Home-use Light Box Therapy for Seasonal Affective Disorder

Clinical Policy ID: CCP.1460

Recent review date: 2/2026

Next review date: 6/2027

Policy contains: Light box; light therapy; seasonal affective disorder; winter depression.

AmeriHealth Caritas has developed clinical policies to assist with making coverage determinations. AmeriHealth Caritas' clinical policies are based on guidelines from established industry sources, such as the Centers for Medicare & Medicaid Services (CMS), state regulatory agencies, the American Medical Association (AMA), medical specialty professional societies, and peer-reviewed professional literature. These clinical policies along with other sources, such as plan benefits and state and federal laws and regulatory requirements, including any state- or plan-specific definition of "medically necessary," and the specific facts of the particular situation are considered, on a case by case basis, by AmeriHealth Caritas when making coverage determinations. In the event of conflict between this clinical policy and plan benefits and/or state or federal laws and/or regulatory requirements, the plan benefits and/or state and federal laws and/or regulatory requirements shall control. AmeriHealth Caritas' clinical policies are for informational purposes only and not intended as medical advice or to direct treatment. Physicians and other health care providers are solely responsible for the treatment decisions for their patients. AmeriHealth Caritas' clinical policies are reflective of evidence-based medicine at the time of review. As medical science evolves, AmeriHealth Caritas will update its clinical policies as necessary. AmeriHealth Caritas' clinical policies are not guarantees of payment.

Coverage policy

Home-use light box therapy is clinically proven and, therefore, may be medically necessary for seasonal affective disorder (major depressive disorder with seasonal patterns) when the following criteria are met:

- The member is diagnosed with recurring depression (at least two consecutive years) during a period when light decreases, which also alleviates when light increases (National Institute of Mental Health, 2023).
- An evaluation and recommendation for light box therapy is made by a physician, for treatment of 2,500 to 10,000 lux of no longer than one hour per day, most often early in the morning (American Academy of Family Physicians [Galima, 2020]).

Limitations

Members with certain ocular diseases or those taking certain medications that increase sensitivity to sunlight may be advised to seek alternative treatment (National Institute of Mental Health, 2023).

Alternative covered services

- Vitamin D supplements.
- Antidepressants, especially selective serotonin reuptake inhibitors.
- Psychotherapy.
- Cognitive behavioral therapy.

Background

Seasonal affective disorder is a subtype of major depressive disorder characterized by its recurrent seasonal pattern, with symptoms lasting about four to five months per year (National Institute of Mental Health, 2023). Low levels of serotonin and elevated levels of melatonin in the brain may contribute to this condition, with symptoms including low energy, hypersomnia, overeating, weight gain, craving for carbohydrates, and social withdrawal (feel like “hibernating”).

Seasonal affective disorder affects a significant portion of the population. The prevalence rates vary based on geographic location and individual susceptibility. While the precise causes of the disorder are not known, risk factors are well documented. These include being female, a family history of depression, a history of bipolar disorder, being younger (versus older) adults, and U.S. residents living at higher latitudes (Munir, 2024).

Treatment options for seasonal affective disorder include vitamin D supplements, antidepressant medication, psychotherapy, and light therapy. A light therapy box is designed to simulate outdoor light exposure, which is thought to stimulate serotonin activity, reset circadian rhythm, and improve mood and other symptoms of winter-pattern seasonal affective disorder, A variety of light boxes are available for seasonal affective disorder. Each filters out harmful ultraviolet rays and requires 30 to 45 minutes of exposure to 10,000 lux of cool-white fluorescent light, an amount that is about 20 times greater than ordinary indoor lighting (National Institute of Mental Health, 2023). Caution is advised not to sit directly facing the box, and to sit at a reasonable proximity, namely 16 to 24 inches away (Mayo Clinic, 2022).

Findings

Guidelines

The American Psychological Association (2019) issued a conditional recommendation for bright light therapy for adults with depression for whom psychotherapy or pharmacotherapy is neither acceptable nor available. The recommendation included patients aged 60 years and older with a diagnosis of major depressive disorder.

According to the American Academy of Family Physicians, light therapy (2,500 to 10,000 lux for 30 to 60 minutes daily) is a first-line treatment for seasonal affective disorder, with improvement often observed within one to four weeks. The Academy also recommends cognitive behavioral therapy and antidepressants, particularly selective serotonin reuptake inhibitors, to help manage and prevent recurrence of symptoms (Galima, 2020).

The American Psychiatric Association legacy guideline for major depressive disorder states that use of light box therapy “might be used” to treat seasonal affective disorder, and “may hasten the response to treatment with antidepressant medication” (American Psychiatric Association, 2010).

Evidence review

The evidence from syntheses of randomized controlled trials supports the efficacy of bright light therapy for treating adults with seasonal affective disorder, but the evidence in adolescents, pregnant women, and the elderly is less certain. Light box therapy is considered safe, but adverse events and safety data were underreported in trials. Further study is warranted for those with pre-existing ocular abnormalities or elevated photosensitivity.

Wan's (2025) network analysis compared the efficacy of light with different wavelengths (white, blue, green, and red) as treatment for seasonal affective disorder. Seventeen randomized controlled trials (n = 773 total participants) were included. Fourteen trials included white light data, six with blue light data, two with green light data, and five with red light data. The findings support the superior efficacy of bright white light (up to 10,000 lux) therapy in improving depression (measured by the Structured interview guide for the Hamilton depression rating scale) and its ability to safely increase the illuminance of white light therapy for treating seasonal affective disorder.

Another network analysis of 21 randomized controlled trials (n = 1,037) compared the efficacy of bright light therapy to antidepressants, cognitive behavioral therapy, or negative ion generators. Bright light therapy administered approximately 5,000 lux per day was significantly more effective than other intervention groups or control therapies in treating seasonal affective disorder, with a mild to moderate effect size (odds ratio 4.64, 95% confidence interval 2.38 to 7.03). While the reviewed studies varied in how much benefit they derived from light therapy, additional statistical testing confirmed the reliability of the findings. However, the overall quality of evidence remains low. There was significant heterogeneity among studies that could not be explained. Few adverse effects or toxicity safety data were gathered or reported in the included trials. High-quality studies, standardized treatment protocols, long-term follow-up, and inclusion of children, pregnant women, and the elderly are needed to optimize treatment parameters and safety profiles (Chen, 2024).

A scoping review of seven controlled trials (n = 270) and 12 uncontrolled studies (n = 132) examined the feasibility, safety, and efficacy of bright light therapy for adolescents ages 12 to 18 years with depressive disorders. Bright light therapy appears to be well-tolerated, but its long-term effects and adverse effects are not well-described. Treatment protocols varied significantly, making comparison of treatment response and tolerability difficult to quantify (Ballard, 2023).

A meta-analysis of 18 randomized controlled trials (n = 610 adults with seasonal affective disorder) compared bright light therapy to dim light or sham/low-density negative ion generators as controls. Bright light therapy was superior to controls for depression ratings and response to active treatment. Authors recommended higher-quality trials due to moderate heterogeneity and moderate/high risk of bias, plus small sample sizes in the current research (Prjek, 2020).

A systematic review/meta-analysis (n = 397) found that improvements in depression scores for participants with seasonal affective disorder given light therapy plus placebo were non-significant compared to those given antidepressants plus placebo ($P = .17$). The combination of light therapy and antidepressants was superior to antidepressants plus placebo (standard mean difference = 0.56, range 0.24 to 0.88, $P < .001$), and was also significantly more effective for non-seasonal depression ($P < .005$) (Geoffroy, 2019).

A systematic review (43 articles) of light therapy found no adverse ocular effects in otherwise healthy, unmedicated persons using the treatment. Further study is warranted for those with pre-existing ocular abnormalities or elevated photosensitivity (Brouwer, 2017).

In 2022, we found no new relevant literature to add to the policy.

In 2023, we updated the references with no policy changes warranted.

In 2024, we updated the references. No policy changes are warranted.

In 2025, we updated the references. No policy changes are warranted.

In 2026, we updated the references, reorganized the findings, and modified the coverage criteria to align with professional guideline recommendations.

References

On January 12, 2026, we searched PubMed and the databases of the Cochrane Library, the U.K. National Health Services Centre for Reviews and Dissemination, the Agency for Healthcare Research and Quality, and the Centers for Medicare & Medicaid Services. Search terms were “light box,” “light therapy,” “seasonal affective disorder,” and “winter depression.” We included the best available evidence according to established evidence hierarchies (typically systematic reviews, meta-analyses, and full economic analyses, where available) and professional guidelines based on such evidence and clinical expertise.

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American Psychological Association. Clinical practice guideline for the treatment of depression across three age cohorts. https://www.apa.org/depression-guideline/guideline.pdf. Published 2019 (update in progress).

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Policy updates

5/2020: initial review date and clinical policy effective date: 6/2020

2/2021: Policy references updated.

2/2022: Policy references updated.

2/2023: Policy references updated.

2/2024: Policy references updated.

2/2025: Policy references updated.

2/2026: Policy references updated. Coverage modified.

Related Codes

Below are the most commonly submitted codes for the service(s)/item(s) subject to this policy CCP.1460. This is not an exhaustive list of codes. Providers are expected to consult the appropriate coding manuals and bill accordingly.

Code	Code Description
E0203	Therapeutic lightbox, minimum 10,000 lux, table top model
A4634	Replacement bulb for therapeutic light box, tabletop model