

# Addressing Seasonal Affective Disorder

About 20 percent of the U.S. population suffers “winter doldrums.” Employers can take some simple corrective measures to prevent adverse effects on personal lives and work productivity.

by Michael Terman, Ph.D.

**W**inters challenge our mood state, levels of alertness and energy, and ability and motivation to initiate and complete work. Lamentably, these challenges occur at the same time work pressure often increases on its own seasonal cycle. The problem is worse in the northern half of the United States and in Canada and at equivalent latitudes in Europe and Asia.

It is not simply the cold weather that causes these problems. Importantly (but not intuitively), a major factor is the long winter night.

As a psychiatry researcher, I have focused on the most serious cases of seasonal affective disorder (SAD), in which we see annual recurrences of major clinical depression that remit spontaneously in spring. Patients with SAD become dysfunctional for up to five months of the year. This dramatic, even devastating, change may affect only 3 to 5 percent of the population, but another 15 percent suffer winter doldrums that look much like SAD and also significantly impair functioning.

Patients with SAD can sense a gradual onset of symptoms weeks or months

before depression hits. They will find it harder to wake up in the morning relative to summer (total sleep time can increase by hours) and harder to get to work on time, and they will experience a feeling of fatigue throughout the day that worsens toward afternoon and evening.

Dietary preferences will change relative to summer, with patients craving (and eating) carbohydrates, whether they are the “healthy” or “junk” kind. Coupled with the physical slowdown, this is a formula for weight gain. A 10-20 pound weight increase is common, weight that is spontaneously lost come late spring and summer.

After several weeks of such physical symptoms, depression arrives. Patients complain equally of distressed mood and “anhedonia,” defined as a loss of interest or pleasure in normal work and home activities and often marked by guilt-ridden procrastination, impaired concentration, and increased use of personal time or sick days. In the social domain, the individual reduces contact with co-workers and friends and, in the extreme, with family. Sex drives can plummet; as one patient said, “I become sexless.” A diffuse anxiety hovers, although it is not the agitated state we see in other depressions—with SAD, it is lethargy that becomes overwhelming. These problems typically peak right after the winter solstice and are worst in January and February.

The same scenario applies to the winter doldrums, or subsyndromal SAD (sub-SAD), but in that case the severity of the mood swing falls short of a diagnosable major clinical depression. People with the doldrums can struggle effectively to cope, but they are still slowed

and report feeling miserable for the duration. The physical symptoms of sleepiness (with longer sleep), daytime fatigue, and food cravings can be just as severe as for people with SAD.

A third seasonal subgroup, which my colleagues and I have named seasonal atypical neurovegetative syndrome (SANS), has only recently been identified. As the French *sans* implies, these people lack signs of depression, although their sleep, energy, and appetite resemble those of patients with SAD. By far, however, sub-SAD with mood disturbance is the most common variant.

## TREATMENT OPTIONS

The “lucky” things about SAD, sub-SAD and SANS are that sufferers can be fully confident that the problem will pass, usually in early May, and that symptoms can be reversed quickly by taking some simple measures at home. Interventions in the workplace are not a priority, which is not a bad thing. Workers may be sensitive about revealing their susceptibility to seasonal disorders and can better preserve their privacy at home.

**Bright light therapy.** The goal of bright light therapy is to combat the ill effect of the delayed winter sunrise by introducing supplemental artificial light upon waking. The light usually is delivered at a level of 10,000 lux, which matches early-outdoor daylight intensity in spring. Many “seasonals” find that just 30 minutes of exposure to a specialized white-light device is sufficient. One does not look into the light—rather, one reads a newspaper, eats breakfast, or uses a laptop computer while positioned beneath the light box.

The cost of light boxes has fallen



Michael Terman is director of the Center for Light Treatment and Biological Rhythms at New York-Presbyterian Hospital ([www.nyppsy psychiatry.org/lighttherapy](http://www.nyppsy psychiatry.org/lighttherapy)) and professor of clinical psychology at Columbia University's

College of Physicians and Surgeons. He also serves as president of the Center for Environmental Therapeutics ([www.cet.org](http://www.cet.org)) and director of clinical chronobiology at the New York State Psychiatric Institute ([www.lightandions.org](http://www.lightandions.org)).

in recent years, to about \$200. Accompanying the price decline has been a proliferation of untested light boxes (many of them marketed on the internet), coupled with a lack of federal standards for safety and efficacy. The non-profit Center for Environmental Therapeutics (CET) lists criteria for light box selection on its Website ([www.cet.org](http://www.cet.org)). Employers would be well advised to review these criteria before investing in light boxes.

Using light therapy without supervision requires care, especially in choosing the ideal time for morning exposure. Depending on a person's "internal clock" (the circadian rhythm of the nervous system), effective timing can vary by hours from one individual to the next. The CET offers an individualized recommendation with its online Automated Morningness-Eveningness Questionnaire (AutoMEQ).

**Dawn simulation.** The burden of undergoing daily light treatment sessions before work is being addressed by more recent technology that simulates a gradual springtime sunrise in the bedroom during the final hours of sleep. The clinical data are still limited, but they indicate similar efficacy to post-awakening bright light therapy. A critical feature of this technology is the presentation of diffuse light across the entire area around the pillows. Commercialized, low-end "dawn alarm clocks" are insufficient.

**Negative air ionization.** A novel, non-photic intervention uses standard air purification technology but applies it in a new configuration. Home and workplace environments tend to have low negative air ion balance, especially in winter (due to heating, low humidity, and centralized air circulation). Five clinical trials have shown that daily exposure to an electronic ionizer for 30-90 minutes gradually lifts mood and energy and improves sleep quality.

The ion concentration produced by an ionizer is far higher than is produced by standard home air cleaners. Another advantage of ionizers designed specifically for depression treatment is the presence of a conductive wrist strap or bed sheet (for use during sleep) that directs the ion flow to the patient. The

ions themselves are imperceptible, which makes this treatment innocuous. This technology may be applicable to the workplace, since the timing of ion exposure does not appear to be critical.

**Medication.** A variety of antidepressant drugs may help SAD patients, but they require a prescription, produce various side effects, and take longer to show improvement than the therapies already discussed. Bright light therapy is the first-line intervention for SAD and, by implication, for sub-SAD and SANS. When light treatment fails or provides only partial relief, the addition of medication is warranted.

**Aerobic exercise.** In my clinical experience, about one-third of patients with SAD respond significantly, but transiently, to aerobic workouts. One can even see a complete, instantaneous reversal of symptoms, but relapse occurs within 1-2 days unless the regimen is repeated daily. Providing treadmills and other aerobic equipment at the workplace might provide benefits, though people with depression typically lack the motivation to exercise.

### RECOGNIZING SEASONALITY

A major challenge for both employees and employers is detecting and recognizing disabling seasonality. Many people attribute other causes to their symptoms, such as stress, overwork, or the weather; others deny their symptoms for fear of learning they suffer from depressive illness (this is most common among men). Many people endure the symptoms, some nearly unbearably, in anticipation they will end in spring.

A critical issue is assessing the severity of a seasonality disorder to determine whether to consult a mental health professional (for major clinical depression) or to attempt self-treatment (for sub-SAD and SANS). Individual sufferers will not know how to make accurate self-diagnoses. The CET provides assistance in this area with two additional online instruments, both administered confidentially and anonymously.

(1) The Automated Personalized Inventory for Depression and SAD (AutoPIDS) scales a person's symptom history for evidence of major clinical

depression, seasonal patterns, and winter worsening of atypical neurovegetative symptoms. The respondent receives an immediate, individualized assessment that guides toward professional intervention when indicated.

(2) One's current level of depression is scaled by the Automated Structured Interview Guide for the Hamilton Depression Scale (AutoSIGH), which enables a respondent to gauge his or her symptom pattern against established criteria for a depressive (or subclinical) episode. For people who lack access to, decline, or resist mental health services, the AutoSIGH printout with individualized feedback may substantially assist an employee assistance professional or physician in recommending treatment.

### THE AWKWARD ROLE OF EMPLOYERS

Even with an EAP available for confidential consultation, most employees will go to considerable lengths to avoid being identified as suffering from a mental illness. Many people blame themselves for their depression and will hide it from doctors and family members.

Seasonality may best be confronted by calling attention to the common physical symptoms of fatigue, difficulty in awakening from sleep, and cravings for junk foods and offering a treatment apparatus (without diagnostic questioning) along with CET's guidelines for use. Employers could make important headway by sending a supportive annual message to all employees recommending that they access the user-friendly information on CET's extensive Website and complete the AutoPIDS, AutoSIGH, and AutoMEQ analyses.

For employers that monitor workers' Web usage, it is important to coach employees to use home or local library computers to ensure confidentiality and anonymity. In this way, the employer acknowledges the prevalence of a population-wide problem and demonstrates concern for employees' well-being. ■

### References

Terman, M. and J.S. Terman. 2005. Light therapy for seasonal and nonseasonal depression: efficacy, protocol, safety, and side effects. *CNS Spectrums* (10): 647-663. (Accessible at [www.cet.org](http://www.cet.org).)