wishes for a healthy, happy, sun-protected autumn. ☺



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Ask the Expert

Q. Whenever I apply sunscreen, it makes my skin look white. Am I applying too much? How much sunscreen should I be using on my face and body?

A. Some common sunscreen ingredients, including the physical (or mineral) blockers zinc oxide and titanium dioxide, can make the skin look white, at least until the product is adequately absorbed. These sunscreens physically "block" skin from the sun, and they have several advantages. They tend to work immediately, unlike chemical sunscreens, which need to be absorbed before they work effectively. Titanium dioxide and zinc oxide also screen out a wide range of the sun's cancer-causing ultraviolet A (UVA) and B (UVB) radiation — zinc oxide, in particular, effectively blocks all parts of the UV spectrum. Protection from both UVA and UVB is necessary, and some chemical sunscreens don't provide comparably broad-spectrum defense. Also, physical blockers are preferred for young children's sensitive skin, and for people who may have concerns about certain ingredients in chemical sunscreens.

In general, the higher the concentration of a physical blocking ingredient, the more effective a sunscreen is (some concentrations of zinc oxide and titanium dioxide are over 10 percent), but there are several ways to minimize the whitish appearance. You could choose a micronized formulation, which has smaller-sized, more easily absorbed sunscreen particles. Another option is a tinted sunscreen that matches your skin color. Or you could use a sunscreen with chemical blockers in lieu of, or in combination with, physical blockers. The chemical blocker avobenzone, for example, has a long track record of safety and tolerability, and leaves no telltale white cast.

It is very unlikely that you're applying too much sunscreen — most people don't apply enough, which is why undesirable sunburns and tanning can occur despite sunscreen



Elizabeth K. Hale, MD

application. To achieve the Sun Protection Factor (SPF, which protects against the sun's UVB radiation) reflected on a bottle of sunscreen, you should use approximately two milligrams of sunscreen per square centimeter of skin. In practice, this means applying the equivalent of a shot glass (two tablespoons) of sunscreen to the exposed areas of the face and body — a nickel-sized dollop to the face alone. If you're using a spray, apply until an even sheen appears on the skin. Remember that sunscreen needs to be reapplied every two hours, or more frequently after swimming, heavy perspiration, or toweling off. Also remember, no matter how much sunscreen you apply, the SPF should be 15 or higher for adequate protection — and ideally 30 or higher for extended time spent outdoors.

Apply the equivalent of a shot glass (two tablespoons) of sunscreen to the exposed areas of the face and body...



In addition to using sunscreen, seek shade whenever possible, and wear sun-protective clothing, broad-brimmed hats, and UV-blocking sunglasses. ☺

Our guest expert for this issue is dermatologist Elizabeth K. Hale, MD, Clinical Associate Professor of Dermatology at the New York University School of Medicine. Dr. Hale is a member of the American Academy of Dermatology, American Society of Dermatologic Surgery, American College of Mohs Surgery, American Society of Lasers in Medicine and Surgery, and the New York Facial Plastic Surgery Society. She practices dermatology at Laser & Skin Surgery Center of New York, and lectures extensively on the prevention and treatment of skin cancer.

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SUNSCREENS ARE SAFE



Recent attacks on sunscreen by the Environmental Working Group (EWG) and the media have prompted some consumers to question sunscreen safety. In the following Q & A, **Warwick L. Morison, MD**, Professor of Dermatology at Johns Hopkins Medical School at Green Spring Station, MD, debunks the EWG's claims. "The EWG has its own system for evaluating sunscreens, which is nothing more than junk science," notes Dr. Morison, chairman of The Skin Cancer Foundation's Photobiology Committee, an independent volunteer panel of experts on sun damage and sun protection.

Q: Can sunscreen cause melanoma?

Dr. Morison: Review of all studies from 1966 to 2003 shows no evidence of a relationship between sunscreen use and increased risk of melanoma, the deadliest form of skin cancer.

The increase in melanoma can be attributed to several factors, especially the growth of tanning. Both the sun and indoor tanning machines emit ultraviolet (UV) radiation, a proven cancer-causing agent.

Q: Are high SPFs and terms such as "broad-spectrum protection" misleading?

Dr. Morison: "Broad-spectrum" and "multi-spectrum" protection mean only that a sunscreen offers protection against parts of the UVA and UVB

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spectrums. The entire UV range is harmful, so broad-spectrum protection does not mean complete protection.

SPF — sun protection factor — refers specifically to how much protection is offered against UVB. An SPF 15 sunscreen

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screens out 93 percent of the sun's UVB rays, while SPF 30 protects against 97 percent and SPF 50 98 percent. *In most cases, SPFs beyond 50 are unnecessary.*

Q: Do sunscreens fail to protect adequately against UVA radiation?

Dr. Morison: In the past, sunscreens focused almost exclusively on preventing sunburn, which is primarily caused by UVB; high-SPF sunscreens were dedicated mainly to screening out UVB. Today, several good ingredients are devoted to UVA protection. To make sure you have effective UVA/UVB coverage, look for a sunscreen with an SPF of 15 or higher, plus some combination of the following UVA-screening ingredients: avobenzone, ecamazole, oxybenzone, titanium dioxide, and zinc oxide.

Q: Does sunscreen lead to vitamin D deficiency?

Dr. Morison: Solar UVB rays are a source of vitamin D, and UVB sunscreens are designed to filter them out. However, no study has ever shown that sunscreens lead to vitamin D deficiency. Just a few minutes in the sun produces as much vitamin D as the body can manufacture,

and excessive sun exposure actually *depletes* the body's supply. Furthermore, the vitamin D benefits of sun exposure cannot be separated from its harmful effects: skin cancer, cataracts, immune system suppression, premature aging. The safest way to obtain vitamin D is through diet and supplements. [The Skin Cancer Foundation recommends 1,000 mg. of vitamin D daily.]

Q: Do the sunscreen ingredients oxybenzone and retinyl palmitate cause cancer?

Dr. Morison: There is no evidence that oxybenzone, which is FDA-approved and has been available 20 years, has any adverse health effect in humans.

Retinyl palmitate, a common sunscreen ingredient in trace amounts, is a form of vitamin A, and no scientific evidence shows that vitamin A causes cancer in humans.

The EWG based its criticisms of retinyl palmitate on an unpublished, unapproved 10-year-old FDA study of mice. As is standard practice, the FDA has held back the study because independent researchers have yet to review the data. ☐



Who Is Your Celebrity Skin Twin?



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Disturbing Melanoma News For People of Color



Anyone can develop melanoma, the deadliest form of skin cancer. Although people of color are at lower risk for the disease than Caucasians, they are more likely to be diagnosed when the disease is advanced and potentially fatal.

DELAYS CAN BE DEADLY

The earlier a melanoma is detected and treated, the better the odds of survival. But in a study of 41,072 melanoma cases

Delayed diagnoses are a major reason that the overall survival rate for melanoma in the US is only 77 percent among African Americans, versus 91 percent among Caucasians.

in Florida published in the *Archives of Dermatology*, blacks were 2.7 and Hispanics 1.6 times more likely than Caucasians to be diagnosed with advanced rather than localized disease. Compared to just 12 percent of Caucasian patients, 26 percent of blacks and 18 percent of Hispanics were diagnosed after their melanomas had spread from the original tumor site. Delayed diagnoses

are a major reason that the overall survival rate for melanoma in the US is only 77 percent among African Americans, versus 91 percent among Caucasians.

Data from 1990 to 2004 gleaned from the Florida Cancer Data System (Florida has the second highest melanoma rate in the country) also revealed that while melanoma incidence has remained stable among black men and women, it is rising among both Caucasian and Hispanic men and women. In fact, melanoma is increasing more than three percent a year in Caucasian men and women and Hispanic women. However, the percentage of melanomas diagnosed at a later stage in Caucasians *dropped* between 1990 and 2004, and there was no comparable significant decrease in black and Hispanic patients.

The study illuminates the importance of prevention and early detection for people of *all* skin colors: "While [natural] pigmentation (deeper skin color) reduces your risk of developing melanoma, it doesn't provide immunity, and in some cases rates of increase in melanoma among non-white populations are equal to those of whites," said Robert S. Kirsner, MD, PhD, the study's lead author and Vice Chairman of Dermatology at the University of Miami's Miller School of Medicine. "This suggests that the message of sun-smart behavior should be heeded by all." ☐

"My Birthday Surprise"

Melanoma Survivor Melissa Garrett Tells Her Story

"After a routine dermatology visit and biopsy, my doctor phoned one night with the horrible news that I had melanoma, the deadliest form of skin cancer. It was one week before my 37th birthday. Needless to say, my family and I were shocked. So was my doctor, since I am part Cherokee Indian, with dark hair, brown eyes and an olive complexion. I have always tanned easily and have never had any severe sunburns, so I would normally be considered at low risk for melanoma.

"My dermatologist had performed a shave biopsy (during which a layer of skin is removed) on a dark mole on the left side of my back, and it was diagnosed as a Stage I melanoma. He referred me to a surgical oncologist at East Carolina University, in Greenville, NC, and they scheduled me for immedi-



Melissa Garrett

ate surgical excision (removal) of the tumor. Luckily, after surgery the pathology report came back clear, confirming that it was an early Stage I melanoma that had not spread, so neither chemo nor radiation were required. The doctors continue to check me closely every three months. The 5 1/2-inch scar on my back took a long time to heal. Now I use sunscreen anytime I'm outdoors and also try to find other ways to protect my skin. ☐

FAST FACTS

Melanoma accounts for about three percent of skin cancer cases, but it causes more than 75 percent of skin cancer deaths.

Melanomas in African Americans, Asians, Filipinos, Indonesians, and native Hawaiians most often occur on non-exposed skin with less pigment, with up to 60-75 percent of tumors arising on the palms, soles, mucous membranes and nail regions.

Squamous cell carcinoma (SCC) is the most common skin cancer among African Americans and Asian Indians.

I WANT TO HELP SPREAD THE WORD about the prevention and early detection of skin cancer. Enclosed is my tax-deductible contribution of:

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