

# Sun & Skin NEWS



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## Seasonal Affective Disorder: Visible Light, Not UV, is the Cure



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Your Skin in Winter

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We Knew

Ask the Expert

**D**o winter's dark days find you sleeping more, craving carbohydrates, and fighting sadness? If so, you may suffer from Seasonal Affective Disorder (SAD), a.k.a. winter depression. SAD is believed to affect approximately 15 million Americans and, according to the American Psychiatric Association, 30 to 60 million people — up to 20 percent of the population — display some symptoms. SAD is more common in northern climates, where winter days are shorter.

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#### SAD: Causes and Cures

Chemicals in the brain appear to be the culprit: The body's production cycle of melatonin, a sleep-related hormone, supplies higher levels of melatonin at night and lower ones in the morning. But this cycle tends to be delayed in winter in people with SAD, and melatonin production levels stay elevated into the morning hours, leaving them lethargic. Meanwhile, levels of the chemical serotonin, which helps regulate mood, may also be lower. (Serotonin levels may be the reason for increased carbohydrate consumption among SAD sufferers: Carbohydrates boost the brain's release of serotonin.)

SAD is sometimes treated with psychotherapy and antidepressants, but many

*(Continued, next page)*

## Seasonal Affective Disorder, cont'd. from previous page

experts recommend light therapy, during which a light signal travels from the retina in the eye to the base of the brain, where it helps synchronize melatonin production with the daylight cycle. This adjustment helps relieve symptoms of SAD.

Most SAD specialists recommend obtaining light via a light box. These portable, visible light sources provide up

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to 10,000 lux of illumination, which is 10 to 25 times as bright as ordinary lighting, and "equivalent to outdoor light about forty minutes after sunrise," according to Michael Terman, PhD, Director of the Center for Light Treatment and Biological Rhythms, Columbia University Medical Center, New York City. Most patients use light boxes early in the morning, for 15 to 60 minutes. During treatment, patients engage in everyday activities such as reading, remaining within about a foot of the light box. Looking directly at the lights is not advised.

### Treatment, Not Tanning

You may have seen tanning touted as a SAD treatment at a tanning salon or online, but ultraviolet radiation (UVR) is not a component of light therapy. As Terman says, "People often think of sunbathing as the antidepressant essence of light exposure.

Wrong! Light therapy acts through the eyes, and requires visible light, not UV."

If you suspect you have SAD, complete the self-assessment questionnaire at the website of the non-profit Center for Environmental Therapeutics ([www.cet.org](http://www.cet.org)), of which Terman is president. He advises, "If the personalized feedback indicates your problem is serious, discuss the results with your doctor."

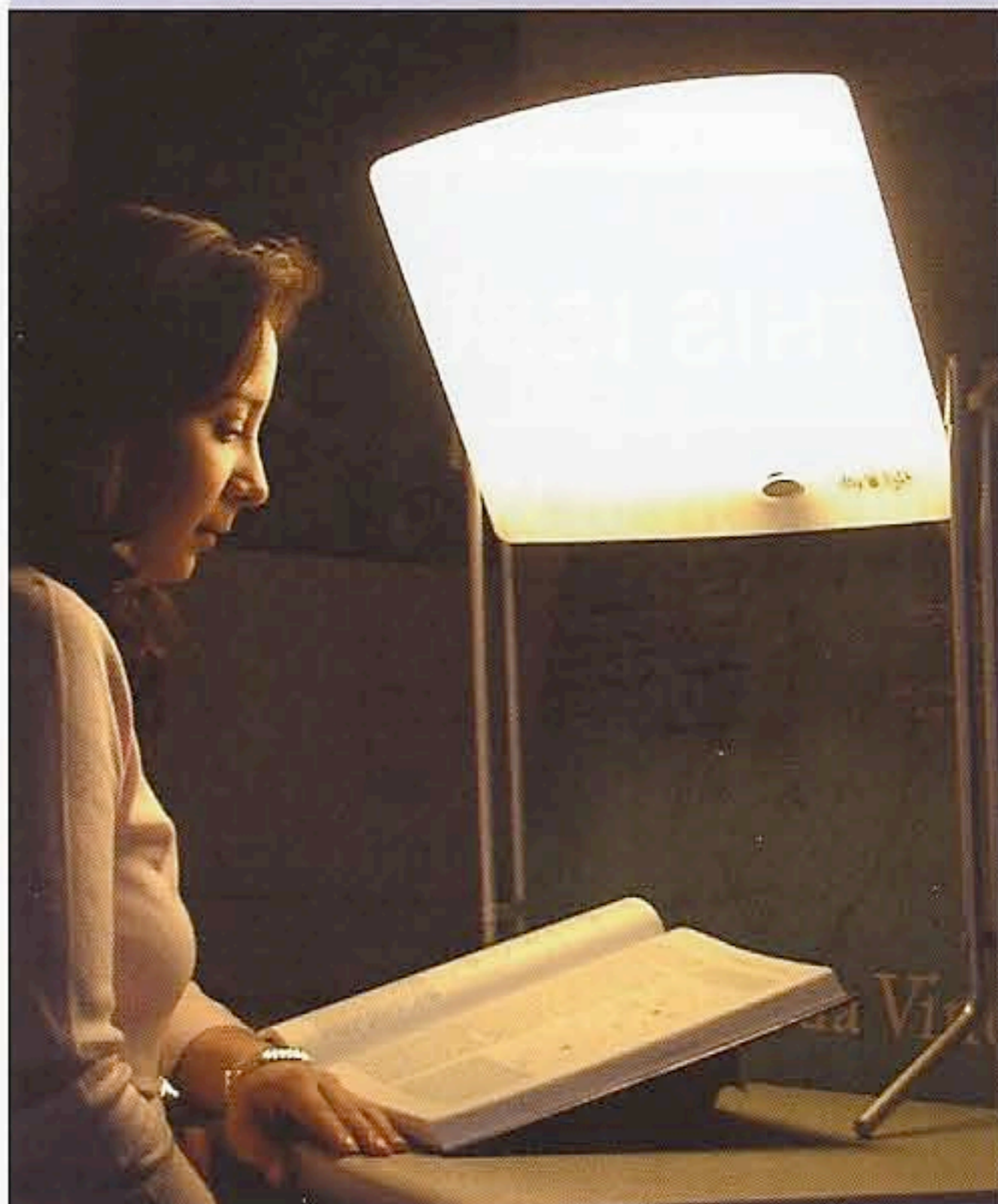
Although light boxes do not require a prescription, they can cause adverse reactions in people with some eye or skin conditions, and those taking certain kinds of medications. Consult your doctor before beginning treatment. 📖

### WHAT TO LOOK FOR IN A LIGHT BOX

**Choose a Light Box With 10,000 Lux of Illumination.** Light boxes offering fewer lux are not as effective.

**Use a UV Filter.** Most light boxes use fluorescent bulbs, which emit a small amount of UV radiation. Your light box should have a UV filter or diffusing screen to protect your skin and eyes.

**Opt for Soft, White Lights.** Full spectrum lights produce greater amounts of blue light (which can harm the eyes) and UV radiation. 📖



# Are You Addicted? Tanning Is Terrible, In More Ways Than We Knew

**Y**ou're probably aware that tanning contributes to skin aging and the development of skin cancers, as well as damage to the eyes and immune system. But now there's more bad news: it may be addictive, too.

Ultraviolet (UV) radiation, in the form of ultraviolet A (UVA) and B (UVB) light from the sun and tanning booths, causes skin cell damage; it is this damage that initiates the tanning process. And UV radiation is a proven human carcinogen, causing about 90 percent of the more than one million skin cancers diagnosed every year in the U.S.

## Tanorexia and the Chemical Connection

The notion of UV tanning as addictive (the condition is sometimes termed "tanorexia") is not new — previous studies and articles have demonstrated that some tanners display signs of behavioral dependence. But recent evidence points to a physical addiction as well. In one 2007 study, investigators surveyed more than 350 students at the University of Washington in Seattle. In addition to collecting demographic information, researchers employed a modified version of the CAGE questionnaire, which helps identify addictive behavior by asking respondents about substance use and attitudes.

CAGE stands for cut down, annoyed, guilty, and eye-opener; tanners were asked questions such as "Have you ever

felt you ought to cut down on your tanning?" and "Have people ever annoyed you by criticizing your tanning?" A full 12 percent of people surveyed, including 22 percent of women and 8 percent of men, answered two or more of the four CAGE questions positively, indicating a UV light substance-related disorder (SRD). Those with symptoms of addiction tanned more frequently, too: Sixteen percent of those with a suspected SRD tanned 20 or more times per month, compared to just nine percent of the sample as a whole.

Some researchers suspect that tanning can be such a hard habit to break because UV radiation stimulates the body's production of endorphins, chemicals that produce feelings of calm and well-being. In several studies, relaxation has been cited as a major motivation for tanning, and in a 2006 study of almost 1,300 adolescent indoor tanners, those who claimed tanning improved their mood were more likely to have difficulty quitting.

Finally, a small 2006 study showed that frequent tanners may literally go through withdrawal symptoms when the stimulus of UV tanning was removed, suggesting that they had a full-blown substance addiction. While these studies in and of themselves are not conclusive due to the small sample size, they do show that this is something that deserves close study. ■

## FAST FACT

People who have had nonmelanoma skin cancers like basal or squamous cell carcinoma, the two most common forms of skin cancer, have approximately double the risk of developing other kinds of cancers.

**2x**

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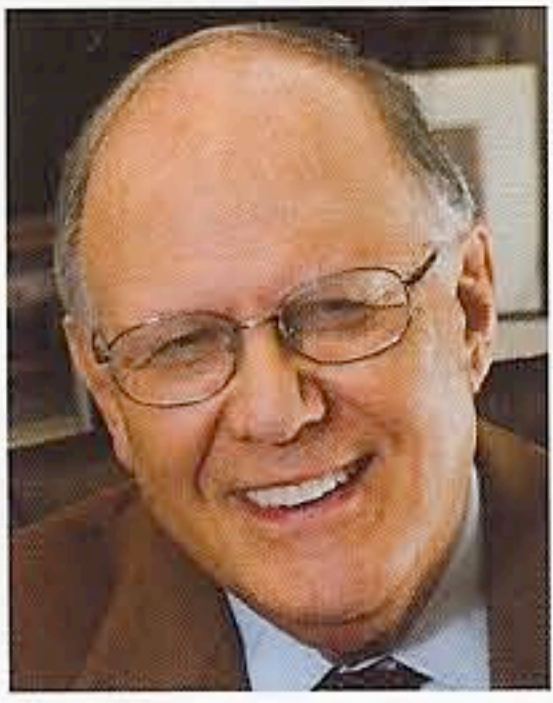
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## A Message From the President



Temperatures have plummeted around the country, letting us know clearly that winter is here. We're covering up with more and more clothes, and often only the face and neck are left exposed to the elements.

Unfortunately, too many people think this means dispensing with sun protection for the next several months. That's a mistake. Did you know that the sun's ultraviolet A rays remain the same damaging intensity year-round? And did you know that more skin cancers occur on the face and neck than anywhere else? In one study, the ears alone were the third most frequent location for basal cell carcinoma (BCC). Even more skin cancers occur on the nose — about 40 percent of BCCs on the head and neck are on or adjacent to the nose. Along with BCC, the incidence of head and neck melanoma, the deadliest form of skin cancer, has risen dramatically in recent years.

Furthermore, cumulative overexposure to UV is the main cause of wrinkling, sagging, and other tell-tale signs of aging on the face, where we can least afford it.

So, don't be cavalier about sun protection because only your face is exposed. Wear a wide-brimmed hat or winter knit hat, along with sunglasses that ideally have large UV-protective lenses to shield not only your eyes but a good portion of your face. Always apply an SPF 15 or higher sunscreen 30 minutes before going out, and reapply it every two hours or sooner — or immediately after you swim. On a skiing vacation, remember that UV intensity increases with altitude and UV rays reflect off snow so that they hit your skin a second time. If you abandon wintry climes altogether for a tropical vacation, be aware that all that newly exposed skin will be especially vulnerable; intermittent, intense sun exposure, the kind that leads to sunburn, is the type of exposure most likely to cause melanoma.

In short, protect your skin properly year-round, even when it's only your precious face that's showing. ■



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