

An estimated 30 million North Americans turn to tanning salons as a controlled alternative to outdoor tanning. As we become increasingly aware of the benefits associated with regular exposure to sunlight and of the importance of managing the risks that can be associated with sunburn and overexposure, more people are turning to indoor tanning facilities to help attain their tans in a controlled environment scientifically designed to minimize the risk of sunburn.



### **The Tanning Industry's Base Belief**

The professional indoor tanning industry's scientifically supported position is summed up in this declaration: Moderate tanning, for individuals who can develop a tan, is the smartest way to maximize the potential benefits of sun exposure while minimizing the potential risks associated with either too much or too little sunlight.

This position is founded on the following tenets:

1. Ultraviolet light exposure from the sun or from an indoor tanning unit is essential for human health, and getting it in a non-burning fashion is the smartest way.
2. The professional indoor tanning industry promotes and teaches what we refer to as The Golden Rule of Smart Tanning: Don't ever sunburn.
3. For the past decade, the indoor tanning industry has been more effective at teaching sunburn prevention than those who promote complete sun avoidance. Since the mid-1990s, tanning industry research has supported what millions of indoor tanners have known all along: that non-tanners sunburn outdoors more often than people who tan indoors. The professional indoor tanning salon industry is part of the solution in the ongoing battle against sunburn and in teaching people how to identify a proper and practical life-long skin care regimen.
4. A tan is the body's natural protection against sunburn. Your skin is designed to tan as a natural body function.
5. Every year, millions of indoor tanners successfully develop "base tans" before embarking on sunny vacations – tans that, combined with the proper use of sunscreen outdoors, help them prevent sunburn.
6. There are known physiological and psychological benefits associated with sunlight exposure and there are many other potential benefits that appear linked to sun exposure, but need further research. The potential upside of these benefits is considerable and deserves further consideration. Because sunlight is free and vitamin D is a relatively cheap pharmaceutical product, research into the many benefits of vitamin D has not been funded to its natural conclusion.
7. The body produces Vitamin D naturally when the skin is exposed to sunlight. Vitamin D deficiency has become a recognized epidemic in North America and overzealous sun protection practices likely have contributed to this.
8. The risks associated with UV overexposure are manageable for anyone who has the ability to develop a tan.

## **Why Is Indoor Tanning “Smart Tanning?”**

Indoor tanning, if you can develop a tan, is an intelligent way to minimize the risk of sunburn while maximizing the enjoyment and benefit of having a tan. We call this SMART TANNING because tanners are taught by trained tanning facility personnel how their skin type reacts to sunlight and how to avoid sunburn outdoors, as well as in a salon.

Tanning in a professional facility today minimizes risk because the government regulates indoor tanning in the United States and Canada. In the United States, exposure times for every tanning session are established by a schedule present on every piece of equipment that takes into account the tanner’s skin type and the intensity of the equipment to deliver a dosage of sunlight designed to minimize the risk of sunburn. The schedule, as regulated by the U.S. Food and Drug Administration and Health Canada, also takes into account how long an individual has been tanning, increasing exposure times gradually to minimize the possibility of burning.

That kind of control is impossible outdoors, where variables including seasonality, time of day, weather conditions, reflective surfaces and altitude all make outdoor tanning a random act and sunburn prevention more difficult.

## **How Do Indoor Tanning Salons Teach Sunburn Prevention?**

The indoor tanning industry is at the forefront in educating people how to successfully avoid sunburn over the course of one’s life.

- Studies of indoor tanners have shown consistently that indoor tanning customers once they begin tanning in a professional salon, are less likely to sunburn than they were before they started tanning.
- Studies have also shown that indoor tanners are less likely to sunburn outdoors as compared to non-tanners.

Consider, in recent years sunburn incidence in the general population has been steadily increasing while sunscreen usage has been declining. And according to the American Academy of Dermatology, the sub-group most likely to sunburn is older men. In contrast, sunscreen usage outdoors among indoor tanners is increasing.

We believe that teaching people strictly to avoid the sun may be making them more likely to sunburn when they do go outside for summer activities – and everyone does go outdoors at some point. Consider:

1. Tanning is your body’s natural defense mechanism against sunburn, and indoor tanners have activated this defense against burning – a tan essentially multiplies the ability of sunscreen worn outdoors to do its job. That’s one reason non-tanners are more vulnerable when they inevitably do go outdoors.
2. Indoor tanners are educated at professional tanning facilities how to avoid sunburn outdoors, how to use sunscreens appropriately and how to properly moisturize their skin.

When you also consider that the majority of people who sunburn are male, according to the AAD, and that 65-70 percent of indoor tanning customers are female, clearly, it is non-tanners who are doing most of the burning outdoors. In the war against sunburn, tanning salons are part of the solution. Those who

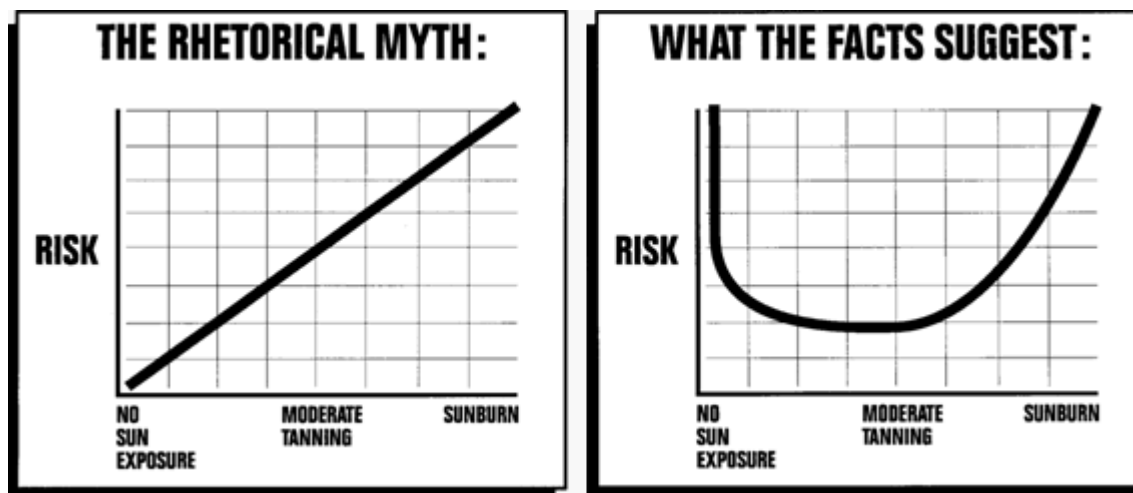
abstain from sun exposure completely are more likely to sunburn when they inevitably do go outdoors, even if they attempt to wear sunscreen.

## Why We Promote Indoor Tanning As “Smart Tanning”

The professional indoor tanning industry promotes responsible indoor tanning and sunburn prevention as “smart.” We choose not to use the word “safe.” Here is why:

The word “safe” implies that one can recklessly abuse something without any fear of causing harm. And reckless abandon certainly is not the behavior the professional indoor tanning industry is teaching. In fact, we are playing a key role in successfully preventing that kind of reckless abuse. By teaching a “smart” approach to sunburn prevention that recognizes that people do perceive different benefits from being in the sun, we are able to teach sunburn prevention in a practical way that respects both the potential benefits and the risks of sun exposure.

For example, previous generations believed that sunburn was an inconvenient but necessary precursor to developing a tan. Today we know better, and we are teaching a new generation of tanners how to avoid sunburn at all costs. Again, our position: Moderate tanning is the best way to maximize the potential benefits of sun exposure while minimizing the potential risks of either too much or too little exposure.



These graphs illustrate our point. The left graph shows the conventional thinking about sunlight: that totally eliminating sun exposure eliminates risks. That oversimplification is why the \$30 billion sun-care industry tells us to wear sunscreen 365 days a year, no matter where we live. But the right graph is a more accurate, albeit more complicated, description of the risk function.

The one thing we do know for certain about sunlight is that zero exposure does NOT equal zero risk; in fact, the risks of zero exposure would be deadly. So the risk function must be curved. The vertex of that curve — where risk is minimized — is different for every person and cannot be randomly defined. What’s more, this graph does not even take into account the balance between benefits and risks. That has to be part of the equation if any campaign is going to be effective.

Human life is totally reliant on sun exposure, and the life-giving effects of ultraviolet light. The question for each of us — a question that nobody knows the exact answer to — is how much sun exposure is appropriate, and how much is too much. Basing the answer to that question on the belief that any

exposure increases one's risk of skin damage — a belief that is not categorically supported in the medical literature — fails to recognize the positive influence ultraviolet light and sunlight have on our lives.

New research on breast cancer, prostate cancer, ovarian cancer, colon cancer, heart disease, multiple sclerosis and other deadly diseases — research that shows that regular sun exposure may play a key part in preventing the onset or retarding the growth of these deadly diseases — supports the position that moderate sun exposure, for those of us who can develop a tan, is the best way to maximize the potential benefits of sun exposure while minimizing the potential risks of either too much or too little exposure.

## **Why Don't We Hear More About Smart Tanning Then?**

That is changing. In 2006 the American Cancer Society and the Canadian Cancer Society joined health officials in Australia in finally recognizing that individuals need some ultraviolet light exposure in order to be healthy, and that sun avoidance may be contributing to vitamin D deficiency.

Why did this acknowledgement take so long? As we mentioned, the truth about sun exposure is abstract and complicated — the right level of exposure for one person may not be right for another person. Heredity, skin type, and many other factors make it a different equation for everyone. But one truth is universal: We all need sun exposure and UV light in order to survive.

It is a lot easier just to tell people to avoid sunshine than teach them how to enjoy it responsibly and appropriately, so many of our public health advisories have attempted to oversimplify the message and few took into account any potential for positive effects of sunlight. Instead of teaching you how to maximize the benefits and minimize the risks, many reports simply oversimplify the scenario and mislead you into believing that any exposure is bad for you.

You should also be aware of the fact that many industries benefit from scaring you about any sun exposure – twisting a proper message of sunburn prevention into an unwarranted message of total sun avoidance. This profit-based science has created what we believe is a total misuse of sunscreens.

## **What Do We Mean When We Say “Misuse of Sunscreens?”**

Sunscreen should only be used to prevent sunburn. It is being marketed to block all UV exposure, which is unwarranted.

Make no mistake: Sunscreen is a good product with an intelligent usage: the prevention of sunburn. But it is not necessary to wear this product daily most of the year in most climates to prevent sunburn. Yet many in the \$30 billion sun care industry encourage everyone to wear products with sunscreen (many of which are women's cosmetics) 365 days a year — no matter where they live. This is misuse of the product and may in fact cause more harm than good in the long run. Please consider:

1. Sunscreen, when worn, almost completely prevents your skin from producing any vitamin D. Sun exposure to the skin is the body's natural way to produce Vitamin D – it is the way you are naturally intended to get it. An estimated 90 percent of the vitamin D in our systems comes from sun exposure. In fact, according to accepted anthropologic evolutionary theory, that's why fair-skinned cultures developed fair skin: To better produce vitamin D from sunlight.
2. Vitamin D is very rare in foods and the form of vitamin D you get from foods and dietary supplements is not processed in the body the same way as Vitamin D produced naturally from sun exposure to the skin.

3. Wearing sunscreen in northern climates most of the year totally blocks your body's ability to produce vitamin D.
4. Many studies have shown and it is now universally accepted that up to 90 percent of the North American population is vitamin D deficient. What's more, recent research has shown that humans need five to 10 times more vitamin D than we previously thought – levels that are not attainable through diet and supplements alone.
5. Women's cosmetics today almost always contain sunscreen. It is very difficult for women to find products that do not block UV exposure.

Again, while sunscreen is an excellent product that has an intelligent usage in the fight against sunburn, overuse of the product may have serious consequences as well. Because most women wear foundation products daily, their make-up may be preventing them from producing vitamin D much of the year. And because women are more likely than men to develop osteoporosis, making up 18 million of the 25 million Americans afflicted with the disease, they would stand to benefit even more from an increase in vitamin D production.

### **What Is The Appropriate Usage of Sunscreen?**

Simply stated, sunscreen should be used as a tool to prevent sunburn whenever sunburn is a possibility. It should not be used on a daily basis in climates and seasons when sunburn is not possible.

While the tanning industry does support the use of sunscreens as a tool to prevent sunburn outdoors, we do not believe it is proper to teach people to wear this product during times of the year when one would not be able to sunburn outdoors. That is misbranding the product

That is why the professional indoor tanning industry teaches proper sunscreen usage more effectively than those who simply tell the public to wear the product 365 days a year: The tanning industry's approach is more credible and practical.

### **Why Should We Be Concerned About Vitamin D Deficiency?**

New research has shown that vitamin D deficiency is epidemic in American adults today, suggesting that up to 90 percent of North Americans are vitamin D deficient. It is likely that over-usage of sunscreen in climates and seasons when sunburn is not a possibility has contributed to this epidemic. This is especially significant because:

- A 2006 systematic review of 63 studies on vitamin D status in relation to cancer risk has shown that vitamin D sufficiency can reduce one's risk of colon, breast and ovarian cancers by up to 50 percent. The landmark paper, published in the February 2006 issue of *The American Journal of Public Health*, is the most comprehensive paper on vitamin D written to date.
- Additionally, vitamin D deficiency is a leading cause of osteoporosis, a disease affecting 25 million Americans which leads to 1 million hip and bone fractures every year. In elderly individuals, such fractures are often deadly. Encouraging everyone to wear sunscreen all year long in any climate undoubtedly is contributing to this problem, as vitamin D is necessary for the body to properly process calcium.
- While environmental correlations have established for years that people in sunny climates have lower risks of many forms of cancer, in recent years the mechanism by which Vitamin D slows or retards the growth of tumor cells has been researched and identified. It was once thought that only

the kidneys could produce active vitamin D, but we now know that many cells in the body perform this function, including cells in the breast, prostate, colon, brain and skin.

- Research has shown that the active form of vitamin D, when present in cells throughout the body, inhibits the growth and spread of abnormal cells, including cancer cells.

## **What Does Indoor Tanning Have To Do With Vitamin D?**

Exposure to UVB from sunshine is the body's natural way to produce vitamin D, accounting for 90 percent of vitamin D production. Dietary "supplements" are just that: Supplemental ways to produce vitamin D.

Research has shown that people who utilize indoor tanning equipment that emits UVB – which most tanning equipment does – also produce vitamin D. And studies have also shown that indoor tanning clients have higher vitamin D blood levels than non-tanners.

While the North American indoor tanning industry promotes itself as a cosmetic service, one undeniable side-effect of that cosmetic service is vitamin D production. Even though it is not necessary to develop a tan to produce vitamin D, this should be considered: Because research suggests that the risks associated with sun exposure are related to intermittent sunburns, it is credible to believe that the benefits of regular, moderate non-burning exposure outweigh the easily manageable risks associated with overexposure.

## **Tanning is a Natural Body Process – It is Not Damage**

Tanning is your body's natural protection against sunburn — it is what your body is designed to do. Many have referred to this process as "damage" to your skin, but calling a tan "damage" is a dangerous oversimplification. Here is why:

- Calling a tan damage to your skin is like calling exercise damage to your muscles. Consider, when one exercises you are actually tearing tiny muscle fibers in your body. On the surface, examined at the micro-level, that could be called "damage." But that damage on the micro-level is your body's natural way on the macro-level of building stronger muscle tissue. So to call exercise "damaging" to muscles would be terribly deceiving. The same can be said of sun exposure: Your body is designed to repair any damage to the skin caused by ultraviolet light exposure. Developing a tan is its natural way to protect against the dangers of sunburn and further exposure.
- Saying that any ultraviolet light exposure causes skin damage is a dangerous oversimplification. It would be like saying that since water causes drowning, humans should avoid all water. Yes, water causes drowning, but our bodies also need water; we would die without it. Similarly, we need sun exposure; we would die without it.

It is the professional indoor tanning industry's position that sunburn prevention is a more effective message than sun avoidance, which ultimately encourages abuse. It is a responsible, honest approach to the issue.

## **But What About Skin Cancer?**

There arguably is more misinformation about skin cancer than any other form of cancer, and most of it involves distorting the nature of skin cancer's complex relationship with sun exposure. Consider:

- Melanoma skin cancer is most common in people who work indoors – not in those who work outdoors.
- Melanoma skin cancer occurs most often on parts of the body that are not regularly exposed to the sun.
- 18 of 22 studies examining melanoma and indoor tanning have shown no statistically significant association, including the most recent and largest study, which showed no connection at all. The four older studies that alleged a connection did not adequately control for important confounding variables such as the subjects' outdoor exposure to sunlight, childhood sunburns, type of tanning equipment utilized (many of which were unsupervised home units) and duration and quantity of exposures.
- Melanoma mortality rates in the United States are not rising among young women, but are increasing dramatically among older men, according to National Cancer Institute data. (In Canada, melanoma rates for women under 50 have actually declined in the past 20 years). Yet the majority of the marketing message about this disease is directed at young women, who are the highest consumers of dermatological services.
- The photobiology research community has determined that most skin cancers are most likely related to a strong pattern of burning and intermittent sun exposure in those people who are genetically predisposed to skin cancer and not simply to cumulative exposure. That suggests that a pattern of repeated sunburning is what we need to prevent. And that kind of prevention is exactly what the indoor tanning industry is doing effectively.
- Skin cancer generally has a 20- to 30-year latency period. The rates of skin cancer we are seeing today in older individuals mostly are a function of the ignorant misbehavior of the 1970s and early 1980s. Recall: Society used to view sunburns as an inconvenient right of spring, or as a “precursor” to developing a summer tan. Severe burns were commonplace. Today we know how reckless that approach was, and the incidence rates of skin cancer today in those over 50 years of age reflect that ignorance.

The indoor tanning industry believes that our role in teaching sunburn prevention will help to reverse the increases that largely are a result of misbehavior that took place years ago before the professional tanning industry existed and before we were organized to teach sunburn prevention.

## **How Do You Define Moderate Tanning?**

The term “moderate tanning” means something different for every different individual, and that is an important point. The bottom line is what we call “The Golden Rule of Smart Tanning” – Don't EVER sunburn. A fair-skinned, red-headed, green-eyed person may not have the ability to develop a tan without sunburning. This person should not attempt to tan then. On the other hand, most of us have the ability to develop a tan, and the majority of us tan very easily. Moderation, in our view, means avoiding sunburn at all costs. Going about that agenda will mean something different to every different person.

## What About Teenage Tanning?

In the past few years the dermatology industry's lobbyists have argued that teenagers should be totally prohibited from tanning in salons despite having no solid evidence that tanning in a non-burning fashion results in any significant risk. In fact, such prohibitions would likely do more harm than good. Consider:

1. Studies have shown that teens who tan in salons are less likely to sunburn outdoors compared to non-tanners.
2. 83 percent of teenagers who tan indoors prior to taking sunny vacations report that their indoor tan, combined with the proper use of sunscreen, helped them to prevent sunburn.
3. Further, 72 percent of teenagers who currently tan indoors say they would simply tan more aggressively outdoors or purchase home tanning units – both of which are more likely to produce sunburns – if they were unable to utilize indoor tanning salons. If teenagers are unable to tan in salons, sunburn incidence actually will increase, and it is likely that total UV exposure in this age group will increase. This would be hurting people, not helping them.
4. There is no data to suggest that tanning is more dangerous for any specific age group. Photobiology suggests that burning (not tanning) at an early age could increase risk later in life. As we just discussed, it appears that indoor tanners sunburn less than non-tanners, including teenagers who tan outdoors.
5. Indoor tanning facilities today are at the forefront in teaching teenagers outdoor sunburn prevention, including the proper use of sunscreens to prevent sunburn outdoors. If teenagers are denied access to indoor tanning, sunburn incidence will increase.

The tanning industry supports existing laws requiring parental consent for minors who wish to tan in salons, and would support constructive efforts to bolster enforcement of this standard.

## Are All Dermatologists Against Indoor Tanning?

While most of the dermatology profession has an inexplicably myopic view about tanning, some enlightened dermatologists have broken ranks with their peers in recent years, urging their profession to re-think its one-sided dogma about sun exposure. Two of the most recent:

- Research dermatologist Dr. Sam Shuster, professor emeritus to the Department of Dermatology at Newcastle University in northern England, challenged his peers to quantify the alleged increase in skin cancer incidence, which is not based on actual numbers but only estimates. In the book, "Panic Nation: Unpicking the Myths We're Told About Food and Health" Shuster calls his peers to acknowledge that a tan is the body's natural protection against sunburn – a reality that has been all but stamped under the establishment's rhetoric. "Unfortunately our attitude to sun and ultraviolet (UV) light is subject to much perverse and dubious technical 'advice', which society has passively accepted without questioning its provenance," Shuster writes.
- Boston University Professor Dr. Michael Holick – the scientist who was involved in the discovery of the active form of vitamin D in the early 1970s – wrote the book "The UV Advantage" in 2004, urging people to embrace moderate exposure to ultraviolet light as the body's natural way to produce Vitamin D. Holick is one of the world's leading authorities on vitamin D production. "Since some exposure to sunlight is beneficial to your health, it is reasonable that if you wish to be exposed to sunlight, that you can do so with relative safety if you make sure that you do not receive a sunburn," Holick says.
- Many rank-and-file dermatologists have more moderate views about sensible sun exposure, but have been intimidated by their peers not to discuss these views publicly. Indeed, upon publishing

“The UV Advantage” in 2004, Holick was forced to resign his post at Boston University as a professor of dermatology, with the chair of that department calling his work “schlock science.” In spite of such rhetoric, in the two years since publishing his book, most of Holick’s positions have become mainstream thinking.

Source: [www.tanningtruth.com](http://www.tanningtruth.com)