

PENNSSTATE HERSHEY



Milton S. Hershey
Medical Center

House Judiciary Committee
Hearing on HB 369 – Indoor Tanning Prohibition for Minors
June 1, 2011

The Penn State Milton S. Hershey Medical Center appreciates the invitation to offer testimony before the House Judiciary Committee in support of HB 369. We commend Chairman Ron Marsico for holding this legislative hearing and Representative Rosemarie Swanger for her leadership on this very important public health issue.

Our panel consists of clinicians and researchers who will address the short and long-term health implications of indoor tanning and share anecdotal and empirical data that will lend support to legislative or regulatory efforts that discourage the use of indoor tanning facilities.

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A tan, whether you get it on the beach, in a bed, or through incidental exposure, is damaging, no matter how it's acquired. Tans are caused by harmful ultraviolet (UV) radiation from the sun or tanning lamps. Anyone who has gotten a tan has sustained skin cell damage. The cumulative damage caused by UV radiation can lead to premature skin aging (wrinkles, lax skin, brown spots, and more), as well as skin cancer.

Indoor ultraviolet (UV) tanners are 74 percent more likely to develop melanoma than those who have never tanned indoors. Additionally, the more time a person has spent tanning indoors, the higher the risk. Melanoma is the deadliest form of skin cancer, killing approximately 8,650 Americans in 2009. We hope that these findings, along with what we already know about the risks of indoor tanning, will keep people from using tanning beds, especially individuals under the age of 18.

As a matter of fact, the American Association of Pediatrics is advocating for a prohibition of indoor tanning for young people. Studies show that 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. Since 2009, the International Agency for Research on Cancer, has classified tanning beds as cancer-causing, and studies show that those who first use tanning beds before age 35 have a 75 percent increase in their lifetime risk of developing melanoma, the deadliest form of skin cancer. 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.

More than a million Americans use indoor tanning salons every day with increasingly high use among females in their teens and twenties. Almost 36 percent of women and 12.2 percent of men aged 18-24 surveyed in a 2010 *Archives of Dermatology* study tanned indoors in the past year, and many experts link such figures to the rapidly rising incidence of melanoma among young people; it is now the most common form of cancer for young adults 25-29 years old and the second most common form of cancer for young people 15-29 years old.

Further, it is believed that early age exposure is most likely a marker for cumulative exposure, meaning that the younger a patient was when he or she started tanning, the more time he/she has had to accumulate hours of UV radiation exposure.

We would like to submit the following scientific points with citations that are pertinent to indoor tanning risks for the Committee's information:

1. The International Agency for Research on Cancer Working Group on artificial ultraviolet (UV) light and skin cancer published a meta-analysis which reviewed numerous published studies on this topic (*Int. J. Cancer*: 120, 1116–1122 (2006)). They clearly established a 75% increased risk of melanoma in Indoor Tanning bed use before age 35, and a 225% increased risk of Squamous Cell Carcinoma associated with "ever use" of Indoor Tanning. Note that the overall number of deaths from cutaneous Squamous Cell Carcinoma is estimated to be approximately ¼ to 1/5 as much as melanoma. SCC has much lower proportional mortality than melanoma, but raw numbers of deaths are still in the thousands, because SCC is much more common than melanoma. Prevention of SCC is thus not a trivial consideration, because its link to Indoor Tanning is even larger than melanoma's.
2. Indoor Tanning is likely to be addictive. Several studies have suggested this, via a series of measurable criteria of addiction. See, in particular, Ultraviolet exposure is a reinforcing stimulus in frequent indoor tanners. Feldman SR, Liguori A, Kucenic M, Rapp SR, Fleischer AB Jr, Lang W, Kaur M. *J Am Acad Dermatol* . 2004 Jul;51(1):45-51. Induction of withdrawal-like symptoms in a small randomized, controlled trial of opioid blockade in frequent tanners. Kaur M, Liguori A, Lang W, Rapp SR, Fleischer AB Jr, Feldman SR. *J Am Acad Dermatol* . 2006 Apr;54(4):709-11
3. Sunburn avoidance is unlikely to be sufficient protection against UV-induced cancers. Inflammatory doses of UV may not be necessary for skin carcinogenesis . Halliday GM and Lyons JG. *Photochem Photobiol* 2008; 84:272-83

4. The Tanning Industry has argued that cutaneous production of Vitamin D outweighs the risks of UV exposure to skin. This argument is deeply flawed because oral supplements of vitamin D produce identical (and more predictable) vitamin D supplementation, **WITHOUT CARCINOGENIC RISK**. Attempts by the Tanning Industry to make such (erroneous) medical claims have led to a lawsuit by the State of Texas against Darque Tan.
5. The tanning industry has specifically targeted young and vulnerable populations. See: UV tanning advertisements in high school newspapers. Freeman S , Francis S , Lundahl K , Bowland T , Dellavalle RP. Arch Dermatol. 2006 Apr;142(4):460-2.

With this information, we applaud Representative Swanger for her efforts and thank Chairman Ron Marsico and the members of the House Judiciary Committee for holding this informational hearing on HB 369.

Thank you again for the opportunity to appear before the House Judiciary Committee. We would be happy to answer your questions.