

# Light Therapy



A natural treatment for seasonal (and non-seasonal) depression

Some people with depression notice a seasonal pattern to their mood. They become depressed as the sunlight fades in early or late fall and gradually feel better as winter turns to spring. These seasonal depressions often make people tired and hungry, craving sugars and fats.

Part of the cause of seasonal depression is a problem with the circadian rhythm, which is a clock inside us that sets levels of energy, sleep and appetite. This biological clock is run by hormones and transmitters in our brain, such as melatonin. Our brains use sunlight to set this clock, and likewise people with seasonal depression can use artificial sunlight through a lightbox to correct their circadian rhythm.

Light therapy treats seasonal depression. Studies find it is as powerful as medication. It can also help antidepressants work better, even when used in the summertime.

## Purchasing a Lightbox

Many companies advertise portable boxes, even ones that fit on a visor, but these are usually too small to be useful. This problem is common when medical products, such as lightboxes, are not regulated by the FDA. Fortunately, a group of researchers in light therapy have stepped in to guide the public. Their group, the Center for Environmental Therapeutics (CET), has a useful web site at: [www.cet.org](http://www.cet.org).

For the simple choice, we recommend one of these models (available on Amazon for \$105-\$150): Day-Light Classic (ASIN #B0009MFUWC), Classic-Plus (DL93011, pictured below) or Day-Light Sky (DL2000US); all by Carex-Uplift. These all have the right specs. They differ in their base. The classic has foldable legs (lighter and portable but less sturdy); the others have a larger, sturdier base.

The bulbs should be replaced every 2 years (if using the Daylight search for D1930 Replacement Bulb Amazon; note the box requires 3 bulbs and they are sold individually \$11 per bulb).

If you are using a different brand, look for the following features:



*Intensity: at least 2,000 lux;  
10,000 lux is optimal*  
*Screen Size: at least 12 x 17  
inches*  
*Wavelength: around 509  
nm (White Light)*

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advertise the correct specifications (note that, unlike medications, the quality and safety of these devices is not regulated by the FDA).

### **Using Your Light Box**

Although some products encourage continual use throughout the day, research shows that between 30 minutes and 2 hours of light exposure upon awakening brings the best effect. Bright light in the evening may cancel out the effects of morning light. Try to keep a regular sleep schedule and avoid staying up beyond 11pm (see [moodtreatmentcenter.com/cbtinsomniashort.pdf](http://moodtreatmentcenter.com/cbtinsomniashort.pdf) for advice on keeping better sleep).

Bring the directions for your lightbox to your doctor to find out how it should be used for your condition. It is important to sit at the right distance and angle (usually 45 degrees) from the light to get the best dose. Stay close to the box (head within 12 inches) as the effect goes down exponentially as you move away from it. To find out the optimal time to turn on the light, go to [www.cet.org](http://www.cet.org); links may change but currently click on "Therapeutic Resources and Tools" button, then "Self assessment tools" then "Your circadian rhythm type (AutoMEQ)"; if possible answer the questions based on times when you are not depressed.

If you cannot start the lightbox at the idea time suggested by the AutoMEQ, that's ok just try to start it before 9am. You can slowly move it closer to your ideal time as your energy improves.

It takes about 2 weeks for the full effects to the light to set in, but many people begin to feel better as early as 2-4 days after starting the light.

### **Use in Bipolar Depression**

Light therapy is effective in bipolar depression, but requires a modified technique. It should be used between 12:00pm and 2:30pm. Start with 15 minutes under the box and increase by 15 minutes every week, towards an optimal time of 60 minutes under the box. If manic symptoms occur (e.g. agitation, insomnia, restlessness, racing thoughts, irritability), contact your treatment team and lower the time under the box.

### **Side Effects and Precautions**

Lightboxes are generally safe. It is important not to stare directly into them as this can strain and even damage your eyes. Let your doctor know if you have any eye diseases. The most common side effect of the lightbox is headache.

### **More on Seasonal Affective Disorder**

Seasonal Affective Disorder (SAD) typically comes on between ages 15 and 30. About 5% of people in the U.S. have S.A.D., and up to 20% have milder forms of the condition. The rates of SAD are surprisingly as high in North Carolina as they are in the North Eastern states. They start to go down around Columbia, SC and start to disappear down in Florida.

People also have seasonal mood shifts in the few weeks after the daylight savings shift in spring – we lose morning sun when the clock "springs" forward and it takes a little while to readjust. A good book on seasonal moods is *Reset Your Inner Clock* by Michael Terman, PhD.

–Chris Aiken, MD, adapted from *Bipolar, Not So Much* (Aiken & Phelps, WW Norton, 2017)