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## Brighten Up Your Life

**John R. Cook, Ph.D.**  
Registered Psychologist

### The "Winter Blues"

#### The Symptoms

Do you feel down in the dumps, have less energy and put on a few pounds during the dark, shorter days of winter? You may be suffering from the "winter blues" or a more severe form of the winter blues called Seasonal Affective Disorder or SAD. One in five of us suffers from this problem. Symptoms can include an increase in sleep of up to four hours a day, a serious case of the munchies, particularly for sweet and starchy foods, and a desire to withdraw, almost like a bear entering hibernation for the winter.

#### The "Cure"

The cure for this potentially disabling condition in 60 to 80 percent of cases is daily exposure to high-intensity, fluorescent, photo-therapy lamp or SAD light. These lamps come in various shapes and sizes ranging from a heavy-duty looking desktop lamp to the more utilitarian light box. Refer to the sidebar for technical description. The lamps are used by sitting in front of and slightly below them with eyes averted downward for periods of up to 45 minutes a day.

### Figure 1: Key Features of a SAD Light

<b>What you need</b>	<b>How it is done</b>
High intensity and low heat	Two or three 40 watt fluorescent tubes
UV filtered	Acrylic protective lense
Flicker-free	High-efficiency ballast

Looking at the lights is not necessary. Simply position your eyes in line with the light, within 18 to 24 inches of the fluorescent tube. Carry on eating, reading or writing as you expose yourself to light 5 to 20 times brighter than the average home or office. Treatment for most people should begin in the fall and continue through till April when the outdoor light is sufficient to provide for their needs. An early start on photo-therapy in the fall can reduce or even prevent symptoms of winter SAD.

One model of SAD lamp can be worn as a visor. Unfortunately, the research in supporting its effectiveness is equivocal. It is perhaps best thought of as an adjunct

to regular SAD lamp use rather than as a standalone treatment.

### **Figure 2: Light Levels (lux)**

Twilight	below 750
Home	200-500
Office	400-700
Light Visor	2,500
SAD Light	10,000
Mid Day Sun	80,000

### **The Underlying Mechanism**

#### How the Lights Work

We are not quite sure how the lights work. They appear to operate by suppressing a nighttime hormone called melatonin. This effect is mediated largely through the eyes. Besides having mood altering properties, light therapy also affects the body's internal clock, shifting it forward or backward in time, depending when you are exposed during the day. The only contraindication is for patients with eye disease or taking light-sensitive medication. Although side effects are rare, they can include headaches, eye strain, irritability or anxiety, and restlessness.

There are other applications for SAD lights beyond the ones mentioned above. The lights can sometimes be effective with seasonal problems such as overeating and weight gain that occur without a depressed mood. Similarly, some non-seasonal depressions, sleep problems, and effects of jet-lag can be treated with light therapy.

#### What Causes SAD?

It really is not clear why some people suffer from SAD while other people do not. SAD seems to run in families. Women between their 20s and their 40s are most vulnerable, and it can be triggered by light deprivation as well as other environmental stressors. The form of light deprivation that seems to affect SAD sufferers the most is a reduction in the photo-period or number of hours from sunrise to sunset during the winter. This varies directly with the day of year and the latitude or angular distance we travel north or south of the equator.

Cold, damp weather and overcast skies seem to affect most of us. Just ask the average Victorian after several weeks of winter rain. Surprisingly, weather factors such as temperature, sunshine, precipitation, barometric pressure and relative humidity do not have as big an impact on our mood as photo-period.

#### Getting Help

Before diagnosing yourself with SAD, and running out to buy a SAD light, see your

family physician. Not only can he or she tell you if you have any contraindications to using the lights (e.g., eye disease, taking light-sensitive medication), but he or she can help diagnose medical disorders that masquerade as SAD. These include an underactive thyroid function, low blood sugar, and chronic viral infections. Next, consider renting a lamp to find out if the treatment is effective. One can usually tell within the first two weeks. Reputable distributors of SAD lamps such as Aegis will allow you to apply your rental cost toward the purchase price if you decide to keep the unit.

### Don't Forget the Children

Do not be fooled into thinking children are immune. They suffer in number comparable to children with attention deficit disorder. Unlike children with an attention deficit, children with SAD are less conspicuous and tend to blend in. Many parents confuse the winter blues with "back to school" blues, so the problem may go undetected. Some telltale signs of SAD in children are crankiness or irritability that regularly occurs during the fall and winter each year, extreme fatigue, vague physical symptoms, and a general reluctance with school work or chores.

## **Other Treatments for SAD**

### Full Spectrum Lights

Full-spectrum lighting has been touted as a cure for seasonal affective problems. However, there is no evidence supporting this claim. Full-spectrum lighting seems to have the sole advantage of mimicking the colors of natural sunlight, thereby giving a more aesthetically pleasing illumination. The argument in using this kind of lighting is therefore mainly a matter of personal taste. It is the intensity of the SAD lamp rather than its spectral range that has therapeutic value.

### Dawn Simulators

One exception to the rule "brighter is better" is called the dawn simulator. The dawn simulator mimics the effects of sunrise by gradually turning up the intensity of room lighting before awakening in the morning. We have no idea why this works since our eyes are closed at the time it is having its effect, and its intensity is nothing more than that of an ordinary bedside lamp. Fortunately there is no need to choose between a SAD light and a dawn simulator. They work quite nicely together!

### Medication

What do you do if light therapy takes care of some but not all of your symptoms? You may wish to consult with your physician about the use of the dietary supplement called L-tryptophan or an antidepressant medication. In addition, you may wish to consider psychotherapy.

### Psychotherapy

Sometimes the seasonal variation in your mood is nothing more than an anniversary reaction. That is, you may have suffered a loss or some other traumatic event years or even decades ago. The event may be long forgotten, yet you continue to react to cues in the environment such as time of year and location.

A final word on psychotherapy - pick someone qualified who you are comfortable with who knows about SAD. Many therapists will offer a brief complementary interview for you to familiarize yourself with them and their therapeutic approach. In general, the research supports two approaches as being particularly effective with depression: cognitive behavioural therapy and interpersonal therapy. Cognitive behavioural therapy works on identifying and changing maladaptive thoughts and behaviours, while interpersonal therapy works on improving interpersonal communication skills. For a list of qualified psychologists in your area, call the B.C. Psychological Association's referral line at 1-800-730-0522.

### **Conclusion**

In conclusion, it seems the bright rays of the SAD light can help not only with the winter blues, but by resetting our biological clocks can also help with sleep problems, and effects of jet-lag. The light appears to work by suppressing production of the nighttime hormone melatonin. Standard photo-therapy can be augmented with L-tryptophan, antidepressant medication and psychotherapy.