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Perry Robins, MD, President | Mary Stine, Executive Director

Daily Sunscreen Use Cuts Melanoma Risk in Half

Adults who use sunscreen daily can drastically reduce their risk of developing melanoma, the deadliest form of skin cancer, according to new landmark research from Australia. Researchers found that daily application of an SPF 16 sunscreen to the head, neck, arms, and hands reduced melanoma incidence by half in study participants.

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In the Australian study, led by epidemiologist Adele Green, MD, University of Queensland, more than 1,600 white Australian adults between age 25 and 65 were studied for more than a decade. The subjects were divided into two groups, one told to continue using (or not using) sunscreen as they always had, the other given careful instruction in proper daily sunscreen application. The subjects were monitored closely through daily self-reports of sunscreen use, as well as collection and examination of all the sunscreen containers they had

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used. Only 11 melanomas developed in the daily sunscreen users, vs. 22 in the control group, a 50 percent reduction. In addition, invasive melanomas (tumors that penetrate beyond the skin surface) were reduced by 73 percent (3 tumors vs. 11) and average thickness by more than half a millimeter in the daily sunscreen group.

The trial's findings are the first to provide strong direct evidence for a reduction in the incidence of invasive melanoma after regular application of broad-spectrum (UVA/UVB blocking) sunscreen in adults. The scientists acknowledge that the study was relatively small and needs to be reinforced by further research, but consider their results convincing enough to recommend daily sunscreen application, along with "other standard sun protection measures like avoiding midday sun and use of protective clothing."

New Treatment Approved for Advanced Melanoma

The US Food and Drug Administration (FDA) has approved a breakthrough melanoma treatment. The first melanoma drug to receive FDA approval in 13 years, Yervoy (ipilimumab) is also the first therapy proven to extend overall survival for advanced stage melanoma patients. Yervoy may offer many patients a 2-year survival advantage, with a smaller percentage of patients being virtually cured.

Melanoma is the deadliest form of skin cancer. When discovered early, it can usually be cured with surgery alone, but once it spreads (metastasizes) throughout the body, treatment options are limited.

Yervoy is an immune protein that blocks the function of a molecule called CTLA-4. CTLA-4 works as a brake on the immune system; by blocking it, Yervoy enables the immune system to identify, attack and eliminate melanoma cells.

In a 2010 report published in the *New England Journal of Medicine*, melanoma patients previously treated unsuccessfully with other agents who received Yervoy or Yervoy plus a melanoma vaccine lived on average 32 percent longer than those who received the vaccine alone. And 24 percent were alive after two years, compared with just 14 percent of those treated with the other therapy.

Now, in new, as yet unpublished research, Yervoy was found to increase overall survival in inoperable stage III or stage IV melanoma patients *who had not received prior therapy*. The FDA thus has approved the drug for previously untreated patients as well, broadening its use.

"As melanoma incidence continues to rise, we are delighted that this new therapy will extend life and improve the quality of life for many patients with metastatic melanoma," said Perry Robins, MD, President, The Skin Cancer Foundation.

Who Is Your Celebrity Skin Twin?

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

Like Mother, Like Daughter:
Indoor Tanning with Mom Sets a Dangerous Precedent

New research supports the growing body of evidence that the children of women who tan indoors are more likely to be indoor tanners themselves: young women whose first indoor ultraviolet (UV) tanning experience is with their mothers are more than 4.6 times more likely to become heavy tanners, according to a research letter published in *Archives of Dermatology*. Indoor UV tanning is associated with an increased risk of all forms of skin cancer, including potentially deadly melanomas. Nearly 30 million people tan indoors in the US annually, 71 percent of whom are girls and women aged 16-29. This presents a serious health problem because people who first use tanning beds before age 35 have a 75 percent increase in their lifetime risk of developing melanoma. Furthermore, indoor tanners are 2.5 times more likely to develop squamous cell carcinoma, and 1.5 times more likely to develop basal cell carcinoma.

Researchers, led by Joel Hillhouse, PhD, of East Tennessee State University in Johnson City, studied the indoor tanning patterns of more than 200 female university students. Subjects included non-tanners, moderate tanners (those who tanned indoors 1-25 times a year), and heavy tanners, who tanned indoors more than 25 times a year. Investigators found that 81 percent of the subjects who had initially tanned indoors with their mothers were current tanners. Almost 32 percent were heavy tanners, making those whose first indoor tanning experience was with their mothers 4.64 times more likely to be heavy tanners than those who first tanned indoors alone or with someone other than their mother. Furthermore, study participants who tanned for the first time with their mothers started tanning approximately two years prior to other indoor tanners. Since UV damage is cumulative, that adds significantly to their lifetime risk of developing skin cancer.

Investigators found that 81 percent of the subjects who had initially tanned indoors with their mothers were current tanners.

Luckily, physicians can help parents model healthy behaviors: "Informing mothers of the risks of tanning and the strong influence their tanning behavior will have on their child's current and future risks may have significant effects, ultimately resulting in less UV exposure," the authors observed.

Britain Bans Indoor Tanning for Those Under 18

Thanks to the United Kingdom's new Sunbeds (Regulation) Act, children under 18 years of age are now banned from using ultraviolet (UV) tanning devices in Great Britain.

UV radiation is a proven human carcinogen, and the International Agency for Research on Cancer, an affiliate of the World Health Organization, includes UV tanning devices in its list of the most dangerous cancer-causing substances. People who start tanning indoors before the age of 35 increase their risk of developing melanoma, the deadliest form of skin cancer, by 75 percent. Tanning bed users are also 2.5 times more likely to develop squamous cell carcinoma and 1.5 times more likely to develop basal cell carcinoma.

Melanoma rates have tripled among Britons ages 15-34 years in the past 30 years. UV tanning devices have become increasingly popular over the same period. In some areas of the UK, around 50 per cent of 15-to-17-year-old girls have tanned indoors.

In the US, where tanning is regulated by the states, debate on regulating indoor tanning continues. The Skin Cancer Foundation, along with several other organizations, has testified before the FDA on the necessity of limiting the use of tanning beds.

A Message From the President

The American Academy of Pediatrics (AAP), a professional association of 60,000 pediatricians, recently called for all US tanning salons to bar minors. With this new policy statement, the AAP joins health organizations such as the American Medical Association, the World Health Organization, the American Academy of Dermatology, and The Skin Cancer Foundation in demanding a ban on indoor ultraviolet (UV) tanning for young people.

We strongly commend the AAP for this definitive statement urging the prohibition of indoor tanning for young people. The damage caused by the UV radiation from tanning beds and the sun is cumulative and often irreversible, and the earlier people start to tan, the higher their risk of developing skin cancer in their lifetimes.

All UV tanning is dangerous; a tan indicates that the skin's DNA has already been damaged.

The AAP's statement is timely. In this issue of *Sun & Skin News*, we report on Britain's banning minors from tanning salons as well as a disturbing new study about young women's indoor tanning habits. Those whose first indoor tanning experience is with their mothers are almost 5 times more likely to be heavy tanners than those who first tanned indoors alone or with someone other than their mother.

If you are a young tanner — or the parent or guardian of one — be aware that those who first use tanning beds before age 35 have a 75 percent increase in their lifetime risk of developing melanoma, which killed an estimated 8,700 people in the US in 2010 alone. On average, indoor tanners are 74 percent more likely to develop melanoma, 2.5 times more likely to develop squamous cell carcinoma, and 1.5 times more likely to develop basal cell carcinoma.

As the warmer weather comes on, don't be misled into thinking that obtaining a "base tan" in tanning booths will protect your skin against damage outdoors. *All* UV tanning is dangerous; a tan indicates that the skin's DNA has already been damaged. Enjoy spring the sun-safe way, by following The Skin Cancer Foundation's Prevention Guidelines (www.skincancer.org/Guidelines/), including avoiding UV tanning, both indoors and out. For more information on tanning, please visit www.skincancer.org/Tanning/.

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Ask the Expert

Cheryl Karcher, MD

Q. I have a lot of strange-looking moles. Should I have them all removed?

A. That is such a difficult question, and there is no easy answer. Most normal moles are small, brown, round, and regular-looking. Abnormal moles (also called dysplastic nevi) are usually benign as well, but may look like melanoma. In other words, they may be asymmetrical, multicolored, and/or have uneven borders, and they usually continue to grow over time. Several questions must be asked in order to determine whether they should be removed:

1. How "atypical" are the abnormal moles? A biopsy will almost always determine this with certainty. After a biopsy you should know if your moles are just *architecturally* atypical, meaning just a little asymmetrical or two colors of brown, versus *cellularly* atypical, meaning the actual cells that make up the mole are atypical. With cellular atypia, the DNA of the cell has been affected. Any moles with atypical cells need to be removed.

2. How many of these atypical moles are there? As the number of these moles increases, so does the risk of developing melanoma. For example; if you have 10 or more atypical moles, you have 12 times the risk of developing melanoma and, in that case, I would remove all the moles. However, another dermatologist might decide to remove just those moles that have changed—there's no hard and fast rule about this.

If you have fewer than 10 moles, consider:

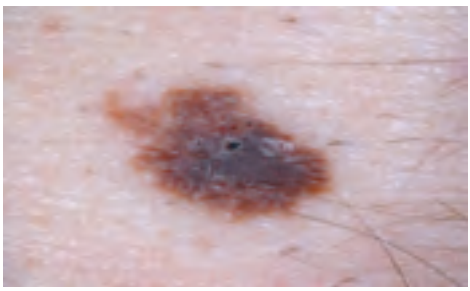
3. Have these atypical moles changed at all? If they have, they must be removed.

4. Do you have a family history of melanoma? If so, atypical moles must be removed.

5. How large are the atypical moles? If they are greater than 5 or 6mm (about the size of a pencil eraser) in diameter, they need to be removed. If you have five or more large atypical moles or 50 or more small moles, it is possible you have atypical mole syndrome (AMS). This syndrome, which greatly increases one's lifetime risk of melanoma, is usually distinguished by three characteristics:

- having 100 or more moles
- having one or more moles that are greater than 8mm (1/3 inch) wide
- having one or more moles that look unusual

For people with AMS, total-body dermatologic photographs (digital photos of areas of interest on the skin, at a resolution of at least 768 x 512 pixels) are suggested. Dermatologic photos create a visual record, measure changes in the skin, and will make relevant information available to any physicians subsequently consulted.



Dysplastic nevi are usually benign, but may look like melanoma.

The Skin Cancer Foundation recommends a professional total-body exam at least once a year, or even more often for those at increased risk for developing melanoma. People at increased risk should consult their physician about how often to come in for exams. The Foundation also recommends *monthly* self-examination of the skin.

Our guest expert for this issue, Cheryl Karcher, MD, practices dermatology at Sadick Dermatology in New York City. She received her medical and advanced training in dermatology at New York Hospital-Cornell Medical Center and New York University Medical Center. Dr. Karcher also holds a master's of science in human nutrition from the University of Florida and was a fellow at Rockefeller University. She is the author of numerous articles and serves as the consulting dermatologist to the Miss Universe organization.