

Light therapy for Treatment resistant depression

Review information

Authors

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Citation example: [Empty name]. Light therapy for Treatment resistant depression. Cochrane Database of Systematic Reviews [Year], Issue [Issue].

Contact person

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Dates

Assessed as Up-to-date:	
Date of Search:	
Next Stage Expected:	
Protocol First Published:	Not specified
Review First Published:	Not specified
Last Citation Issue:	Not specified

What's new

Date / Event	Description
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History

Date / Event	Description
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Abstract

Background

Objectives

Search methods

Selection criteria

Data collection and analysis

Main results

Authors' conclusions

Plain language summary

[Summary title]

[Summary text]

Background

Description of the condition

Description of the intervention

How the intervention might work

Why it is important to do this review

Objectives

Methods

Criteria for considering studies for this review

Types of studies

Types of participants

Types of interventions

Types of outcome measures

Primary outcomes

Secondary outcomes

Search methods for identification of studies

Electronic searches

Searching other resources

Data collection and analysis

Selection of studies

Data extraction and management

Assessment of risk of bias in included studies

Measures of treatment effect

Unit of analysis issues

Dealing with missing data

Assessment of heterogeneity

Assessment of reporting biases

Data synthesis

Subgroup analysis and investigation of heterogeneity

Sensitivity analysis

Results

Description of studies

Results of the search

Included studies

Excluded studies

Risk of bias in included studies

Allocation (selection bias)

Blinding (performance bias and detection bias)

Incomplete outcome data (attrition bias)

Selective reporting (reporting bias)

Other potential sources of bias

Effects of interventions

Discussion

Summary of main results

Overall completeness and applicability of evidence

Quality of the evidence

Potential biases in the review process

Agreements and disagreements with other studies or reviews

Authors' conclusions

Implications for practice

Implications for research

Acknowledgements

Contributions of authors

Declarations of interest

Differences between protocol and review

Published notes

Characteristics of studies

Characteristics of included studies

Goel 2005

Methods	Study design: Randomized controlled trial Study grouping: Parallel group
Participants	Baseline Characteristics Lysterapi Lavdosis negativ iongenerator Højdosis negativ iongenerator Overall Included criteria: Major depression chronic (>2 years) Excluded criteria: Seasonal depression (baseret på seasonal pattern specifier in DSM-IV)Global Seasonality score > 6 (fra SPAQ)Andre akse 1 sygdomme i DSM-IVNyligt selvmordsforsøg Opvågning fra nattesøvn senere end klokken 9.00 eller sengetid senere end kl. 1 om natten Tidligere behandling med lys eller negative ionerBrug af psykotrope eller "recreative" stoffer andet end SSRI antidepressivaBrug af alkohol Pretreatment: No difference for depression severity between groups
Interventions	Intervention Characteristics Lysterapi <ul style="list-style-type: none"> ● 10.000 lux i 32 cm afstand mellem lampe og øjne med 333 Kelvin farvetemperatur i 1 time daglig i 5 uger ved opvågning: ● 1,7*10 (opløftet til 11) ioner per sekund i 32 cm afstand i 1 time i 5 uger ved opvågning: ● 4,5*10 (opløftet til 14) ioner per sekund i 32 cm afstand i 1 time i 5 uger ved opvågning: Lavdosis negativ iongenerator <ul style="list-style-type: none"> ● 10.000 lux i 32 cm afstand mellem lampe og øjne med 333 Kelvin farvetemperatur i 1 time daglig i 5 uger ved opvågning: ● 1,7*10 (opløftet til 11) ioner per sekund i 32 cm afstand i 1 time i 5 uger ved opvågning: ● 4,5*10 (opløftet til 14) ioner per sekund i 32 cm afstand i 1 time i 5 uger ved opvågning: Højdosis negativ iongenerator <ul style="list-style-type: none"> ● 10.000 lux i 32 cm afstand mellem lampe og øjne med 333 Kelvin farvetemperatur i 1 time daglig i 5 uger ved opvågning: ● 1,7*10 (opløftet til 11) ioner per sekund i 32 cm afstand i 1 time i 5 uger ved opvågning: ● 4,5*10 (opløftet til 14) ioner per sekund i 32 cm afstand i 1 time i 5 uger ved opvågning:
Outcomes	Structured Interview Guide for the Hamilton Depression Rating Scale (SIGH-SAD) <ul style="list-style-type: none"> ● Outcome type: ContinuousOutcome ● Reporting: Fully reported ● Scale: SIGH-SAD ● Range: Ikke angivet ● Unit of measure: scores ● Direction: Lower is better ● Data value: Change from baseline Remission

	<ul style="list-style-type: none"> ● Outcome type: DichotomousOutcome ● Reporting: Fully reported ● Scale: SIGH-SAD ● Unit of measure: percent ● Direction: Higher is better ● Data value: Change from baseline ● Notes: Score below or equal to 8 on the SIGH-SAD <p><i>Drop-out</i></p> <ul style="list-style-type: none"> ● Outcome type: ContinuousOutcome ● Reporting: Fully reported ● Scale: None ● Range: not relevant ● Direction: Lower is better ● Data value: Endpoint ● Notes: Drop-out
Identification	<p>Sponsorship source: Research was supported by Grant MH42931 (to M.T.) from the U.S. National Institutes of Health and by a Wesleyan University Project Grant (to N.G.). Lighting apparatus was donated by Uplift Technologies Inc., Dartmouth, Nova Scotia, Canada.</p> <p>Country: USA</p> <p>Setting: New York State Psychiatric Institute (NYSPI) and the Department of Psychology, Wesleyan University</p> <p>Comments: Outpatients</p> <p>Authors name: Namni Goel</p> <p>Institution: Department of Psychology, Wesleyan University, Middletown, CT, USA and New York State Psychiatric Institute, New York, NY, USA</p> <p>Email: goel@pennmedicine.upenn.edu</p> <p>Address: University of Pennsylvania</p>
Notes	<p><i>Sune Straszek on 24/10/2019 03:46</i></p> <p>Select</p> <p>>2 års depression, unipolare og en placebo kontrol?</p>

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	
Allocation concealment (selection bias)	Low risk	
Blinding of participants and personnel (performance bias)	High risk	Patient not blinded to light but to placebo condition with a negative ion generator. Personnel blinding not mentioned.
Blinding of outcome assessment (detection bias)	Low risk	
Incomplete outcome data (attrition bias)	Low risk	
Selective reporting (reporting bias)	Low risk	
Other bias	Low risk	

Footnotes

Characteristics of excluded studies***Beauchemin 1997***

Reason for exclusion	Wrong patient population
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BLAND 2016

Reason for exclusion	Wrong patient population
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Camardese 2015

Reason for exclusion	Single arm
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Chojnacka 2016

Reason for exclusion	Wrong patient population
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Chojnacka 2016a

Reason for exclusion	Wrong patient population
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ISRCTN11848158 2016

Reason for exclusion	Trial paper no results
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Kripke 2011

Reason for exclusion	Wrong patient population
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Lam 2016

Reason for exclusion	Wrong patient population
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Levitt 1991

Reason for exclusion	Single arm
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Lieverse 2011

Reason for exclusion	Wrong patient population
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Loving 2007

Reason for exclusion	Commentary
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Martiny 2004

Reason for exclusion	Wrong patient population
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Martiny 2004a

Reason for exclusion	Wrong patient population
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Martiny 2005

Reason for exclusion	Wrong patient population
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Martiny 2005a

Reason for exclusion	Wrong patient population
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Martiny 2006

Reason for exclusion	Wrong patient population
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Martiny 2011

Reason for exclusion	Commentary
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Prasko 1995

Reason for exclusion	Trial paper no results
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Prasko 1996

Reason for exclusion	Trial paper no results
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Prasko 1999

Reason for exclusion	Abstract
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Wirtz Justice 2009

Reason for exclusion	Abstract
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WirzJustice 1999

Reason for exclusion	Wrong study design
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Yamada 1995

Reason for exclusion	Wrong patient population
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Young 2011

Reason for exclusion	n of one
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Footnotes

Characteristics of studies awaiting classification

Footnotes

Characteristics of ongoing studies

Footnotes

Summary of findings tables**Additional tables**

References to studies

Included studies

Goel 2005

Goel N.; Terman M.; Terman J.S.; Macchi M.M.; Stewart, J. W.. Controlled trial of bright light and negative air ions for chronic depression.. *Psychological medicine* 2005;35(7):945-955. [DOI:]

Excluded studies

Beauchemin 1997

Beauchemin K.M.; Hays, P.. Phototherapy is a useful adjunct in the treatment of depressed in- patients.. *Acta Psychiatrica Scandinavica* 1997;95(5):424-427. [DOI:]

BLAND 2016

BLAND, PHILLIP. Light therapy effective for nonseasonal depression. *Practitioner* 2016;260(1790):8-8. [DOI: 10.1136/tobaccocontrol-2015-052705]

Camardese 2015

Camardese G.; Leone B.; Serrani R.; Walstra C.; Di Nicola M.; Marca G.D.; Bria P.; Janiri, L.. Augmentation of light therapy in difficult-to-treat depressed patients: An open-label trial in both unipolar and bipolar patients.. *Neuropsychiatric Disease and Treatment* 2015;11(Journal Article):2331-2338. [DOI:]

Chojnacka 2016

Chojnacka, M.; Swiecicki, L.; Antosik-Wojcinska, A.Z.; Bzinkowska, D.; Borzym, A.; Antoniuk, D.; Bodzak-Opolska, G.; Sokol-Szawlowska, M.. A double blind, placebo controlled randomized trial of light therapy for non-seasonal bipolar vs. unipolar depression. *Neuropsychobiology* 2016;74(4):233-. [DOI: 10.1159/000477426]

Chojnacka 2016a

Chojnacka M.; AntosikWojcinska A.Z.; Dominiak M.; Bzinkowska D.; Borzym A.; SokolSzawlowska M.; BodzakOpolska G.; Antoniuk D.; Swiecicki, L.. A sham-controlled randomized trial of adjunctive light therapy for non-seasonal depression.. *Journal of affective disorders* 2016;203(Journal Article):1-8. [DOI:]

ISRCTN11848158 2016

ISRCTN11848158,. Light therapy exploratory trial: investigating the effectiveness and feasibility of home use light therapy for the management of depression. 2016;(Journal Article). [DOI:]

Kripke 2011

Kripke, D. F.. Bright light treatment reduces symptoms in older adults with non-seasonal major depression. *Evidence-based mental health* 2011;14(3):75. [DOI: 10.1136/ebmh.14.3.75 [doi]]

Lam 2016

Lam R.W.; Levitt A.J.; Levitan R.D.; Michalak E.E.; Cheung A.H.; Morehouse R.; Ramasubbu R.; Yatham L.N.; Tam, E. M.. Efficacy of bright light treatment, fluoxetine, and the combination in patients with nonseasonal major depressive disorder a randomized clinical trial.. *JAMA Psychiatry* 2016;73(1):56-63. [DOI:]

Levitt 1991

Levitt A.J.; Joffe R.T.; Kennedy, S. H.. Bright light augmentation in antidepressant nonresponders.. *Journal of Clinical Psychiatry* 1991;52(8):336-337. [DOI:]

Lieverse 2011

Lieverse R.; Van Someren E.J.W.; Nielen M.M.A.; Uitdehaag B.M.J.; Smit J.H.; Hoogendijk, W. J. G.. Bright light treatment in elderly patients with nonseasonal major depressive disorder: A randomized placebo-controlled trial.. *Archives of General Psychiatry* 2011;68(1):61-70. [DOI:]

Loving 2007

Loving, R. T.. Benefits of bright light in non-seasonal major depression not sustained after discontinuation. Evidence Based Mental Health 2007;10(2):49-49. [DOI:]

Martiny 2004

Martiny, Klaus. Adjunctive Bright Light in Non-Seasonal Major Depression.. Acta Psychiatrica Scandinavica 2004;110(Supl425):7-28. [DOI:]

Martiny 2004a

Martiny, K.. Adjunctive bright light in non-seasonal major depression. Acta psychiatrica Scandinavica.Supplementum 2004;(425):7-28. doi(425):7-28. [DOI: ACP460_2 [pii]]

Martiny 2005

Martiny K.; Lunde M.; Unden M.; Dam H.; Bech, P.. Adjunctive bright light in non-seasonal major depression: Results from clinician-rated depression scales.. Acta Psychiatrica Scandinavica 2005;112(2):117-125. [DOI:]

Martiny 2005a

Martiny K.; Lunde M.; Unden M.; Dam H.; Bech, P.. Adjunctive bright light in non-seasonal major depression: Results from patient-reported symptom and well-being scales.. Acta Psychiatrica Scandinavica 2005;111(6):453-459. [DOI:]

Martiny 2006

Martiny K.; Lunde M.; Unden M.; Dam H.; Bech, P.. The lack of sustained effect of bright light in non-seasonal major depression.. Psychological medicine 2006;36(9):1247-1252. [DOI:]

Martiny 2011

Martiny, Klaus. Bright light treatment is effective in treating older patients with non-seasonal major depression. Evidence Based Nursing 2011;14(4):117-118. [DOI: 10.1136/ebn.2011.100036]

Prasko 1995

Prasko, J.; Baudis, P.; Klaschka, J.; Lestina, J.; Novotna, D.; Ondrakova, I.; Praskova, H.; Jiri, S.. Bright light therapy in patients with recurrent nonseasonal unipolar major depressive disorder - double blind study. 1995;(Journal Article):48. [DOI:]

Prasko 1996

Prasko, J.; Baudis, P.; Lestina, J.; Novotná, D.; Jircaronina, K.; Ondrácková, I.. Double-blind study of bright light therapy and imipramine for major depressive disorder. 1996;(Journal Article). [DOI:]

Prasko 1999

Prasko, J.; Ondrackova, I.; Praskova, H.; Jir, S.; Baudis, P.; Klaschka, J.; Lestina, J.; Novotná, D.. Light therapy in patients with nonseasonal major depressive disorders. 1999;Abstracts ume II(Journal Article):126. [DOI:]

Wirtz Justice 2009

Wirtz-Justice, A.. Light therapy for nonseasonal depression. 2009;7(Journal Article):A3. [DOI:]

WirzJustice 1999

WirzJustice A.; Graw P.; Roosli H.; Glauser G.; Fleischhauer, J.. An open trial of light therapy in hospitalised major depression.. Journal of affective disorders 1999;52(1-3):291-292. [DOI:]

Yamada 1995

Yamada N.; MartinIverson M.T.; Daimon K.; Tsujimoto T.; Takahashi, S.. Clinical and chronobiological effects of light therapy on nonseasonal affective disorders.. Biological psychiatry 1995;37(12):866-873. [DOI:]

Young 2011

Young, S. N.. Bright light for nonseasonal depression? Journal of psychiatry & neuroscience : JPN 2011;36(5):E37-8. [DOI: 10.1503/jpn.110056 [doi]]

Studies awaiting classification

Ongoing studies

Other references

Additional references

Other published versions of this review

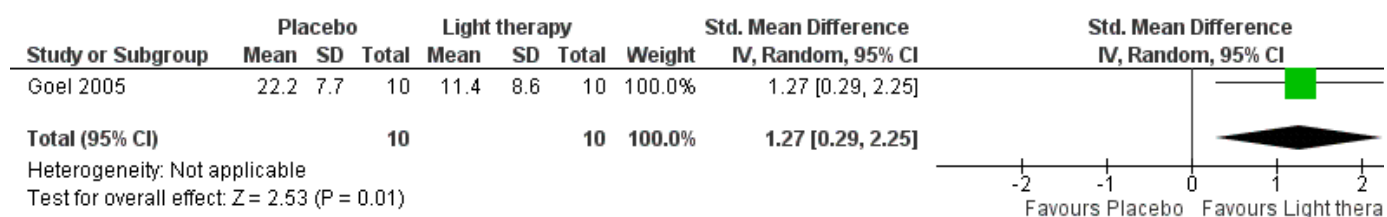
Data and analyses

1 Light therapy versus placebo

Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.1 Depressive symptoms	1	20	Std. Mean Difference (IV, Random, 95% CI)	1.27 [0.29, 2.25]
1.2 Remission	1	15	Risk Ratio (IV, Random, 95% CI)	9.17 [0.52, 161.48]

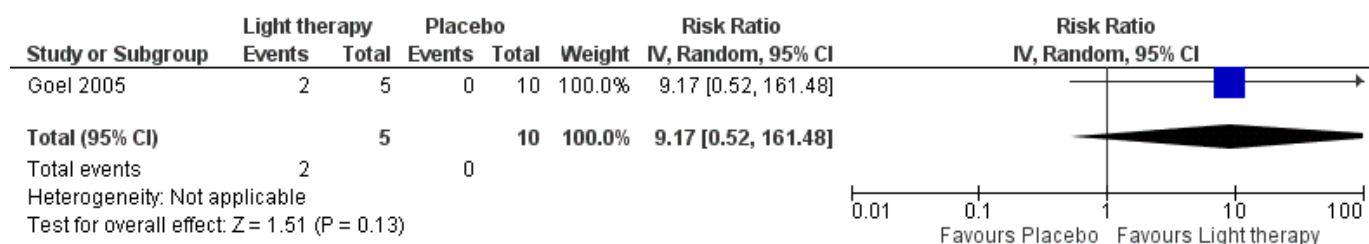
Figures

Figure 1 (Analysis 1.1)



Forest plot of comparison: 5 Light therapy versus placebo, outcome: 5.1 Depressive symptoms.

Figure 2 (Analysis 1.2)



Forest plot of comparison: 5 Light therapy versus placebo, outcome: 5.2 Remission.

Sources of support

Internal sources

- No sources of support provided

External sources

- No sources of support provided

Feedback

Appendices