

Raising melanoma awareness

Melanoma is increasing at a faster rate than any other preventable cancer in the United States. Between 1950 and 2007, the incidence rose 17-fold in men (1.9 to 33.5 per 100,000) and more than 9-fold in women (2.6 to 25.3 per 100,000).¹ This year, 73,870 new cases are projected in the United States and 9,940 deaths, or approximately one death each hour.² Melanoma is the leading cause of cancer death in women ages 25 to 30 and is second only to breast cancer in women ages 30 to 34 years.

Some have attributed rising rates to earlier diagnosis, but melanoma incidence is rising among all categories of tumor depth and subtypes, and not merely an artifact of more intensive screening or identification of thin tumors.³ Why, then, are the rates of other cancers falling while melanoma continues to rise?

UV exposure, both from sunlight and tanning beds, certainly plays a role. Although challenging to quantify lifetime UV exposure, UVB flux (a measure of midrange UV radiation) and time outdoors significantly increases risk of melanoma.⁴ Rising UV indices in the setting of a depleting ozone layer also directly correlate with higher rates of melanoma.⁵ Contrary to the myth that a tan is “protective,” even among women with the ability to develop a deep tan, a 10 percent increase in time outdoors was associated with a 5.8 percent increase in odds of melanoma.⁴

In a landmark study, the International Agency for Research on Cancer (IARC) found that first exposure to



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tanning beds before the age of 35 increases an individual’s lifetime risk of melanoma by as much as 75 percent.⁶ Since then, other studies have echoed these findings and shown that melanoma risk increases with length and duration of exposure to tanning regardless of device used (UVB or UVA devices). A systematic review on the prevalence of tanning found that 35.7 percent of adults, 55 percent of university students and 19.3 percent of adolescents had “ever” used tanning beds. The study estimated that tanning beds accounted for more skin cancers in the United States, Europe and Australia than the number of lung cancer cases caused by smoking in these areas.⁷ Yet despite this data, up to 1 million Americans visit tanning salons each day; 70 percent of these are Caucasian females ages 16-29 years.⁸ Amongst the top 125 universities, 48 percent have indoor tanning facilities either on campus or in off-campus housing and up to 14 percent allow campus cash cards to be used to pay for tanning, including some local universities.⁹

Whereas the anti-tobacco campaign has been gaining momentum for years, public health has just recently turned its attention to this issue. On May 29, 2014, the Food and Drug Administration (FDA) reclassified sunlamp products as a class II (moderate risk)

device requiring a black box warning. Two months later, the Surgeon General issued a “Call to Action to Prevent Skin Cancer.”⁸ In Pennsylvania, tanning laws, restricting the use of tanning beds in minors under the age of 17, went into effect in July 2014.

The incidence of melanoma may not stabilize anytime soon, but, if identified early, thin melanomas have an excellent prognosis. However, early detection guidelines have not been clearly defined. The American Cancer Society (ACS) recommends that primary care physicians (PCPs) check for skin cancer “on the occasion of a periodic health examination.” The American Academy of Dermatology (AAD) recommends self-skin exams but does not identify when or how often physician exams should be performed. As of their last review in 2009, the U.S. Preventive Services Task Force (USPSTF), stated there was “insufficient evidence” for a total body skin exam by either a clinician or patient.¹ Nevertheless, studies do show that physician-detected melanomas are thinner. In Germany, a yearlong statewide screening program was associated with a nearly 50 percent reduction in melanoma mortality.¹⁰ Findings such as these may prompt changes in the USPSTF guidelines.

Access to physicians trained in skin cancer surveillance is another challenge. Dermatology training in medical school is limited, and dermatology training programs graduate few residents each year. Tightened provider networks also risk reducing access to specialists. Fast-track referral systems between primary care and dermatology

do significantly increase early melanoma diagnosis.¹¹

A culture shift is certainly in the works. You are more likely to see kids in sun protective shirts and lathered in sunscreen at the pool these days. Self-tanning creams and spray tans are becoming more popular alternatives. The NFL and MLB are examples of organizations that have partnered with the AAD to support skin cancer screenings in the community. Dermatologists across the country offered free skin cancer screenings on May 4 in honor of Melanoma Monday and throughout the month. Yet more needs to be done.

The dermatology community must continue to promote education about melanoma, and the importance of

screening in high-risk populations (i.e., patients with a family history of melanoma, red hair, tanning history, immunosuppression or a high number of nevi). Dermatology also must facilitate access for patients with new or changing skin lesions. As physicians, we should all feel comfortable asking our patients about risk factors for melanoma. Just as our electronic medical systems prompt us to counsel our patients who smoke, we should be prompted to counsel our patients who sunburn or tan frequently. As community leaders, we can help to change the tanning culture and dispel the myth of a “healthy” tan. Our patients too will play an important role in spreading the word. The success of the breast and

lung cancer campaigns has been in large part due to the patient advocacy groups. Improving prevention and early detection could have a significant impact on melanoma.

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The opinion expressed in this column is that of the writer and does not necessarily reflect the opinion of the Editorial Board, the *Bulletin*, or the Allegheny County Medical Society.

References

1. Mayer JE, Swetter SM, Fu T, Geller AC. Screening, early detection, education, and trends for melanoma: current status (2007-2013) and future directions: Part I & II. *Epidemiology, high-risk groups, clinical strategies, and diagnostic technology.* J Am Acad Dermatol 2014 Oct;71(4):599-611.
2. American Cancer Society. Cancer Facts & Figures 2015. <http://www.cancer.org/acs/groups/content/@edit044552.pdf>. Accessed March 19, 2015
3. Lee KC, Weinstock MA. Melanoma is up: are we up to this challenge? *J Invest Dermatol* 2009 Jul;129(7):1604-6.
4. Fears TR, Bird CC, Guerry D 4th, et al. Average midrange ultraviolet radiation flux and time outdoors predict melanoma risk. *Cancer Res* 2002 Jul 15;62(14):3992-6.
5. Salmon PJ, Chan WC, Griffin J, McKenzie R, Rademaker M. Extremely high levels of melanoma in Tauranga, New Zealand: possible causes and comparisons with Australia and the northern hemisphere. *Australas J Dermatol* 2007 Nov;48(4):208:16.
6. International Agency for Research on Cancer Working Group. The association of use of sunbeds with cutaneous malignant melanoma and other skin cancers: A systematic review. *Int J Cancer* 2007 Mar;120(5):116-22.
7. Wehner MR, Chren MM, Nameth D, Choudhry A, Gaskins M, Nead KT, Boscardin WJ, Linos E. International prevalence of indoor tanning: a systematic review and meta-analysis. *JAMA Dermatol* 2014 Apr;150(4):390-400.
8. Ernst A, Grimm A, Lim HW. Tanning lamps: Health effects and reclassification by the Food and Drug Administration. *J Am Acad Dermatol* 2015;72:175-80.
9. Pagoto SL, Lemon SC, Oleski JL, Scully JM, Olendzki GF, Evans MM, Li W, Florence LC, Kirkland B, Hillhouse JJ. Availability of tanning beds on US college campuses. *JAMA Dermatol* 2015 Jan;151(1):59-63.
10. Breitbart EW, Waldmann A, Nolte S, Capellaro M, Greinert R, Volkmer B, Katalinic A. Systematic skin cancer screening in Northern Germany. *J Am Acad Dermatol* 2012 Feb;66(2):201-11.
11. Moreno-Ramirez D, Ojeda-Vila T, Rios-Martin JJ, Ruiz-Villaverde R, de-Troya M, Sanz-Trelles A, et al. The role of accessibility policies and other determinants of health care provision in the initial prognosis of malignant melanoma: A cross-sectional study. *J Am Acad Dermatol* 2014 Sep;71(3):507-15.

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