

## A Message From the President

With winter upon us, we hope you will continue to provide your skin with much-needed sun protection. The intensity of the sun's harmful ultraviolet (UV) radiation is *not* simply linked to air temperature, and while bright, hot, sunny days always pose UV risks, you can damage your skin on cold or cloudy days as well.

This is because even when it's overcast, between 50 and 80 percent of UV rays penetrate the clouds to reach the skin. Unfortunately not everyone is aware of this. In a recent report on the sun-protective behaviors of adults at various ski resorts in *Archives of Dermatology*, researchers discovered that among the skiers and snowboarders, "more individuals wore sunscreen, reapplied it after two hours, and wore sunscreen lip balm when skies were clear." As the authors noted, cloudy skies and colder weather actually tend to result in *more* sunburns, simply because people are less likely to protect themselves with sunscreen, UV-blocking sunglasses, hats, and other protective items when the skies are gray.

Sun protection in the winter is particularly important for winter sports enthusiasts, for several reasons:

**Reflection:** Snow and ice reflect up to 80 percent of the sun's radiation, meaning that you can be hit by these rays twice, adding to the intensity of exposure.

**Altitude:** As altitude climbs, so does UV exposure. For every 1,000 feet above sea level, your UV exposure increases by 8-10 percent. At an altitude of 9-10,000 feet, UV may be 45-50 percent more intense than at sea level.

**Wind:** You're not just facing increased intensity. Heavy winds also take their toll since they can wear away sunscreen. Be vigilant about reapplying a sunscreen with an SPF of 30+ and some combination of the UVA-blocking ingredients avobenzone, ecamazole, oxybenzone, titanium dioxide and zinc oxide every two hours.

In addition, wear wraparound-style sunglasses that block 99-100 percent of UV radiation to protect your eyes and the delicate skin surrounding them, and cover the often-ignored but vulnerable scalp and ears with a winter hat or a wide-brimmed hat. Remember, the more skin you cover, the better.

Have a wonderful holiday season and a healthy, and sun-safe, new year. ☐



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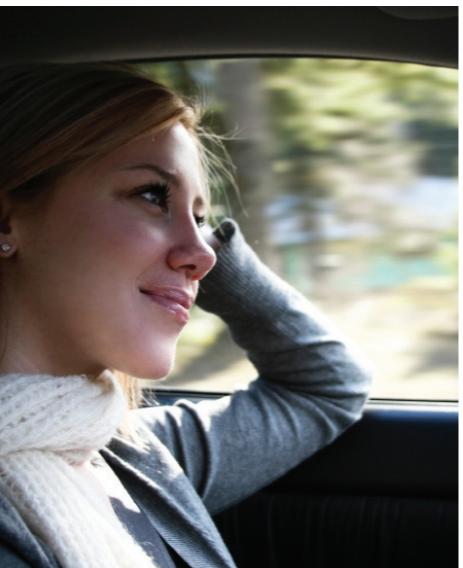
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# UV Radiation: A Danger Indoors as Well as Out

While it's understood that taking sun safety precautions is important outside, few people realize they can sustain sun damage *indoors*, too. The sun's ultraviolet (UV) radiation can penetrate windows to reach the skin, accelerating skin aging by several years, as a recent study dramatically shows.

According to an article published in *Clinical Interventions in Aging*, eight women and two men had significantly more wrinkles and sagging skin on one side of the face, even though they worked indoors. The side of the subjects' faces that was habitually closer to a window exhibited more signs of sun damage ("asymmetrical facial damage"), and ultraviolet A (UVA) rays are believed to be the culprit. While both UVA and UVB rays can harm the skin and lead to skin cancers, UVB is effectively blocked by glass. However, at least 50 percent of UVA radiation can pass through windows. (Car windows have been proven to let in more than 60 percent.)

Researchers led by Philippe Humbert, MD, head of the Department of Dermatology at the University Hospital of Besançon and Director of the Laboratory of Cutaneous Biology at the University of Franche-Comté, also in Besançon, France, recruited people who identified themselves as having asymmetrical facial damage, and had dermatologists evaluate subjects' skin.



In the majority of cases the subjects either drove vehicles for a living, or had jobs that required several hours of driving daily. In cars, windshields are laminated, and filter out UVA, but side and back windows are not. As expected, the seven people with jobs that required significant amounts of driving had significantly more direct UVA exposure on the side of the face closer to the driver's side window. This pattern was seen in non-drivers as well: For instance, a shopkeeper had more signs of aging on

**At least 50 percent of UVA radiation can pass through windows. Car windows have been proven to let in more than 60 percent.**

the side of her face regularly closer to the store window.

The researchers found that subjects' wrinkles under and around the eyes and on the cheeks were worse on the more UVA-exposed side of the face; skin texture was also rougher. The results also suggested that skin on the more UVA-exposed side of subjects' faces may be duller, dryer, and slacker, and the crow's feet deeper. As Dr. Humbert told *Sun & Skin News*, "This study shows that chronic exposure to UVA radiation accelerates the aging of skin five to seven years."

It is important to remember that in addition to accelerating skin aging, cumulative UV exposure also increases your risk of skin cancer.

As the authors concluded, "This study does suggest that daily protection against non-deliberate UVA exposure indoors, as well as outside, may be an important function of any daily sunscreen." The Skin Cancer Foundation recommends using sunscreens with an SPF of 15 or higher, and some combination of the following UVA-screening ingredients: avobenzone, ecamazole, oxybenzone, titanium dioxide, and zinc oxide. The Foundation also advises you to have special UV-protective film applied to your rear and side windows. ☐

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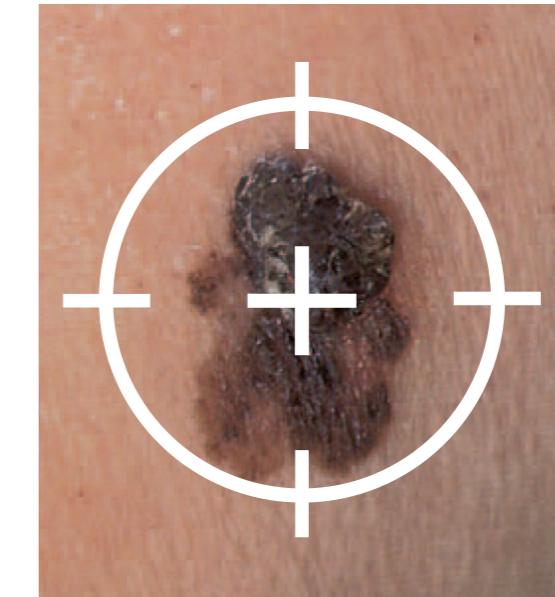
Perry Robins, MD, President

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[www.SkinCancer.org](http://www.SkinCancer.org)

Mary Stine, Executive Director

## Treatment Breakthroughs For Advanced Melanoma



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Two new experimental treatments for melanoma, the deadliest form of skin cancer, are extending patients' lives by months or even years. The treatments, PLX4032 and ipilimumab, are forms of immunotherapy, which uses medications to enhance the immune system's ability to fight disease.

### PLX4032

In a report recently published in the *New England Journal of Medicine*, patients with advanced melanoma that had spread to distant organs were treated orally with PLX4032, which targets the BRAF gene. Mutations (abnormal changes) in this gene are found in 40-60 percent of all melanomas; these mutated versions of BRAF can become stuck in the "on" position, promoting uncontrolled (cancerous) cell growth. PLX4032 can slow or even halt this growth.

In the study, 960 mg of PLX4032 given twice a day was found to be safe and effective. This dose was given to 32 melanoma patients with the BRAF mutation, and 81 percent saw their tumors completely or partially shrink. Thus far, patient responses have lasted anywhere from two to more than 18 months, significantly extending patients' lives. However, most will eventually relapse, so the researchers are seeking to



## TREATMENT BREAKTHROUGHS, cont'd. from previous page

combine PLX4032 with other therapies to help prevent recurrences.

### IPILIMUMAB

Ipilimumab has had similarly promising results. As reported at the 2010 meeting of the American Society for Clinical Oncology, in a study of 676 patients with advanced, inoperable melanoma, 24 percent of those treated with ipilimumab were alive after two years, compared with just 14 percent of patients treated with other immunotherapies.

Ipilimumab is an "anti-CTLA-4" therapy. CTLA-4 acts as a "brake" on the immune system, a protein that prevents overproduction of disease-fighting white blood cells called T-cells. Ipilimumab essentially turns off this brake; treated patients produce more healing T-cells, enabling them to mount a stronger defense against melanoma.

### SWIFT APPROVALS SOUGHT

The findings have raised hopes for quick approvals of ipilimumab and PLX4032 by the US Food and Drug Administration (FDA). The FDA most often approves

medications for sale only after successful Phase I, II, and III clinical trials have proven drug safety and efficacy. The recent ipilimumab study was a Phase III trial, and the FDA has promised to review the latest study results promptly. The treatment could be approved by early 2011.

The PLX4032 study was a Phase II trial, but "There is precedent for targeted therapies with an acceptable safety profile to be approved by the FDA on the basis of Phase II data," PLX4032 lead researcher Keith T. Flaherty, MD, of Massachusetts General Hospital Cancer Center, Boston, told *Sun & Skin News*. "In an area of unmet need like metastatic melanoma, it is our hope that the FDA would consider this [early approval], so that we can have these treatments available as soon as possible." A PLX4032 Phase III trial is ongoing, and "we will eventually have that data," noted Dr. Flaherty. "But having seen how this drug can pull patients back from the edge, I don't want to wait another year and a half or two for those results to mature." ☐

and that the more time a person spends tanning indoors, the higher the risk. Some indoor tanners have up to 4.44 times the risk of developing melanoma as non-tanners. Tanners are also 2.5 times more likely to develop squamous cell carcinoma and 1.5 times more likely to develop basal cell carcinoma.

Many other governments have instituted similar bans. In Canada, Nova Scotia recently introduced a law to ban anyone under 19 from indoor tanning; France, Belgium, Germany, Scotland, Spain and Portugal already restrict sunbed use for people under age 18, and in 2009 Brazil banned cosmetic UV tanning altogether throughout the country. ☐

## Who Is Your Celebrity Skin Twin?



DO YOU KNOW YOUR SKIN TYPE?  
Take our Facebook quiz and find out!  
<http://apps.facebook.com/skintypequiz/>



## Ask the Expert

Shawn Allen, MD

**Q.** What should I look for when examining my skin for signs of melanoma?

**A.** Our skin is one of the few organs we can easily examine every day. This allows patients to look for blemishes, rashes, skin cancers, and other skin diseases and bring them to their dermatologist's attention in a timely fashion. Patients and their significant others will often be the first to notice that something on the skin has changed; a thorough monthly skin self-examination and an annual visit to your dermatologist can be vital.

Some specific guidelines can be helpful in identifying a potential melanoma, the deadliest form of skin cancer. We traditionally teach our patients the "ABCDEs" of melanoma. The "A" is for asymmetry of the mole. "B" stands for borders that are irregular, such as cloud-shaped or scalloped borders, or lesions with poorly demarcated edges. "C" is for color — melanomas may have multiple colors such as light and dark brown, pink, red, gray or even blue. They will

be differently colored and usually darker than the other moles in the area. The "D" stands for diameter, which in normal moles is usually no larger than 6mm, or the size of a pencil eraser tip. However, diameter is probably one of the least helpful signs, since melanomas can be smaller than 6mm and normal moles can be large. The "E" may be the most telling sign, and it stands for evolving. Look for moles that are changing in size, color, or shape or are drawing attention to themselves by bleeding or itching. As a rule, if the lesion is demanding the patient's attention by changing signs or symptoms, it should be seen by a dermatologist promptly.

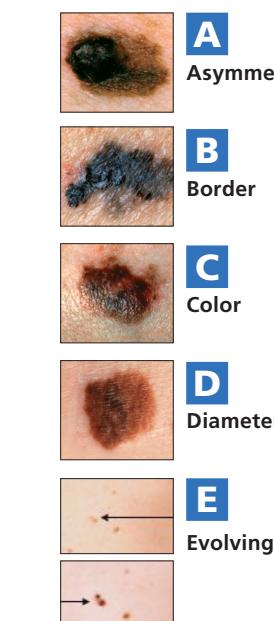
**Q.** What is the best way to examine my skin?

**A.** When examining the skin, stand in front of the mirror and look for a mole that stands out at first glance. This is now often referred to as "the ugly duckling" sign. The idea is that a mole that looks different from the others may be one of concern. When I first examine my patients, I similarly like to determine what the patient's "typical" mole looks like, establishing a baseline to compare against. This is

best determined during a total-body skin examination. Once this baseline is established, focusing on the moles that stand out or meet the criteria of any of the ABCDEs can be helpful in determining which moles, if any, need

have a higher risk of spreading. Also be aware of the following signs of the more common nonmelanoma skin cancers: a skin growth that increases in size and appears pearly, translucent, tan, brown, black or multicolored; a spot that itches, hurts, crusts, scabs, erodes, or bleeds, or an open sore that does not heal within three weeks.

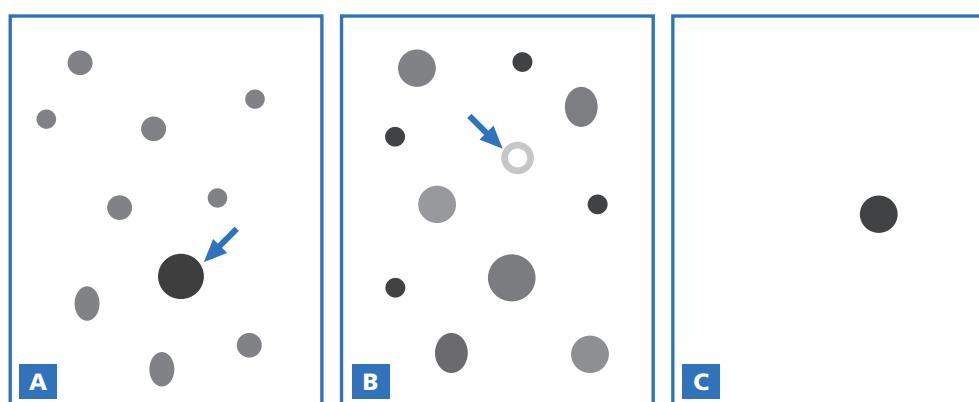
Melanoma is one of the few cancers readily detectable with a simple, relatively quick and noninvasive skin examination. When caught early, melanomas are easily treatable and have very high cure rates. However, the longer a melanoma exists undetected, the deeper it grows, the more complex the surgery and the higher the risk of the cancer spreading. So regularly examine your skin for signs of melanoma and other skin cancers, and have a professional full-body skin screening annually. ☐



**When looking for the ABCDEs or an "ugly duckling," don't neglect the scalp, nails, hands, and feet, since melanomas in these locations tend to be found at later stages, and can have a higher risk of spreading.**

further evaluation. When looking for the ABCDEs or an "ugly duckling," don't neglect the scalp, nails, hands, and feet, since melanomas in these locations tend to be found at later stages, and can

Our guest expert for this issue, Shawn Allen, MD, is the director and founder of Dermatology Specialists of Boulder, in CO. He is Assistant Clinical Professor in the Department of Dermatology at the University of Colorado School of Medicine.



**THE UGLY DUCKLING** These three different scenarios depict "ugly duckling" moles that should prompt suspicion. Squares A, B, and C each represent a body area such as the back.

- In **B**, there are two main patterns, one of larger moles and the other of smaller, darker moles. The "ugly duckling" is small but lacks pigmentation.
- In **A**, there is a dominant mole pattern with slight variation in size. The "ugly duckling" is clearly darker and larger than all other moles.
- In **C**, there is only one lesion on the back. If this lesion is changing, symptomatic, or deemed atypical, see a doctor and have this "ugly duckling" examined.

More stories, news and information available at [www.SkinCancer.org](http://www.SkinCancer.org)

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