

Sleep *well*

Dawn-to-dusk tips to help you drift off easily and awaken refreshed

By Lisa Marshall

In a perfect world, you'd hit the pillow, close your eyes, and doze off into an eight-hour stretch of rejuvenating, uninterrupted slumber every night. In reality, according to a recent study by the Centers for Disease Control, just one in three Americans feels like she gets enough sleep, and 50 million to 70 million suffer from chronic sleep disorders, such as sleep apnea (see "What is Sleep Apnea?" on page 52) and restless legs syndrome (an irresistible urge to move the legs, which jolts people awake). About 30 percent of us have occasional insomnia, meaning we have trouble falling or staying asleep. And as a nation we annually fill more than 53 million prescriptions for sleep aids.

The impact tossing and turning has on your overall health is profound, new research shows. For one thing, a lack of sleep may contribute to weight issues. It boosts levels of the hormone ghrelin, a hunger trigger, and decreases levels of the hormone leptin, which signals fullness; you end up hungrier, crave calorie-dense foods, and don't feel full as quickly. Sleep deprivation also boosts levels of the stress hormone cortisol, which can drive up blood pressure and strain the heart. In fact, studies on sleep deprivation have found a higher risk of death from cardiovascular causes in people who sleep less. All the more reason to safeguard your Z's. And that ►

wellness



3 sleep supplements

	How it works	Dose
Valerian	Shortens the time it takes to fall asleep and improves sleep quality. Research suggests it works by binding to the same receptors in the brain as the sedative Valium.	300–400 mg of extract or capsules, one hour before bedtime.
Kava	Calms the mind to reduce anxiety-driven insomnia. Note: In 2002, the FDA issued a warning after several people suffered severe liver toxicity after taking kava. Brigitte Mars, author of the <i>Desktop Guide to Herbal Medicine</i> (Basic Health, 2007), says those people took leaf and vine extracts instead of the safer root.	Follow directions on bottle; potency may vary. Not recommended for pregnant women, children, or people with liver disorders.
Melatonin	Helps regulate sleep cycles. Commonly prescribed for people whose sleep-wake cycle is out of sync due to light deprivation, such as those who suffer jet lag or work the night shift. Also recommended for those who fall asleep too early and wake up in the middle of the night. Note: Prolonged use may interfere with natural melatonin production.	Amount and timing vary widely, depending on reason for use.

Consult your health care practitioner for advice before taking any sleep supplement.

doesn't just mean turning off Leno and going to bed at a reasonable hour, say experts. "Almost everything you do during the day affects the way you sleep," says Michael Breus, PhD, author of *Beauty Sleep* (Plume, 2008).

Wake up at the same time every day, says Herbert Ross, DC, author of the *Definitive Guide to Sleep Disorders* (Celestial Arts, 2007). Yes, that includes weekends. Scientists believe your biological sleep clock is controlled by two things: your circadian rhythm (an innate 24-hour cycle orchestrated by the hypothalamus and influenced by external factors such as light) and a sleep homeostasis (a hunger for sleep that builds up throughout the day). Waking up—and going to bed—at the same time reinforces that cycle. By getting up at the same time every day, your "sleep hunger" maxes out at the same time every night.

Let in natural light. The hormone melatonin is a powerful sleep inducer, regulated largely by exposure to light. When natural light hits the optic nerve in the morning, it signals the pineal gland to slow melatonin production, allowing you to wake up faster. In contrast, when it gets dark, melatonin production ramps up. Yet studies have shown that people who aren't exposed to enough natural light during the day have trouble producing melatonin at night. Breus recommends opening the blinds first thing upon waking to take in more natural light. Or, better yet, take the dog for a morning walk.

Fuel early, fuel well. A good breakfast sets the stage for sustained energy throughout the day, influencing whether or not you reach for that afternoon coffee that will keep you up at night, Ross says. Start the day with a balance of protein and slow-burning or ►

Did you know?

A recent University of Michigan study found that people who have personality conflicts with bosses or coworkers are nearly twice as likely to develop sleep problems. And according to the most recent National Sleep Foundation Sleep in America Poll, part-time workers report the highest sleep satisfaction, while those who work multiple jobs or more than 50 hours per week sleep the worst.

low-glycemic carbohydrates, such as whole-grain toast and a poached egg. Sticking with that protein-carb mixture, staying away from stimulants, and eating small meals consistently throughout the day help keep energy on an even keel. And beware that caffeine has a half-life of 12 hours, Breus says. An energy drink, chocolate bar, or tea or coffee consumed at noon still has some effect at midnight.

Get outside in the early afternoon.

Centuries of evolutionary programming have, for reasons not completely known, prompted your innate biological clock to make you sleepy in the afternoon (siesta anyone?). “Your body has a small temperature dip between 1 p.m. and 3 p.m., which signals your brain to produce melatonin,” explains Breus. Instead of succumbing to the nap, which can exacerbate insomnia later, he suggests stepping outside into sunlight. You’ll perk up, delaying that melatonin surge until you really need it.

Exercise in the late afternoon.

It’s true: People who get regular aerobic exercise sleep better. One Stanford University study of 29 women and 14 men age 50 to 76 found that those who did aerobics or took brisk 30- to 40-minute walks four times per week for 16 weeks fell asleep faster and slept more deeply and longer than the control group. Body temperature rises during exercise (particularly aerobic exercise) and then drops roughly five hours later, signaling drowsiness. So if your bedtime is 10 p.m., plan to work out around 5 p.m. ➤

Dine for sleep. Breus recommends eating dinner about four hours before bedtime. Include plenty of complex carbohydrates, which enhance the transportation of L-tryptophan into the brain, where it can be made into sleep-inducing serotonin. Although a glass of wine may make you fall asleep faster, you'll sleep lighter. And if you must have a bedtime snack, limit it to less than 200 calories, no closer than one hour before bedtime. Include complex carbs and calcium, such

as whole grain toast with cheese, or a bowl of cereal and milk, says Breus.

Power down. Instead of using your alarm solely to wake up, set it to go off one hour *before* bedtime, to remind you to settle in and prepare for tomorrow. Ross recommends journaling your thoughts "out of the brain and onto paper" so they don't race through your head as you're trying to sleep. Be sure your sleep space is as dark as possible and has no electronics nearby.

What is sleep apnea?

Little known but widespread (an estimated 9 percent of women and 12 percent of men in the United States suffer from it), sleep apnea is a condition that causes breathing to stop five to 30 times per hour during the night.

For some, it's caused by mixed signals from the brain to the breathing muscles, known as central sleep apnea. But in most cases, the cause is obstructive sleep apnea, which makes the throat muscles relax and close up. The patient often doesn't wake up but is robbed of deep sleep, leading to morning headaches and daytime sleepiness. The resulting lack of oxygen in the blood and stress on the heart can lead to high blood pressure, boosting stroke and heart attack risk.

Experts believe that the nation's soaring obesity rates mean that more people are suffering from sleep apnea. (An obese neck is more likely to collapse in on itself during slumber.) But the majority of sufferers don't know they have it. A sleep-lab analysis is often needed to verify the condition. Treatments include sleeping on your side, surgery to remove oversized tonsils, or a continuous positive airway pressure (CPAP) mask, which gently blows air into the throat, keeping airways open. But sleep specialists stress that staying at a reasonable weight and avoiding alcohol can easily prevent, and even reverse, sleep apnea.

Mounting research suggests that even minute amounts of light (such as from a glowing alarm clock) and exposure to electromagnetic or radio frequency fields (from laptops or cell phones) can interfere with melatonin production. One recent study of 71 people found that those exposed to wireless communication signals up to one hour before bedtime took significantly longer to fall asleep and didn't sleep as deeply. So turn off cell phones and laptops before you turn in for the night. ■



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