

# Light therapy for non-seasonal depression (Review)

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[Intervention Review]

# Light therapy for non-seasonal depression

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## ABSTRACT

### Background

Efficacy of light therapy for non-seasonal depression has been studied without any consensus on its efficacy.

### Objectives

To evaluate clinical effects of light therapy in comparison to the inactive placebo treatment for non-seasonal depression.

### Search methods

We searched the Depression Anxiety & Neurosis Controlled Trials register (CCDANCTR January 2003), comprising the results of searches of Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE (1966 -), EMBASE (1980 -), CINAHL (1982 -), LILACS (1982 -), National Research Register, PsycINFO/PsycLIT (1974 -), PSYINDEX (1977 -), and SIGLE (1982 -) using the group search strategy and the following terms: #30 = phototherapy or ("light therapy" or light-therapy). We also sought trials from conference proceedings and references of included papers, and contacted the first author of each study as well as leading researchers in the field.

### Selection criteria

Randomised controlled trials comparing bright light with inactive placebo treatments for non-seasonal depression.

### Data collection and analysis

Data were extracted and quality assessment was made independently by two reviewers. The authors were contacted to obtain additional information.

### Main results

Twenty studies (49 reports) were included in the review. Most of the studies applied bright light as adjunctive treatment to drug therapy, sleep deprivation, or both. In general, the quality of reporting was poor, and many reviews did not report adverse effects systematically. The treatment response in the bright light group was better than in the control treatment group, but did not reach statistical significance. The result was mainly based on studies of less than 8 days of treatment. The response to bright light was significantly better than to control treatment in high-quality studies (standardized mean difference (SMD) -0.90, 95% confidence interval (CI) -1.50 to -0.31), in studies applying morning light treatment (SMD -0.38, CI -0.62 to -0.14), and in sleep deprivation responders (SMD -1.02, CI -1.60 to -0.45). Hypomania was more common in the bright light group compared to the control treatment group (risk ratio 4.91, CI 1.66 to 14.46, number needed to harm 8, CI 5 to 20).

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**Authors' conclusions**

For patients suffering from non-seasonal depression, light therapy offers modest though promising antidepressive efficacy, especially when administered during the first week of treatment, in the morning, and as an adjunctive treatment to sleep deprivation responders. Hypomania as a potential adverse effect needs to be considered. Due to limited data and heterogeneity of studies these results need to be interpreted with caution.

**PLAIN LANGUAGE SUMMARY****Light treatment for non-seasonal depression**

The reviewers conclude that the benefit of light treatment is modest though promising for non-seasonal depression. The short-term treatment as well as light administered in the morning and with concomitant sleep deprivation in sleep deprivation responders appear to be most beneficial for treatment response. Hypomania as a potential adverse effect needs to be considered. Due to limited data and heterogeneity of studies these results need to be interpreted with caution.