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## Melanoma Incidence Among Young Women in the U.S. Is Rising

*Adapted from the NCI Cancer Bulletin, vol. 5/no. 15, July 22, 2008 (see the [current issue](#) <sup>2</sup>).*

The annual [incidence](#) of invasive cutaneous melanoma, the deadliest form of skin cancer, increased among Caucasian women in the United States aged 15 to 39 by 50 percent between 1980 and 2004, investigators from the National Cancer Institute's [Division of Cancer Epidemiology and Genetics](#) <sup>3</sup> reported online July 10 in the Journal of Investigative Dermatology (see the [journal abstract](#) <sup>4</sup>). The incidence among Caucasian men in the United States did not increase significantly over the same time period.

"We have known for some time that melanoma incidence has been consistently increasing among older adults in the United States," says Dr. Mark Purdue, lead author of the study. "What has not been clear is whether the melanoma trends among younger adults have been changing. Some studies published in the 1990s had suggested that melanoma rates were leveling off in this age group. However, a study conducted by our group in 2001 saw evidence that melanoma incidence was still increasing among young women. Our present study, which includes an additional seven years of data, was conducted to clarify what trends are taking place among young adults."

The investigators used nine NCI [Surveillance, Epidemiology, and End Results](#) <sup>5</sup> registries that had collected incidence and mortality data since 1973. They found that the rate of increase in incidence for young women declined from 1978 to 1987 and then stabilized until 1992, but began rising again afterward. In absolute numbers, the annual incidence increased from 5.5 cases per 100,000 persons in 1973 to 13.9 per 100,000 in 2004.

The increase in incidence among young women was not limited to early, thin [lesions](#). Increasing trends were also observed for thicker and advanced-stage (both [regional](#) and [metastatic](#)) melanomas. If the investigators had observed an increase only in thin lesions, this could have indicated that the incidence findings were due to increased detection of early stage disease because of improved melanoma awareness and surveillance since the early 1980s, explains Dr. Purdue. But the fact that incidence of later-stage disease also increased suggests that the observed rise in incidence is real.

When they compared the data by birth cohorts (people grouped into five-year periods of birth), the investigators found that melanoma incidence increased for women born after 1965. "The observed increase in incidence among women born after 1965 is consistent with a birth cohort effect," conclude the authors, meaning that the increase indicates a change in exposure to [risk factors](#) for disease across cohorts of people born in different years.

"We can't tell from this data what exactly caused this increase in incidence among young women, but one possible explanation is that an increase in UV exposure, a risk factor for melanoma, may be responsible," concludes Dr. Purdue.

Previous research has shown that the prevalence of sunburn is increasing for adults in the U.S., as is [tanning](#)

### Related Pages

[Melanoma Home Page](#)

[1](#)

NCI's gateway for information about melanoma.

[bed usage](#)<sup>6</sup>, particularly among young women. "Additional studies are needed to clarify whether the increasing trends for melanoma...are the result of changes in [[ultraviolet radiation](#)] exposure in the population," state the papers' authors.

People concerned about ultraviolet radiation can reduce their exposure by staying out of the sun when its rays are the strongest (between 10:00 a.m. and 4:00 p.m.), wearing a broad-brimmed hat and protective clothes when outside, using sunscreen with a sun protective factor (SPF) of 15 or higher, and not seeking a tan.

## Glossary Terms

### **incidence**

The number of new cases of a disease diagnosed each year.

### **lesion** (LEE-zhun)

An area of abnormal tissue. A lesion may be benign (noncancerous) or malignant (cancerous).

### **metastatic** (meh-tuh-STA-tik)

Having to do with metastasis, which is the spread of cancer from one part of the body to another.

### **regional**

In oncology, describes the body area right around a tumor.

### **risk factor**

Something that may increase the chance of developing a disease. Some examples of risk factors for cancer include age, a family history of certain cancers, use of tobacco products, certain eating habits, obesity, lack of exercise, exposure to radiation or other cancer-causing agents, and certain genetic changes.

### **ultraviolet radiation** (UL-truh-VY-oh-let RAY-dee-AY-shun)

Invisible rays that are part of the energy that comes from the sun. Ultraviolet radiation also comes from sun lamps and tanning beds. It can damage the skin and cause melanoma and other types of skin cancer. Ultraviolet radiation that reaches the Earth's surface is made up of two types of rays, called UVA and UVB rays. UVB rays are more likely than UVA rays to cause sunburn, but UVA rays pass deeper into the skin. Scientists have long thought that UVB radiation can cause melanoma and other types of skin cancer. They now think that UVA radiation also may add to skin damage that can lead to skin cancer and cause premature aging. For this reason, skin specialists recommend that people use sunscreens that reflect, absorb, or scatter both kinds of ultraviolet radiation. Also called UV radiation.

## Table of Links

<sup>1</sup> <http://www.cancer.gov/cancertopics/types/melanoma>

<sup>2</sup> <http://www.cancer.gov/ncicancerbulletin>

<sup>3</sup> <http://dceg.cancer.gov>

<sup>4</sup> <http://www.ncbi.nlm.nih.gov/pubmed/18615112>

<sup>5</sup><http://seer.cancer.gov>

<sup>6</sup><http://www3.interscience.wiley.com/journal/113489364/abstract>