

Sleepless Nights Linked to Comfort Eating and Overeating

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STORY AT-A-GLANCE

- › A large study of more than 27,000 adults found that poor sleep quality and short sleep duration strongly increase emotional eating, overeating, and cravings for calorie-dense foods such as sweets and fried meals
- › People with the worst sleep were up to 3.5 times more likely to eat when stressed, bored or upset, showing how sleep loss shifts eating from hunger-driven behavior to comfort-driven behavior
- › Sleeping less than seven hours per night was linked to 24% higher odds of overeating and 47% higher odds of skipping meals, which often triggers stronger hunger later in the day
- › Poor sleep also changed food preferences, with people eating fried foods about 10% to 21% more often and sweet snacks about 10% to 39% more frequently compared with people who slept well
- › Improving sleep habits – including consistent bedtimes, morning sunlight exposure, and reducing artificial light at night – helps stabilize appetite hormones, reduce cravings, and restore better control over eating habits

Most people notice it without needing a study to prove it – after a rough night of sleep, willpower around food seems to vanish. The pastry in the break room becomes virtually impossible to ignore. A second helping feels automatic rather than intentional. Meals get skipped, then replaced with whatever delivers the fastest hit of comfort.

What's less obvious is why this happens so reliably. The connection between poor sleep and poor eating goes far deeper than feeling tired and grabbing a quick energy boost. Sleep loss disrupts the hormones that control hunger, amplifies your brain's reward response to junk food, and weakens the impulse control you rely on to say no – all at the same time.

A recent study published in the journal *Appetite* maps these patterns across tens of thousands of people, moving beyond laboratory experiments to capture how sleep quality and sleep duration influence real-world eating behavior – from emotional eating and portion control to meal timing and food preferences.¹ The findings clarify why sleep is one of the most overlooked factors driving overeating and weight gain.

Poor Sleep Drives Overeating and Comfort Food Cravings

When researchers examined the sleep and eating habits of 27,263 adults across the United Kingdom, the patterns were striking – and consistent.² Researchers wanted to determine whether sleep quality and sleep duration shape real-world eating behaviors rather than simply altering appetite signals in laboratory settings.

Participants completed detailed health assessments that recorded **sleep duration**, sleep quality and 13 different eating behaviors. These behaviors included emotional eating, snacking frequency, meal timing and preferences for energy-dense foods such as sweets and fried meals. The goal was to determine whether poor sleep consistently changes how people behave around food in everyday life.

- **Researchers identified clear behavioral patterns** – Participants ranged from 18 to 91 years old with a median age of 51. About 40.5% of participants were female. Sleep duration fell into three categories: short sleep (less than seven hours), average sleep (seven to eight hours), and long sleep (more than eight hours).

Sleep quality was also categorized from "very poor" to "very good." This structure allowed the researchers to examine how sleep patterns influence eating habits even among people who do not yet struggle with obesity. The results revealed a

consistent pattern – the worse a person slept, the more their eating behavior shifted toward emotional eating and calorie-dense foods.

- **The worst sleepers were far more likely to eat in response to stress and emotions** – Poor sleep strongly increased emotional eating behaviors. Individuals reporting the worst sleep quality showed up to 3.5 times higher likelihood of eating when bored, stressed or upset compared with those who reported very good sleep.

They were also far more likely to treat food as a reward or use it to improve their mood. Scientists call this reward-driven eating – your brain stops asking "Am I hungry?" and starts asking "What will make me feel better right now?" As sleep quality declined, this emotional relationship with food became progressively stronger.

- **Overeating and loss of portion control increased with worsening sleep** – Sleep quality also influenced how much people ate during meals. Individuals with poorer sleep showed substantially higher rates of **overeating** compared with people who reported good sleep.

Short sleepers had about 24% higher odds of overeating than people who slept seven to eight hours. Researchers also observed that poor sleepers had greater difficulty leaving food on their plate once a meal started. This pattern suggests that sleep deprivation weakens your brain's ability to regulate appetite and control portion size.

- **Irregular eating patterns appeared in people with short sleep** – Another behavior stood out among short sleepers. Individuals who slept less than seven hours showed roughly 47% higher likelihood of skipping meals compared with those who slept the recommended seven to eight hours. Skipping meals might feel like discipline in the moment, but it typically sets up a rebound – by mid-afternoon or evening, hunger hits hard enough to override any good intentions.

When that hunger arrives, overeating becomes far more likely. Researchers described this pattern as fragmented eating – structured meals disappear while snacking and impulsive eating increase. Over time, this cycle makes appetite far harder to control.

- **Food preferences also changed as sleep quality declined** – Poor sleep was associated with eating fried foods about 10% to 21% more often compared with people who slept well. Sweet snacks between meals also increased, appearing roughly 10% to 39% more frequently among poorer sleepers.

These foods deliver quick reward signals to your brain. When sleep deprivation intensifies reward-driven brain activity, calorie-dense foods become far more appealing than balanced meals. This shift explains why many people crave sugar or fried foods after a bad night of sleep.

Why Poor Sleep Rewires Your Brain and Hormones to Favor Junk Food

The pattern is clear – poor sleep pushes people toward emotional eating, larger portions, skipped meals and junk food cravings. But what's actually driving these changes? The answer isn't weak willpower.

It's a two-part biological shift: sleep loss disrupts the hormones that regulate hunger and fullness, and at the same time it changes how your brain responds to food – amplifying reward signals while weakening the circuits you depend on to resist them.

- **Hormonal changes explain why poor sleep amplifies hunger** – Sleep restriction raises levels of ghrelin, a hormone that stimulates hunger. At the same time, it lowers hormones such as leptin, which normally signal fullness after eating.

Think of leptin as your brain's "I'm full" signal and ghrelin as the "feed me" alarm. Poor sleep turns down the volume on the fullness signal while cranking up the hunger alarm – so your brain keeps telling you to eat even when your body doesn't

need more fuel. The result is a powerful drive to eat more often and choose foods that deliver fast energy and reward.

- **Sleep loss alters brain circuits that control cravings and impulse control** – Sleep deprivation increases activity in reward-related brain regions that regulate pleasure, motivation, and food reward. When they become more reactive, highly palatable foods – especially fried and sugary foods – appear far more desirable.

At the same time, sleep loss dials down activity in your prefrontal cortex – the part of your brain responsible for rational thinking, planning and saying no to temptation. With that brake pedal weakened, the impulse-driven parts of your brain run the show. The result: cravings get louder while your ability to resist them goes quiet.

Improve Your Sleep to Regain Control of Your Appetite

Poor sleep drives emotional eating, cravings and overeating because it disrupts the systems that regulate hunger, reward, and impulse control. When sleep quality drops or sleep duration falls below healthy levels, your brain shifts toward reward-driven eating while your ability to resist cravings weakens. If late-night snacking, stress eating or relentless cravings have become your norm, the most effective place to intervene may not be your diet – it's your sleep.

Fixing your sleep restores your brain's appetite signals, strengthens decision-making around food and helps your body return to a more stable eating rhythm. If you notice that poor sleep leads you straight to sugary snacks or fried comfort foods the next day, focus first on restoring healthy sleep patterns. These steps help you rebuild the biological systems that regulate appetite and stabilize your daily energy.

1. **Build a consistent sleep window every night** – Your brain regulates appetite and metabolism through **circadian rhythms** – your internal biological clock. When your sleep schedule constantly shifts, your body loses its ability to regulate hunger

signals properly. Go to bed and wake up at the same time every day, including weekends. A consistent schedule trains your brain to expect sleep at a predictable time and strengthens the hormones that regulate appetite and energy balance.

- 2. Get direct sunlight early in the day** – Morning sunlight sets your circadian rhythm for the next 24 hours. Within an hour of waking, spend at least 10 to 20 minutes outdoors with natural light hitting your eyes and skin. **Sun exposure** signals your brain to produce hormones that regulate wakefulness during the day and deeper sleep at night. Better sleep quality stabilizes hunger signals and reduces the emotional eating patterns seen in sleep-deprived individuals.
- 3. Shut down artificial light and screens at night** – Blue light from phones, tablets and LED lighting suppresses melatonin – the hormone that tells your body it's time to sleep. When melatonin drops, sleep quality deteriorates and appetite hormones become unstable the next day. Turn off screens at least one to two hours before bed. If your lifestyle requires evening screen use, dim the brightness and switch to **warm lighting** in your home to reduce circadian disruption.
- 4. Keep your bedroom cool and completely dark** – Your body lowers its core temperature to enter deep sleep. A warm or brightly lit room interferes with that process and fragments your sleep cycles. Aim for a **cool sleeping environment** – roughly 60 to 68 degrees Fahrenheit works well for many people.

Use blackout curtains or an eye mask, or eliminate stray light sources, so your brain receives a strong nighttime signal. Deep, uninterrupted sleep improves the hormonal signals that regulate hunger the following day.

- 5. Create a sleep-friendly evening routine** – Your brain needs clear signals that the day is ending. Establish a simple routine before bed that relaxes your nervous system. Lower the lights, avoid stimulating activities and choose calming habits such as light stretching, reading or quiet conversation. A consistent routine strengthens sleep quality, which directly improves appetite control and reduces the emotional eating behaviors seen in people with poor sleep.

FAQs About Sleep, Appetite, and Overeating

Q: Why does poor sleep make you crave unhealthy foods?

A: Poor sleep changes how your brain processes hunger and reward. When sleep quality drops, hormones that stimulate hunger rise while hormones that signal fullness fall. At the same time, brain reward centers become more sensitive to highly palatable foods such as sweets and fried meals. This combination makes comfort foods far more appealing and weakens your ability to resist them.

Q: How strongly is poor sleep linked to emotional eating?

A: The connection is significant. In the study discussed in this article, people with the worst sleep quality were up to 3.5 times more likely to eat when stressed, bored or upset compared with those who reported very good sleep. This pattern reflects reward-driven eating, where food becomes a way to regulate mood rather than respond to hunger.

Q: Does sleeping less increase the likelihood of overeating?

A: Yes. People who slept less than seven hours per night had about 24% higher likelihood of overeating compared with those who slept seven to eight hours. Short sleepers were also about 47% more likely to skip meals, which often leads to stronger hunger later and makes overeating more likely.

Q: Does sleep affect the types of foods people choose?

A: Sleep quality influences food preferences. Poor sleepers ate fried foods about 10% to 21% more often and consumed sweet snacks between meals about 10% to 39% more frequently than people who slept well. These foods trigger stronger reward responses in a sleep-deprived brain.

Q: What's the most effective way to reduce sleep-driven cravings?

A: Improving sleep quality is one of the most powerful strategies. Maintaining a consistent sleep schedule, getting morning sunlight, reducing artificial light at night, keeping your bedroom cool and dark, and establishing a calming evening routine help restore healthy sleep patterns. When sleep improves, appetite hormones stabilize and cravings become easier to control.

Sources and References

- [1, 2 Appetite April 1, 2026, Volume 219, 108428](#)