



**Testimony before the Senate Health Care
and Human Services Committee
Respectfully Submitted by Jana Jarvis on behalf of
the American Suntanning Association
March 19, 2013**

Chair Monnes Anderson and Members of the Committee:

RE: Opposition to HB 2896

The issue before you today is complex. We appreciate the proponents concern over skin cancer and recognize it as a growing health concern. We value the work to cure cancer that Dr. Drucker and OHSU have committed to and strive to find a way to work together to address an issue that does not have clear-cut answers.

British Professor of Dermatology and melanoma researcher Dr. Jonathon Rees writes that "melanoma is an example of politics and science becoming tragically intertwined." That's because many in dermatology recognize that its relationship with UV exposure is not straightforward. The pioneer of modern dermato-pathology, Dr. Bernard Ackerman, spent much of his career pointing this out -- that melanomas occur most often on parts of the body that don't get regular sun, and that its incidence is increasing fastest in older men - not in younger women. That sun exposure is the body's most natural and intended source of vitamin D, that thousands of papers now implicate vitamin D deficiency as a growing health concern related to cardiovascular disease and even cancer, and that we shouldn't simply avoid all sun exposure.

We feel as if the bill's proponents do not want to acknowledge that this scientific debate even exists. We feel that they want to fast-track any open discussion of this issue -- not just this bill.

Regardless of your personal philosophy, the proposal before you today contains risks. We know this will drive teen-age clients who presently tan in our facilities only with their parent's written consent to use totally unregulated home tanning units, and that they will sunburn more often as a result. We have ample evidence in this country as to the effect of outright bans and unintended consequences.

Rather, we want to offer a practicable alternative designed to address our proponents concerns. And we would have offered this early on had they chosen to include us in their attempt at a solution. The amendments before you today are three-fold: 1) a ban for those under 16; 2) increased parental consent standards for those 16-17; and 3) an opportunity to meet in the interim to address charges of abuse in our industry. We think this is a responsible choice designed to limit unregulated and unsupervised exposure. We recognize that 16 and 17 year olds have other freedoms, such as driving, that allow them

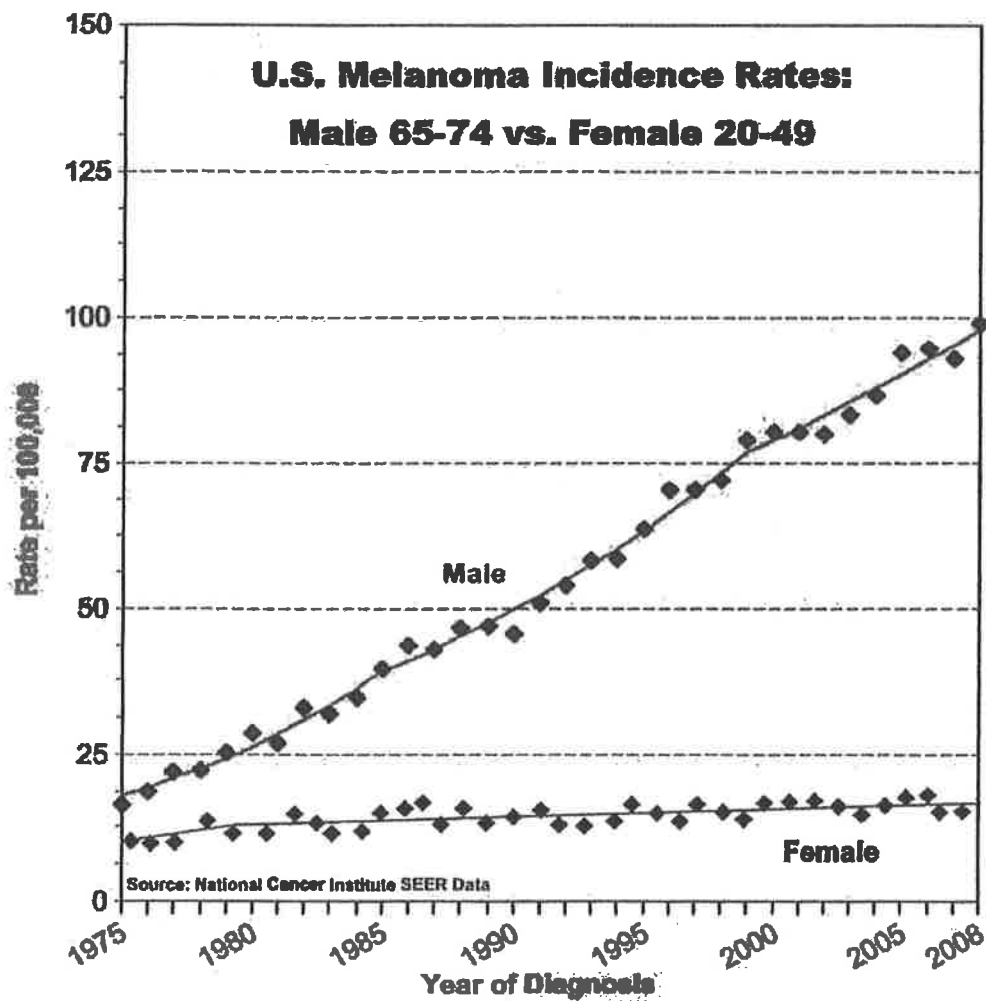
to engage in activities without parental knowledge. Allowing them access, with parental consent, will allow them to be skin typed, ensure that goggles are worn, and reduce over-exposure and burns.

The ASA believes and supports a highly regulated industry where equipment is monitored and protocols are followed. We have a desire to be a part of the solution, not simply the object of attack. If the Committee will adopt the -3,-4, and -5 amendments, we will change our objection to this bill and work for its passage and implementation. We thank you for the opportunity to address the committee and commit our association's effort to finding solutions to the skin cancer debate.



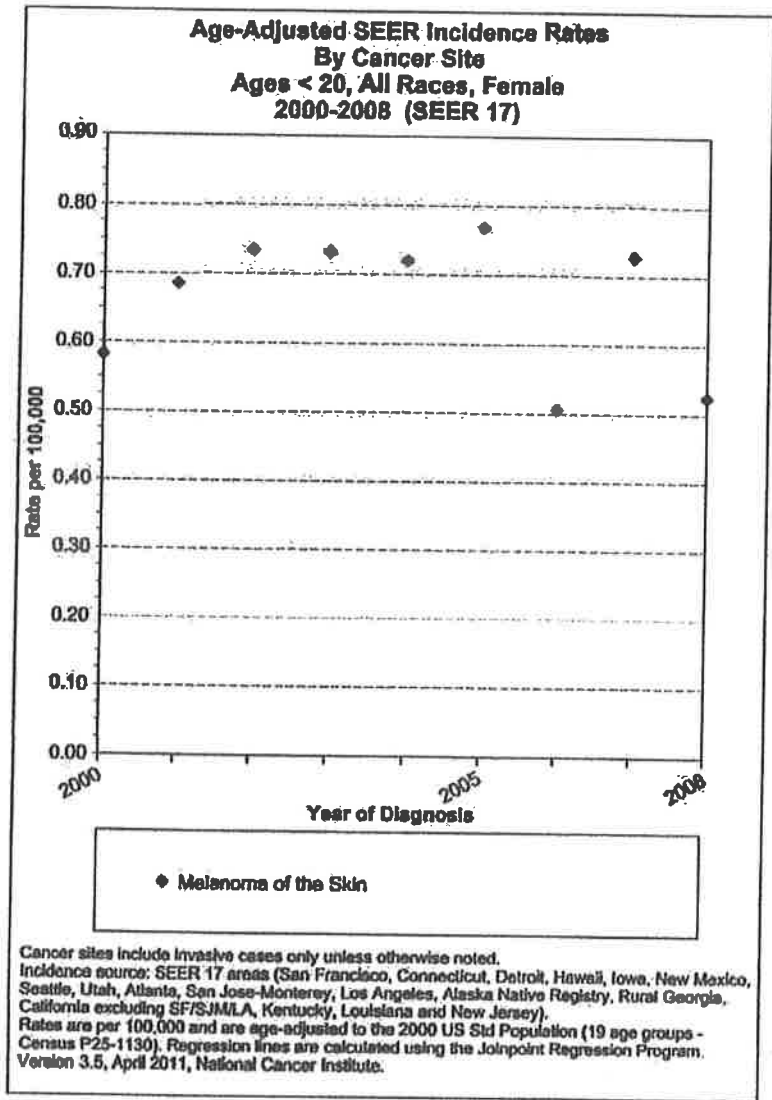
MELANOMA INCIDENCE: INCREASING IN MEN

The National Cancer Institute shows that melanoma incidence is increasing much faster in men than in women since the early 1970s. For women under age 50, incidence rates have actually leveled off and are declining. But dermatology industry lobbying groups continue to promote the opposite -- leading the press to believe that melanoma is increasing fastest in young women. The best data suggest otherwise.





**National Cancer Institute Data:
Melanoma Incidence Decreasing in Women Under Age 20**



WHAT THIS CHART SHOWS:

- Melanoma incidence in women under 20 is extremely rare – about 1 case per 200,000 – and has decreased in the past 10 years, according to the National Cancer Institute's data.



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Benefits of Moderate Sun Exposure

Dr. Robert S. Stern, chair of the Department of Dermatology at Harvard-affiliated Beth Israel Deaconess Medical Center, calls them "solar-phobes": people so concerned about getting skin cancer that they stay inside or cover every bit of skin. "They cover up like they were going out into the Arabian Desert," he says. The marketing of ultrablocking sunscreens and special sun-protective clothing plays into these fears.

There's no getting around the fact that sunlight is hard on your skin. Age gets blamed for wrinkles and rough, dry skin. But the real culprit is a combination of age and sun that dermatologists call photoaging. The short UVB wavelengths that cause sunburn can also damage DNA and suppress the skin's immune system. The longer, more penetrating UVA wavelengths may create highly reactive oxygen molecules capable of damaging skin cell membranes and the DNA inside.

The relationship between sun exposure and skin cancer risk isn't as straightforward as you might think. Genes are a factor, of course: Some protect, some promote. So is skin type: People with pale skin who sunburn easily and don't tan are more likely to get sun-related skin cancer. As for exposure, the "dose" and its timing are crucial. Several studies have suggested that suddenly getting a lot of sun is more dangerous than steady exposure over time.

There's also evidence that exposure when you're young — perhaps before your 20th birthday — matters most. A large Scandinavian study of melanoma risk published in *the Journal of the National Cancer Institute* in 2003 found that adolescence is the most dangerous time to get a sunburn. Recent sun exposure doesn't seem to be associated with basal cell carcinoma, the mildest form of skin cancer. Squamous cell carcinoma appears to be different. Cumulative and recent exposure to sunlight at any age is strongly associated with actinic keratoses, scaly growths on the skin that are a risk factor for that type of skin cancer.

The same DNA-damaging, sunburn-causing UVB wavelengths that sunscreens are designed to block also do some good: They kick off the chemical and metabolic chain reaction that produces vitamin D. Research shows that many people have low vitamin D levels. There is a well-documented relationship between low vitamin D levels and poor bone health. Now links have been made to everything from multiple sclerosis to prostate cancer. "Linking" low vitamin D with these diseases doesn't prove cause-and-effect, but it suggests that possibility. Getting some sun may also shake off the wintertime blues: Research suggests that light hitting your skin, not just your eyes, helps reverse seasonal affective disorder (SAD). Moreover, being outside gets us golfing, gardening, and engaging in other types of physical activity.

Nobody wants to get skin cancer, but we've gone from sun worship to sun dread. Dr. Stern and others say there is a middle way that includes using a sunscreen with a sun protection factor (SPF) of at least 15 when you're outside for an extended period and wearing a hat and shirt around midday. So when summer's here, get outside and enjoy it!

The Providence Journal

February 9, 2008

America's dangerous heliophobia

by MICHAEL HOLICK

BOSTON

LIFE ON OUR PLANET requires sunlight to survive. And most organisms work hard to get it. Jungle reptiles often compete with each other to find the highest, warmest surfaces for sunbathing. Rain-forest plants race to fill rare, sunny openings in the thick canopy left by fallen trees. And some flowers even bend their stems to follow the sun's movement across the sky.

Humans also need sensible sun exposure. But unlike the rest of life on earth, we actively work to avoid the sun.

In recent years, several dubious groups have launched smear campaigns against the sun, blurring the line between overexposure — a very real threat to our health — and any exposure at all. The sunscreen industry constantly warns the public to “cover up” before venturing outside. Store shelves are flooded with products promising increasingly higher sun-protecting factors (SPF). And the latest children's swim trunks cover more skin than a nun's habit.

This frantic obscuration has hurt us in an unexpected area: nutrition. The Centers for Disease Control and Prevention estimates that more than 180 million Americans — 60 percent of the population — are not getting enough Vitamin D.

Though certain foods contain trace amounts, it's virtually impossible to get enough vitamin D through diet alone. The National Institute of Health lists sunlight as “the most important source of vitamin D.” Our bodies produce the aptly named “sunshine vitamin” when ultraviolet (UV) rays reach our skin. To produce the amount that most experts now agree is the minimum daily requirement (about 1,000 to 2,000 international units), one would need to expose 25 percent of one's body for around 10 minutes at least 2-3 times a week during spring, summer and early fall.

We don't even come close.

Geography, weather, pollution and sunscreen limit the amount of UV available. Even factors as simple as the season play a role. For instance, during this time of year, sunlight is a scarce commodity, especially for Americans in the northern states.

Without Vitamin D, our bodies cannot build strong bones or maintain a healthy immune system. New research indicates that the sunshine vitamin plays a vital role in the prevention of many deadly illnesses, including multiple sclerosis, tuberculosis, schizophrenia and heart disease. Health officials estimate that as many as 47,000 cancer deaths could be prevented each year in America if adequate vitamin D levels were attained. But sun-scare messengers and health “experts” irresponsibly urge us to wear lotions and cosmetics with added SPF, which can block up to 100 percent of our vitamin D production.

Vitamin D deficiency is contributing to hundreds of thousands of cases of chronic and terminal diseases. That means that the sunlight myths perpetuated by the skin-care industry aren't only misleading. They're deadly. We need sunlight as we need water, food and a roof over our heads.

It would be false prudence to completely avoid the sun to prevent skin cancer. Yes, too much UV light is unhealthy. However, too much of any good thing can be bad for your health. And too much UV avoidance can be downright dangerous.

When it comes to sunlight, the old adage holds true: Everything in moderation.

*Michael Holick, M.D., is the director of the vitamin D, skin, and bone research laboratory at Boston University Medical Center. He authored *The UV Advantage*.*

Tanning is associated with optimal vitamin D status (serum 25-hydroxyvitamin D concentration) and higher bone mineral density¹⁻³

Vin Tangpricha, Adrian Turner, Catherine Spina, Sheila Decastro, Tai C Chen, and Michael F Holick

ABSTRACT

Background: Vitamin D is made in the skin on exposure to solar radiation, and it is necessary to optimal skeletal health. Subjects who use a tanning bed that emits ultraviolet B radiation (290–315 nm) are likely to have higher 25-hydroxyvitamin D [25(OH)D] concentrations than do subjects who do not regularly use a tanning bed.

Objective: The first objective of this study was to ascertain whether subjects who regularly use a tanning bed have higher 25(OH)D concentrations than do subjects who do not use a tanning bed. The second objective was to ascertain whether higher 25(OH)D concentrations correlated positively with bone mineral density.

Design: This cross-sectional analysis examined 50 subjects who used a tanning bed at least once a week and 106 control subjects. Each subject gave a blood specimen for measurement of serum 25(OH)D and parathyroid hormone concentrations. Each subject underwent bone mineral density testing of the hip and spine.

Results: Subjects who used a tanning bed had serum 25(OH)D concentrations 90% higher than those of control subjects (115.5 ± 8.0 and 60.3 ± 3.0 nmol/L, respectively; $P < 0.001$). Subjects who used a tanning bed had parathyroid hormone concentrations 18% lower than those of control subjects (21.4 ± 1.0 and 25.3 ± 0.8 pg/mL, respectively; $P = 0.01$). Tanners had significantly higher BMD and z scores at the total hip than did nontanners.

Conclusion: The regular use of a tanning bed that emits vitamin D-producing ultraviolet radiation is associated with higher 25(OH)D concentrations and thus may have a benefit for the skeleton. *Am J Clin Nutr* 2004;80:1645–9.

KEY WORDS Vitamin D deficiency, secondary hyperparathyroidism, vitamin D, bone mineral density, bone mineral content, tanning

INTRODUCTION

Vitamin D is a secosteroid hormone that is made naturally in the skin. The precursor to vitamin D exists in the skin as 7-dehydrocholesterol, which is converted to previtamin D₃ when exposed to solar ultraviolet B (UVB) radiation of 290–315-nm wavelength (1, 2). Previtamin D₃ undergoes thermal isomerization to form vitamin D₃. Once formed, vitamin D₃ enters the circulation and is bound to the vitamin D-binding protein. Vitamin D can also be obtained from the diet via consumption of vitamin D-fortified foods such as milk and cereals and foods that naturally contain vitamin D, including fatty fish such as salmon

and mackerel (3). Adequate vitamin D status is important for optimal bone health (4), and chronic vitamin D deficiency leads to osteomalacia and osteoporosis in adults (3–6). Clinical studies have shown a positive effect on bone mineral density (BMD) after supplementation with vitamin D (5, 6). Higher blood concentrations of 25-hydroxyvitamin D [25(OH)D] during childhood correlate positively with greater adult BMD (7). Furthermore, serum 25(OH)D was positively correlated with BMD in both men and women of all races (8).

There is increased concern about skin cancer, which has created a fear of causative sunlight exposure (9–12). Melanoma is the most serious form of skin cancer. It should be recognized that most melanomas occur in areas that are not exposed to the sun (13) and that it is the number of lifetime sunburn experiences, the number of moles, and red hair that increase the risk of this deadly disease (12). The use of sunscreen with a sun-protective factor (SPF) of ≥ 8 reduces the amount of vitamin D₃ produced in the skin by $>95\%$ (14). A lack or scarcity of sunlight exposure leads to vitamin D deficiency (15–20). Adults who use tanning beds that emit vitamin D₃-producing UVB radiation (17, 19, 21) should be able to make vitamin D₃ in their skin and increase the circulating 25(OH)D concentrations. We evaluated the possibility that higher serum 25(OH)D concentrations could correlate with higher BMD in subjects who were exposed to UVB radiation (ie, used a tanning bed) at least once a week.

We conducted a study to ascertain the serum concentrations of 25(OH)D and BMD at the hip and spine in a group of adults who used tanning beds and in a control group of nontanners. We sought to ascertain whether there was a significant positive correlation between circulating serum 25(OH)D concentrations and BMD.

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