

Sleep Restriction Therapy

A Step-by-Step Guide

The clinically validated protocol behind CBT-I's most powerful component — how consolidating your time in bed rebuilds sleep drive and sleep efficiency, based on Spielman's original 1987 protocol and decades of follow-up trials.

8 PAGES

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What Is Sleep Restriction Therapy?

Sleep restriction therapy (SRT) was developed by Arthur Spielman and colleagues in 1987 as a treatment for chronic insomnia. Counterintuitively, it works by temporarily reducing the amount of time you're allowed in bed — not increasing it. The goal is to match your time in bed to your actual average sleep time, which consolidates fragmented sleep and rebuilds what researchers call 'sleep drive,' the homeostatic pressure to sleep that builds the longer you're awake.

Why it works:

Insomnia is often maintained by spending too much time in bed relative to actual sleep — lying awake, checking the clock, and associating the bed with wakefulness rather than sleep. SRT breaks this pattern directly. A meta-analysis by Charles Morin and colleagues (2006) found SRT and its combination with stimulus control to be among the most effective behavioral components of CBT-I, with effects that persist well after treatment ends — unlike sleep medication, which loses effect when discontinued.

Step 1 – Calculate Your Sleep Window

1. Track for 1-2 weeks.

Keep a simple sleep diary: time you got into bed, estimated time you fell asleep, number and length of awakenings, and final wake time.

2. Calculate average total sleep time (TST).

Add up actual sleep (not time in bed) across all nights and divide by the number of nights tracked.

3. Set your new time-in-bed window.

Your new time in bed equals your average TST, with a floor of 5 hours — never restrict below 5 hours regardless of how little you're currently sleeping.

4. Anchor your wake time.

Pick a fixed wake time you can hold every day, including weekends. Count backward from it to set your bedtime.

Step 2 – The Titration Rules

Each week, calculate your sleep efficiency: $(\text{total sleep time} \div \text{time in bed}) \times 100$. Adjust your sleep window according to these three rules, used across most published CBT-I protocols including the NHS-endorsed version:

- Sleep efficiency $\geq 90\%$

Increase time in bed by 15-20 minutes (go to bed slightly earlier).

- Sleep efficiency 85-89%

Keep the window the same for another week.

- Sleep efficiency $< 85\%$

Decrease time in bed by 15-20 minutes, not below the 5-hour floor.

Repeat weekly until sleep efficiency stabilizes above 85-90% at a time-in-bed duration that meets your actual sleep need — typically 7 to 9 hours for most adults.

What to Expect in the First Weeks

The first 1-2 weeks are the hardest part of SRT. Restricting time in bed initially increases daytime sleepiness — this is expected and is a sign the protocol is building sleep pressure correctly. Edinger and colleagues (2001) found that despite this short-term discomfort, participants following SRT showed significantly greater improvement in sleep continuity than those using relaxation training alone, with gains maintained at 6-month follow-up.

Safety notes:

Do not drive or operate machinery if you feel excessively drowsy during the adjustment period. SRT is not recommended without medical supervision for people with bipolar disorder, seizure disorders, or untreated sleep apnea, since sleep deprivation can trigger symptoms in these conditions.

Common Mistakes

- Restricting below 5 hours. This increases accident risk and impairs the very cognitive function SRT is meant to protect.
- Napping during the restriction phase. Naps release the sleep pressure you're trying to build — avoid them until efficiency stabilizes.
- Changing your wake time on weekends. An inconsistent anchor point undoes a full week of titration progress.
- Abandoning the protocol during week one. The temporary increase in sleepiness is the mechanism working, not a sign of failure.

Sources

Spielman, A.J., Saskin, P., & Thorpy, M.J. (1987). Treatment of chronic insomnia by restriction of time in bed. *Sleep*, 10(1), 45-56.

Morin, C.M., Bootzin, R.R., Buysse, D.J., et al. (2006). Psychological and behavioral treatment of insomnia: update of the recent evidence. *Sleep*, 29(11), 1398-1414.

Edinger, J.D., Wohlgemuth, W.K., Radtke, R.A., et al. (2001). Cognitive behavioral therapy for treatment of chronic primary insomnia: a randomized controlled trial. *JAMA*, 285(14), 1856-1864.

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