



Enough Evidence to Put One to Sleep: Cognitive behavioural therapy for insomnia

CLINICAL QUESTION

How effective is Cognitive Behavioural Therapy for Insomnia (CBTi)?

BOTTOM LINE

About 45% of patients receiving CBTi achieve remission versus ~10% on control at 6 weeks, with effects sustained for at least 6 months. Remote CBTi (self-guided or group-based, synchronous or asynchronous) works, but it is not clear if it is as good as in-person, individual sessions. CBTi may be better than sleep medications but studies too small to find statistical differences.

EVIDENCE

- Statistically significant unless stated.
- Focus on most recent/comprehensive systematic reviews of randomized controlled trials (RCTs) with patient-oriented outcomes [up to 36 RCTs, 1696 participants, ~6 weekly in-person individual sessions], control=waitlist, usual care, sleep hygiene education, or placebo.^{1,2}
- At end of treatment (~6 weeks):
 - Response¹ (≥ 8 point improvement on 28-point insomnia scale): 53% versus 10% (control), number needed to treat (NNT)=3.
 - Remission (based on scale scores):¹ 45% versus 9%, NNT=3.

- Other systematic review similar.²
- Sleep indices:²
 - Time to fall asleep: 15 minutes faster [example: ~23 versus 38 minutes (control)].
 - Total sleep time: 10 minutes more [328 versus 318 minutes (control)].
 - Time asleep while in bed: 8% more [88% versus 80% (control)].
 - Number awakenings: 0.3/night fewer [0.8 versus 1.1 (control)].
- At ≥6 months:¹ Remission 42% versus 13% (control), NNT=4.
- Remote delivery (self-guided or group-based, synchronous or asynchronous via telephone/book/internet):
 - Remote better than control¹⁻⁷
 - Example:¹ Remission (6 weeks): 28% versus 9% (control)].
 - Remote versus in-person: Inconsistent.^{1,2}
 - Example: Remission (end of treatment): 45% (individual/in-person) versus 28% (internet) in one review;¹ no difference in another.²
- CBTi versus sleep medications: 4 RCTs, no meta-analysis:
 - CBTi numerically better but statistical differences inconsistent (possibly underpowered).⁸⁻¹⁰ Examples:
 - Proportion with >85% time asleep in bed (6 months): 78% CBTi versus 40% zolpidem.⁸
 - Proportion who fell asleep within 30 minutes during treatment: 50% CBTi versus 36% zolpidem, not statistically different.⁹
 - CBTi plus medications versus CBTi: Inconsistent, often underpowered.⁹⁻¹¹

CONTEXT

- CBTi has 4 main components: Sleep restriction therapy, stimulus control, sleep hygiene education, and cognitive therapy.
 - Sleep restriction therapy alone is effective; sleep hygiene education alone is not.^{2,12}
- Patient and clinician resources available.¹³

REFERENCES

1. Takano Y, Okajima I, Osao M, *et al.* Sleep Med Rev. 2025;84: 102204.
2. Edinger JD, Aneet JT, Bertisch SM, *et al.* J Clin Sleep Med. 2021;17: 263-298.
3. Knutzen SM, Christensen DS, Cairns P, *et al.* JMIR Ment Health. 2024;11: e58217.
4. Scott AM, Peiris R, Atkins T, *et al.* J Telemed Telecare. 2025;31: 603-614.
5. Hwang JW, Lee GE, Woo JH, *et al.* NPJ Digit Med. 2025;8(1):157.
6. Leite IPA, Kakazu VA, de Carvalho LAT, *et al.* Clocks Sleep. 2025;7(4): 69.
7. Huang Y, Yan Y, Kwok JYY, *et al.* J Clin Nurs. 2026;35: 61-84.

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8. Sivertsen B, Omvik S, Pallesen, S, *et al.* JAMA. 2006;295(24): 2851-8.
9. Jacobs GD, Pace-Schott EF, Stickgold R, Otto MW. Arch Intern Med. 2004;164(17): 1888-96.
10. Morin CM, Colecchi C, Stone J, *et al.* JAMA. 1999;281(11):991-9.
11. Morin CM, Vallieres A, Guay B, *et al.* JAMA. 2009;301(19): 2005-15.
12. Allan GM, Lindblad AJ, Varughese J. Can Fam Physician. 2017;63(8): 613.
13. Sleepwell. Available at: <https://mysleepwell.ca/>. Accessed Jun 8, 2026.

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