

# Overcome Daytime Fatigue

## Sleep Apnea Edition



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## INTRODUCTION

**If you've uttered the words "I'm too tired to..." in the past year or so, you are not alone.** Some 50 million Americans see the doctor each year complaining of general fatigue. As a matter of fact, fatigue is the next-most-common complaint after colds and flu.

Why are you so tired? For one thing, your body wasn't designed for today's 24-hour-a-day culture. Human beings were built to hunt during the day, sleep at night and stay close to home. Now you work odd hours, fly between time zones, and stay up long after the sun has gone down.

There is hope, however, in overcoming daytime fatigue. There are many tips and tactics that you can follow to wake up refreshed and maintain your energy throughout the day. Inside the pages of this book we'll explore those tips and tactics – so getting through the day doesn't seem like such a chore!

If you have any comments or questions about this guide, please feel free to contact me at my direct email address: [marc@apneatreatmentguide.com](mailto:marc@apneatreatmentguide.com). And if you liked this guide, make sure to check out the free reports and paid guides at my catalog website: <http://www.ApneaTreatmentCatalog.com>.

To your good health,

A handwritten signature in blue ink that reads "Marc MacDonald". The signature is fluid and cursive, with a large, stylized 'P' at the end.

**Marc MacDonald, M.Sc.**

Independent Sleep Apnea Researcher

### ***Medical Disclaimer***

The material presented in this guide is not meant to replace medical advice. This is simply a discussion of information and particular treatments that have been used by others. Because of the potentially serious, long-term health issues related to daytime fatigue, it is recommended that any treatment be discussed with your own physician. If an alternative method of treatment is perceived to be successful, it is also recommended that you undergo testing through traditional medical sources to verify your results.

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## Chapter 1

# Daytime Fatigue

At any given time, 1 in every 5 people feel unusually tired and 1 in 10 have prolonged fatigue. Women tend to feel tired more than men. It can be a problem at any age, but is less common in the very young and old.

According to the National Sleep Foundation's 2005 *Sleep in America* poll, 60% of adult drivers say they have driven a vehicle while feeling drowsy in the past year, and more than one-third have actually fallen asleep at the wheel! In fact, of those who have nodded off, 13% say they have done so at least once a month. Four percent admit they have had an accident or near accident because they dozed off or were too tired to drive.



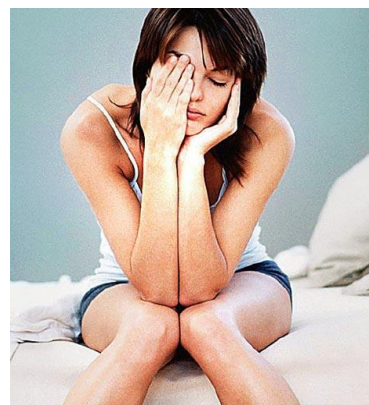
On the other hand, a study conducted by the Adelaide Centre for Sleep Research concluded that a person who has been awake for 17 hours faces the equivalent risk of having an accident as a person who has a BAC reading of 0.05 g/100ml, and is therefore twice as likely to have an accident as a person with a zero blood alcohol content who is not fatigued.

### *Causes of Daytime Fatigue*

The experience of being sleepy during the day from time to time is almost universal. However, being sleepy during the day is a problem when it happens often or every day and interferes with quality of life. There are many causes for chronic excessive sleepiness, such as poor sleep habits, medication side-effects, sleep disorders and other medical conditions. It is important to identify the specific cause(s) of an individual's sleepiness in order to correct the problem.

#### ***Not Enough Sleep***

Most human adults require an average of eight hours of sleep per night in order to be rested. The circumstances of our lives, however, often prevent us from obtaining a healthy amount of sleep every night. As we deprive ourselves of one or two hours some nights during a week, we create a sleep deficit which results in daytime sleepiness.



- ❖ ***Insufficient sleep syndrome (sleep deprivation):*** Patients with this syndrome do not sleep enough at night, despite adequate opportunity to do so, to stay alert when awake. The cause is usually

various social or employment commitments. This syndrome is probably the most common cause of daytime sleepiness, which disappears when sleep time is increased (eg, on weekends or vacations).

### ***Abnormal Sleep***

Most of the known sleep disorders cause disruption of the sleep processes. Examples of such sleep disorders are Obstructive Sleep Apnea and Periodic Limb Movements. An overnight sleep study, or polysomnogram, is required to diagnose and/or rule out the presence of sleep disorders that disrupt sleep.

❖ ***Adjustment insomnia:*** Acute emotional stressors (eg, job loss, hospitalization) can cause insomnia. Symptoms typically remit shortly after the stressors abate; insomnia is usually transient and brief. Nevertheless, if daytime sleepiness and fatigue develop, especially if they interfere with daytime functioning, short-term treatment with hypnotics is warranted. Persistent anxiety may require specific treatment.

❖ ***Psychophysiologic insomnia:*** Insomnia, regardless of cause, may persist well beyond resolution of precipitating factors, usually because patients feel anticipatory anxiety about the prospect of another sleepless night followed by another day of fatigue. Typically, patients spend hours in bed focusing on and brooding about their sleeplessness, and they have greater difficulty falling asleep in their own bedroom than falling asleep away from home.



Optimal treatment combines cognitive-behavioral strategies and hypnotics. Although cognitive-behavioral strategies are more difficult to implement and take longer, effects are longer lasting, up to 2 years after treatment is ended. These strategies include sleep hygiene (particularly restriction of time in bed), education, relaxation training, stimulus control, and cognitive therapy.

Hypnotics are suitable for patients who need rapid relief and whose insomnia has had daytime effects, such as EDS and fatigue. These drugs must not be used indefinitely in most cases.

### ***Illness and Injury***

Short and long term illness will cause excessive daytime sleepiness and fatigue. The pain experienced because of injuries and illness can disrupt sleep just as a sleep disorder does. Disrupted sleep, no matter what the cause, results in daytime

sleepiness. Significant head trauma and neurological conditions may also result in excessive sleepiness.

- ❖ **Physical sleep disorders:** Disorders that cause pain or discomfort (eg, arthritis, cancer, herniated disks), particularly those that worsen with movement, cause transient awakenings and poor sleep quality. Nocturnal seizures can also interfere with sleep.

Treatment is directed at the underlying disorder and symptom relief (eg, with bedtime analgesics).



- ❖ **Mental sleep disorders:** Most major mental disorders can cause insomnia and daytime sleepiness. About 80% of patients with major depression report these symptoms. Conversely, 40% of chronic insomniacs have a major mental disorder, most commonly a mood disorder.

Patients with depression may have initial sleeplessness or sleep maintenance insomnia. Sometimes in the depressed phase of bipolar disorder and in seasonal affective disorder, sleep is uninterrupted, but patients complain of unrelenting daytime fatigue.

*If depression is accompanied by sleeplessness*, antidepressants that provide more sedation (eg, amitriptyline, doxepin, mirtazapine, paroxetine, trazodone) may be chosen. These drugs are used at regular, not low, doses to ensure correction of the depression. These drugs may cause EDS and other adverse effects, such as weight gain. Alternatively, any antidepressant may be used with a hypnotic.

*If depression is accompanied by EDS*, antidepressants with activating qualities (eg, bupropion, venlafaxine, certain SSRIs such as fluoxetine and sertraline) may be chosen.

### **Medications**

There are many medications which are known to cause excessive sleepiness. Some can cause sleep apnea, which in turn causes daytime sleepiness. Drug-related sleep disorders can result from chronic use of CNS stimulants (eg, amphetamines, caffeine), hypnotics (eg, benzodiazepines), other sedatives, antimetabolite chemotherapy, anticonvulsants (eg, phenytoin), oral contraceptives, methyldopa, propranolol, alcohol, and thyroid hormone preparations. Simply stopping or changing the medication can result in improvement. However, when stopping or

changing the drug is not an option, there are additional medications available that may help with the sleepiness. See Table 1 for drugs that interfere with sleep.

<b>Table 1. Some Drugs That Interfere With Sleep</b>	
<b>Cause</b>	<b>Example</b>
Drug use	Alcohol Anticonvulsants (eg, phenytoin) Antimetabolite chemotherapy Certain antidepressants of the SSRI, SNRI, MAOI, and TCA classes CNS stimulants (eg, amphetamines, caffeine) Oral contraceptives Propranolol Steroids (anabolic steroids, corticosteroids) Thyroid hormone preparations
Drug withdrawal	Alcohol Certain antidepressants of the SSRI, SNRI, MAOI, and TCA classes CNS depressants (eg, barbiturates, opioids, sedatives) Illicit drugs (eg, cocaine, heroin, marijuana, phencyclidine)
MAOI = monoamine oxidase inhibitor; SNRI = serotonin-norepinephrine reuptake inhibitor; TCA = tricyclic antidepressant.	

### ***Narcolepsy***

Narcolepsy is a very specific medical disorder which causes excessive daytime sleepiness. This disorder is caused by a deficiency in a neuropeptide in the brain called hypocretin. Another symptom produced by this deficiency is episodic weakness. Narcolepsy is treated with medication and must be diagnosed via a special “sleep” test conducted during the day.

### ***Inadequate Sleep Hygiene***

Sleep is impaired by certain behaviors. They include consumption of caffeine or sympathomimetic or other stimulant drugs (typically near bedtime, but even in the afternoon for people who are particularly sensitive), exercise or excitement (eg, a thrilling TV show) late in the evening, and an irregular sleep-wake schedule. Patients, who compensate for lost sleep by sleeping late, or by napping, further fragment nocturnal sleep. Insomniacs should adhere to a regular awakening time and avoid naps regardless of the amount of nocturnal sleep.

Adequate sleep hygiene can improve sleep (see Table 2: Sleep Hygiene).

<b>Table 2. Sleep Hygiene</b>	
<b>Measure</b>	<b>Implementation</b>

Regular sleep schedule	Bedtime and particularly wake-up time should be the same each day, including weekends. Patients should not spend excessive time in bed.
Restriction of time in bed	Limiting time in bed improves sleep continuity. If unable to fall sleep within 20 min, patients should get out of bed and return when sleepy. The bed should not be used for activities other than sleep or sex (eg, for reading, eating, watching television, or paying bills).
Avoidance of daytime naps, except by shift workers, the elderly, and patients with narcolepsy	Daytime naps may aggravate sleeplessness in patients with insomnia. However, naps decrease the need for stimulants in patients with narcolepsy and improve performance in shift workers. Naps should be taken at the same time each day and limited to 30 min.
Regular bedtime routine	A pattern of activities—brushing teeth, washing, setting the alarm clock—can set the mood for sleep.
Sleep-conducive environment	The bedroom should be dark, quiet, and reasonably cool; it should be used only for sleep and sexual activity. Heavy curtains or a sleep mask can eliminate light, and earplugs, fans, or white-noise devices can help eliminate disturbing noise.
Pillows	Pillows between the knees or under the waist can increase comfort. For patients with back problems, lying supine with a large pillow under the knees can help.
Regular exercise	Exercise promotes sleep and reduces stress, but if done in the late evening, it can stimulate the nervous system and interfere with falling asleep.
Relaxation	Stress and worry interfere with sleep. Reading or taking a warm bath before bedtime can aid relaxation. Techniques such as visual imagery, progressive muscle relaxation, and breathing exercises can be used. Patients should not watch the clock.
Avoidance of stimulants and diuretics	Drinking alcoholic or caffeinated beverages, smoking, eating caffeinated foods (eg, chocolate), and taking appetite suppressants, or prescription diuretics—especially near bedtime—should be avoided.
Bright light exposure while awake	Light exposure during the day can help rectify circadian rhythms.



***Idiopathic (no one knows)***

Sometimes none of the above problems are the cause of a person's daytime sleepiness. When a cause cannot be determined, the disorder is called "idiopathic". In many cases idiopathic sleepiness can be improved with certain treatments even though the primary cause is never recognized.

## Chapter 2

### Can Stimulants Help Combat Daytime Fatigue?

At low-energy times, many people reach for another cup of coffee, a canned or bottled energy drink, or eat a snack that is often high in sugar to "pep up" and stay alert. However, both caffeine and sugar only give you temporary feelings of increased energy, which quickly dissipate. For some people, this cycle of low energy followed by an infusion of caffeine or food continues the entire day -- leaving them feeling exhausted and unable to focus by 3:00 p.m. because they are drained from the ups and downs in energy their body endured throughout the day.

Within five minutes after you drink your morning coffee, the caffeine begins to stimulate your central nervous system, triggering the release of stress hormones in your body, causing a stress ("fight or flight") response. The stress hormones are useful if you need to prepare yourself to fight or flee a dangerous situation, but if you are simply sitting at your desk you may feel a short charge of alertness, quickly followed by feelings of agitation. Within the next hour or so, after the stress response dissipates, you will probably feel more tired and hungry.

Although we think of caffeine in coffee and other energy drinks as the "wake-me-up" chemical, chronic use of it may cause fatigue, headache, moodiness, and depression in some people. Because caffeine boosts energy through increasing the production of ATP, the basic unit of energy production in your body, one school of thought suggests that chronically stimulating this system may deplete it, sort of like overworking the soil in farmland.

#### **Recommendation :**



If you are a caffeine junkie (more than 3 cups of coffee a day) and can't get through the day without your coffee fix, you may be promoting your fatigue with caffeine and need a rest period. Go slowly with your reduction to zero caffeine to avoid developing overwhelming sleepiness and a bad headache.

Caffeine does not provide energy—only chemical stimulation. The perceived "energy" comes from the body's struggle to adapt to increased blood levels of stress hormones. In most cases, this induced emergency state leads to well-defined side effects collectively known as caffeinism. Ironically, caffeinism is characterized by fatigue.

Habitual caffeine use ultimately leads to Phase 2, what has been called adrenal insufficiency or adrenal exhaustion. This condition bears more than a casual

resemblance to the post-traumatic stress syndrome experienced by soldiers returning from combat. In effect, the adrenal glands simply wear out from chronic stimulation.

That does not mean that caffeine does not have its benefits. Caffeine can be used effectively to manipulate our mental state. It is beneficial in restoring low levels of wakefulness and in counteracting degraded cognitive task performance due to sleep deprivation. However, the adverse effects of caffeine, where it causes an addiction in some people and the fact that it makes people have a hard time falling asleep, means that its intake should be kept to a minimum.

## Chapter 3

### Daytime Fatigue and Sleep Apnea

Like excessive daytime sleepiness (EDS), daytime fatigue can be caused by a long list of sleep problems, medical problems, medications, and behavioral issues. Daytime fatigue is often characterized by a generalized lack of energy, feeling “tired” or “drained”, or lethargy during the day. Daytime fatigue often interferes with one’s ability to function well. Those with daytime fatigue do not usually report fighting sleep or dozing during the day. One of the most common sleep disorders that causes daytime fatigue is obstructive sleep apnea.

Obstructive sleep apnea is a common sleep disorder that occurs when a person has pauses in their breathing because of obstruction of airflow. For example, when muscles relax during sleep it can cause soft tissue in the back of the throat to collapse and temporarily block the upper airway. The symptoms of sleep apnea may include:

- daytime fatigue and sleepiness,
- insomnia,
- poor concentration and attention,
- memory problems,
- anxiety,
- irritability,
- headaches,
- snoring, and
- difficulty performing work duties.

If you have the above symptoms, it is wise to consult a doctor to see if you have sleep apnea. Researchers say the treatment of choice for obstructive sleep apnea is CPAP, which involves wearing a mask that delivers a forceful stream of air during sleep. CPAP has been shown to increase oxygen flow during sleep, reduce the frequency of airway blockages, and decrease daytime sleepiness.

#### *Positive Effects of CPAP Treatment in Daytime Fatigue*

A common treatment for obstructive sleep apnea may have the added benefits of fighting fatigue and increasing energy as well as helping people sleep better.

#### **CPAP: Fatigue Fighter**

A new study shows that use of continuous positive airway





pressure (CPAP) decreased fatigue and increased energy in people with the sleep-related breathing disorder after only a few weeks of treatment.

In the study, published in *Sleep*, researchers looked at the effects of treatment with CPAP or a dummy treatment in 59 adults with obstructive sleep apnea on self-reported measures of fatigue and energy.

The results showed CPAP significantly reduced the average fatigue score from 8.8 on a scale of one to 10 -- with 10 being highly fatigued -- to -0.1 after three weeks of treatment. Energy levels also increased significantly in the real CPAP group compared to the dummy treatment group.

"These results are important, as they highlight that patients who comply with CPAP therapy can find relief from fatigue and experience increases in energy and vigor after a relatively short treatment period," researcher Lianne Tomfohr, graduate research assistant in the joint doctoral program at San Diego State University and the University of California, San Diego, says in a news release.

Researchers say CPAP was especially beneficial in increasing energy and reducing fatigue in people who reported excessive levels of fatigue or sleepiness before treatment.

## Chapter 4

### Techniques to Stop Feeling Drowsy During the Day

Most of us chalk up being tired to having too much to do and not enough time to do it in, especially during extra-busy periods. But often the true culprits are our everyday habits: what we eat, how we sleep, and how we cope emotionally. Here are some simple, recharging changes that can help you tackle all of the energy stealers in your life.

#### Energize Your Diet

Why is it that filling up on pasta or Chinese food for lunch leaves us fatigued and sleepy an hour later? Or that falling short on fluids makes us forgetful and foggy? Fact is, eating habits play a powerful role in how well we function on every level. Below are six top fatigue-fighting nutrition strategies to chew on.

- **Have breakfast... even if you don't feel hungry.** You'll be a lot perkier;

Studies show that people who eat breakfast feel better both mentally and physically than those who skip their morning meal. British researchers at Cardiff University even found that spooning up a bowl of breakfast cereal every morning is associated with lower levels of the stress hormone cortisol.



- **Eat every three to four hours.** Having three smallish meals and two snacks throughout the day can keep your blood sugar and energy levels stable all day long, says Roberta Anding, R.D., a spokesperson for the American Dietetic Association (ADA). Note the word "smallish." Supersized meals demand more of your energy to digest, which can leave you feeling lethargic. At each mini-meal, get a mix of carbohydrates (which the body uses for energy), protein (which helps sustain energy if needed), and healthy fats like those found in fish, nuts, and olives -- these fats and protein contribute to meal satisfaction, so you don't go hunting for sweets an hour later and wind up with a short-lived sugar high and subsequent crash. A few meal ideas: a low-fat yogurt parfait with berries and a couple of tablespoons of whole-grain granola; salmon over mixed greens with whole-grain crackers; and beef tenderloin with a baked sweet potato and asparagus.



- **Fill up on more fiber.** Fiber has a time-

releasing effect on carbs, so they enter your bloodstream at a slow and steady pace, giving your energy staying power, says Anding. When choosing your mini-meals (see above), include fiber-filled options that add up to the daily recommended 25 to 30 grams of fiber (the average person gets only between 10 and 15 grams). Some suggestions: a bowl of raisin bran (5 grams of fiber per cup); black beans and cheese wrapped in a multigrain tortilla (beans have 7.5 grams per 1/2 cup; one tortilla has 5 grams); air-popped popcorn (3.6 grams per 3 cups); an apple with the skin (3.3 grams); and whole-wheat spaghetti (6.3 grams per cup).

- **Fuel your brain with omega-3s.** Found in fatty fish (such as tuna and salmon), walnuts, and canola oil, these essential fatty acids play a role in keeping brain cells healthy and helping you feel mentally alert. Another potential bonus: Omega-3s encourage the body to store carbs as glycogen — the storage form of glucose (blood sugar) and the body's main source of stored fuel — rather than as fat.

- **Stay hydrated.** Water makes up the majority of your blood and other body fluids, and even mild dehydration can cause blood to thicken, forcing the heart to pump harder to carry blood to your cells and organs and resulting in fatigue. Also, ample fluids keep energy-fueling nutrients flowing throughout the body, says Nancy Clark, R.D., author of *Nancy Clark's Sports Nutrition Guidebook*. To gauge your hydration, Clark recommends monitoring how often you urinate. You should be going every two to four hours, and your urine should be clear or pale yellow in color. Tip: Besides drinking more, you can also consume foods that naturally contain water, such as yogurt, broccoli, carrots, and juicy fruits, like watermelons, oranges, and grapefruits.



- **Watch your caffeine intake after noon.** Typically, consuming a moderate amount of caffeine — 200 to 300 mg, the amount found in two to three cups of coffee — can make you more energetic and alert in the hours following, says Anthony L. Komaroff, M.D., a professor of medicine at Harvard Medical School. But when caffeine is consumed in large quantities — or anytime in the afternoon or evening — the quality of your sleep that night can take a nosedive, leaving you with heavy eyelids the next day. One caution for those who are highly sensitive to caffeine: Although switching to a decaf latte in the afternoon sounds like the answer, researchers at the University of Florida found that out of 22 decaffeinated coffee beverages tested, all but one contained some caffeine.

## Energize Your Spirit

We're all familiar with physical exhaustion, but mental strain — sadness, boredom, worry, anger, and general stress (the biggie) — can take an even heavier toll on vitality, completely wearing you out. Life happens, and these difficult emotions will, too. But if you react wisely, your brain and body will rebound — along with your vim and vigor.

- **Splash some water on your face or take a shower when you're feeling burned-out.** Some 55 percent of study participants reported using these types of "water therapy" to successfully increase their energy, according to findings in the *Journal of Personality and Social Psychology*. Apparently, a little H<sub>2</sub>O refresher can instantly help take the edge off when you're feeling overwhelmed.
- **Suit up in a "power" outfit to beat the blahs.** Fight the tendency to throw on sweats when you're feeling sluggish. Although it may seem counterintuitive to slip into the skirt you save for special occasions, it helps to look in the mirror and see an energizing image — not a deflating one that confirms and reinforces your internal state, says Alice D. Domar, Ph.D., founder and executive director of the Domar Center for Complementary Healthcare in Waltham, MA. Dressing for success will give you a big mental boost every time you catch sight of your reflection (or receive a compliment) throughout the day.
- **Vent your feelings.** Keeping fear, anxiety, and stress pent up inside may seem like a grown-up way to deal with these emotions. But discussing negative feelings with another person can ease them far better than keeping them bottled up; by airing them, you reduce their ability to sap your stamina, says Komaroff, who is also the editor-in-chief of the *Harvard Health Letter*.
- **Turn on some tunes.** Listening to music is one of the most effective ways to change a bad mood, decrease tension, and increase energy. Consider this: Runners in one study who listened to music while on the treadmill ran faster than those who jogged in silence — no matter how loud the volume or how fast the tempo, according to new findings in the journal *Ergonomics*. Other research suggests that music effectively distracts you from feeling fatigue. Try burning a CD of your favorite songs and playing it anytime you need a pick-me-up. (If you exercise, so much the better — but the music will move you either way.)





- **Let go of grudges.** Nursing a grudge prompts your mind and body to react as if they're under chronic stress, increasing your heart rate and blood pressure and potentially resulting in an impaired immune system and exhaustion over time, according to a study in the journal *Psychological Science*. On the other hand, practicing empathy and forgiveness after you've been wronged makes you feel as if you're back in control, which keeps the body's stress responses in check. The next time you find yourself harboring ill feelings, repeat a stress-relieving mantra to yourself, such as, "Forgiveness makes me a happier and stronger person."

- **Take belly breaths.** When we're under stress, we're prone to take "chest breaths" — short, shallow ones, says Domar. Chest breathing brings less air into the lungs and reduces the supply of energizing oxygen to the body and brain, leaving you physically and mentally drained.



The goal is deep, diaphragmatic breathing — like that of a sleeping infant: When you breathe in, your belly should round and fill like a balloon; on an exhale, your belly should slowly deflate. Of course, remembering to practice deep breathing isn't the first thing on your mind when you're under the gun, so as a visual reminder, try posting a tranquil picture (such as a pool of water or your kids smiling) with the word "breathe" next to your computer, or anywhere you tend to feel on edge.

- **De-clutter a corner.** Go through that teetering pile of papers or overflowing closet and clear it out. Clutter can make you feel out of control and overwhelmed, especially when you're already feeling stressed or down. Plus, simply accomplishing a goal, no matter how seemingly minor, can be energizing, says Domar.
- **Do some good.** Acts of altruism can lend a little pep to your step. In fact, one study in the *Journal of Health and Social Behavior* found that volunteer work can boost your energy in six ways: It enhances happiness, life satisfaction, self-esteem, sense of control over life, physical health, and mood. Find short- and long-term volunteer opportunities at [volunteermatch.org](http://volunteermatch.org) and [charityguide.org](http://charityguide.org).

## Get Some Restorative Rest

When you have a lot to do (um...always), usually the first thing to get squeezed off your agenda is sleep. But miss out on shut-eye and your energy, positivity, productivity, and memory are sure to suffer. And nearly a quarter of American adults

aren't getting enough rest, which has led to an epidemic of daytime sleepiness, according to a poll by the National Sleep Foundation. The key to bucking this trend is to brush up on sleep hygiene. Try these steps for starters.

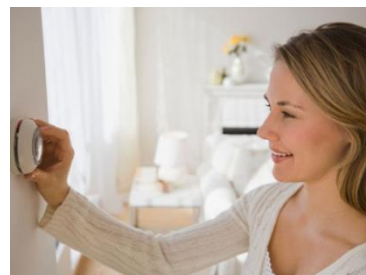
- **Cut back on TV and computer time after 8 p.m.** If you're already a night owl (you go to bed late and sleep in on weekends), the bright light emitted from television and computer screens can make falling asleep at a decent hour even harder. The reason: Light suppresses the production of melatonin, a hormone secreted at sunset that tells the brain that it's nighttime, explains John Herman, Ph.D., director of the training program in sleep medicine at the University of Texas Southwestern Medical School at Dallas. And when melatonin levels are low, your brain is fooled into thinking that it's still daytime — and remains raring to go. Whenever possible, wait until the next morning to tune in and/or log on. If you must use light-emitting technology at night, try to turn it off an hour or two before hitting the sack.



- **Hide your alarm clock.** Watching the clock to see how long it's taking you to drift off or how much time you have left before your alarm goes off can result in a poor night's sleep, says Kelly A. Carden, M.D., medical director of the Sleep Health Center Affiliated with Hallmark Health at Medford in Medford, MA. This hypervigilance keeps the brain awake and alert and prevents you from slipping into deep, restorative sleep. The easy fix: Set your alarm clock, then either face the numbers away from you or put it on the floor, in a drawer, or across the room.

- **Give your pet his own separate sleeping space.** At night, pets snore, jiggle their tags, move around a lot, and even hog the covers and bed space. It's no wonder that 53 percent of pet owners who sleep with their pets in the bedroom have some type of disrupted sleep every night, according to a study from the Mayo Clinic Sleep Disorders Center in Rochester, MN. Consider relocating your furry friend's sleeping quarters to another area, even if it's just his own bed in your bedroom.

- **Lower the thermostat.** For a good night's sleep, make sure your room is comfortably cool — enough so that you need a light blanket. This ensures that your environment is in sync with your body's internal temperature, which naturally drops during the night, according to the National Sleep Foundation. Studies suggest the ideal



sleeping temperature is between 54 and 75 degrees; anything cooler or warmer may cause you to wake up.

- **Skip the nightcap.** Alcohol depresses the nervous system — the system of cells, tissues, nerves, and organs that controls the body's responses to internal and external stimuli. So while sipping a glass of wine before bed may help you nod off, the sedative effects wear off as your body metabolizes the alcohol, which may cause you to wake up in the middle of the night and have trouble falling back to sleep. Alcohol has also been shown to interfere with the body's natural 24-hour biorhythms, causing blood pressure to rise and heart rate to race at night when it's normally calm and relaxed. You don't have to give up that evening cocktail entirely to achieve sound sleep — just try to avoid alcohol within two to three hours of bedtime.
- **Get your exercise.** While scientists don't yet understand why, aerobic exercise has been proved to help you fall asleep faster at bedtime, spend more hours in deep sleep, and wake up less often throughout the night, says Komaroff. At the same time, vigorous exercise can act like a stimulant (which is a great daytime energizer), so schedule your workouts in the morning or afternoon, when you need a boost the most.



- **Follow the 15-minute rule.**

If you can't fall asleep, or if you wake up and can't get back to sleep within about 15 minutes, get out of bed and do something relaxing that will help clear your head, such as reading, meditating, or knitting (but not watching TV or surfing the Web). Then, once you feel sleepy again, go back to bed. If you stay put and fret about being awake, you'll only make yourself more anxious — and less likely to catch the z's you need.

- **Write down your worries.**

During the day, jot down any stressors that are weighing on you, says Carden. Then, do some mental problem-solving before your head hits the pillow — or, if you're falling short on solutions, tuck your list away and resolve to brainstorm ideas during your morning shower or commute to work. Just knowing you've established a plan for tackling your to-do's will make you feel

like you've made some progress, allowing you to relax, drift off — and wake up the next morning ready to take on the day.



## Chapter 5

### Taking Other Steps to Beat Daytime Fatigue

In the following sections, two tools that you can use to eliminate daytime fatigue are explained in great detail. These tools are wakefulness-promoting medications and naps.

#### *Wakefulness-Promoting Medications*

A wakefulness-promoting drug improves alertness, thereby reducing the need for sleep at inappropriate times. Drugs that promote wakefulness are most often used to treat hypersomnias such as narcolepsy and idiopathic hypersomnia. Traditionally, amphetamine-type stimulants were used to treat daytime sleepiness by acting on the entire nervous system. They still are used in some cases. Today, many different drugs have successfully promoted wakefulness in a more precise manner. All the drugs named below should always be taken according to the Medication Guide provided with them, or as directed by an experienced health professional.

##### *Provigil*

Modafinil decreases extreme sleepiness due to narcolepsy and other sleep disorders such as difficult/irregular breathing during sleep (e.g., obstructive sleep apnea/hypopnea syndrome-OSAHS). It is also used to help you stay awake during work hours for people with work schedules that interfere with a normal sleep routine (shift work sleep disorder-SWSD).



It is not known how modafinil works to increase wakefulness. It is thought to work by affecting certain chemicals in the brain that control the sleep/wake cycle. Modafinil does not make up for lack of sleep and should not be used to treat tiredness or hold off sleep in people who do not have a sleep disorder.

This medication is not recommended for use in children.

##### *Nuvigil*

Armodafinil decreases extreme sleepiness due to narcolepsy and other sleep disorders such as difficult/irregular breathing during sleep (e.g., obstructive sleep apnea/hypopnea syndrome-OSAHS). It is also used to decrease sleepiness due to work schedules that interfere with a normal sleep routine (shift work sleep disorder-SWSD).

It is not known how armodafinil works to increase wakefulness. It is thought to work by affecting certain substances in the brain that control the sleep/wake cycle.

Armodafinil does not make up for lack of sleep. It should not be used to treat tiredness or hold off sleep in people who do not have a sleep disorder.

### **Adderall**

This combination medication is used as part of a total treatment program to control attention deficit hyperactivity disorder (ADHD). It may help to increase the ability to pay attention, stay focused, and control behavior problems.

This product is a combination of stimulants (amphetamine and dextroamphetamine). It is thought to work by restoring the balance of certain natural substances (neurotransmitters) in the brain.

This drug may also be used to treat certain sleeping disorders (narcolepsy). It should not be used to treat tiredness or to hold off sleep in people who do not have a sleep disorder.

### **Ritalin**

Methylphenidate is used as part of a treatment program (including psychological, educational, and social measures) to treat attention deficit hyperactivity disorder - ADHD. It can help increase your ability to pay attention, stay focused on an activity, and control behavior problems. It may also help you to organize your tasks and improve listening skills. This medication is also used to treat a certain sleep disorder (narcolepsy). Methylphenidate is a mild stimulant that is thought to work by changing the amounts of certain natural substances in the brain.

## **Napping**



More than 85% of mammalian species are polyphasic sleepers, meaning that they sleep for short periods throughout the day. Humans are part of the minority of monophasic sleepers, meaning that our days are divided into two distinct periods, one for sleep and one for wakefulness. It is not clear that this is the natural sleep pattern of humans. Young children and elderly persons nap, for example, and napping is a very important aspect of many cultures.

As a nation, the United States appears to be becoming more and more sleep deprived. And it may be our busy lifestyle that keeps us from napping. While naps do not necessarily make up for inadequate or poor quality nighttime sleep, a short nap of 20-30 minutes can help to improve mood, alertness and performance. Nappers are in good company: Winston Churchill, John

F. Kennedy, Ronald Reagan, Napoleon, Albert Einstein, Thomas Edison and George W. Bush are known to have valued an afternoon nap.

### Types of Naps:

Naps can be typed in three different ways:

- **Planned napping** (also called preparatory napping) involves taking a nap before you actually get sleepy. You may use this technique when you know that you will be up later than your normal bed time or as a mechanism to ward off getting tired earlier.
- **Emergency napping** occurs when you are suddenly very tired and cannot continue with the activity you were originally engaged in. This type of nap can be used to combat drowsy driving or fatigue while using heavy and dangerous machinery.
- **Habitual napping** is practiced when a person takes a nap at the same time each day. Young children may fall asleep at about the same time each afternoon or an adult might take a short nap after lunch each day.

### Tips for Napping:

- A short nap is usually recommended (20-30 minutes) for short-term alertness. This type of nap provides significant benefit for improved alertness and performance without leaving you feeling groggy or interfering with nighttime sleep.
- Your surroundings can greatly impact your ability to fall asleep. Make sure that you have a restful place to lie down and that the temperature in the room is comfortable. Try to limit the amount of noise heard and the extent of the light filtering in. While some studies have shown that just spending time in bed can be beneficial, it is better to try to catch some zzz's.
- If you take a nap too late in the day, it might affect your nighttime sleep patterns and make it difficult to fall asleep at your regular bedtime. If you try to take it too early in the day, your body may not be ready for more sleep.



### Benefits of Napping:

- Naps can restore alertness, enhance performance, and reduce mistakes and accidents. A study by NASA on pilots found that they were 100% more alert and performed tasks 34% better (in the final stages of the flight) after a brief mid-flight nap than those who did not nap.

Research last year by Harvard and Athens Universities examined the habits of 23,000 subjects in Greece. It concluded that amongst working men those who napped regularly were 64% less likely to die of heart disease, even after other factors such as diet, exercise and smoking had been eliminated from the equation. Naps help you to perform better and live longer.

There have also been some other interesting findings in recent times in terms of napping and performance enhancement.

- A study by Dr Sara Mednick (author of Take a Nap Change Your Life) during her time at Harvard showed that over the course of a day (between 9am and 7pm) our performance deteriorates by up to 52%. However, she found that a brief nap during the middle of the day halted the performance decline for the rest of the day.
  - City University in New York undertook a study allowing one group to relax in the middle of the day by reading or watching TV and the other group to take a nap. 6 hours after the break the nappers performed 15% better than the no nap group in a memory test.
  - A study printed in the Annals of Emergency Medicine back in 2006 also compared performance of ER residents and nurses on night shift. Those who napped (at 3am) made 24% fewer errors at 7:30am and were 23% quicker in completing a simulated intravenous insertion. Interestingly a mood profile test showed that mood amongst the nappers was 86% greater and they were 29% less fatigued.
- Naps can increase alertness in the period directly following the nap and may extend alertness a few hours later in the day. A 15 to 20 minute nap will improve energy, performance, motor skills, result in fewer errors, lower heart rate, improve speech, abstract reasoning, planning, problem solving, learning and creativity. Napping is not toxic or harmful – it's not dangerous. What is more the increased energy boost can last for up to 8 hours so not only will you be able to achieve more at work, leave earlier, be more alert whilst driving home but you will also have more energy for your domestic / family life.
  - Scheduled napping has also been prescribed for those who are affected by narcolepsy.
  - Napping has psychological benefits. A nap can be a pleasant luxury, a mini-vacation. It can provide an easy way to get some relaxation and rejuvenation.



*Several doctors and research scientists are in approval of the benefits of napping as proven by their statements below:*

**David O. Volpi, MD, FACS**

Numerous research studies have shown that naps are a healthy way to repair the mood, body, and mind of those who suffer from daytime fatigue. In fact, in cultures where afternoon siestas are common, scientists discovered that the population generally has higher longevity than those that don't. Naps not only reduce sleepiness but improve cognitive ability; they benefit your mood and memory and even the heart. Taking up to a 90-minute nap, ideally between 1 and 3 p.m., won't interfere with your nighttime sleep.

**William Dement, MD, PhD**

It is now believed that each individual has a characteristic sleep need. If needed, napping promotes alertness and productivity. There is no solid evidence that napping actually is involved in health (not getting infectious diseases and so forth).

**Russell Rosenberg, PhD**

Napping is a natural part of the sleep-wake cycle that many cultures have embraced and others, like us in the United States, deny. Taking a short nap of 20 to 30 minutes can be very refreshing and help to improve alertness for hours afterwards. Some people even get a boost from naps of as short as 5 to 10 minutes. Naps of less than an hour have little impact on nighttime sleep. Excessively long naps, however, may cause moodiness and feelings of grogginess often referred to as sleep inertia. Naps help relieve sleep debt, which is why taking one before a period of prolonged wakefulness can help reduce risk of fatigue and sleepiness.

**Scott Eveloff, MD**

Napping may be a sign of inadequate or poor sleep at night and may lead to insomnia at night if napping lasts too long or occurs too late in the day. However, all humans have drops in alertness in mid-afternoon as part of a natural rhythm, and brief naps may actually serve to restore. Napping in and of itself may not be as harmful as previously thought.

**Conrad Iber, MD**

Short 20-minute naps improve thinking processes in people who don't get sufficient sleep and in some who have sleep disorders. Long naps may interfere with regularity of the sleep schedule at night and may also produce a period of grogginess upon awakening.


**Brian Wind, PhD**

Napping can be very healthy, as long as the timing and length of the nap are appropriate. A nap that is 30 minutes in duration or shorter can be very

refreshing. Napping for longer than 30 minutes can increase one's risk for going into some of the deeper stages of sleep, and consequently the napper may feel "groggy" or tired after the nap. Napping after 3 p.m. may impact one's ability to initiate sleep that night by decreasing the "sleep drive," or natural propensity of the body to want to sleep.

### Negative Effects of Napping:

In spite of these benefits, napping isn't always the best option for everyone. For example, some people have trouble sleeping any place other than their own bed, making a nap at the office or anywhere else unlikely. Other people simply have trouble sleeping in the daytime; it could be that certain individuals are more sensitive to the midday dip than others – those who are may feel sleepier and have an easier time napping. Here are some other negative effects:

- Naps can leave people with sleep inertia, especially when they last more than 10-20 minutes. Sleep inertia is defined as the feeling of grogginess and disorientation that can come with awakening from a deep sleep. While this state usually only lasts for a few minutes to a half-hour, it can be detrimental to those who must perform immediately after waking from a napping period. Post-nap impairment and disorientation is more severe, and can last longer, in people who are sleep deprived or nap for longer periods.
- 
- A photograph of a man with brown hair, wearing a light green long-sleeved shirt, sleeping at his desk. His head is resting on his arms, which are crossed on the desk. A blue mug and a computer monitor are visible in the background.
- Napping can also have a negative effect on other sleeping periods. A long nap or a nap taken too late in the day may adversely affect the length and quality of nighttime sleep. If you have trouble sleeping at night, a nap will only amplify problems.
  - One study has indicated that napping is associated with increased risk of heart failure in people already at risk.

### Stigmas associated with napping:

While research has shown that napping is a beneficial way to relieve tiredness, it still has stigmas associated with it.

- Napping indicates laziness, a lack of ambition, and low standards.
- Napping is only for children, the sick and the elderly.

Though the above statements are false, many segments of the public may still need to be educated on the benefits of napping.

A recent study in the research journal *Sleep* examined the benefits of naps of various lengths and no naps. The results showed that a 10-minute nap produced the most benefit in terms of reduced sleepiness and improved cognitive performance. A nap lasting 30 minutes or longer is more likely to be accompanied by sleep inertia, which is the period of grogginess that sometimes follows sleep.

By now you're probably thinking about ways to incorporate naps into your daily routine. Keep in mind that getting enough sleep on regular basis is the best way to stay alert and feel your best. But when fatigue sets in, a quick nap can do wonders for your mental and physical stamina.

## Chapter 6

### Increasing Energy Levels during the Day

Besides taking steps to decrease drowsiness, you can also take steps to increase energy levels when you are awake. Try out some of these suggestions from medical experts to give you a boost when you're feeling sleepy or to prevent tiredness altogether.

#### Basics

Give these basic techniques a try for increased energy throughout the day.

1. **Turn on the lights.** Your body responds naturally to changes in light, so if it's unnaturally dark where you're working or sleeping it may make staying alert a lot harder. Try keeping your blinds open a bit so you'll wake up naturally in the morning or adding a few extra lights to your workspace to keep you from feeling sleepy throughout the day.
2. **Get more sleep at night.** Many people try to get by on a lot less sleep than they really need. While each person's needs will differ, 7-8 hours a night is a good goal, and will help you feel more rested and better able to concentrate on anything throughout the day.
3. **Examine your emotions.** Stress, depression and other negative emotions can take a heavy toll on your energy levels. Your exhaustion may have a lot to do with how you're feeling mentally, so take the time to deal with your emotions or get help if you need it.
4. **Exercise.** While it may seem counterintuitive, exercising can wake you up and give you an energy boost that lasts all day. Make time for just 30 minutes of exercise in your day and start reaping the benefits.



5. **Get a physical.** There are many illnesses, some serious and some not, that can cause drops in energy and cause you to be chronically sluggish. Take a trip to your caregiver if you're feeling run down on a regular basis to see if you may have a condition like mono, an underactive thyroid, or anemia.

6. **Keep a sleep schedule.** Our bodies enjoy consistency, so by keeping yourself on a regular sleep schedule you may be able to wake up more easily in the mornings and get to sleep more quickly at night, making you more rested in the long run.
7. **Find things to get excited about.** Of course you're going to be exhausted in the morning if all you can think about doing is things you dread. Try to find at least one thing you can get excited about doing each day, even if it's just making your favorite lunch or meeting with a friend after work. Even better, try something new as often as you can!
8. **Don't linger in bed.** Hitting the snooze button in the morning may delay the inevitable time when you do have to get up, but it's not doing you any favors in the long run. Challenge yourself to get up and move around for at least 10 minutes to see if you're still super tired. Chances are, once you get up you'll be ready to start your day.
9. **Wake up gradually.** For some, the transition between sleep and the horrible beep of the alarm clock can create a drowsy and negative day thereafter. If your alarm tends to wake you with a start, try employing a method to wake yourself more gradually like beeps that get progressively louder or your favorite radio station.
10. **Don't focus on the negative.** Being a pessimist may actually be making you more tired. Try looking on the positive side of things instead, and you may see a turn around in your energy levels.

## Diet

Besides following the diet tips mentioned to help prevent drowsiness, you'll also need to implement some tips on what to change in your diet to increase the amount of energy you have. What you choose to put into your body can make a huge difference in how energetic you feel, so check out these tips for ways to give yourself a boost.

1. **Have an apple.** Eating fruits can be a great way to get a quick energy boost. Fruits are more easily digestible than many other foods and can give the fuel you need to get going.
2. **Try whole grains.** Complex carbs like those found in whole grains take longer for your body to break down and can be a good way to keep your energy levels steady all day.

3. **Have a healthy snack.** Instead of reaching for a sugary snack, eat something healthy instead. It'll give you more energy for the long haul instead of just a quick boost, and you'll be healthier overall.

4. **Consider herbal supplements.** Many people swear by herbs that are purported to improve energy levels. If you're looking for a natural way to stay awake, try supplements of ginseng, bee pollen, gutu kola, maitake and more.



5. **Take your vitamins.** Making sure your body has all the vitamins it needs to function properly is integral to staying energetic. If your diet isn't providing what you need, consider a multi-vitamin to supplement.
6. **Avoid excess sugar.** Sugar may be tasty, but it can also cause your energy levels to bottom out after it's been digested. Avoid eating super sugary foods when you need to be at your peak energy levels.
7. **Eat enough alkaline-forming foods.** Foods are classified as alkaline or acidic forming based on its affect on your urine pH. Foods that are alkaline such as fruits and vegetables are thought to be energy boosters, so try to consume more of these than their acidic counterparts.
8. **Cut down on alcohol.** Alcohol may appear to make you sleepy, but it can actually ensure that you get a much lower quality of sleep than you would otherwise. Keep it in moderation so it won't affect your sleep and make you groggy the next day.
9. **Make sure you are getting enough protein.** Protein is an important part of a balanced diet and not getting enough can leave you feeling wiped out.
10. **Grab a handful of nuts.** Whether you like almonds, cashews, peanuts or walnuts, nuts can be one of the best sources for a quick energy boost. Or if you don't have nuts on hand, try peanut butter instead.

### **At Home**

*Try these tips at home when you need a jumpstart to your day.*

1. **Take a short nap.** When you've got the time at home and you're feeling run down, why not take a little nap? Short naps can give you the rest you need to



be more alert. Just make sure not to sleep for too long or you may end up feeling even drowsier than you did before the nap.

2. **Do some simple chores.** If you're having trouble getting motivated to do a big project because you feel tired, try starting out with a few simple household chores. The activity will help you wake up and feel more up to getting what you need to do done.

3. **Wake up your mind.** Sometimes it takes awhile to get your mind going in the morning. Try waking up by reading the news or doing a crossword.



4. **Meditate and relax.** Meditation can be a great and effective way to recharge throughout the day. Set aside a few minutes of your day to relax and let your worries go.

5. **Take a walk.** Whether you go just around the block or a few miles, taking a walk can help wake you up, clear your thoughts and maybe even improve your mood.

6. **Get out of the house.** Sunlight can help wake you up and help you stay up, so take a trip outside to catch some rays and get some fresh air.

7. **Take a shower.** Get your brain and body feeling fresh and awakened by taking a quick shower.

8. **Indulge yourself.** Giving into your cravings, enjoying a nice long bath, or simply relaxing on your patio can help refresh you and give you the energy to keep going.

9. **Call a friend.** What better way to wake up than by interacting with those you care most about? Give a friend or a family member a call to see what they've been up to.

10. **Get acupuncture or a massage.** Many forms of acupuncture and massage have been shown to help relieve stress and boost energy overall.



11. **Try aromatherapy.** Certain smells like citrus, ginger and peppermint can have an energizing effect and help to

boost your alertness. Light a candle or try a perfume infused with these scents to help you feel extra energized.

12. **Play with a pet.** Spending time with your furry friend can not only be fun, it can also make you feel happier and more energetic. Whether you decide to play in the park with your dog or tempt your cat with a string, make playing with pets a daily part of your energy routine.

### At Work

*Work can be exhausting, but you don't have to let it ruin your energy levels. Try these tips instead.*

1. **Get away from your desk.** Hours upon hours of sitting at your desk can start to sap your energy and make you plead for it to be 5 o'clock already. Give yourself a quick pick-me-up by stepping away from your desk for a bit for a trip to the water fountain, a walk around the office or just a short break.
2. **Talk to a co-worker.** Boost your mood and your energy by connecting with your co-workers. Social interaction can help wake you up, especially if you're doing tedious work, and give you the pep you need to go on.
3. **Have a laugh.** While the Internet's plentiful humor sites are prime territory for distraction and procrastination, they can also be a great place to get a morale and energy boost. Laughter will make you feel better mentally and physically and ensure that you don't end up asleep at your desk.
4. **Do desk yoga.** Yoga boasts many positions that are designed to improve the energy flow in your body and help you feel more alert. Check out the net for versions of these poses you can even do at work for a quick boost.
5. **Listen to your favorite up-tempo songs.** If you can listen to music at work, why not put on some tunes that will get your heart pumping and make you want to dance? It's a surefire way to beat the mid-afternoon slump.
6. **Start work with a challenging task.** Get your brain in gear by giving it a challenging task first thing. You'll be more alert and you'll get the hard stuff out of the way so the rest of your day will be a breeze.



7. **Stop slouching.** Slumping down at your desk isn't doing you any favors in the alertness category. Sitting up at your desk, in an ergonomically friendly way, can make you feel more alert and ready to work.
8. **Volunteer to help someone.** Studies have shown that helping others actually gives the helper a sense of elation and excitement, and at work it can show a lot of initiative while helping you stay awake.
9. **Avoid co-workers who sap your energy.** Everyone has that one co-worker who is so glum, negative or boring that they just suck the energy right out of you. When it's possible, keep this person away from you to save your energy and maybe your sanity too.
10. **Stock your desk with high energy snacks.** Don't make it easier to eat unhealthy food just because you're at work. Bring nuts, dried fruits and other healthy snacks to work in place of sugary or fatty counterparts from the vending machine.
11. **Have a mint.** For some people, the smell and taste of mint helps wake them up. Give it a try next time you're feeling drowsy. Even if you still feel sleepy at least you'll have fresh breath.
12. **Look at your accomplishments.** When you've got a lot on your plate at work, it can be easy to get overwhelmed and start feeling down on yourself and exhausted. Instead of looking at the bad side of things, try thinking about all the things you have gotten done. It will improve your mood and give you the energy to go on.



## Chapter 7

### Exercise Workouts to Fight Fatigue

Sedentary people who regularly complain of fatigue can increase their energy levels by 20 percent and decrease their fatigue by 65 percent by engaging in regular, low intensity exercise, according to a University of Georgia study.



The researchers recruited 36 volunteers who did not exercise regularly and had reported persistent fatigue based on a commonly used health survey. The volunteers were divided into three groups: The first engaged in 20 minutes of moderate-intensity aerobic exercise three times a week for six weeks; the second engaged in low-intensity aerobic exercise for the same time period; the control group did not exercise.

The low- and moderate-intensity groups had a 20 percent increase in energy levels over the control group. Surprisingly, the low-intensity group had a greater reduction in fatigue levels than the moderate-intensity group, 65 percent compared to 49 percent, respectively.

The study is great evidence that exercise can help you fight fatigue. First of all, you need to participate in at least 30 minutes of cardio exercise a day. Cardio exercises are exercises that get your heart pumping quickly, such as brisk walking, jogging, aerobics, swimming, and so on. Besides that, you should also do some strength training to increase the endurance levels of your body. To get you started with strength exercises, here are eight rejuvenating exercises that will strengthen your body effectively.

#### **Frog Jump**

*Strengthens Hamstrings, Quads, Calves, Glutes, Core*

- ❖ Stand behind a stability ball on floor, legs slightly wider than hip-width apart, toes turned out.
- ❖ Squat all the way down, bending knees deeper than 90 degrees, and place hands on either side of ball.
- ❖ Press elbows into insides of thighs to deepen the stretch.
- ❖ Pushing off with your legs and glutes, jump as high as you can, pointing toes and straightening your legs while lifting ball overhead, arms extended.

- ❖ Repeat 5 to 8 times.



### *Triangle Stretch*

*Strengthens Inner Thighs, Slutes, Shoulders, Obliques; Stretches Hamstrings*

- ❖ Stand with ball between thighs, left foot turned out 90 degrees and right foot pointing forward so feet are perpendicular to each other, with the heel of left foot bisecting the arch of the right.
- ❖ Squeeze ball with thighs while shifting weight onto left leg, lowering left hand down toward thigh or shin while stretching right arm up toward ceiling, rotating from waist.
- ❖ Hold for 8 seconds.
- ❖ Return to starting position.
- ❖ Repeat twice, then switch sides and repeat.



### ***Double Leg Extensions***

*Strengthens Glutes, Hamstrings, Lower Back, Core*

- ❖ Lie face down with thighs and midsection over the ball, feet hip-width apart on floor, supporting weight on the balls of your feet.
- ❖ Rest elbows, forearms, and hands on top of ball, chest extended and head up.
- ❖ Roll forward until elbows and forearms are on the floor, keeping back straight and legs together, extended above ball.
- ❖ Hold for 2 counts.
- ❖ Roll back to starting position.
- ❖ Repeat 5 times.



### ***Standing Lateral Side Bend***

*Strengthens Obliques, Glutes, Outer Thighs, Core, Shoulders*

- ❖ Holding ball, stand with feet just wider than hip-width apart and slightly turned out, knees soft.
- ❖ Bring ball overhead with arms extended, keeping shoulders relaxed.
- ❖ Bend upper body to left side while lifting left leg to the side, leading with little toe.
- ❖ Return to center; repeat on right.
- ❖ Do 4 to 6 slow, controlled reps per side, alternating sides.





### ***Overhead Triceps Press***

*Strengthens Triceps, Glutes, Core*

- ❖ Lie faceup with head, neck, and shoulders on the ball, holding 3- to 8-pound dumbbells with arms bent and elbows pointing toward ceiling.
- ❖ Walk your feet forward until your knees are at 90 degrees, heels on floor, hips lifted.
- ❖ Straighten arms, keeping elbows in place; hold for 1 count and lower back to starting position.
- ❖ Do 10 to 12 reps.



### ***Twisting Lunge Spiral***

*Strengthens Inner and Outer Thighs, Quads, Hamstrings*

- ❖ Stand with feet shoulder-width apart, ball to right side.

- ❖ Take a big step diagonally forward with left foot so left leg crosses in front of right.
- ❖ Hold the ball with your right fingertips, placing left hand on hip.
- ❖ Keeping hips and feet facing forward, bend front knee; at same time, roll the ball away from your body.
- ❖ Keep chest lifted while pressing right hip forward, feeling the stretch along your right thigh.
- ❖ Return to starting position; do 2 more reps, holding the twist for 8 counts on the last rotation.
- ❖ Change sides.
- ❖ Repeat 3 times on each side.



### ***Standing Inner-Thigh Energizer***

*Strengthens Inner Thighs, Obliques, Core*

- ❖ Straddle ball with feet turned out, arms out to sides at shoulder height with palms facing floor.
- ❖ To stand up, shift weight to left leg, squeezing inner thighs into ball as you lift right leg (hold on to chair or wall for balance, if needed).
- ❖ Come back to center and squat down again; switch sides and repeat.
- ❖ Do 4 reps per side.



### ***Kneeling Preacher Curls***

*Strengthens Biceps, Core*

- ❖ Holding 5- to 12-pound dumbbells, kneel with chest on ball, elbows pressing tightly into surface, palms up.
- ❖ Slowly lower weights, keeping elbows slightly bent and pressed into ball; curl weights toward shoulders.
- ❖ Do 10 to 12 reps.



*For people looking for a quick way to fight fatigue, here are some quick energizers to get you through the day:*

### ***3 Quickie Energizers***

#### **Morning: Sun Salutation**

- ❖ Stand with arms by sides, then raise hands overhead.
- ❖ Fold forward from hips and place hands on floor (bend knees if necessary).
- ❖ Step right foot back into a lunge.
- ❖ Step left foot back and raise hips up into an upside-down V.
- ❖ Step right foot up between hands in a lunge, then step left foot up to meet right.
- ❖ Stand up, lifting arms overhead. Repeat twice.



### Midday: Energizing Breath

- ❖ Sit comfortably with back supported.
- ❖ Inhale fully, filling your lungs with air.
- ❖ Exhale forcefully through the nose with 10 short, staccato breaths, pulling abdominals in with each exhalation. Fully empty your lungs and repeat.

### Evening: Calisthenic Circuit

- ❖ Get up off the couch during TV commercial breaks and do 30 seconds (about the length of one commercial) of each of the following exercises: jumping jacks, squats, push-ups, crunches.
- ❖ Do a set at each commercial break.

## Wake Up Workouts

### Workout Basics

These exercises emphasize light stretching and toning, ideal for mornings when you feel groggy. The workout takes about 15 to 20 minutes and requires a book, bath towel, and washcloth.

### Upper-Body Fan

*Warms torso and facilitates breathing by opening shoulders and upper chest.*



**A.** While lying on back with arms outstretched to sides and palms up, bring knees up and roll them to right side. Turn head to left. Try to keep both shoulders touching bed.

**B.** Sweep left palm in 180-degree arc over chest to touch right palm, letting head follow arm, then slowly reverse move. Repeat 10 times, then switch sides.

### Gentle Crunches

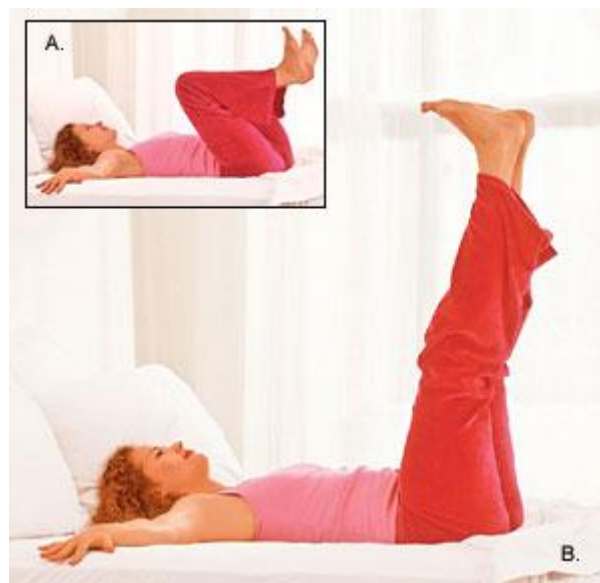
*Warms and tones the core.*



Remove pillow and start by lying face up. Bend knees and plant feet on bed. Press palms into mattress near hips. Tighten abs and lift both shoulder blades off bed. Hold for a complete breath, then lower. Repeat 10 to 15 times. (If your mattress is soft, do this move on the floor.)

### Rise and Shine Leg Extensions

*Warms lower body by enhancing circulation between lower extremities and heart.*



**A.** Lie face up on bed with knees bent, arms outstretched to sides, and palms down. Pull knees in toward torso, pressing heels together, toes apart.

**B.** With heels still touching, straighten knees and extend legs straight into the air, pressing inner thighs firmly together. Pause. Bend knees back toward chest. Repeat 10 times slowly.

### Seated March

*Gets heart pumping without your having to stand up.*



Sit on side of bed and extend arms in front, palms up. Clench fists and bend elbows (like "putting up your dukes"). Then, keeping back straight, raise left knee while twisting and pulling right elbow to left knee. Then raise arms while tapping left toe to floor. Repeat 10 times on left side, then switch sides.

### Dress-Up Squats

*Strengthens and tones quads, hamstrings, and glutes.*





Stand with feet hip-width apart, toes forward. Extend arms in front, holding your clothes for the day. With weight on heels, sit back and down as if sitting in a chair. (Don't extend knees beyond toes.) In this position, slowly set out an article of clothing. Return to standing and repeat until you've laid all your clothes on bed.

### Big Book Swing

*Tones and strengthens arms, legs, and torso. (Omit if you have lower-back problems.)*



**A.** With legs apart and knees slightly bent, press a dictionary-size book between palms. Straighten arms and lower book to outer left ankle.

**B.** As you stand, sweep book diagonally to upper right (like golf swing), lifting heel of left foot and pivoting toes inward. Slowly twist back down. Repeat 10 times, then switch sides.

### Arm Yawn

*Stretches deltoids, triceps, and chest; improves flexibility in shoulders.*



Hold one end of washcloth and raise arm up, bending elbow behind head. Bend other arm behind to clasp washcloth. Pull gently in opposite directions. Hold for five breaths and release. Switch arms; repeat.

### Towel Lats

*Tones arms while improving flexibility in back and shoulders.*



Stand holding bath towel taut at both ends, arms extended overhead. Flex back and shoulders and pull towel down behind your head, lowering it to neck level. Return to start and repeat 10 times.

## Chapter 8

### Foods that Fight Fatigue

"Food is truly our body's fuel," says Cindy Moore, MSRD, director of nutrition therapy for The Cleveland Clinic. "What we choose as our fuel is going to absolutely impact the performance of our bodies."

How do we fill up our personal tanks, and how well do they make our engine run? The experts weigh in on how major food and drink sources and habits affect energy levels.

#### *The Forgotten Meal*

At the beginning of the day, most people dash off to work or school without a thought to their body's dietary needs. Who has time to eat in the morning anyway?

"Breakfast is an easy meal to forget," says Mary Ellen Camire, PhD, professor of food science and human nutrition at the University of Maine. "But if people are skipping breakfast and find they're tired by midmorning, then it's time to re-evaluate that eating habit."

Research shows breakfast improves alertness and concentration, helps shed pounds by preventing overeating during the day, and prevents obesity, diabetes, and heart disease.

To get these benefits and to prepare the body for the day, the American Dietetic Association recommends carbohydrates for energy and protein for endurance. Some quick options include:

- Whole grain bagel with cheese
- Cereal with fruit and yogurt
- Whole-grain toast with peanut butter and fruit
- Hard-boiled egg sliced into a whole-wheat pita
- Scrambled eggs, toast, and fruit
- Oatmeal with raisins



For the really busy bee, Camire says choices include breakfast bars, frozen omelets and breakfast sandwiches, oatmeal packets to go, and whole-grain cereals in prepackaged plastic bowls. Be mindful, though, of the sugar and fat content of your morning meal. A study in Pediatrics found that children who ate sugary breakfasts were hungrier and ate more at lunch.

### *Complex Carbohydrate Charge*

Healthy eating doesn't stop in the morning. A well-balanced diet throughout the day is an essential source of sustained energy.

Although carbohydrates have gotten a bad reputation, the nutrient is still the body's preferred source of energy, says Dave Grotto, RD, director of nutrition at the Block Center for Integrative Cancer Care in Evanston, Ill. Low-carb diets, he says, initially boost energy, but deplete it in the long run.

The best way to maximize the body's potential for energy is to eat a combination of complex and simple carbohydrates. Complex carbohydrates, which are slow burning, should represent the bulk of the carbohydrates we eat, says Grotto. Foods such as whole grains and starchy vegetables such as potatoes, squash, pumpkin, and carrots fall into this category.

This does not mean ignoring simple carbohydrates with a faster burn, such as the sugar fructose, found in fruits, vegetables, and honey. They can provide an immediate source of energy.



Simple sugars found in candy bars, soft drinks, and cookies can also provide a quick boost, but then a big letdown afterward.

"You are going to get a rise in energy from the original hit of the sugar, but then, particularly for diabetics, sugar can drop below the baseline where it started," says John W. Finley, associate editor of the

Journal of Agriculture and Food Chemistry, a publication of the American Chemical Society. He says the peak effect of sugar normally lasts 30 minutes to an hour, depending on the dose. Anything beyond that is reportedly psychological.

Without the complex carbohydrates to sustain the blood sugars, the body loses steam. "A diet that is based in complex carbohydrates seems to have less of that peak and valley of blood sugar effect," says Grotto.

It is also important to make sure your complex carbohydrates have fiber, says Dee Sandquist, MSRD, a spokesperson for the American Dietetic Association. "Fiber helps the carbohydrates that we eat to be more slowly absorbed by the body," she says. "So, therefore, the body gets a more balanced release of energy, as opposed to the quick burst of energy."

Many processed carbohydrates such as white rice, white bread, and pasta contain little or no fiber, thus expending energy at a rapid rate. To ensure you have a food rich in fiber, check the label. A slice of bread should contain 2 to 3 grams of fiber.

### ***Fat Force***

Fat has also gotten a bad reputation, and for good reason. Too much of the "bad" fats is associated with heart disease, some types of cancer, and some chronic illnesses.



The right types of fat and the amount, however, can make food taste good, and is a concentrated source of energy. Saturated fat (found in foods like meat, butter, lard, and cream) and trans fat (found in baked goods, snack foods, fried foods, and margarines) have been shown to increase the risk for heart disease. Replacing saturated and trans fat in your diet with unsaturated fat (found in foods like olive oil, avocados, nuts, and canola oil) has been shown to decrease

the risk of developing heart disease.

In order to strike the right balance, choose polyunsaturated fats such as vegetable oils and seafood, and monounsaturated fats such as olive oil, nuts, and seeds. The unsaturated variety can help lower "bad" LDL cholesterol.

### ***Protein Power***

Fats and carbohydrates may supply the body with energy, but protein helps regulate the release of that power. Protein maintains cells, assists in growth, transports hormones and vitamins, and preserves lean muscle mass. Muscles and many hormones are, in fact, made up of protein. We need proteins for our immune system. So replenishing the



body's source of the nutrient is very important.

Good sources of protein include meat, poultry, fish, eggs, beans, nuts, and low-fat dairy products. When we eat these types of foods, our body breaks down the protein that they contain into amino acids (the building blocks of proteins). Some amino acids are essential, which means that we need to get them from our diet, and others are nonessential, which means that our body can make them. Protein that comes from animal sources contains all of the essential amino acids that we need. Plant sources of protein, on the other hand, do not contain all of the essential amino acids.

In diets where the body does not get its usual fuel of carbohydrates and fat, protein provides the body energy.

## The Weight of Water

Two-thirds of the human body is made up of water. Without it, we could only live a few days. The fluid helps control body temperature through sweat, moves food through the intestines, and greases the joints. It is also an essential ingredient in the production of energy molecules. "Dehydration is one of the leading causes of a lack of energy," says Grotto. If you're not well hydrated, your body puts its resources into maintaining your water balance instead of into giving you energy.

Everyone's water needs vary. In February 2004, the Institute of Medicine released a report indicating most people meet their daily hydration needs by using thirst as their guide. In general, the Institute's expert panel recommended that women get about 11 cups of water from food and drink each day, and men get about 16 cups daily. This may seem like a lot of liquid, but 80% of it usually comes from drinking water and other beverages. The other 20% comes from food.



To adequately get your hydration needs, particularly on a hot and humid day, the American Dietetic Association suggests carrying around a bottle of water, or replacing your afternoon soft drink with water. Frozen juice bars or icy treats are also a good idea.

Water is especially important after exercise, with certain medicines, and with a high-fiber diet. Your fluid intake should be adjusted to how much water you're losing, says Finley. "Simple things like stopping at a drinking fountain when you walk by one is a good idea."

***Replacing water with energy drinks and caffeinated beverages is not a good idea. These beverages act as diuretics, and will likely make you even more dehydrated than you originally were.***

## Herbs and Supplements

Many energy products are infused with herbs that are supposed to give people an extra charge. Popular herbs include ginseng, guarana, yerba mate, *Rhodiola rosea*, and cordyceps mushroom. They also come in supplement form.

How well do they work in increasing energy? Overall, it's uncertain, says Carol Haggans, MSRD, a consultant with the Office of Dietary Supplements, a branch of the National Institutes of Health. She says the evidence ranges from suggestive (some small studies say it might help), to contradictory (results of various studies differ), to nonexistent (no scientific studies have been done).



Of the herbs used for energy, ginseng probably has the most research, but the studies are contradictory, says Haggans. Plus, she says there are different types of ginseng, and the investigators don't always make it clear what kind was used in studies.



**Asian ginseng**, also known as *Panax ginseng*, is generally known as a stimulant and has been used by older people seeking more energy, says Andrew Weil, author of *8 Weeks to Optimum Health*. The Asian variety also has a reputation as a sexual enhancer for men and has been used to improve athletic performance.

**American ginseng**, on the other hand, is used more as a tonic and is known to increase immunity over time, says Weil.

**The herbs guarana and yerba mate** are rich sources of caffeine. They stimulate the central nervous system, much like coffee does. The caffeine "may be helpful for mental alertness and possibly for weight loss," says Haggans. But there have not been many studies on the herbs, separate from the effects of caffeine.

***Rhodiola rosea*** has been used in Sweden and Denmark as an anti-fatigue supplement. There is some evidence it improves aspects of mental and physical performance, but other than that, we don't know a lot about the herb, says Haggans.

***Rhodiola* is often combined with cordyceps mushroom**, another herb that has had little scientific research. Cordyceps mushroom by itself and the combined formula of cordyceps and rhodiola have been tested on athletic performance, and the results have been contradictory.

There are benefits to taking cordyceps mushroom, says Weil. It can reportedly provide energy to older people who have been debilitated by age or illness and to young athletes who need a boost in performance.

If you are considering the use of an herb or a supplement, it's best to first check with your doctor. Some plant compounds, no matter how natural, can interact with drugs and may have some adverse effects.

Asian ginseng, for example, can raise blood pressure in those that are prone to hypertension, says Weil. Plus, Haggans says a recent study suggests the herb may reduce the effect of Coumadin (a blood thinner) and other drugs. There are also observational reports that yerba mate, when used in large amounts or for prolonged periods, may cause cancer in the gastrointestinal tract.

Keep in mind, herbs are presumed to be safe until proven harmful. They are regulated more like foods, as opposed to drugs, says Haggans. The dietary supplement ephedra, used for weight loss or athletic performance, is one example of a plant compound that was pulled from the market following numerous reports of death and injury.

### *Beating the Doldrums*

Food can, indeed, raise or diminish the body's energy levels. If you are eating healthy and are still tired, try changing the frequency of your meals. Some people find they get more of a boost with several small meals throughout the day, while others prefer the dining concept of three square meals daily. There's no right or wrong way, says Sandquist, noting that everyone's energy needs differ.

The amount of food you eat can also make a difference. If someone overeats constantly, they tend to gain more weight and become lethargic, says Finley. "It's like the snowball rolling down the hill," he explains. "As [overeaters] get more overweight, they have less energy, and then they exercise less and don't burn the calories."

Other dietary reasons for fatigue include too much alcohol (which is a depressant) and lack of certain vitamins and minerals. Low iron is a common problem for women.

If you still find yourself sluggish with a well-balanced diet, then a visit to the doctor may be in order. Certain diseases, medications, stress, and inadequate sleep and exercise can contribute to fatigue.

## Chapter 9

### How to Sleep Less and Still Feel Great

How much sleep do we really need? Of course it's very personal, but "seven to eight hours should be enough" is what we keep hearing from most sources. But is it possible to shorten this time, without hurting your health?

Indeed, sufficient sleep time is important for your body to function well during the day. Sleep helps your body to recover from illness, minimizes the effect of stress, increases ability to concentrate, and improves memory and coordination.

However, getting too much sleep is hazardous to your health -- it may lead to higher risk for obesity, diabetes, and premature death. We've been brainwashed to think we need 8 hours of sleep a night, but sleep requirements vary greatly by age, stress level, and health. In fact, research suggests 7 hours might be the ideal amount of sleep the average adult needs per night, and getting 8 or more hours can lead to increased mortality -- even more so than too little sleep!

Not only can too much sleep be bad for your health, it can rob you of your other 8 hours. If you work 8 and sleep 9, that only leave 7 hours for you to pursue your goals and live your life. Every hour, minute, and second you sleep more than you need to is a complete waste of time and your life.

Too little or too much sleep can lead to low energy and mental sluggishness. Your goal is to get an optimum amount of sleep, which I define as the least amount of sleep possible while still feeling physically energized and mentally alert.

The good news is that it is possible to shorten sleep time by up to 1 hour without the risk of sleep deprivation if you understand and follow these two simple rules.

***Rule 1. It's not just the quantity of sleep that counts, but also the quality.***

Everyone has woken up after 10 hours sleep and felt fatigue, as well as getting up after 6 hours of sleep feeling completely refreshed and rested. There are many factors that may influence how long you need to sleep to feel rested, but the rule is simple. The higher is the quality of your sleep, the smaller amount of sleep time you need. This is the first recipe in shortening your sleep time. It seems to be logical, but how you can improve the quality of your sleep?



There are a number of ways to do it but the most practical are:

- Do not eat before going to bed.
- Sleep in dark, quiet room.
- Try using a sleep optimization program. These programs work wonders for some people.
- Sleep with fresh air.
- Exercise during the day. If you don't exercise, go for a 15 minutes walk before sleeping.
- Do not watch TV in the bed before going to sleep. Read a book, take a bath, do something relaxing.
- Don't drink coffee or other stimulants within 6 hours of bed time.
- Don't take long naps (more than 30 mins) during the day.

Follow these simple tips and within one or two weeks you will notice how your sleep starts improving.

***Rule 2. Any habit can be changed, slowly.***

There is an old African proverb. "How do you eat an elephant? One bite at a time." The same is true for changing your sleep habits. When you go to sleep, how long you sleep, where you sleep — it's all part of the sleeping pattern that your body is accustomed to. Like any habit, it can be changed by taking small but regular steps.

Start waking up 5 minutes earlier every 2-3 days. In one week, you'll be waking up 15 minutes earlier. In one month, you'll be waking up 1 hour earlier! To make it even easier, you can take slower steps and extend your experiment for 2 or 3 months by shifting your sleep time by 5 minutes a week. To succeed in this experiment, you should try and go to bed at about the same time every day. It requires discipline, but result is well worth it.

So how do you know how much sleep you need? Test, test, test. Here's what to do:

**Step 1**

Start with 8 ½ hours of sleep. Make sure you get the full 8 ½ hours. No more and no less.

**Step 2**

The next day, complete the Sleep Optimization Form (see Figure 1). This is a simple form to gauge how you feel (physically and mentally) at different times during the day. Because stress, eating habits, and a host of other factors can influence our energy levels and outlook, try to keep all other variables constant (i.e., unchanged as possible).

### Sleep Optimization Form

	15 Minutes After Waking	6:00am to 8:00am	8:00am to 10:00am	10:00am to Noon	Noon to 2:00pm	2:00pm to 4:00pm	4:00pm to 6:00pm	6:00pm to 8:00pm	8:00pm to 10:00pm	10:00pm to Midnight	TOTAL
<b>SAMPLE</b>											
DAY X	2	4	5	4	3	3	2	4	5	2	34
DAY X	1	4	5	5	4	2	3	4	5	3	36
DAY X	2	5	4	5	4	3	2	4	4	2	35
DAY X	2	4	5	4	3	3	2	4	5	2	34
										<b>AVERAGE</b>	34.75
<b>TEST: 8.5 Hours</b>											
DAY 1											
DAY 2											
DAY 3											
DAY 4											
										<b>AVERAGE</b>	
<b>TEST: 8 Hours</b>											
DAY 5											
DAY 6											
DAY 7											
DAY 8											
										<b>AVERAGE</b>	
<b>TEST: 7.5 Hours</b>											
DAY 9											
DAY 10											
DAY 11											
DAY 12											
										<b>AVERAGE</b>	
<b>TEST: 7 Hours</b>											
DAY 13											
DAY 14											
DAY 15											
DAY 16											

**Scoring Key (1 to 5)**  
 5 = Feeling Energized and Alert  
 1 = Feeling Tired and Sluggish

Figure 1. Sleep Optimization Form

### Step 3

Repeat Steps 1 and 2 for four nights in a row.

### Step 4

Reduce your sleep by 30 minutes and start the sleep/test process again for four nights in a row. Keep cutting your sleep in Step 1 by 30 minutes until you reach 7 hours.

### Step 5

Analyze the data. Review your Sleep Optimization Form and identify which days you felt the best (based on higher scores). If you find that you feel good on 8 ½ hours of sleep, but you also feel good on 7 ½ hours of sleep, you've just saved yourself an hour a night and given yourself an extra 30 hours a month to create something.

If you really want to get fancy, you can test 15 minute increments (e.g., 7 hours and 45 minutes versus 8 hours). Remember, we're trying to identify the absolute minimum amount of sleep you need because every minute you aren't sleeping is another minute for you.

As you start sleeping less and less, it's crucial to remember and follow the first rule about quality sleep. This is your only way to compensate for less sleep.

Just imagine what you can do with all the free time you can get from waking up earlier. If you can manage to get one extra hour per day you'll end up with 365 hours per year — that's equal to 9 work-weeks of productive time! By utilizing this time you could learn a new language, read dozens of books (or even write some!) and start exercising regularly. Morning time is also the most productive time. No wonder the early rising habit is so common among successful people.

## Chapter 10

### Wrapping Up

In a nutshell, your first step to getting rid of daytime fatigue is to figure out what's causing it. In addition to insomnia, many other health problems can cause fatigue. These include other sleep disorders, diabetes, arthritis, asthma, and chronic fatigue syndrome.

Fatigue is also a side effect of certain medications. Make an appointment with your doctor so that he or she can assess your symptoms. If you have trouble going to sleep or staying asleep, tell the doctor. There are effective treatments for insomnia including cognitive behavioral therapy and medication. These can greatly improve how you feel and function during the day. However, you should also implement the tips given in this e-book, as they can possibly help you naturally develop better sleeping habits and help you feel energized during the day.

As always, if you have any comments or questions on this guide, please don't hesitate to contact me at my direct email address: [marc@apneatreatmentguide.com](mailto:marc@apneatreatmentguide.com). And be sure to grab the free apnea treatment reports available on my catalog site: <http://www.ApneaTreatmentCatalog.com>.

To your good health,

A handwritten signature in blue ink that reads "Marc MacDonald". The signature is written in a cursive, flowing style.

Marc MacDonald, M.Sc.  
Independent Sleep Apnea Researcher  
<http://www.ApneaTreatmentCatalog.com>



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