



10,000 Lux

Some recommendations on how to use Aurora Bright Light System

We feel that the best distance of usage is about 2 1/2 to 3 feet. We also feel that the light should be used in the morning hours and for a period of about 30 minutes. Also note that the user can perform other tasks while using our bright light system and does not have to stare into the light to benefit from it. But each individual after a while will find what is most comfortable.



The Most Professional Light Box Available On The Market.

Disclaimer: Please note that Star makes no medical claims regarding the use of these products. Also, Star recommends that you consult you physician or therapist for information regarding light therapy.

Specifications

Aurora™ uses the latest high power and high C.R.I. fluorescent technology to best simulate the Suns' rays. (Star, high lumen output, with patent unique phosphor blend Full Spectrum Fluorescents, 110w, 20,000 hours.)

Provides 10,000 Lux of bright, color balanced, Sun-like rays at a distance of 24".

Uses an advanced flicker free high power factor electronic ballast for long term efficiency, and reliable operation.

Equipped with a special prismatic lens for comfortable, glare-free light distribution, and total protection from harmful U.V. and electro-magnetic radiations.

Compact size (measures 12 1/2 x 23 x 3 7/8), light weight (only 10lbs) and easy to carry with a handle.

Made in the USA - UL listed - Full Spectrum Lamps made in Germany. Two years Manufacturer's Warranty on parts and labor.

Aurora™ Types, Wattages & Suggested List Prices

Lamp User Hours	Color Appearance	Color Temperature	Watts	Lux at 36"	Lux at 24"
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20,000	Bright White	5000°K	110W	10,000	10,000
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List Price per unit: \$399

Star Lighting Products 1-800-392-3552

Star Lighting Products Address Seasonal Affective Disorder

What Is Seasonal Affective Disorder?

Seasonal Affective Disorder (SAD) is a specific type of major depression, one which reoccurs at specific times of the year. The most common pattern is the onset of major depression in the fall (September through November) and abating of the symptoms in late winter to early spring (March through May). There are other people who experience periods of abnormally high or euphoric mood between major depressive episodes. The frequency of SAD seems to vary with geographic location. It may approach 10% of the general population in northern New England, 5% of the population in the Baltimore/Washington area, and less the 2% of the population of Southern California or Florida.

How is S.A.D. Similar to Other Affective Disorders?

"Affective Disorder" is a broad term for the various forms of mood disturbances from which many people suffer. In particular, a major depression may affect as many as 20% of the American population at any given time. A major depression, seasonal or otherwise, is characterized by a series of symptoms.

Symptoms of S.A.D. may include the following:

Change in appetite or weight · Sleep problems · Lack of energy · Diminishing sex drive · Body aches or pains · Memory loss · Inability to make decisions · Problems concentrating · Low self-esteem (feelings of worthlessness or guilt) · Lack of interest in or enjoyment of activities · Suicidal thoughts

How is S.A.D. Different from Other Mood Disorders?

As in the case of major depression, the diagnosis of SAD is a clinical one, based on the presence of specific symptoms. To meet the criteria for

a seasonal relationship, there should be at least three episodes of mood disturbance in three separate seasons, at least two of which are consecutive. There should be no association between the disturbance and situation stresses, such as being unemployed with each winter.

How Can S.A.D. be Treated?

In many ways the treatment of SAD is similar to that of other major depressive episodes, utilizing antidepressant or mood stabilizing medication and/or psychotherapy. In addition, the exposure to bright light has been found to be an effective means of treating seasonal affective disorder. The individual sits in front of a bright light unit, a specialized, portable box which houses balanced spectrum fluorescent tubes. An individual's needs for light therapy specifies the duration of exposure and the optimal time of day. An individual should meet periodically with their health care professional and the dose of light therapy can be adjusted as needed.

How the Light Box Works:

The light box provides a measured amount of balanced spectrum light equivalent to standing outdoors on a clear spring day. This has been shown to help regulate the body clock. Photo biologists point out that the light is registered by the eyes through the retina, which then transfers impulses to the hypothalamus in the brain to normalize the body clock function. The light from the box will help synchronize sleep/wake patterns with one's work and lifestyle.

Who Suffers from S.A.D.?

About $\frac{3}{4}$ of S.A.D. sufferers are women, but S.A.D. affects men and children as well. The most typical age of onset is in the twenties, but other onsets are common such as during puberty, middle age, and old age. After women pass through menopause the numbers in men and women become equal. Susceptibility for S.A.D. appears to be inherited. Fifty percent of fibromyalgia patients see a seasonal worsening of their symptoms.

Factors Influencing Severity

S.A.D. can be experienced as an isolated disorder or may be experienced in conjunction with an existing mood disorder or chronic illness. The tendency toward S.A.D. or severity of the symptoms can be influenced by many factors, such as living in a northern latitude, recent cloudy weather patterns, family history of S.A.D., working in a windowless office, recent illness, or general life stresses.

What Causes S.A.D.

Change in sunlight exposure is the key. The amount of daylight exposure one receives and the changes in sunrise/sunset reducing the daylight hours in the fall and winter can affect sufferers of S.A.D. The most commonly believed hypothesis follows: although the body has natural daily rhythms, they are not fully precise and rely on the intensity of sunlight to provide adjusting cues. These cues originate in the retina at the back of the eye, creating signals which pass through the optic nerve to the mid brain, setting in motion a number of chemical changes. These changes include: 1) Increase in the neurotransmitter serotonin, necessary for a sense of well being. 2) Regulation and suppression of the

hormone melatonin, which is a factor in normal sleep patterns and may influence sleep's recuperative benefits.

Basics of Bright Light Therapy Devices

The most common device used for bright light therapy is a fluorescent light box, which produces a light intensity of 2,500 to 10,000 lux at a comfortable distance (1-2'). Light box intensity ratings are always at a given distance. Fewer headaches and eyestrain are associated with using balanced spectrum light.

How Light Boxes are Used

The light box is placed in front of the user at the recommended distance for the desired intensity. One should be directly in front of the unit as the light shines into the user's eyes. The eyes need be open, and sunglasses should not be worn. Some may be instructed to look at the light box briefly at regular intervals. For many this doesn't seem to be necessary. The light box intensity of 10,000 lux is much brighter than normal indoor light which is usually 300-500 lux, but not as bright as summer sunlight which can be as bright as 100,000 lux.

Session Length

Exposure time is determined by the intensity of the light source. There are individual differences, but a ½ hour treatment at 10,000 lux a day is the average. Most are comfortable with the 10,000 lux intensity level, and, and choose a unit that produces 10,000 lux at a usable and comfortable 13-16" distance from the light box. If eyestrain occurs it may be necessary to have shorter periodic sessions.

Bright Light Therapy Timing

The most successful treatments for S.A.D. involve identifying how the change in daylight shifts the person's daily circadian rhythms, especially in their sleep cycle. Most with S.A.D. symptoms show changes in their sleep/wake patterns and melatonin levels. Bright light is known to be a powerful regulator of melatonin and the sleep/wake cycle. S.A.D. and "Winter Blues" sufferers tend to show two common patterns in their sleep phase: Delayed or Advanced.

Session Timing for "Phase Delayed" Patients

About 80% show this pattern, this group's melatonin production and sleep period begin later at night, and moves into the normal morning waking hours. These patients have trouble waking up in the morning, and often feel sluggish for hours after awakening, even if they have slept longer than usual. Phototherapy sessions appear to be most effective for this group if placed between 6-8 am. Some experience a time during late afternoon or early evening that they become tired. Of those in the phase-delayed group about 50% have this tired time. Late evening arrives and the energy levels increase, which makes going to bed at a normal time difficult. This may also result in poor sleep quality. For those, an optional second session of 5 to 10 minutes at 10,000 lux between 3-7 p.m. helps change this pattern and often improves sleep quality. This additional light may cause some users difficulty going to sleep.

Session Timing for "Phase Advanced" Patients

About 20% of this group feel best in the morning, then around noon their energy levels steadily decline. Often they retire for the night hours earlier than normal. Their 30-minute session at 10,000 lux is usually placed from 3-7 p.m., depending on when the urge to sleep occurs and how late the light may be used without keeping them awake. Timing is more individual for this group, and may require trial and error for optimum effect. Short, periodic sessions throughout the afternoon at high intensity, or long exposure at a lower intensity may also be considered. A second session in the morning is often not beneficial for this group.

Beginning and Ending Bright Light Therapy

Regular daily usage at the same time each day is best until symptoms disappear. After that period the patient may be able to cut session time or split a half-hour AM session into 15 minutes a.m. and p.m. Once established, most can skip a couple of days without ill-effects, but by the third day without light therapy most will see symptoms return. Light therapy sessions should begin at the time of the year before symptoms become obvious or distressing, and most patients will discontinue use in the spring when they receive enough natural light. The times when usage is necessary can be greatly affected by the amount of sunlight or cloudy rainy weather.

Side Effects

It is possible to overuse a light box. After overuse for 4-6 weeks, irritability and agitation that is often followed by fatigue may result. Irritability, agitation and initial eyestrain for 1-3 days appear to be the main side effects. Inducing mania is seen in about 1% and any mild hypomania that may occur results from consistent overuse. Some drugs make patients photosensitive, as can contact lenses, and those patients may need to be conservative when starting light therapy. Those on antidepressants can often reduce their dosage, with their doctor's consent, once light therapy works. For most patients, light therapy is the most natural and safe treatment for S.A.D., as well as the most cost-effective.

Seeking Treatment

Given the effectiveness of treatments for S.A.D. it would be a shame for anyone not to seek help. It is true that S.A.D. is often correctly self-diagnosed and anyone can purchase light devices, but other illness factors may be at play, and seeking the guidance of a qualified medical practitioner in both the diagnosis and treatment of S.A.D. is the wisest thing to do. (Usage patterns outlined herein represent those most typically given by current clinical practices. They are not intended to encourage self-prescription or to contradict an individual's prescribed therapy.)

Product Watts:

Product Bases:

Product Notes: 1-800-392-3552