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Opinion

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# Light Therapy Affect Circadian Rhythm Controlling Sleep Cycle

**Archana Gulia ***

## Introduction

Living organism features a number of internal rhythms that control many functions. Some rhythms are short, like a cycle of sleep that lasts 60-120 minutes. Other cycles are longer like the cycle. The biological time features a cycle length of around 24 hours, and is that the rhythm that controls most body functions, ensuring that things add an equivalent way at an equivalent time every day. the foremost obvious things the biological time controls are wake, sleep, activity and appetite. However, recent research has shown that nearly all body functions are regulated by the circadian system. Light are often utilized in treating biological time disorders. Bright Light Therapy (BLT) is effective and recognized as a first-line therapeutic modality. BLT increasingly also used as an experimental treatment in unipolar and bipolar depression and other psychiatric disorders within the circadian system.

## Description

The bright white full-spectrum fluorescent light of two ,500 lux for 3 hours at dawn and three hours at dusk for 2 weeks. When patients were crossed over to a dim traffic light treatment of 100 lux, a big degree of relapse occurred, antidepressant effect is restricted to light characteristics like illuminance. Conditions for administration of bright light therapy (BLT) for SAD are optimized. the present strategy for initiating treatment with BLT for patients with SAD. BLT is performed early within the morning employing a device referred to as a light-weight box. A biological time refers to the approximately 24-hour cycle of physiological processes present in humans and other animals. This cycle is governed via clock organic phenomenon by the suprachiasmatic nucleus (SCN), the master pacemaker located within the anterior hypothalamus. Though circadian oscillations are endogenously generated by the SCN, they have to be entrained to the 24-hour day by external cues. Light exposure is that the most vital synchronizing agent of endogenous circadian rhythms. As against the more well-known opsin-containing rod and cone cells, this photic entrainment is regulated largely through melanopsin-containing retinal cells referred to as intrinsically photosensitive Retinal Ganglion Cells (ipRGCs) that transduce light signals with maximum absorption within the blue wavelength range and deliver them on to the SCN via the retino hypothalamic tract.

However, though mice lacking melanopsin have altered circadian rhythms, they will still be entrained by light suggesting a collateral role for rods or cones within the modulation of ipRGCs. additionally, the SCN is regulated by neuro modulatory signals, including melatonin from the pineal body. Melatonin acts to transduce daily and seasonal photoperiod information, with melatonin peaking during the night and returning to baseline trough levels during the day.

## Conclusion

Light therapy may not cure nonseasonal depression or other conditions. May ease symptoms, increase your energy levels, and help you feel better about yourself and life. Details may be helpful to patients undergoing treatment and many other information. This therapy helpful improve symptoms within just a few days.

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***Corresponding author** **Archana Gulia, Department of pharmacy, Andhra University, Vishakhapatnam, Andhra Pradesh, India. E-mail: archanagulia101@gmail.com**

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***Author Affiliations*** Top

*Department of Pharmacy, Andhra University, Andhra Pradesh, India*