Sleep Better, Examined

What the Research Says About Insomnia, Caffeine, Exercise, Light and Better Nights

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2026 Edition | Free chapters 1 to 3

Chapter 1: The Treatment Doctors Try First for Long-Term Insomnia

Poor sleep is common, and a few weeks of it is not unusual. For long-term insomnia, researchers have tested a structured talking-and-habits approach. This chapter is general education, not treatment. If you have trouble sleeping for weeks, see a doctor.

WHAT THEY DID

The authors reviewed randomised trials of face-to-face cognitive behavioural therapy for insomnia, called CBT-i, in adults with chronic insomnia, compared with groups given no active treatment. People whose insomnia came with a medical, sleep or psychiatric disorder were left out. The authors say CBT-i is commonly recommended as a first-line treatment because it should give lasting benefit without the tolerance or side effects of drugs. Twenty studies with 1,162 people (64 percent female, mean age 56) were included. The programmes used at least three of these parts: cognitive therapy, stimulus control, sleep restriction, sleep hygiene and relaxation (Trauer, Qian, Doyle, Rajaratnam and Cunnington, 2015).

WHAT THEY FOUND

After treatment, the time to fall asleep improved by 19.03 minutes (95 percent interval 14.12 to 23.93) and time awake after first falling asleep improved by 26.00 minutes (interval 15.48 to 36.52). Total sleep time improved by 7.61 minutes, but that interval (-0.51 to 15.74) included zero. Sleep efficiency, the share of bed time spent asleep, improved by 9.91 percent (interval 8.09 to 11.73). Changes seemed to hold at later checks, and no harm was reported. The authors conclude CBT-i is an effective treatment for adults with chronic insomnia.

WHAT TO TAKE FROM THIS

The main gains were falling asleep sooner, waking less in the night and spending more of bed time asleep. Total sleep time barely changed. So this approach helped people sleep more efficiently, not necessarily for many more minutes.

LIMITS

The trials were of face-to-face programmes, in adults with insomnia alone, so the results do not cover people whose insomnia comes with other conditions. The authors say estimates at later checks were less clear. Sleep was measured with diaries. This is not a replacement for care from a doctor or a trained therapist.

HABITS TO TRY

These are practical suggestions, not findings from the review.

Keep a sleep diary for two weeks: bedtime, time to fall asleep, wake-ups and rise time.

Notice how much of your bed time you spend asleep.

Keep a regular rise time.

Use the bed for sleep, not for scrolling or worry.

If poor sleep lasts for weeks, talk to a doctor about CBT-i.

A WORKED EXAMPLE (INVENTED FOR PRACTICE)

A man writes a sleep diary for two weeks. He is in bed for 8 hours and asleep for about 6, so about 75 percent of his bed time. He takes the diary to his doctor. It is his own record, not a study result.

PRACTICE EXERCISE

Start a two-week sleep diary tonight: time in bed, time to fall asleep, number of wake-ups and rise time.

KEY POINTS

A meta-analysis of 20 trials and 1,162 adults found CBT-i cut the time to fall asleep by 19 minutes and time awake in the night by 26 minutes, and raised sleep efficiency by 9.91 percent, with no clear change in total sleep time. It is a treatment, not self-help advice.

Chapter 2: Doing It Online

Not everyone can see a specialist. Researchers tested CBT for insomnia delivered over the internet. This chapter is general education, not treatment.

WHAT THEY DID

The authors reviewed randomised trials of internet-delivered cognitive behavioural therapy for insomnia, called eCBT-I, and what changed the results. Two researchers searched key databases from 1991 to June 2015, chose the studies, extracted the data and rated quality. Eleven trials with 1,460 people were included (Zachariae, Lyby, Ritterband and O'Toole, 2016).

WHAT THEY FOUND

The internet programmes improved insomnia severity, sleep efficiency, sleep quality, time awake after falling asleep, time to fall asleep, total sleep time and number of night wakings after treatment. Effect sizes (Hedges' g) ranged from 0.21 to 1.09. The effects were similar to those found for face-to-face CBT-i and were mostly kept at follow-ups from 4 to 48 weeks. Longer programmes and more personal clinical support went with larger effects, and more dropout went with smaller effects. The authors conclude eCBT-I appears to work and can be considered a viable option.

WHAT TO TAKE FROM THIS

An online programme gave gains that were broadly like the in-person one. The programme worked better when it ran for longer and when a real person supported it, and people who dropped out did worse.

LIMITS

The range in effect size was wide, from small to large. The abstract does not say how many minutes of sleep were gained, or which programmes did best. Trials were mainly with adults who volunteered. This is not advice to start a programme without a doctor, particularly if you have other health problems or take medicines.

HABITS TO TRY

These are practical suggestions, not findings from the review.

If you try a structured programme, finish it; stopping early went with smaller gains.

Choose one with a real person you can contact.

Set the same time each week to do the next session.

Keep a sleep diary to see your own change.

Tell your doctor what you are trying.

A WORKED EXAMPLE (INVENTED FOR PRACTICE)

A woman picks a six-week online programme with a coach. She sets Sunday evenings for the weekly session and keeps a diary. After six weeks the diary shows she falls asleep about 20 minutes sooner. It is her own record, not a study result.

PRACTICE EXERCISE

If you want to try a programme, write the day and time each week you will do the session, and who you will tell.

KEY POINTS

A meta-analysis of 11 trials and 1,460 people found internet-delivered CBT for insomnia improved many sleep measures (effect sizes 0.21 to 1.09), similar to face-to-face, with larger effects for longer programmes and more personal support.

Chapter 3: Which Way of Getting Help Works Best?

Chapter 1 looked at in-person treatment and Chapter 2 at online. A larger analysis compared the different ways of delivering it. This chapter is general education, not treatment.

WHAT THEY DID

The authors ran a network meta-analysis, which compares several options at once, of randomised trials of cognitive behavioural therapy for insomnia delivered in different ways: individually in person, in groups, by telehealth, as guided reading, and online with or without guidance. They searched databases and included 52 trials in adults with insomnia disorder. The main outcome was insomnia severity (Simon, Steinmetz, Feige, Benz, Spiegelhalder and Baumeister, 2023).

WHAT THEY FOUND

Every delivery setting except smartphone-delivered CBT for insomnia gave significant benefits compared with a waiting list. The differences were large for individual in-person treatment (standardised mean difference -1.27), group treatment (-1.00), telehealth (-1.28) and guided bibliotherapy, which means guided reading (-0.99). Guided and unguided online programmes gave medium effects (-0.71 and -0.78). The authors say health systems should expand treatment delivered live, especially individual in-person treatment given its solid evidence, and that self-help settings may be a viable alternative when live treatment is not available.

WHAT TO TAKE FROM THIS

Live delivery, whether in person or by video, gave the largest effects. Online programmes and guided reading gave medium to large effects and can be an alternative. Smartphone-delivered programmes did not show a significant effect in these trials.

LIMITS

This compares settings in trials, not individual programmes, and the abstract does not say how many trials used each. The control group was a waiting list. Different

trials used different measures. This is not a recommendation of any app or service. Talk to a doctor about the right option.

HABITS TO TRY

These are practical suggestions, not findings from the analysis.

Start by asking your doctor what is available where you live.

If live help is not available, ask about a guided online programme.

Be cautious with apps that have not been tested in trials.

Keep a diary to check whether it is working for you.

Give a programme several weeks before judging it.

A WORKED EXAMPLE (INVENTED FOR PRACTICE)

A man cannot get a therapist for months. His doctor suggests a guided online programme and he keeps a diary of his sleep onset. He notes a change after five weeks. It is his own record, not a study result.

PRACTICE EXERCISE

Write down who you could ask about insomnia help (doctor, nurse, clinic) and contact one this week.

KEY POINTS

A network meta-analysis of 52 trials found CBT for insomnia gave large benefits in person (-1.27), in groups (-1.00), by telehealth (-1.28) and as guided reading (-0.99), and medium benefits online (-0.71 and -0.78); smartphone-delivered programmes did not show a significant effect.

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