

Light Therapy for Winter Depression

If you suffer from seasonal affective disorder, you don't need to wait for longer days to get some relief. Most of us welcome the sun's effect on our mood, especially after a stretch of gray days. But for some people, reduced daylight during fall and winter can bring on full-blown depression. Seasonal Affective Disorder, or SAD, is a form of depression that follows a seasonal pattern, almost always worsening during the darker winter months and returning every year at roughly the same time. It is also known as "winter depression" or "winter blues."

The condition accounts for about 10% of all cases of major depression and occurs mostly in women. SAD makes you feel unhappy, anxious, tired and irritable. Interestingly, people with winter depression are often happy and productive the rest of the year. SAD usually begins in a woman's late teens or early 20's and often disappears after menopause. While no one knows what causes winter blues, there's some evidence implicating melatonin, a hormone produced in the brain.

Many physiological functions are rhythmic, that is, they cycle in 24-hour intervals – including sleeping and waking, the release of certain hormones, and body temperature. This circadian rhythm is essentially under the control of our genes, but it can adjust to environmental cues, such as changes in the light/dark cycle. Cells in the retina of the eye respond to the varying levels of light, signaling a pacemaker-like structure in the brain called the suprachiasmatic nucleus, which controls some of the body's rhythms. One of the cycles this brain area regulates is the production of the hormone melatonin. Melatonin levels rise in the evening helping to induce sleep, and fall in response to morning light.

According to one theory the body clocks of people with SAD don't adjust to winter's later dawns and earlier sunsets. Melatonin thus remains elevated during their waking hours. It's also possible that people with SAD are hypersensitive to melatonin or over-produce the hormone in response to longer period of darkness.

The influence of light doesn't completely explain SAD. Nonetheless, light therapy is uniquely (though not universally) effective in treating winter depression.

The most common light therapy device is a box containing fluorescent lights mounted on a metal reflector. The box is fitted with a plastic screen to filter out damaging ultraviolet frequencies. The screen also diffuses the emitted light, reducing glare. The important thing is the intensity, not the spectrum of light.

There are several light box models. Some are portable and others can sit on a tabletop or desk. They can also be adjustable to height and light intensity. Light boxes work best when the user sits nearby at a prescribed distance and height, keeping her eyes open and looking ahead or slightly downward. Looking directly at the box is not advisable.

Using a standard measure of brightness, experts usually recommend about 10,000 lux, which is more or less equivalent to early morning sunlight. In the changing daylight of autumn, 15 minutes of 10,000 lux once a day, right after waking, may suffice. Light exposure can then be increased to 30-45 minute sessions. Severe SAD may require longer exposure, perhaps up to two sessions. If symptoms don't improve after two weeks, the use of light therapy should be re-evaluated and other measures considered.

Light therapy has few side effects – mainly headache, fatigue, irritability and eyestrain. These usually subside with lowering the dose with either shorter sessions or increasing distance from the light

source. The course of treatment is around \$150 to \$300 and is usually covered by insurance.

Treating depression should begin with a diagnostic consultation. If the diagnosis is winter depression, then light therapy may work. If not, then usually antidepressant drugs, chiefly selective serotonin re-uptake inhibitors, such as Prozac and Celexa, have been found effective for seasonal blues in controlled trials. People with seasonal mood changes may also benefit from psychotherapy.

For milder seasonal mood changes, adding more regular lamps to the house, sitting near windows, or spending more time outdoors may help. One study found that walking for an hour in the winter sunlight was as effective as 2 ½ hours of artificial light.

(Summarized from Harvard Women's Health Watch, Feb. 2005, Vol. 12, No. 6, pp 6-7. Copyright© 2005 Harvard Women's Health Watch. Distributed by Knight Ridder/Tribune Information Services. February 2005.)