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## Winter's limited light darkens many moods

By Leslie Tamura  
Washington Post Staff Writer  
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The weather is getting gray and cold, and that summer sense of excitement has melted away. It's dim dark in the morning when you get up and dark in the evening when you come home. And it's all making you feel downright blah, maybe even teetering on depressed.

Sounds like the wintertime blues.

"It doesn't necessarily mean you're sad or down, you're just lacking in the push that all people need to get through the day," said [Norman Rosenthal](#), a Maryland psychiatrist who studies seasonal conditions such as the winter blues. In the mid-1980s, Rosenthal and his colleagues at the National Institute of Mental Health coined the term "[seasonal affective disorder](#)," or SAD, for an extreme form of the wintertime blues.

About 20 percent of Americans start to feel down as the days get noticeably shorter, Rosenthal said. Some people start feeling their mood change as early as July, when daylight begins to grow shorter after the summer solstice on June 21. Most, however, first notice the change after they move their clocks back into standard time, which this year occurred on Nov. 7. It's a little lighter in the early morning for a few weeks until the days shorten even more, but it's nearly nighttime for the post-work commute home.

Psychiatrists and chronobiologists - scientists who study organisms' internal rhythms - say exposure to light, morning light in particular, is what makes the difference to mood.

"Light during the middle of the day is of no consequence," said [Alfred Lewy](#), a psychiatry professor at Oregon Health & Science University who studies SAD.

Rosenthal, who wrote the book "[Winter Blues](#)," agrees that morning light has been shown to relieve the blues, but he adds that light can be helpful at any time. "Light can have an immediate boosting effect on energy and mood," Rosenthal said. "We don't really know why morning light works."

During winter, [the sun rises later](#) in the day and does not stick around for very long - especially the farther you are from the equator. During December in Miami, for instance, the sun is up for about 11 hours, while in Washington it's a little more than nine hours, which means nearly 15 hours of darkness.

The role of light seems apparent when you consider some geographical differences in the winter blues. According to Rosenthal, about 3 percent of Floridians report having the blues, while in Maryland, the number rises to 10 percent. In Fairbanks, Alaska - where the sun is up for only about [four hours](#) in December - it's about 19 percent.

Regardless of location and for reasons that are unclear, women are three times as likely as men to develop the seasonal symptoms, says Rosenthal.

### **The waning light**

Why might the waning light cause lethargy, depression, social withdrawal and even hunger in many people?

Some scientists suggest that those who experience the winter blues are just more sensitive to light and light deprivation. Others have shown that, in people with the blues, serotonin, the brain chemical involved in feeling satisfied, dips excessively when there is less daylight.

A widely accepted theory is that the limited winter light alters our [biological clocks](#).

Humans run on an approximately 24-hour cycle that sets us up to be active during the day and to rest at night, says [Michael Terman](#), a Columbia University psychiatry professor and president of the nonprofit Center for Environmental Therapeutics.

According to Rosenthal, in the evening our brains start secreting melatonin, a hormone that signals to our bodies that it's dark outside. That happens a few hours before an individual starts feeling sleepy.

Melatonin does not induce sleep, Terman says, but it appears to signal to the rest of the body that it is about time to rest.

In most people, sunrise often cues the brain to gradually stop secreting melatonin, Lewy says. Although that is not an immediate wake-up signal, once the hormone recedes from the system, we may tend to wake up spontaneously.

Because winter days are primarily dark, we want to sleep more and wake later. Life's morning obligations, however, don't change with the season. We may wake before we're biologically ready, and then feel groggy and moody throughout the day.

Getting off daylight saving time can help for a bit even though the nighttime comes earlier.

"On Nov. 7 . . . some SAD [and blues] patients experience a slight relief in their depression," Lewy said. But after a few weeks of standard time, symptoms may worsen. "It's like having jet lag for four to five months."

An estimated 14 million people in the United States suffer from SAD, and for them the wintertime blues tip into something quite debilitating, as Rosenthal knows from personal experience.

Rosenthal moved from subtropical Johannesburg, which is sunniest in winter, to New York to begin his psychiatry residency in 1976. During his first winter in New York, he noticed drastic changes in his productivity and mood. He couldn't meet deadlines. A natural writer, he was easily frustrated when he had to draft reports. He just fell behind. But when spring came, Rosenthal said, he seemed to wake up; he wondered why he had ever worried.

"You feel like a totally different person" once the days grow shorter, says Keith Hansen, 53, who says

he has lived with SAD for more than 30 years.

"It's not like you tip off into an abyss," says Hansen, who works for the World Bank in Washington as director of social policy for Latin America. "You gradually decline, and next thing you know it's December and you find yourself in a very different place."

During the winter, Hansen's tastes trend toward simple carbohydrates such as "the demon rigatoni." He wants to sleep. He has no energy. Then, when spring returns, Hansen's spirits lift over a couple of weeks.

"Nature just throws open the doors and says, 'I'm back,' " Hansen said, "and the cycle just reverses itself."

### **Treating the blues**

With several months ahead of short days and long nights, what can you do about the winter blues?

Experts say the best place to start is by exercising and limiting your carbohydrate and sugar intake. Although people may crave serotonin-boosting carbohydrates, bingeing on high-caloric foods will lead to the winter weight gain common to blues and SAD sufferers. The added pounds often take a toll on people's self-image and self-esteem.

**Brighten your environment:** Add extra lights to rooms, and open your blinds. Take a walk in the sun at lunchtime. If you have the resources, take a winter vacation somewhere tropical.

Increased light exposure may trick your body clock that it is a long, bright, summer day. If you start getting more light on early-autumn mornings, your internal clock may never get out of sync. "I try to simulate [summer] in the winter," Rosenthal says. "I try to move seamlessly from one illuminated place to another."

Around September, Rosenthal uses a "dawn simulator" alarm clock that starts to light up his bedroom around 5 a.m. A bright-light therapy lamp turns on a couple of hours later; the light is about 15 times more intense than a typical fluorescent bulb. Rosenthal eats breakfast in front of another bright-light box. He also tries to take morning walks outside. He has another light box in his office.

"Light therapy is the treatment of choice," Lewy says, because this noninvasive approach has been shown to relieve winter symptoms.

A light therapy box emits 2,500 to 10,000 lux (the latter is about equivalent to a bright sunny day seen through window) and typically costs \$75 to \$475. The smaller the light, the longer you should sit in front of it while doing your daily activities. Most who use the 10,000-lux lamps use them for about 30 minutes.

If these lights do not relieve your symptoms, you may want to see a physician, who may prescribe [antidepressants](#) or psychotherapy.

The nonprofit [Center for Environmental Therapeutics](#) has an online [self-assessment](#) to help determine whether your experience is more than a general case of winter blues. CET says the survey is based on

criteria for major depression from the fourth edition of the [Diagnostic and Statistical Manual of Mental Disorders](#) and the National Institutes of Health criteria for seasonal variation in mood.

But if you're starting to feel a little dull this month, don't despair: These 10-hour days won't last forever.

Dec. 21 is the shortest day of the year, and a few days after that daylight will last a few minutes longer. When the new year begins, we'll have 10.5-hour days. And by February and March, when there will be about 12 hours of sunlight, your wintertime symptoms may start to thaw, and long, sunny days will be just a few months away.

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