

# HIGH-RISK BEHAVIORS FOR SKIN CANCER COMMON AMONG YOUNG ADULTS

in

- What Experts Say

Category:

What Experts Say

## High-risk behaviors for skin cancer common among young adults

*Half of adults younger than age 30 report being sunburned; indoor tanning rates highest among white women*

Young adults are increasing their risk for developing skin cancer, according to two studies by the Centers for Disease Control and Prevention and the National Cancer Institute.

One study, of people aged 18-29, found that 50 percent reported at least one sunburn in the past year, despite an increase in protective behaviors such as sunscreen use, seeking shade, and wearing long clothing to the ankles. Another report found that indoor tanning is common among young adults, with the highest rates of indoor tanning among white women aged 18-21 years (32 percent) and 22-25 years (30 percent). Both reports evaluated data from the National Health Interview Survey's Cancer Control Supplement. They are published in today's issue of CDC's Morbidity and Mortality Weekly Report.

“More public health efforts, including providing shade and sunscreen in recreational settings, are needed to raise awareness of the importance of sun protection and sunburn prevention to reduce the burden of skin cancer,” said Marcus Plescia, M.D., M.P.H., director of CDC’s Division of Cancer Prevention and Control. “We must accelerate our efforts to educate young adults about the dangers of indoor tanning to prevent melanoma as this generation ages.”

Skin cancer is the most common form of cancer in the United States, and melanoma is the most deadly type of skin cancer. Exposure to ultraviolet radiation from the sun and from indoor tanning equipment is the most important preventable risk factor for skin cancer. Indoor tanning before age 35 increases a person’s risk of getting melanoma by 75 percent. Sunburn indicates too much exposure to ultraviolet radiation.

“Efforts to shape public policies awareness regarding indoor tanning generally have been targeted toward adolescents rather than young adults to help change behavior of minors,” said Anne Hartman, study coauthor from the Applied Research Program of NCI’s Division of Cancer Control and Population Sciences. “This study suggests that as adolescents mature into young adults, they may continue to need environmental support to develop and maintain healthy behaviors and to change their perspectives about tanning.”

Findings from the two studies:

- Among adults aged 18-29 years, whites reported the highest sunburn prevalence (66 percent in 2010) whereas the lowest rates were among blacks (11 percent in 2010). Although sunburn is not as common among blacks as compared to whites, blacks can get sunburned.

- The most common sun protective behaviors reported among women aged 18-29 years in 2010 were using sunscreen (37 percent) and staying in the shade (35 percent). White women were less likely to stay in the shade, and black women were less likely to use sunscreen compared to other racial/ethnic groups. Among men aged 18-29 years, the most common sun protective behaviors reported in 2010 were wearing long clothing to the ankles (33 percent) and staying in the shade (26 percent).

\* Among white women aged 18-21 years who reported indoor tanning, an average of 28 visits occurred in the past year. White women aged 18-21 years were the most common users of indoor tanning.

- The highest prevalence of indoor tanning was reported among white women aged 18-21 years residing in the Midwest (44 percent), and those aged 22-25 years in the South (36 percent).
- Among white adults who reported indoor tanning, 58 percent of women and 40 percent of men used one 10 or more times in the previous year.

People should take these steps to protect themselves from ultraviolet light exposure that could lead to skin cancer by:

- Seeking shade, especially during midday hours (10 a.m. to 2 p.m.).
- Wearing clothing to protect exposed skin.
- Wearing a wide-brimmed hat to shade the face, head, ears, and neck.
- Wearing wrap-around sunglasses that block as close to 100 percent of ultraviolet A (UVA) and ultraviolet B (UVB) rays as possible. Sunglasses safeguard your eyes from UVA and UVB rays, protect the tender skin around your eyes from sun exposure, and reduce the risk of cataracts and ocular melanoma.

- Using sunscreen with sun protective factor 15 or higher, and both UVA and UVB protection.
- Avoiding indoor tanning.

For information about CDC's efforts in skin cancer prevention, visit <http://www.cdc.gov/cancer/skin/>.

NCI leads the National Cancer Program and NIH's effort to dramatically reduce the burden of cancer and improve the lives of cancer patients and their families, through research into prevention and cancer biology, the development of new interventions, and the training and mentoring of new researchers. For more information about cancer, visit [www.cancer.gov](http://www.cancer.gov) External Web Site Icon or call NCI's Cancer Information Service at 1-800-4-CANCER (1-800-422-6237).

Link:

Centers for Disease Control and Prevention

# TOP TEN LIES OF THE INDOOR TANNING INDUSTRY

in

- Truth About Indoor Tanning

Category:

Truth About Indoor Tanning

Suntans became popular as a result of the influence of CoCo Chanel on the Western world. Prior to the implication of the income to enjoy beach vacations, skin that had tanned beyond its natural tone was undesirable since it implied the need for hard outdoor labor. Farming was soon forgotten as a source of skin darkening, and tan models frolicking on the French Riviera were presented as a new ideal. Sunbathing and indoor tanning increased rapidly throughout the second half of the 20th century. It is certainly no coincidence that in 1935, the lifetime risk for a person in the United States developing invasive melanoma was 1 in 1500, while in 2007, this risk increased to 1 in 63 and 1 in 33 when all melanomas were considered. Worldwide, melanoma is the fastest-increasing cancer.

The International Tanning Association (ITA) is a well-funded agency (the tanning industry makes over \$5 billion annually<sup>1</sup>) that actively lobbies to protect its interests. Many half-truths and outright lies have become part of the common logic, and the ITA insists that “junk science” drives the argument against indoor tanning.<sup>1</sup> The evidence is hardly questionable: the American Cancer Society, the National Council on Skin Cancer Prevention, and all major dermatological associations have taken the position that indoor tanning is an unsafe practice. While the tanning industry stands to lose revenue if indoor tanning decreases, the dermatologists and

oncologists who treat melanoma also stand to lose business but still insist that the American public knows the truth. We, the National Council, hope to ensure that people who are considering tanning know the risks and can identify myth from fact.

<sup>1</sup> Indoor Tanning Association. Indoor tanning FAQs. <http://www.theita.com/indoor/faq.cfm>. Accessed December 29, 2009

### **Myth #1. Tanning beds are safe.**

Any tanning bed use prior to the age of 30 increases the risk of melanoma, the deadliest form of skin cancer, by 75%. UV radiation is an unequivocal carcinogen (cancer-causing agent) per the World Health Organization (WHO).

El Ghissassi F, Baan R, Straif K, Grosse Y, Secretan B, Bouvard V *et al.* A review of human carcinogens—part D: radiation. *Lancet Oncol*, 10 (2009), pp. 751–752

### **Myth #2. Tanning beds provide a “base tan,” which protects from sunburns during periods of sun exposure like a beach vacation.**

“Base tans” only provide an SPF of about 4 or less, at the price of sun-damaged skin. All tanning beyond one’s natural skin tone is evidence of the skin trying to defend itself against an environmental insult. People who believe that a base tan is protective also end up with more total sun exposure and therefore more DNA damage.

Cui R, Widlund HR, Feige E, et al. Central role of p53 in the suntan response and pathologic hyperpigmentation. *Cell* 2007; 128: 853–864.

Eller MS, Ostrom K, Gilchrest BA. DNA damage enhances melanogenesis. *Proc Natl Acad Sci U S A* 1996; 93: 1087–1092.

**Myth #3. Tanning beds are a good source of Vitamin D.**

Tanning beds emit primarily UVA light, which is ineffective in converting vitamin D in its active form; the UVB or “burning” rays are often omitted from tanning lamps to prevent burning that would limit use of the beds. Fifteen minutes of casual sun exposure of the hands and face two to three times weekly in summer months is considered adequate by the WHO for maintaining normal vitamin D levels; furthermore, a healthy diet and inexpensive vitamin D supplementation in multivitamins are much safer ways to increase vitamin D and carry no risk of increased cancer. Tanning for vitamin D makes as much sense as smoking to increase calcium intake (a nonsensical and dangerous association).

Woo DK, Eide MJ. Tanning beds, skin cancer, and vitamin D: An examination of the scientific evidence and public health implications. *Dermatol Ther.* 2010 Jan-Feb;23(1):61-71.

<http://www.who.int/uv/faq/uvhealthfac/en/index1.html> Accessed April 6, 2012.

**Myth #4. Tanning salons are safe and run by trained professionals who can counsel regarding potential risks of tanning.**

90% of tanning salon employees interviewed as part of an investigation by the US House Energy and Commerce Committee told callers (who described themselves as fair-skinned teen girls) that the skin cancer risk was a “big myth” or “hype.” In addition, 78% of the tanning salons contacted by investigators promoted false claims of health benefits associated with tanning, ranging from

treatment of depression to weight loss. Other studies have shown poor sanitation of tanning salons; HPV and MRSA have been transmitted through tanning salons, and one study showed bacteria found in fecal matter on 90% of top-rated salon tanning beds, even those that had been labeled as “sanitized.”

<http://democrats.energycommerce.house.gov/sites/default/files/documents/Tanning%20Investigation%20Report%202.1.12.pdf>  
Accessed April 6, 2012.

Russak JE, Rigel DS. Tanning bed hygiene: microbes found on tanning beds present a potential health risk. *J Am Acad Dermatol*. 2010 Jan;62(1):155-7.

**Myth #5. If you tan easily without burning or have naturally dark skin, you are not at risk for skin cancer.**

While people with the lightest skin are at the highest risk for melanoma, all races are susceptible to skin cancer, including melanoma.

Lotze MT, Dallal RM, Kirkwood JM, Flickinger JC. Cutaneous melanoma. In DeVita VT, Rosenberg SA, Hellman S. (eds.), *Principles and Practice of Oncology*, 6 th ed. Philadelphia: Lippincott, 2001.

**Myth #6. Other than skin cancer risk, tanning beds are completely safe.**

Unfortunately, this is also untrue. Ocular melanoma, cataracts, infectious disease, immunosuppression, severe burning (3,000 emergency department visits in 2010 alone were related to tanning bed injury), and photoaging are well-described consequences of tanning.

The FDA - accessed April 2012.

<http://www.fda.gov/RadiationEmittingProducts/RadiationEmittingProductsandProcedures/HomeBusinessandEntertainment/ucm116447.htm>

**Myth #7. The risk of tanning is the same for teens and adults.**

Sun damage is cumulative, and about 25% of sun exposure occurs in the first 18 years of life. Furthermore, the rapidly dividing DNA found in growing individuals (such as children and teens) is more susceptible to damage by carcinogens. Teens are also less likely to be able to comprehend abstract concepts such as future risk and are less likely to limit behaviors such as tanning. There is also evidence that indoor tanning is addictive, and starting this behavior at a young age may normalize it at a time when the teen is unprepared to make responsible decisions about his/her health. Tanning salons often target teens with prom or back-to-school specials.

Balk SJ; Council on Environmental Health; Section on Dermatology. Ultraviolet radiation: a hazard to children and adolescents. *Pediatrics*. 2011 Mar;127(3):e791-817.

Warthan MM, Uchida T, Wagner RF. UV light tanning as a type of substance-related disorder. *Arch Dermatol*. 2005;141(8):963-966

**Myth #8. If tanning beds were dangerous, the government would have banned them by now.**

There is pending bipartisan national legislation seeking to limit the access of minors to tanning devices. Currently UV radiation, though categorized as a known carcinogen by the WHO, is grouped as a Class I medical device by the Food and Drug Administration, just like tongue depressors and bandages. The FDA is currently examining this classification; meanwhile, the Affordable Care Act

levied a 10% tax on tanning beds, recognizing the potential long-term cost of this behavior, and 32 states have passed legislation requiring more regulation for tanning salon use. In addition, other countries, including Brazil, Finland, South Australia, France, Germany, and the UK have either banned or limited tanning bed use.

Lim HW, James WD, Rigel DS, Maloney ME, Spencer JM, Bhushan R. Adverse effects of ultraviolet radiation from the use of indoor tanning equipment: time to ban the tan. *J Am Acad Dermatol*. 2011 Apr;64(4):e51-60. Epub 2011 Feb 3.

**Myth #9. Skin cancer is something that only happens to old people.**

Melanoma is the #1 cause of cancer in women age 25-29 and the #1 cause of cancer death in this demographic. In addition, it is the second most common cancer in females aged 15-29.

Herzog C, Pappo A, Bondy M, Bleyer A, Kirkwood J. Malignant melanoma: cancer epidemiology in older adolescents and young adults; National Cancer Institute, SEER AYA monograph; 2007. p. 53-63. Available at:  
[http://seer.cancer.gov/publications/aya/5\\_melanoma.pdf](http://seer.cancer.gov/publications/aya/5_melanoma.pdf).

**Myth #10. If I get skin cancer, I'll have it removed and everything will be okay.**

Unfortunately, though melanoma removed at the earliest stages can be cured with resection only, metastatic melanoma still has no cure and has a five year survival of less than 15%. People who have had one skin cancer are at risk of future skin cancers, and history of cancer can lead to discriminatory practices in everything from health insurance to adoption, among others, not to mention the loss of

feeling of safety in one's own skin and the life-long anxiety that can accompany a skin cancer diagnosis.

Link:

National Council on Skin Cancer Prevention

According to the 2010 National Health Interview Survey, indoor tanners tended to be young, non-Hispanic white women.

- 32% of non-Hispanic white women aged 18–21 years reported indoor tanning. Those who reported indoor tanning device use reported an average of 28 sessions in the past year.
- Among non-Hispanic white adults who used an indoor tanning device in the past year, 58% of women and 40% of men used one 10 times or more in the past year.
- Non-Hispanic white women between the ages of 18 and 21 years residing in the Midwest (44%) and non-Hispanic white women between the ages of 22 and 25 old in the South (36%) were most likely to use indoor tanning devices.

## Tanning Fact

According to the 2011 Youth Risk Behavior Surveillance System, the following proportions of youth report indoor tanning

- 13% of all high school students.
- 21% of high school girls.
- 32% of girls in the 12th grade.
- 29% of white high school girls.

## Tanning Fact

Indoor tanning exposes users to both UV-A and UV-B rays, which damage the skin and can lead to cancer. Using a tanning bed is particularly dangerous for younger users; people who begin tanning younger than age 35 have a 75% higher risk of melanoma. Using tanning beds also increases the risk of wrinkles and eye damage, and changes skin texture.

## Tanning Fact

In 2008 (the most recent year numbers are available)—

- 59,695 people in the United States were diagnosed with melanomas of the skin, including 38,484 men and 25,211 women.
- 8,623 people in the United States died from melanomas of the skin, including 5,672 men and 2,951 women.

## Tanning Fact

Skin cancer is the most common form of cancer in the United States. The two most common types of skin cancer—basal cell and squamous cell carcinomas—are highly curable. However, melanoma, the third most common skin cancer, is more dangerous. About 65%–90% of melanomas are caused by exposure to ultraviolet (UV) light.

## Tanning Fact

Using indoor tanning increases one's chances of developing melanoma—the most fatal type of skin cancer—especially when indoor tanning occurs before the age of 35.

## Tanning Fact

Indoor tanning can cause burns to both the skin and eyes and it prematurely ages and wrinkles the skin.

## Tanning Fact

# COMMISSION (FTC) CONSUMER ALERT - INDOOR TANNING

in

- Truth About Indoor Tanning

Category:

Truth About Indoor Tanning

## **Indoor Tanning**

Ads for tanning salons, sun lamps and tanning beds promise a bronzed body year-round, but experts agree that ultraviolet (UV) radiation from these devices damages the skin and poses serious health risks. Sunburns and tans are signs of skin damage. Deliberate tanning, either indoors or out, increases your risk of melanoma and nonmelanoma skin cancer.

The Federal Trade Commission (FTC), the nation's consumer protection agency, and the Food and Drug Administration (FDA), enforce laws dealing with tanning devices. The FTC investigates false, misleading, and deceptive advertising claims about the devices; the FDA enforces regulations that deal with the labels on the devices.

## **Myths and Reality**

Here are some claims commonly made about indoor tanning – and the facts.

*“Get a beautiful tan indoors without increasing your risk of skin cancer.”*

The lamps used in tanning booths and beds emit two forms of ultraviolet (UV) radiation – UVA and UVB. UVB rays penetrate the top layers of your skin and are most responsible for burns. UVA rays penetrate to the deeper layers of skin and often are associated with allergic reactions, like a rash. Both UVA and UVB rays damage the skin and can lead to skin cancer. What's more, scientists say, tanning can cause premature aging, immune suppression, and serious eye damage.

*“Indoor tanning is safer than the sun because the environment is controlled.”*

Sun lamps may be more dangerous than the sun because they can be used at the same high intensity every day of the year. Radiation from the sun varies in intensity with the time of day, the season, and cloud cover. Studies show that many people who tan indoors get burns.

*“Indoor tanning is approved by the government.”*

No U.S. government agency recommends the use of indoor tanning equipment. And the International Agency for Research on Cancer (IARC), part of the World Health Organization, also has concluded that tanning devices that emit UV radiation are more dangerous than previously thought. IARC moved these devices into the highest cancer risk category.

*“Indoor tanning is a safe way to increase vitamin D levels.”*

Vitamin D has many roles in human health. For example, it is essential for promoting good bone health. While UVB radiation helps your body produce vitamin D, you don't need a tan to get that benefit. In fact, 10 to 15 minutes of unprotected natural sun exposure on your face and hands 2 to 3 times a week during the

summer gives you a healthy dose of vitamin D. You also can get vitamin D from food: good sources include low-fat milk, salmon, tuna, and fortified orange juice.

Link:

Federal Trade Commission (FTC)

## TANNING IN CHILDREN AND TEENS - FDA

in

- What Experts Say

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What Experts Say

### **Tanning in Children and Teens**

FDA is particularly concerned about children and teens being exposed to UV rays. Intermittent exposures to intense UV radiation leading to sunburns, especially in childhood and teen years, increase the risk of melanoma, according to NCI.

FDA believes that limiting sun exposure and using sunscreen or sunblock are particularly important for children since these measures can prevent sunburn at a young age.

NCI reports that women who use tanning beds more than once a month are 55 percent more likely to develop melanoma. Teenage girls and young women make up a growing number of tanning bed customers.

“Young people may not think they are vulnerable to skin cancer,” says Kaczmarek. “They have difficulty thinking about their own mortality.” Yet of the more than 68,000 people in the United States who will learn they have melanoma this year, one out of eight will die from it, according to NCI estimates. In addition, the American Academy of Dermatology reports that melanoma is the second most common cancer in women 20 to 29 years old.

Some states are considering laws to ban those under age 18 from using tanning beds. And many states now have laws that require minors to have a parent’s consent or be accompanied by a parent to the tanning facility.

FDA’s current performance standard requires that a sunlamp product’s label include a recommended exposure schedule. FDA has advised manufacturers that this schedule should provide for exposures of no more than three sessions in the first week.

In an NCI-sponsored study published in September 2009 in the Archives of Dermatology, the study researchers hired and trained college students to pose as 15-year-old, fair-skinned girls who had never tanned before. By telephone, the students asked more than 3,600 tanning facilities in all 50 states about their practices.

Less than 11 percent of the facilities followed FDA’s recommended exposure schedule of three or fewer sessions the first week. About 71 percent said they would allow a teen to tan all seven days the first week, and many promoted frequent tanning with “unlimited tanning” discount price packages.

About 87 percent of the facilities required parental consent, leading the researchers to conclude that “many parents are allowing their teens to tan and are providing written consent or accompaniment.”

“Parents should carefully consider the risks before allowing their children under 18 to tan,” says Miller.

Link:

U.S. Food and Drug Administration (FDA)

## TANNING BEDS CLASSIFIED AS “CARCINOGENIC TO HUMANS” - IARC

in

- What Experts Say

Category:

What Experts Say

The World Health Organization has raised the classification of tanning beds from a possible human carcinogen to a category 1 rating of carcinogenic to humans. In July 2009 a working group of 20 scientists from nine different countries met at the International Agency for Research on Cancer. In their report, published in *Lancet Oncology*, they reassessed types of radiation carcinogenic to humans and based on current evidence moved tanning beds into the highest risk category for causing cancer in humans.

The group reported that “the use of UV-emitting tanning devices is widespread in many developed countries, especially among young women. A comprehensive meta-analysis concluded that the risk of cutaneous melanoma is increased by 75% when use of tanning devices starts before 30 years of age. Additionally, several case–control studies provide consistent evidence of a positive association

between the use of UV-emitting tanning devices and ocular melanoma.”

Link:

Indoor Tanning International Agency for Research on Cancer (IARC)

# (TANNING BEDS/BOOTHS) - FDA

in

- What Experts Say

Category:

What Experts Say

The FDA wants consumers to know that UV radiation in tanning devices poses serious health risks. A recent report by the International Agency for Research on Cancer, (IARC), part of the World Health Organization, concludes that tanning devices are more dangerous than previously thought. Exposure to UV radiation, whether from the sun or indoor tanning beds, can cause:

- Skin cancer
- Skin burns
- Premature skin aging
- Eye damage (both short- and long-term)

## **Description**

Sunlamp products are electronic products designed to use one or more ultraviolet lamp(s) and are intended for irradiation of any part of the living human body, by ultraviolet radiation with wavelengths in air between 200 and 400 nanometers, to induce skin tanning. Sunlamp products include portable home units, table top models, tanning beds and tanning booths.

The ultraviolet lamps, subject to the performance standard, produce radiation within a prescribed range of wavelengths and are intended for use in sunlamp products.

## **Risks/Benefits**

Sunlamp products may incorporate different types of fluorescent lamps, reflector spot (RS) or High Intensity Discharge (HID) with different levels of energy output and radiation at different wavelengths.

These products are recognized as hazardous and produce an estimated 1,800 hospital emergency room cases a year. This number is based on the average yearly estimate of injuries for 2009 and 2010 (the most recent years for which data are available). It is likely that the actual number of injuries may be higher because this estimate only includes cases that are initially treated in US hospital emergency departments. This estimate does not include cases that are treated in outpatient clinics, physicians' offices, or not medically treated at all.

(Source: National estimates for tanning bed/booth-related injuries, 2009-2010 are from the National Electronic Injury Surveillance System – All Injury Program operated by the US Consumer Product Safety Commission in collaboration with the National Center for Injury Prevention and Control (NCIPC), CDC. Estimates were computed by the Office of Statistics and Programming, NCIPC, CDC.)

Overexposure to sunlamps and/or sunlamp products can cause eye and skin injury and allergic reactions. Repeated exposure may cause premature aging of skin and skin cancer.

Link:

U.S. Food and Drug Administration (FDA)

# COMPARISON OF ADVERTISING STRATEGIES BETWEEN THE INDOOR TANNING AND TOBACCO INDUSTRIES

in

- Research and Evidence

Category:

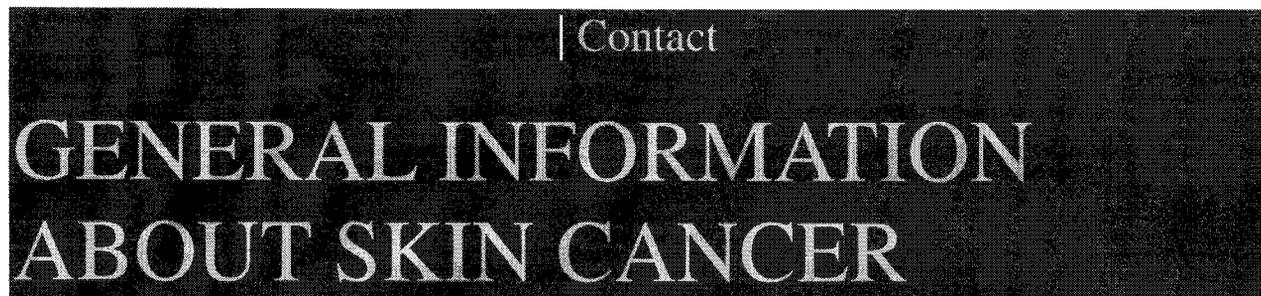
Research and Evidence

The indoor tanning industry is large and continues to grow, with 2007 domestic sales in excess of \$5 billion. Advertising is central to shaping the consumer's perception of indoor tanning as well as driving industry demand. This article aims to identify key drivers of consumer appeal by comparing tanning advertising strategies to those used by tobacco marketers. Tobacco advertising was selected as a reference framework because it is both well documented and designed to promote a product with known health hazards. Two thousand advertisements from 4 large tobacco advertisement databases were analyzed for type of advertisement strategy used, and 4 advertising method categories were devised to incorporate the maximum number of advertisements reviewed. Subsequently, contemporary tanning advertisements were collected from industry magazines and salon websites and evaluated relative to the identified strategy profiles. Both industries have relied on similar advertising strategies, including mitigating health concerns, appealing to a sense of social acceptance, emphasizing psychotropic

effects, and targeting specific population segments. This examination is a small observational study, which was conducted without rigorous statistical analysis, and which is limited both by the number of advertisements and by advertising strategies examined. Given the strong parallels between tobacco and tanning advertising methodologies, further consumer education and investigation into the public health risks of indoor tanning is needed.

Link:

Journal of the American Academy of Dermatology



in

- Research and Evidence

Category:

Research and Evidence

**Skin cancer is a disease in which malignant (cancer) cells form in the tissues of the skin.**

The skin is the body's largest organ. It protects against heat, sunlight, injury, and infection. Skin also helps control body temperature and stores water, fat, and vitamin D. The skin has several layers, but the two main layers are the epidermis (upper or outer layer) and the dermis (lower or inner layer).

**There are several types of skin cancer.**

The most common types of skin cancer are squamous cell carcinoma, which forms in the squamous cells and basal cell carcinoma, which forms in the basal cells. Squamous cell carcinoma and basal cell carcinoma are also called nonmelanoma skin cancers. Melanoma, which forms in the melanocytes, is a less common type of skin cancer that grows and spreads quickly.

Skin cancer can occur anywhere on the body, but it is most common in areas exposed to sunlight, such as the face, neck, hands, and arms.

Skin cancer is the most common cancer in the United States.

Basal cell carcinoma and squamous cell carcinoma are the most common types of skin cancer in the United States. The number of new cases of nonmelanoma skin cancer appears to be increasing every year. These nonmelanoma skin cancers can usually be cured.

The number of new cases of melanoma has been increasing for at least 30 years. Melanoma is more likely to spread to nearby tissues and other parts of the body and can be harder to cure. Finding and treating melanoma skin cancer early may help prevent death from melanoma.

Link:

National Cancer Institute

**FEDERAL TRADE SUNLAMPS  
AND SUNLAMP PRODUCTS**

# USE OF TANNING BEDS AND INCIDENCE OF SKIN CANCER

in

- Research and Evidence

Category:

Research and Evidence

Skin cancer is the most common malignancy among whites in the United States, and its incidence has been rising rapidly over the past several decades for young women. Some have suspected that this increased incidence may be attributable to behavioral changes, including expanded use of indoor tanning and more outdoor recreation in combination with early screening. Indoor tanning produces artificial exposure to ultraviolet (UV) radiation, which is known to contribute to skin cancer development.

Consistent with our prior knowledge about UV exposure, abundant epidemiologic studies on indoor tanning have suggested it as a risk factor for both melanoma and nonmelanoma skin cancers, including basal cell carcinoma (BCC) and squamous cell carcinoma (SCC). A 2007 meta-analysis by the International Agency for Research on Cancer reported positive associations of ever-use of tanning beds with increased risk of melanoma and SCC.<sup>7</sup> In 2009, the International Agency for Research on Cancer classified UV radiation from tanning beds as “carcinogenic to humans” (group 1) on the basis of its meta-analysis. However, the results regarding BCC were inconsistent; the association was not significant in the meta-analysis. In addition, although a dose-response relationship has been suggested for melanoma, it was inconsistent in previous

studies, and a meta-analytic synthesis was not possible because of differences among studies in metrics for assessing duration. Another limitation of previous studies is that most of them were case-control studies except for two studies on melanoma among the same cohort population. We conducted a cohort study among the Nurses' Health Study II (NHSII) cohort, a large and well-characterized cohort of 116,678 young women in the United States with 20-year follow-up. We simultaneously investigated the frequency of tanning bed use during high school/college, from age 25 to 35, and overall average use in relation to three types of skin cancer (BCC, SCC, and melanoma) in the same cohort.

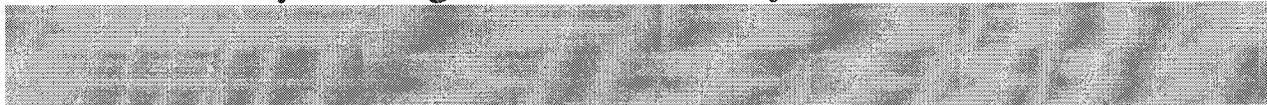
Our data reveal positive associations between tanning bed use and the risks of the three most common types of skin cancers (BCC, SCC, and melanoma) with a dose-response effect. These findings provide evidence to support warning the public against future use of tanning beds and enacting state and federal legislation to ban tanning bed use for those under age 18, initiatives that have been launched in many countries including Brazil, Australia, France, and Germany as well as successfully enacted in California on October 9, 2011. According to the findings of this study and evidence from previous studies, we strongly suggest that policy makers promote restrictions on the indoor tanning industry.

Link:

Journal of Clinical Oncology

Download:

[harvard-study-tanning-and-skin-cancer-jco2011393652full.pdf](#)



# GENERAL INFORMATION ABOUT SKIN CANCER

in

- Research and Evidence

Category:

Research and Evidence

**Skin cancer is a disease in which malignant (cancer) cells form in the tissues of the skin.**

The skin is the body's largest organ. It protects against heat, sunlight, injury, and infection. Skin also helps control body temperature and stores water, fat, and vitamin D. The skin has several layers, but the two main layers are the epidermis (upper or outer layer) and the dermis (lower or inner layer).

**There are several types of skin cancer.**

The most common types of skin cancer are squamous cell carcinoma, which forms in the squamous cells and basal cell carcinoma, which forms in the basal cells. Squamous cell carcinoma and basal cell carcinoma are also called nonmelanoma skin cancers. Melanoma, which forms in the melanocytes, is a less common type of skin cancer that grows and spreads quickly.

Skin cancer can occur anywhere on the body, but it is most common in areas exposed to sunlight, such as the face, neck, hands, and arms.

Skin cancer is the most common cancer in the United States.

Basal cell carcinoma and squamous cell carcinoma are the most common types of skin cancer in the United States. The number of

new cases of nonmelanoma skin cancer appears to be increasing every year. These nonmelanoma skin cancers can usually be cured.

The number of new cases of melanoma has been increasing for at least 30 years. Melanoma is more likely to spread to nearby tissues and other parts of the body and can be harder to cure. Finding and treating melanoma skin cancer early may help prevent death from melanoma.

Link:

National Cancer Institute

## CUTANEOUS MELANOMA ATTRIBUTABLE TO SUNBED USE: SYSTEMATIC REVIEW AND META-ANALYSIS

in

- Research and Evidence

Category:

Research and Evidence

Sunbed use is associated with a significant increase in risk of melanoma. This risk increases with number of sunbed sessions and with initial usage at a young age (<35 years). The cancerous damage associated with sunbed use is substantial and could be avoided by strict regulations.

Based on 27 studies ever use of sunbeds was associated with a summary relative risk of 1.20 (95% confidence interval 1.08 to 1.34). Publication bias was not evident. Restricting the analysis to

cohorts and population based studies, the summary relative risk was 1.25 (1.09 to 1.43). Calculations for dose-response showed a 1.8% (95% confidence interval 0% to 3.8%) increase in risk of melanoma for each additional session of sunbed use per year. Based on 13 informative studies, first use of sunbeds before age 35 years was associated with a summary relative risk of 1.87 (1.41 to 2.48), with no indication of heterogeneity between studies. By using prevalence data from surveys and data from GLOBOCAN 2008, in 2008 in the 15 original member countries of the European Community plus three countries that were members of the European Free Trade Association, an estimated 3438 cases of melanoma could be attributable to sunbed use, most (n=2341) occurring among women.

Link:

International Prevention Research Institute

Download:

[boniol2012cutaneousmelanomaattributabletosunbeduse-systematicreviewandmeta-analysis.pdf](#)

## USE OF INDOOR TANNING DEVICES BY HIGH SCHOOL STUDENTS IN THE U.S., 2009

in

- Research and Evidence

Category:

Research and Evidence

This study provides estimates of indoor tanning device use among US high school students and provide baseline data before

implementation of a 10% excise tax on indoor tanning device use mandated by recent federal health care reform legislation. We examined the frequency of indoor tanning device use by using data from the 2009 national Youth Risk Behavior Survey. Overall, 15.6% of students used an indoor tanning device during the 12 months before the survey; almost half of those students used an indoor tanning device 10 or more times. Reported use and frequency of use varied by age, sex, and race/ethnicity. Given the high prevalence of indoor tanning device use among US high school students and the associated risk of melanoma, strategies to reduce exposure must be examined.

Link:

Centers for Disease Control and Prevention

## UV RADIATION AND SKIN CANCER: THE SCIENCE BEHIND AGE RESTRICTIONS FOR TANNING BEDS

in

- Research and Evidence

Category:

Research and Evidence

Every year, millions of people climb in various states of undress into warm, glowing tanning beds, where during a typical 2- to 15-minute session they'll absorb a controlled dose of ultraviolet (UV)

radiation at an intensity up to two to three times stronger than the sunlight striking the equator at noon. The tanning industry has grown rapidly since the 1980s, rising to an estimated 28 million users in the United States. This rise has been accompanied by an increase in diagnoses of skin cancer.

The reasons behind the rising skin cancer diagnoses remain open to debate. Some experts attribute the rise to more frequent skin cancer screening, whereas others blame environmental and behavioral risk factors, particularly changes in UV exposure. In this latter context, UV-emitting tanning beds—classified as carcinogenic to humans by the International Agency for Research on Cancer (IARC)—have come under growing scrutiny.

People tan to look healthy, but looks can be deceiving; UV radiation causes all three types of skin cancer. Melanoma, a tumor of the cells that produce the skin pigment melanin, is the rarest but deadliest type, accounting for 75% of skin cancer deaths worldwide. According to the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) program, melanoma incidence among U.S. whites (who develop the disease more often than other races) rose from 8.7 cases per 100,000 people in 1975 to 28 cases per 100,000 in 2009. Most of that increase occurred in older men, who rarely tan indoors. But a closer look at the age-stratified SEER data reveals that melanoma rates among white girls and women aged 15–39 rose by 3.6% per year between 1992 and 2006, compared with a 2% increase per year among boys and men of the same ages.

Link:

Environmental Health Perspectives

Even with warnings, many U.S. youth—especially teen girls—are using indoor tanning. In one large national study, 40% of the 17-18 year old girls had tanned indoors in the past year.

## KILLER TAN - WHY TEENS ARE BUYING THEM - WHY WE SHOULD BAN THEM

in

- Research and Evidence

Category:

Research and Evidence

CITY100 - Controlling Indoor Tanning in Youth

### **The Problem**

Teens are using indoor tanning, even though indoor tanning has been linked to skin cancer.

**Identify the key factors that encourage and discourage teens to use indoor tanning.**

CITY100 identified what influences teens to use indoor tanning. A broad range of influences was evaluated, including whether teens lived near indoor tanning businesses and whether they lived in a state with an indoor tanning law. The project was funded by the National Cancer Institute in 2003 to researchers at San Diego State University.

## The Findings

- Tanning salons located in states with youth access laws were more likely to require the teen to obtain parental consent to tan. However, youth access law (presence vs. absence) did NOT relate to whether teens had actually used indoor tanning. This may be because many parents are providing their consent. Learn which states had indoor tanning laws.
- Older teens and teen girls were significantly more likely to have used indoor tanning than younger teens and teen boys.
- Teens with parents who used indoor tanning were significantly more likely to have tanned compared to teens whose parents had not used indoor tanning. If teens reported their parent allowed them to use indoor tanning, they were especially likely to have used it.
- There was an average of 42 salons per city. This exceeded the numbers of Starbucks and McDonald's! See the number of salons in specific cities.
- 76% of the teens lived within 2 miles of a tanning salon. Those living within 2 miles of a tanning salon were significantly more likely to have used indoor tanning than those not living within 2 miles of a salon.
- 71% of the salons we contacted said a fair-skinned teen could tan every day the 1st week of tanning, even though the Food and Drug Administration (FDA) (1) recommends no more than 3 times the 1st week. Learn about what salons in specific cities did.

Link:

CITY100

| Contact

# POLICY STATEMENT— ULTRAVIOLET RADIATION: A HAZARD TO CHILDREN AND ADOLESCENTS

in

- What Experts Say

Category:

What Experts Say

## **American Academy of Pediatrics**

Ultraviolet radiation (UVR) causes the 3 major forms of skin cancer: basal cell carcinoma; squamous cell carcinoma; and cutaneous malignant melanoma. Public awareness of the risk is not optimal, overall compliance with sun protection is inconsistent, and melanoma rates continue to rise. The risk of skin cancer increases when people overexpose themselves to sun and intentionally expose themselves to artificial sources of UVR. Yet, people continue to sunburn, and teenagers and adults alike remain frequent visitors to tanning parlors. Pediatricians should provide advice about UVR exposure during health-supervision visits and at other relevant times. Advice includes avoiding sunburning, wearing clothing and hats, timing activities (when possible) before or after periods of peak sun exposure, wearing protective sunglasses, and applying and reapplying sunscreen. Advice should be framed in the context of promoting outdoor physical activity. **Adolescents should be strongly discouraged from visiting tanning parlors.** Sun exposure and vitamin D status are intertwined. Cutaneous vitamin D

production requires sunlight exposure, and many factors, such as skin pigmentation, season, and time of day, complicate efficiency of cutaneous vitamin D production that results from sun exposure. Adequate vitamin D is needed for bone health. Accumulating information suggests a beneficial influence of vitamin D on many health conditions. Although vitamin D is available through the diet, supplements, and incidental sun exposure, many children have low vitamin D concentrations. Ensuring vitamin D adequacy while promoting sun-protection strategies will require renewed attention to children's use of dietary and supplemental vitamin D.

Link:

American Academy of Pediatrics

Download:

[pediatrics-2011-peds2010-3501.pdf](#)

# TOP TEN LIES OF THE INDOOR TANNING INDUSTRY

in

- Truth About Indoor Tanning

Category:

Truth About Indoor Tanning

Suntans became popular as a result of the influence of CoCo Chanel on the Western world. Prior to the implication of the income to enjoy beach vacations, skin that had tanned beyond its natural tone was undesirable since it implied the need for hard outdoor labor. Farming was soon forgotten as a source of skin darkening, and tan models frolicking on the French Riviera were presented as a new ideal. Sunbathing and indoor tanning increased rapidly throughout the second half of the 20th century. It is certainly no coincidence that in 1935, the lifetime risk for a person in the United States developing invasive melanoma was 1 in 1500, while in 2007, this risk increased to 1 in 63 and 1 in 33 when all melanomas were considered. Worldwide, melanoma is the fastest-increasing cancer.

The International Tanning Association (ITA) is a well-funded agency (the tanning industry makes over \$5 billion annually<sup>1</sup>) that actively lobbies to protect its interests. Many half-truths and outright lies have become part of the common logic, and the ITA insists that “junk science” drives the argument against indoor tanning.<sup>1</sup> The evidence is hardly questionable: the American Cancer Society, the National Council on Skin Cancer Prevention, and all major dermatological associations have taken the position that indoor tanning is an unsafe practice. While the tanning industry stands to lose revenue if indoor tanning decreases, the dermatologists and

oncologists who treat melanoma also stand to lose business but still insist that the American public knows the truth. We, the National Council, hope to ensure that people who are considering tanning know the risks and can identify myth from fact.

<sup>1</sup> Indoor Tanning Association. Indoor tanning FAQs. <http://www.theita.com/indoor/faq.cfm>. Accessed December 29, 2009

### **Myth #1. Tanning beds are safe.**

Any tanning bed use prior to the age of 30 increases the risk of melanoma, the deadliest form of skin cancer, by 75%. UV radiation is an unequivocal carcinogen (cancer-causing agent) per the World Health Organization (WHO).

El Ghissassi F, Baan R, Straif K, Grosse Y, Secretan B, Bouvard V *et al.* A review of human carcinogens—part D: radiation. *Lancet Oncol*, 10 (2009), pp. 751–752

### **Myth #2. Tanning beds provide a “base tan,” which protects from sunburns during periods of sun exposure like a beach vacation.**

“Base tans” only provide an SPF of about 4 or less, at the price of sun-damaged skin. All tanning beyond one’s natural skin tone is evidence of the skin trying to defend itself against an environmental insult. People who believe that a base tan is protective also end up with more total sun exposure and therefore more DNA damage.

Cui R, Widlund HR, Feige E, *et al.* Central role of p53 in the suntan response and pathologic hyperpigmentation. *Cell* 2007; 128: 853–864.

Eller MS, Ostrom K, Gilchrest BA. DNA damage enhances melanogenesis. *Proc Natl Acad Sci U S A* 1996; 93: 1087–1092.

**Myth #3. Tanning beds are a good source of Vitamin D.**

Tanning beds emit primarily UVA light, which is ineffective in converting vitamin D in its active form; the UVB or “burning” rays are often omitted from tanning lamps to prevent burning that would limit use of the beds. Fifteen minutes of casual sun exposure of the hands and face two to three times weekly in summer months is considered adequate by the WHO for maintaining normal vitamin D levels; furthermore, a healthy diet and inexpensive vitamin D supplementation in multivitamins are much safer ways to increase vitamin D and carry no risk of increased cancer. Tanning for vitamin D makes as much sense as smoking to increase calcium intake (a nonsensical and dangerous association).

Woo DK, Eide MJ. Tanning beds, skin cancer, and vitamin D: An examination of the scientific evidence and public health implications. *Dermatol Ther.* 2010 Jan-Feb;23(1):61-71.

<http://www.who.int/uv/faq/uvhealthfac/en/index1.html> Accessed April 6, 2012.

**Myth #4. Tanning salons are safe and run by trained professionals who can counsel regarding potential risks of tanning.**

90% of tanning salon employees interviewed as part of an investigation by the US House Energy and Commerce Committee told callers (who described themselves as fair-skinned teen girls) that the skin cancer risk was a “big myth” or “hype.” In addition, 78% of the tanning salons contacted by investigators promoted false claims of health benefits associated with tanning, ranging from

treatment of depression to weight loss. Other studies have shown poor sanitation of tanning salons; HPV and MRSA have been transmitted through tanning salons, and one study showed bacteria found in fecal matter on 90% of top-rated salon tanning beds, even those that had been labeled as “sanitized.”

<http://democrats.energycommerce.house.gov/sites/default/files/documents/Tanning%20Investigation%20Report%202.1.12.pdf>  
Accessed April 6, 2012.

Russak JE, Rigel DS. Tanning bed hygiene: microbes found on tanning beds present a potential health risk. *J Am Acad Dermatol*. 2010 Jan;62(1):155-7.

**Myth #5. If you tan easily without burning or have naturally dark skin, you are not at risk for skin cancer.**

While people with the lightest skin are at the highest risk for melanoma, all races are susceptible to skin cancer, including melanoma.

Lotze MT, Dallal RM, Kirkwood JM, Flickinger JC. Cutaneous melanoma. In DeVita VT, Rosenberg SA, Hellman S. (eds.), *Principles and Practice of Oncology*, 6 th ed. Philadelphia: Lippincott, 2001.

**Myth #6. Other than skin cancer risk, tanning beds are completely safe.**

Unfortunately, this is also untrue. Ocular melanoma, cataracts, infectious disease, immunosuppression, severe burning (3,000 emergency department visits in 2010 alone were related to tanning bed injury), and photoaging are well-described consequences of tanning.

The FDA - accessed April 2012.

<http://www.fda.gov/RadiationEmittingProducts/RadiationEmittingProductsandProcedures/HomeBusinessandEntertainment/ucm116447.htm>

**Myth #7. The risk of tanning is the same for teens and adults.**

Sun damage is cumulative, and about 25% of sun exposure occurs in the first 18 years of life. Furthermore, the rapidly dividing DNA found in growing individuals (such as children and teens) is more susceptible to damage by carcinogens. Teens are also less likely to be able to comprehend abstract concepts such as future risk and are less likely to limit behaviors such as tanning. There is also evidence that indoor tanning is addictive, and starting this behavior at a young age may normalize it at a time when the teen is unprepared to make responsible decisions about his/her health. Tanning salons often target teens with prom or back-to-school specials.

Balk SJ; Council on Environmental Health; Section on Dermatology. Ultraviolet radiation: a hazard to children and adolescents. *Pediatrics*. 2011 Mar;127(3):e791-817.

Warthan MM, Uchida T, Wagner RF. UV light tanning as a type of substance-related disorder. *Arch Dermatol*. 2005;141(8):963-966

**Myth #8. If tanning beds were dangerous, the government would have banned them by now.**

There is pending bipartisan national legislation seeking to limit the access of minors to tanning devices. Currently UV radiation, though categorized as a known carcinogen by the WHO, is grouped as a Class I medical device by the Food and Drug Administration, just like tongue depressors and bandages. The FDA is currently examining this classification; meanwhile, the Affordable Care Act

levied a 10% tax on tanning beds, recognizing the potential long-term cost of this behavior, and 32 states have passed legislation requiring more regulation for tanning salon use. In addition, other countries, including Brazil, Finland, South Australia, France, Germany, and the UK have either banned or limited tanning bed use.

Lim HW, James WD, Rigel DS, Maloney ME, Spencer JM, Bhushan R. Adverse effects of ultraviolet radiation from the use of indoor tanning equipment: time to ban the tan. *J Am Acad Dermatol*. 2011 Apr;64(4):e51-60. Epub 2011 Feb 3.

**Myth #9. Skin cancer is something that only happens to old people.**

Melanoma is the #1 cause of cancer in women age 25-29 and the #1 cause of cancer death in this demographic. In addition, it is the second most common cancer in females aged 15-29.

Herzog C, Pappo A, Bondy M, Bleyer A, Kirkwood J. Malignant melanoma: cancer epidemiology in older adolescents and young adults; National Cancer Institute, SEER AYA monograph; 2007. p. 53-63. Available at:  
[http://seer.cancer.gov/publications/aya/5\\_melanoma.pdf](http://seer.cancer.gov/publications/aya/5_melanoma.pdf).

**Myth #10. If I get skin cancer, I'll have it removed and everything will be okay.**

Unfortunately, though melanoma removed at the earliest stages can be cured with resection only, metastatic melanoma still has no cure and has a five year survival of less than 15%. People who have had one skin cancer are at risk of future skin cancers, and history of cancer can lead to discriminatory practices in everything from health insurance to adoption, among others, not to mention the loss of

feeling of safety in one's own skin and the life-long anxiety that can accompany a skin cancer diagnosis.

Link:

National Council on Skin Cancer Prevention

sunscreen every two hours, even on cloudy days. After swimming or sweating, you also need to reapply sunscreen.

■ **Protecting your family and friends.**

Make sure children are protected from excessive sun exposure.

■ **Never use a tanning bed.** UV light from the sun and tanning beds can cause skin cancer and wrinkling. If you want to look tan, consider using a self-tanning product or spray. Even when using one of these products, you need to use sunscreen.

■ ■ ■

A board-certified dermatologist is a medical doctor who specializes in treating the medical, surgical and cosmetic conditions of the skin, hair and nails. To learn more about skin cancer or to find a board-certified dermatologist in your area, log onto [www.aad.org](http://www.aad.org) or call toll-free (888) 462-DERM (3376).

You can learn more by visiting SPOT Skin Cancer® at [www.SpotSkinCancer.org](http://www.SpotSkinCancer.org). Here you can learn how to perform a skin self-exam, download a body mole map (a sheet to help you track changes on your skin), and find free skin cancer screenings in your area. You also can download free materials to help you educate others about skin cancer. If you've been affected by skin cancer, you are invited to share your story.

TO LEARN MORE

Contact the American Academy of Dermatology (AAD), which represents almost all dermatologists in the U.S. and has more than 17,000 members worldwide. Most of the Academy's members are board-certified in dermatology, which means they have completed a three-year residency and passed a rigorous two-part test administered by the American Board of Dermatology.

Visit the Academy's website at [www.aad.org](http://www.aad.org) to:

- Locate a board-certified dermatologist in your area;
- Read information on a variety of skin conditions;
- Get advice about skin cancer prevention and detection, and other ways to care for your skin; and
- Learn about the latest dermatologic procedures and how to make informed decisions about having those procedures.

# Skin Cancer

AMERICAN ACADEMY OF DERMATOLOGY



Whether your skin needs medical, surgical or cosmetic treatment, trust the expert care of a board-certified dermatologist.

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**American Academy of Dermatology**

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AAD Member Resource Center: 866.503.SKIN (7546)

Outside the United States: 847.240.1280

Web: [www.aad.org](http://www.aad.org) • Email: [mrc@aad.org](mailto:mrc@aad.org)



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# Skin Cancer

Skin cancer is the most common cancer. More than 2 million Americans are diagnosed with skin cancer each year.

With early detection and treatment, skin cancer is highly curable. The most common warning signs of skin cancer include changes in size, shape, or color of a mole or other skin lesion or the appearance of a new growth on the skin.

*Caucasians and men over 50 have an increased risk of developing melanoma.*

## SKIN CANCER AFFECTS EVERYONE

No matter your skin color, you can get skin cancer. Some people have a higher risk of developing skin cancer than others. Age is a key risk factor, but there are many other risk factors.

People with a higher risk for skin cancer have:

- Light colored skin
- Skin that burns or freckles rather than tans

- Blond or red hair
- Blue or green eyes
- More than 50 moles
- Irregularly-shaped or darker moles (nevi) called "atypical" or "dysplastic"
- Used (or use) indoor tanning devices such as tanning beds and sunlamps

Your medical history also can increase your risk of getting skin cancer. You have a much greater risk of developing skin cancer if you have:

- History of sunburns, especially blistering sunburns
- Received an organ transplant
- Had skin cancer (or a blood relative has/had skin cancer)
- A weakened immune system
- Received long-term x-ray therapy, such as x-ray treatments for acne
- Been exposed to cancer-causing compounds such as arsenic or coal
- An area of skin that has been badly burned, either in an accident or by the sun

## TYPES OF SKIN CANCER

The most common types of skin cancer are:

### ■ BASAL CELL CARCINOMA (BCC)

BCC is the most common type of skin cancer. BCC appears on the skin in many shapes and sizes. You may see a dome-shaped growth with visible blood vessels: a shiny, pinkish patch; or a sore that heals, and then returns.

BCC usually develops on skin that receives lots of sun, such as the scalp, nose, neck, and hands. BCC rarely spreads to other areas of the body, but it can grow deep into tissue and bone.



Basal Cell Carcinoma

### ■ SQUAMOUS CELL CARCINOMA (SCC)

SCC is the second most common type of skin cancer. SCC appears on the skin in many shapes. You may see a crusted or rough bump; a red, rough flat patch; a dome-shaped bump that grows and bleeds; or a sore that does not heal, or heals and returns. SCC commonly develops on skin that is exposed to sun, such as the face, ears, lips, back of the hands, arms, and legs.

SCC also can develop on areas of the body that are not exposed to sun, such as inside the mouth or on the genitals. Smoking or chewing tobacco may increase the risk of getting SCC in the mouth or throat. Left untreated, SCC can spread to other parts of the body, making treatment difficult.



Squamous Cell Carcinoma

## ■ MELANOMA

This is the deadliest form of skin cancer. Melanoma may develop on normal skin or in an existing mole. A change to the shape, color, or diameter (size) of a mole can be a sign of melanoma. Other changes to watch for include a mole that becomes painful or begins to bleed or itch.

Some melanomas develop on normal skin. A new growth, particularly one that does not match your other moles, could be melanoma. Melanoma also can develop under fingernails or toenails. This will look like a brown or black streak underneath the nail. Although melanoma is more common in those with light colored skin, people with skin of color also get melanoma. In skin of color, melanoma usually appears on a palms of the hands, soles of the feet, under a nail, in the mouth, or on the genitals.

### ABCDEs of Melanoma Detection

When melanoma is caught early and treated, the cure rate is nearly 100%. Performing skin self-examinations can help you find skin changes that could be an early melanoma.

When looking at your skin for signs of melanoma, it helps to keep in mind the ABCDEs of Melanoma:



**A** stands for **ASYMMETRY**;

one-half does not look like the other half.



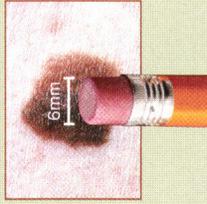
**B** stands for **BORDER**;

irregular, scalloped or poorly defined border.



**C** stands for **COLOR**;

varied from one spot to another; shades of tan and brown, black; sometimes white, red, or blue.



**D** **DIAMETER**;

melanomas are most often greater than 6 millimeters (the size of a pencil eraser) when diagnosed, but they can be smaller.

**E**

stands for **EVOLVING**; a mole or skin growth that looks different from the rest or is changing in size, shape, or color.



Make an appointment to see a board-certified dermatologist as soon as possible if you notice a spot or mole on your skin that has any of these characteristics:

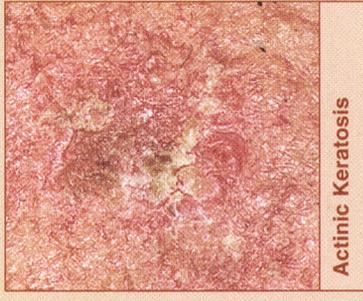
- Fits any of the ABCDEs of Melanoma
- Differs from the other moles and spots on your skin.

- Changes, itches, or bleeds, even if the spot is smaller than 6mm

## ■ ACTINIC KERATOSES (AK)

Actinic keratoses (AKs) are common skin growths. AKs are considered precancerous. Left untreated, an AK may turn into squamous cell carcinoma (SCC).

Most AKs are dry, scaly, rough-textured spots on the skin. AKs form on skin that receives lots of sun, such as on the head, including the lips and scalp; arms; and hands.



Actinic Keratosis

Women frequently get AKs on the backs of their legs. AKs can form, disappear, and then return.

## SKIN EXAMINATIONS CAN FIND SKIN CANCERS EARLY

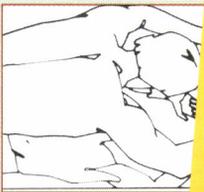
There are two types of skin examinations.

A skin self-exam involves checking your skin for signs of changes.

Your dermatologist performs the other type of skin exam. How often a patient should see a dermatologist for a skin exam varies from patient to patient. Your dermatologist will tell you how often you should have a skin exam. It is very important that you keep every appointment for a skin exam.

## HOW TO EXAMINE YOUR SKIN

The skin self-examination can help you find skin cancer early when treatment can cure the cancer. If you notice anything that is growing, changing or bleeding, immediately make an appointment to see



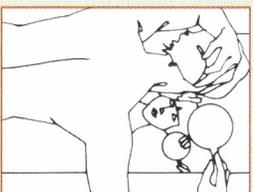
**1** Examine your body front and back, then raise your arms and look at your right and left sides.



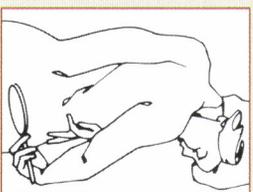
**2** Bend your elbows; look carefully at your forearms, back of upper arms, and palms of your hands.



**3** Look at backs of your legs and feet, paying close attention to the spaces between your toes, and your soles.



**4** Using a hand mirror, examine the back of your neck. To examine your scalp, part and lift your hair.



**5** Finally, use a hand mirror to more closely examine your back and buttocks.

## EARLY TREATMENT HAS A HIGH CURE RATE

Caught early and properly treated, skin cancer can be cured. Even melanoma, which can be deadly, has a cure rate of almost 100% when treated early.

Proper treatment begins with the right diagnosis.

To diagnose skin cancer, a dermatologist performs a skin biopsy. This is the best way to diagnose skin cancer. Your dermatologist can perform a biopsy during an office visit.

To perform a biopsy, your dermatologist will remove either the entire skin growth or part of it. The removed skin will be sent to a lab where it will be examined under a microscope.

If the diagnosis is skin cancer, your dermatologist will consider the type of skin cancer, the size

and location of the skin cancer, and your health to determine the best treatment for you. When caught early and the entire growth is removed, further treatment may not be needed. If further treatment is needed, your dermatologist will discuss your treatment options and make recommendations.

## PREVENT. DETECT. LIVE.

Sun exposure is the most preventable risk factor for all skin cancers, including melanoma. The following can help you detect and prevent new skin cancers:

- **Keep all appointments with your dermatologist.** When found early, skin cancer can often be cured. Even melanoma has a cure rate of nearly 100% when found early and treated.

- **Perform skin self-examinations.** Examine your skin as often as your dermatologist recommends. Be sure to check your scalp, ears, genitals, and buttocks.

- **If you notice anything changing, growing, or bleeding on your skin, immediately make an appointment to see your dermatologist.** Tell the person who schedules the appointment why you want to see your dermatologist.

- **Protect your skin every day by:**

- **Seeking shade.** Shade helps protect your skin from the sun's harmful UV rays. Shade is especially important between 10 a.m. and 2 p.m. when the sun's rays are strongest. But any time your shadow is shorter than you are, seek shade.

- **Protecting your skin when around water, snow, and sand.** These reflect and intensify the damaging rays of the sun.

- **Wearing protective clothing.** This means wearing a long-sleeved shirt, pants, a wide-brimmed hat, and sunglasses, when possible.

- **Generously applying sunscreen that offers broad-spectrum (UVA and UVB) protection, water resistance, and a Sun Protection Factor (SPF) of 30 or more.**

Wearing sunscreen every day, studies show, can reduce the risk of developing melanoma by half. Be sure to apply the sunscreen every day before going outside. Apply enough sunscreen to all skin that clothing will not cover. You should reapply