Sleep, Eat & Exercise

Sleep Matters

Sleep: What Students Want to Know

Video Transcript

Cianneh: Is sleeping really related to good health?
Linda: How much sleep is really necessary?
Rob: How do I know if I'm getting a good amount of sleep?
Elias: I’d like kind of to know about the eight hours of sleep that everyone says you need, if that's true. Maybe you need more, maybe you don't need that much.
Sam: I've heard toddlers need less sleep than teenagers. Is that true, and why?
Carlene: Why do I wake up at six in the morning after going to bed at three? Like, why do I wake up early when I go to bed late?

After going through this lesson, you will be able to:

- Identify the recommended amount of sleep for most adults and understand that some individuals may have different sleep needs;
- Describe the sleep cycle;
- Differentiate the five stages of the sleep cycle and what occurs during each;
- Identify the beneficial functions of sleep
- Define circadian rhythm, sleep quality, sleep latency, sleep efficiency, and the various types of insomnia;
- Recognize signs of poor sleep quality; and
- Recognize potential short- and long-term consequences of an irregular sleep schedule, poor sleep quality, and sleep deprivation.

Ideally, about a third of your time is spent sleeping, but do you ever wonder what exactly happens while you sleep?

The study of sleep is relatively new, and what takes place during sleep is not fully understood. It seems like such a basic thing, but it’s actually quite a complex process. Contrary to what many people assume, the body doesn’t just shut down during sleep. It’s hard at work processing memories,
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repairing tissue, and performing other tasks that help you function at your best while you’re awake.

So, let’s begin our journey into this somewhat familiar yet mysterious world of sleep.

There are two types of sleep: non-rapid eye movement, or NREM, and rapid eye movement, commonly known as REM sleep.

Typical sleep cycle: ~ 90 minutes

NREM sleep involves four stages and comprises 75-80% of total sleep time. The other 20-25% of sleep time is spent in REM sleep, which is considered the 5th stage in a sleep cycle. Each cycle is about 90 minutes long. How many cycles you sleep in a night depends on your total hours of sleep. For example, if you sleep 6 hours, then you go through about 4 cycles. If you sleep 9 hours, you go through about 6 cycles.

Stage 1 NREM sleep is that hazy period when you’re just falling asleep. You are in a very light sleep that can be easily disrupted. Your eyes roll slowly back and forth and your muscle tone becomes relaxed. Stage 1 lasts about 10 minutes in most people. It can be less in people who are able to fall asleep quickly, but can last much longer in those who have trouble falling asleep. Have
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you ever woken yourself up by jerking in your sleep? Maybe you felt like you were falling? This is known as a hypnic jerk and is a result of sudden muscle contractions. Experiencing these jerks is common during stage 1 and is nothing to worry about.

**Stage 2 NREM sleep typically lasts for about 10-25 minutes and lengthens during later cycles throughout the night.**
It comprises about half of an adult’s total sleep time. Heart rate and temperature drop during stage 2, which, like stage 1, is still fairly light. You can be aroused quite easily.

**Stage 3 NREM sleep typically lasts about 5 minutes and is very similar to stage 4.**
Stage 4 generally lasts about 20-40 minutes, but is longest during earlier cycles. Compared to adults, young children have longer lengths of stages 3 and 4 NREM sleep, making it harder to rouse them. **Stage 4 NREM sleep** is the deepest sleep, and you’re not likely to be aroused easily. If you are sleep deprived, your body craves this deep sleep and will try to compensate for lost sleep by getting you to stage 4 faster and keeping you there longer. This is because the deep sleep of stage 4 is when the body does most of its repair work, which we’ll discuss in more detail later in this lesson.

**The 5th stage of sleep is referred to as rapid eye movement (REM) sleep, named for the fluttering and back and forth movements of the eyes.**
REM sleep typically lasts about 5 minutes but lengthens during later cycles. It is usually easier to wake here than in stage 3 or 4 NREM sleep. In fact, brief awakenings often occur around the transitions to and from REM sleep. It’s normal to experience these during the night, particularly during later cycles. REM sleep is very important in learning and memory processing. The brain is highly active, similar to when you’re awake, which is probably why REM sleep is when the most vivid and pronounced dreaming occurs. You experience increased heart rate and blood flow to the brain, a rise in blood pressure and metabolism, a faster respiration rate, and increased oxygen consumption. You can even become sexually aroused during REM sleep. However, your body is temporarily paralyzed and you have a decreased ability to regulate your body temperature.

**You’ve probably heard the phrase circadian rhythm but do you know what it means?**
It refers to the cycle of about a day and functions as an internal or biological clock. Your circadian rhythm is governed by the suprachiasmatic nucleus—or SCN—which is a tiny bundle of cells that resides in the hypothalamus region of the
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brain. The SCN picks up cues from the retina in the back of the eyes to determine when it’s daytime and when it’s night. This directs your body’s schedule for sleeping and eating as well as producing certain hormones. **Melatonin** is the primary hormone that makes you feel sleepy. The body wants you to get sleepy when it’s dark outside and feel alert when it’s daylight, thus most people naturally feel the most sleepy between midnight and 7 a.m.

**Attempting to reset your internal clock or adjust to new cues for day and night is difficult and can take several days or weeks.** Having an irregular sleep schedule from day to day or abruptly changing your sleep-wake cycle by sleeping in late on weekends, changing shifts at work, or traveling across time zones can lead to sleepiness and potentially confusion, irritability, and even nausea. In the long run, it could increase risk of depression, heart disease, and metabolic disorders. In fact, research has shown that shift workers experience higher rates of these and other health problems such as digestive disturbances, infertility, and emotional problems¹,²

**Resources**
- The Health Risks of Shift Work

**Our sleep needs change throughout life.**

Whereas newborns and toddlers generally require about 15 hours of sleep per 24 hours, school-aged children usually need about 10, and adolescents tend to function best with about 9. The recommendation for adults is 7-9 hours of sleep per night. Review the chart on the next page to see the sleep recommendations for various ages throughout the lifecycle. The National Sleep Foundation created the chart after a panel of experts systematically reviewed over 300 current scientific publications about the topic.³

**Resources:**
- National Sleep Foundation: How Much Sleep Do We Really Need?

**Sleep Duration Recommendations**

Please return to page 7 of the online lessons or visit the [Sleep Foundation’s website](https://sleepfoundation.org) directly to calculate the efficiency of your sleep.
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**Different people have different sleep needs.**
A healthy amount for one person may not be enough for the next. For example, seven hours may be enough for your roommate to feel rested, whereas you may need nine to be at your best.

Paying attention to how you feel will help you identify how much sleep is best for you. If you often feel tired, then you may not be getting enough sleep. Or, it may be that the sleep you’re getting isn’t good quality sleep. That’s right; how long you sleep isn’t the only indicator of whether or not your sleep is good. **Sleep quality** refers to how deep you sleep during the night, how rested you feel the next day, and in general how satisfied you are with your sleep overall. Thus, the most important indicator of whether or not you’re getting good sleep—and enough of it—is how you feel and function during your awake time.

**Resources:**
* Why 7 hours of sleep a night may be all you need

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**Good Sleep**

**Video Transcript**
Carlos Schenck: Good sleep does not refer directly to how many hours of sleep you get the night before. It’s the quality of sleep as well. It’s truly how you feel and function during the daytime that is the hallmark of good sleep at night. You focus on daytime functioning globally in terms of how you feel emotionally, cognitively, how sharp you are mentally, how much energy you have.

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**It’s helpful to consider what is meant by poor sleep in order to more fully understand the concept of good sleep.**

In the research literature, **poor sleep quality** is typically defined as having one or more of the following sleep difficulties:

- spending fewer than 7 hours in bed;
- having a sleep latency of more than 30 minutes;
- experiencing more than 1 awakening throughout the night; or
- having less than 85% sleep efficiency.

**Sleep latency** refers to the amount of time it takes to fall asleep. **Sleep efficiency** is the ratio of how much time you actually sleep to how much time you spend in bed. For example, if you are in bed for 8 hours but you really only sleep for 6 of them, then your sleep efficiency is 75%—6 divided by 8.
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In addition to these objective measures, studies typically include self-reported ratings of subjective indicators such as depth of sleep, how well rested one feels upon waking, and general satisfaction with sleep.

Sleep Efficiency Calculator Interaction
Please return to page 11 of the online lessons or go directly to this Online Interaction to calculate the efficiency of your sleep.

Resource
Calculating Your Perfect and Bedtime Efficiency

Sleep Quality Quiz Interaction
Please return to page 13 of the online lessons or go directly to this Sleep Quality Quiz interaction.

Resource
Sleep quality quiz from the Sleep Center

Sleep deprivation and dissatisfaction are common in American society.
Consider adolescence. A shift in the internal clock during puberty makes it natural to fall asleep around 11 p.m. or midnight. As mentioned earlier most adolescents need about 9 hours of sleep to function at their best, which means that most adolescents who go to bed around 11 or midnight would naturally sleep until 8 or 9 a.m. However, most high schools start classes between 7 and 8 a.m. The result? Many adolescents are chronically sleep deprived. Unfortunately, this trend continues into adulthood. As people age, they tend to go to bed even later and sleep even less.

Resources
School Start Time
Examining the Impact of Later School Start Times on the Health and Academic Performance of High School Students: A Multi-Site Study

What makes it difficult to get enough sleep?
Video Transcript
Lydia: Being too busy, too many things to do—work and school and clubs.
Nikki: It is difficult to get good, adequate sleep sometimes because I have so many things going on, being a full-time student and a part-time employee.
What makes it difficult to get enough sleep? Video Transcript Cont’d…
Leo: Myself, I have two kids, so I balance my son and daughter in there, and work two jobs, and you know, girlfriend. So it's just trying to keep everybody happy.
Tonya: I would have to say right now it would be school, because there's so much going on and so much studying you have to do. So when you actually like sit down to do it, you want to finish it. So that's my problem, is when I sit down to do homework, I always have to finish it. So then I'm always up hours of the night trying to finish it, or I do a cram session, and then that's what messes me up.
Jon: You know, school itself is enough. Having to do papers, study, exams—there's just a lot of expectations and pressures. And most of the time if anything's going to get cut, it's going to be your sleep.
Nathaniel: Finding enough time to get all the studying I need done, and still get in bed at a decent enough time to where I get enough sleep, because I have to get up the next morning early enough to be at school on time. So it's kind of hard finding a happy medium between getting enough studying done and getting enough sleep. Plus I still have to work.
Paige: Where you sleep really matters. I know if I'm not in my own bed, I really don't sleep. I'm probably up every hour.
Sam: I think what makes it difficult to get good, adequate sleep is watching TV and being online on the computer late at night.
James: Being with friends, because we're always like trying to stay up late, and you don't want to go to sleep, and you lose track of time when you're with your friends.
Paige: What you were doing like before you sleep. Like if I exercise at night, I know I'm more restless.
Linda: When you work third shift. That makes it hard, when you have to sleep during the day, when that's your primary time that you have to sleep. It's a different type of sleep. If you have noises, stress—something's bothering you, you have a test or anything the next day.
Jamee: Stress makes it hard, because I feel like I have to keep doing stuff before I go to bed. Like sleep is almost a reward for getting work done.
Shawna: Basically how your day was before. Like if you had a really loaded day, sometimes I find myself not being able to sleep, because I just keep thinking about everything that I had to do today, all the things I'm going to have to do next. But if it were a really laid back day, I find it pretty easy to go to sleep.
Jessica: There have been various times where I've had difficulty falling asleep due to either anxiety or I have trouble getting to sleep after I've taken a nap during the day as well.
What makes it difficult to get enough sleep? Video Transcript Cont'd...

Sabe: A day after a hard test it's hardest to fall asleep.
Shawna: Last Thursday I had taken a final, and I had studied so much for it, and I found myself just thinking about all the questions that were still on the test and trying to answer them again in my head.
Nathaniel: Things throughout the day just keep me awake at night, just thinking and thinking and thinking. Not necessarily stressed out, just I have a really active mind.
Mark: Sometimes, if I've got a lot on my mind, I can stay awake and just think about what's going on. Or, being a theater major, I have shows coming up. I'm thinking about my lines and they just... It's hard to get them out of my head.

Operating on little sleep seems to be an expected—and accepted—part of college life for many students.

In a study of a large population of college students, it was found that, even though about 10% of students self-rated their sleep as very good and 60% fairly good, many had short sleep duration and experienced poor sleep quality. So, students perceived their sleep to be better than it actually was; this may be because they view short sleep duration and poor quality sleep as a normal college phenomenon.

Compared to non-student adults in their 20s, college students tend to go to bed later and get up earlier. According to data from the 2013 National College Student Health Survey, only one in four college students met a public health recommendation of getting adequate sleep until rested five or more days a week. Other studies have indicated that an estimated 25-50% of students get insufficient sleep during the week, and approximately one fifth of students—20%—also have short sleep duration on weekends. Further, 35% of students don’t go to sleep until 3 a.m. at least once a week, and 20% of students report missing an entire weeknight of sleep at least once a month. The result? Chronic sleep deprivation.

Quantity of sleep isn’t the only problem. Many studies suggest that college students experience a decreased level of sleep quality compared with the
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general adult population. In fact, sleep difficulties are well documented among college students. In one study, 71% reported being dissatisfied with their sleep.

A number of studies have indicated that female college students experience higher rates of sleep difficulties than male students. They generally take longer to fall asleep, experience more awakenings, and report poorer overall sleep quality. This is consistent with the gender difference found in research using samples from the general population; women tend to have poorer sleep quality than men. This may be at least partly related to higher rates of depression, anxiety, and physical complaints among women—all of which are highly correlated with poor sleep—but researchers who’ve controlled for such things have also found poorer sleep quality among women, leading to the belief that other factors—for example, social and familial ones—contribute.

Resources

Off to college, probably not off to sleep - Part 2

According to a 2011 poll sponsored by the National Sleep Foundation, sleep deprivation is a problem for about two-thirds—63%—of Americans. Many adults sleep less than seven hours per night, with 15% reporting regularly sleeping less than six hours on weeknights despite the fact that research has shown most people function best when they get seven to nine hours of sleep per 24 hours.

Many people believe that getting just one or two hours less sleep per night than needed will not have any effect on their daytime functioning, but that’s a myth. Even partial sleep deprivation contributes to decreased attention, concentration, memory, and critical thinking, and increased irritability, anxiety, and depression. Research shows that more than one in three adults experience difficulties with work and social functioning at least a few days each month due to excessive daytime sleepiness.

The most common sleep complaint is insomnia; approximately half of American adults report occasional insomnia and nearly 25% experience it nightly or almost nightly.

Insomnia is defined by how someone feels the day after having trouble falling or staying asleep or waking unusually early in the morning—unrefreshed and unrested. It often causes excessive sleepiness, fatigue, a lack of energy, difficulty concentrating, depressed mood, and irritability.
There are four categories of insomnia. **Sleep-onset insomnia** is difficulty falling asleep, **sleep-maintenance insomnia** is difficulty staying asleep, and **early-morning awakening** is waking up early and not being able to go back to sleep. **Mixed insomnia** is any combination of these three categories.

**Transient insomnia** involves isolated cases that last for a few weeks or less. **Intermittent insomnia** is the term used to describe recurring transient insomnia. Finally, **chronic insomnia** is long-lasting insomnia that occurs at least three nights per week for more than a month.

Insomnia, particularly if it’s intermittent or chronic, is more than just a minor annoyance. Let’s continue to the following pages to explore how good or poor sleep can impact our health, mood, memory, performance, and overall quality of life.

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**Is sleeping really related to good health?**

**Video Transcript**

Aby: Oh, yes it is. Believe me, if you do not sleep, it's always going to affect your health. It doesn't matter what you eat. It doesn't matter how much veggies or fruits or water you drink. If you do not get enough sleep, it's just going to break you down somehow, one way or the other. Sometimes you're not going to see it coming, but trust me, at the end of the day you're going to know something is wrong somewhere, and that's the sleep.

Ashley: There's been plenty of times when I've been sick, and just getting a couple days' worth of good rest without any medicine or anything else...made me feel a lot better. So I'd definitely say so.

Jacob: I have learned the hard way that sleeping is very important to good health, feeling good, overall mood.

Samantha: Sleep is always a beneficial thing for you, and it makes you less tired and more active during the day.

Annie: I definitely believe sleeping is related to good health. I had a goal one week in the class to make sure I got eight hours of sleep each night, and I think that was my best week ever, because I just felt so healthy and rejuvenated. And I think you also like, look a little bit better. You just look like you're not tired and you have more energy.
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Good sleep provides a solid foundation for good health.

It is just as important as a healthy diet and exercise when it comes to living a long, healthy life. After all, if you’re not well rested, you’re probably less likely to make healthy food choices and be active.

Good sleep recharges our energy supplies and repairs our bodies. For example, growth hormone is released in higher levels during stages 3 and 4—deep sleep—and this fuels growth, boosts muscle mass, and enhances the repair of cells and tissues.² Think about how these things might impact physical performance. Certainly they have a positive effect. Further, optimal sleep has been shown to enhance athletic performance.¹⁸

In a multinational study of about 17,000 University students ages 17-30, those who slept less than 7 hours were more likely to report poor self-rated health than those who slept 7-8 hours. This difference remained even after adjustment for sex, age, smoking status, physical activity level, alcohol consumption, parental education, body mass index, country of origin, depression scores, and use of health services.¹⁹

Another study among college students reporting an average of 7-8 hours of sleep per night found that sleep quality was better related to measures of health, wellbeing, and sleepiness than sleep quantity was. Poor sleep quality was correlated not only with increased levels of sleepiness but also increased physical health complaints, feelings of anxiety, depression, anger, fatigue, and confusion, as well as a decrease in positive outlook and satisfaction with life.²⁰

**People who sleep well are less likely to get sick.**
The body creates cytokines during sleep. Cytokines are cellular hormones that help the immune system fight infections. Thus, being well-rested improves the body’s ability to prevent and fight illness.² If you’re sick, resting will help your body fight the illness more efficiently.

Good sleep is important for fighting more than the typical cold, however. Chronic sleep deprivation has been linked to an increased rate of aging and risk for obesity, type 2 diabetes, cardiovascular disease, and depression.² When the body is sleep deprived, it is less able to not only prevent these diseases but also...
fight them. Further, people with disturbed sleep have higher rates of work absence due to sickness.²¹

**Sleep helps regulate appetite, energy use, and weight.**
People who sleep less typically prefer eating foods that are higher in calories and carbohydrates—for quick energy—and are more likely to be overweight or obese. For example, research comparing people who slept an average of 5 hours a night and those who slept 7-8 hours a night found that those who slept less were much more likely to become obese.² It’s believed that this is because during sleep the body produces more leptin, an appetite suppressor, and less ghrelin, an appetite stimulant. This helps regulate appetite not only while you sleep but throughout the day.

**Diabetes is a condition characterized by consistently elevated blood glucose levels.**
Normally when you eat, your blood glucose level increases. In response to this increased blood glucose level, your body releases insulin to help transport the glucose into cells for use or storage, in turn lowering your blood glucose level.

If you lack sufficient sleep, however, your body’s tolerance for glucose in the blood increases and less insulin is released to transport glucose into your cells. This decreased clearance of glucose from the blood means that your blood sugar remains higher longer, and this is a risk factor for diabetes. Thus, chronic sleep deprivation is linked with a higher risk of developing type-2 diabetes.²

**Lack of sleep is also associated with increased risk for heart disease.**
This is because the heart and vascular system won’t get sufficient rest. Blood pressure and heart rate drop by about 10% during sleep, and this gives the heart and vascular system a break. If you’re sleep-deprived, however, your blood pressure and heart rate stay elevated not only that night but also the next day. Lack of sleep also puts the body under stress the following day, thereby increasing the release of stress hormones like cortisol and adrenaline. High levels of these hormones can prevent the typical drop in blood pressure during sleep that night. It becomes a cycle.² A continuous elevation of blood pressure—also known as **hypertension**—is a primary risk factor for heart
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disease.

**Sleep impacts not just physical health, but mental health as well.**
There is a well-established link between stress and sleep. Heightened levels of stress can interfere with sleep quality by making it hard to fall or stay asleep, and sleeping poorly can lead to increased stress. Thus, it appears that each can trigger and exacerbate the other, creating a vicious cycle.

People who are sleep deprived are more likely to be moody, irritable, and impatient.\textsuperscript{22,23} Consider how this impacts social interactions and relationships. Long-term sleep deprivation has been linked to anxiety, depression, and even suicidal thinking.\textsuperscript{24,25,26}

**Resources**
- Stress & Sleep Infographic
- The Division of Sleep Medicine at Harvard Medical School

**Good sleep optimizes brain function.**
Being well-rested helps promote learning, memory, and creativity.\textsuperscript{27,28} People not only learn better after a good night’s sleep but also remember the new information better if they get a good night’s sleep after learning it. The last two hours of sleep appear to be the most important for integrating new information.\textsuperscript{9,29}

Poor sleep is associated with poor concentration, difficulty learning and processing information, and decreased ability to make decisions. In fact, studies have shown that sleeping fewer than 8 hours negatively impacts one’s performance, ability to solve problems creatively, and overall work productivity.\textsuperscript{2}

**Resources**
- Effects of Sleep Deprivation on Cognition
A Student's Story
Video Transcript
Garrett: I was kicked out of school for two reasons. I didn't sleep at night. So I didn't go to class during the day 'cause I was sleeping and two I was extremely busy with extracurricular activities that I thought I could handle but were just too much of a time commitment. Marching band everyday, fraternity stuff weekends, three nights a week especially when you're rushing. I thought I was more prepared then I really was. I thought I could handle it. I thought I could. I thought I had that support system that I had in high school and I just didn't. Sleeping is tough when you don't have a bedtime. I didn't have a bedtime even in high school, but there's a lot more work to do in college I found out. I lived in a dorm. I had to go some place to eat instead of having it at home. I had to do my homework, which 15 credits is usually about 30 hours of homework a week. And getting all that done to a point where you can go to bed and then be able to wake up for an 8:00 a.m. class or a 9:00 a.m., class I just found out I couldn't handle it. I was doing my homework at night until four o'clock, five o'clock in the morning and I made the mistake of scheduling an 8:00 a.m. class and would never wake up for it. And wake up at about three o'clock in the afternoon, go to marching band rehearsal 'cause that was the class I was most depended on as a person. I mean they were expecting me to be there for a formation or whatever, plus I wanted to go to the football games and I couldn't do that if I wasn't practicing. So then I'd normally come back from marching band and have laundry to do, more homework to do, try to eat, take a shower, have a social life, call my mother, all that stuff. I mean it just seemed like there was not a lot of time in the day. And the thing that I chose to cut back on was sleep. And it negatively affected everything.
Paul Bernhardt (videographer): How?
Garrett: Well when you don't sleep you get tired. You fall asleep in class. You wake up 20 minutes after the class has ended 'cause nobody wakes you up. You're late for your other class or you're sleeping in your room taking a nap and you oversleep or you don't hear your alarm. Not only are you stressed out because you can't do all your homework in one night but you've got your noisy roommate down the hall, who's making a bunch of noise with their friends or you stay out too late one night with a friend so you don't have time to sleep there. Classes never get postponed in college. They're always going to be on that same day at the same time and you can't change your schedule. And so that 8:00 a.m. class comes and you have to be ready for it.
Paul Bernhardt: What's one thing that you now wish that you could tell freshman you?
A Student’s Story Video Transcript Cont’d…
Garrett: Slow down. Don’t try to do everything. You have to learn how to say no. No, you need to sleep that night, you can’t go out with your friend or no laundry can wait and college is for studying. That’s what you’re there for. That’s what you’re paying all that money for. You have to be able to get a good night’s sleep in order to pay attention in class and receive the knowledge that’s going to allow you to pass exams. So if I could tell my freshman self I would definitely say, set a bedtime and stick to it. And you know it doesn’t have to be ten o’clock in the night. I mean it could be one o’clock in the morning or something like that. But have a consistent time that you always go to bed at so you can wake up at a consistent time.

Many studies have shown that sleep difficulties can significantly impair academic performance among college students. For example, later bed times and wake times, short sleep duration, poor sleep quality, and daytime sleepiness have been linked to lower GPAs. In a study investigating the effect of sleep loss on next day effort, researchers found that students who were asked to stay up all night performed more poorly on a variety of tasks as compared to their non-sleep-deprived counterparts. They read less and reported shorter attention spans, and, given the opportunity to choose tasks and problems, they selected less difficult, low priority tasks, spent less time on tasks, and left more problems unsolved. When the two groups of students were asked to rate their individual performance, the sleep-deprived students rated their performance higher than their non-sleep-deprived counterparts rated their own performance, even though the sleep-deprived students performed significantly worse than the students who had an adequate night’s sleep. Thus, the sleep-deprived students didn’t realize the impact their lack of sleep had on their performance.

So, if getting good grades is a primary objective of yours, then we suggest getting good sleep as a priority.

Productivity isn’t the only thing at stake. Lack of sleep also leads to decreased motor function and reaction time and is linked to poor decision-making and increased risk taking. Not surprisingly, accident rates are much higher among individuals with shortened or otherwise
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disturbed sleep. In fact, research using driving simulation tests has repeatedly demonstrated that people who are sleep deprived perform similarly to those who are drunk. Vehicle crashes are the leading cause of occupational fatalities, and drowsiness and falling asleep at the wheel have been cited as primary factors in these crashes; other reported factors such as driver inattention, speeding, and running off the road can also be influenced by fatigue.

Do you ever drive while drowsy? Have you ever nodded off briefly or fallen asleep while driving? Driving while drowsy is not something to take lightly. It can have catastrophic—even fatal—consequences. It puts not only yourself at risk, but others as well.

Consider these tips to avoid driving while drowsy.

- Avoid getting behind the wheel if you’re short on sleep.
- Avoid driving between midnight and 7 a.m.
- Schedule frequent breaks on long road trips or switch drivers as opposed to driving alone.
- Stop if you are having trouble keeping your eyes focused, continually yawning, or can’t recall the last few miles. Contrary to popular belief, rolling down the window or turning up the radio won’t keep you awake. And, depending on just how tired you are, caffeine may not do the trick.

Also keep in mind that being sleep deprived increases the sedating effects of alcohol and medications. In fact, one beer can affect a person as much as two or three beers if he is sleep deprived.

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Sleep Matters

Video Transcript

Annie: I think a lot of students put sleep on the backburner, and I’ve learned throughout this class that that’s not the best thing for your body, that getting enough sleep is crucial for you to be doing well in school. And it’s also really important because, if you didn’t get enough sleep, you might not have the energy to go make a healthier sandwich than you would to just pick up something that was easier.

Ashley: For me, it’s always the day after the day I didn’t get enough sleep. And then, like, it’s horrible. So you definitely want to get enough sleep, just because whenever I don’t, I get cranky, groggy. I just don’t feel like myself. So and those days are always rough.
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Sleep Matters Video Transcript Cont’d…

Jacob: It’s just hard to focus on anything. You’re just so tired and you just want to go to bed, but you know you can’t. And it’s just hard to focus and concentrate and learn anything with that kind of mindset.

Jessica: I think sleep is definitely very important. I know for myself, if I don’t get enough, I am more prone to get sick.

Annie: I think not getting enough sleep will really affect your academics because you’re not going to want to get up to that eight a.m. class or you’re not going to want to take the time to raise your hand and volunteer to do something in class and participate. So I think it makes you become more of just a bystander in everything, and getting enough sleep really boosts your energy level and allows you to participate, and it just betters yourself all around.

Resources

National Sleep Foundation
Sleep Quiz: Why You Need Your ZZZs

Lesson content created by the Rothenberger Institute in the School of Public Health at the University of Minnesota. © 2017 Regents of the University of Minnesota. All rights reserved.


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