

How Sleep Affects Your Waking Life - What Every Student Should Know

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This document describes some key facts about sleep and sleep deprivation that should be known to every student as well as the general public. The consequences of pervasive sleep deprivation and undiagnosed sleep disorders are collectively one of our nation's biggest and most serious problems. **Falling asleep at the wheel and in other hazardous situations is a leading cause of death and disability.** A single sleep disorder, obstructive sleep apnea, is now known to afflict 30 million Americans.

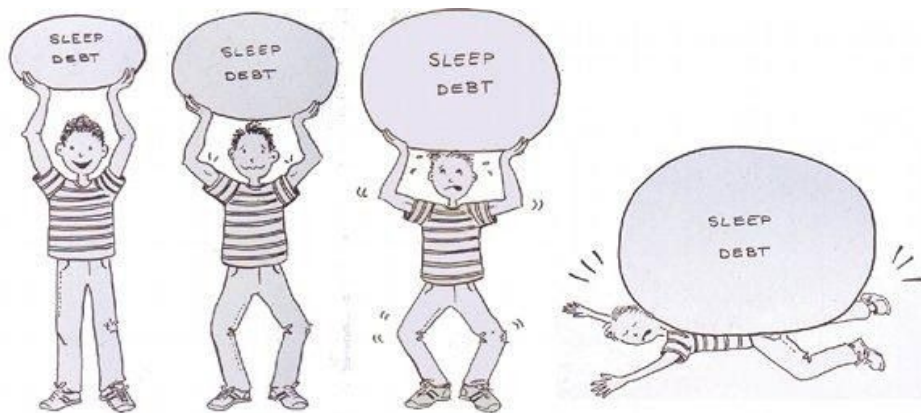
Perhaps the saddest omission of all is that most student drivers learn nothing about the dangers of drowsy driving in their training programs, and an astounding number soon die and kill others because they fall asleep at the wheel. **55% of drowsy driving fatalities occur under the age of 25.**

We must realize that we cannot be healthy unless our sleep is healthy!

How much sleep do we need? What is sleep debt?

Each of us has a specific daily sleep requirement. The average sleep requirement for college students is well over 8 hours, and the majority of students would fall within the range of this value plus or minus one hour. **If this amount is not obtained, a sleep debt is created.** All lost sleep accumulates progressively as a larger and larger sleep indebtedness. Furthermore, your sleep debt does not go away or spontaneously decrease. The only way to reduce your individual sleep debt is by obtaining extra sleep over and above your daily requirement.

As far as is currently known, nothing can change an individual's fundamental daily sleep requirement.



If you feel drowsy in any situation (e.g. a boring lecture), you have a sleep debt. If you believe that boredom, a warm room, or a heavy meal causes drowsiness, you are completely wrong! It is actually sleep debt and you need to be stimulated in order to stay awake. If you frequently feel drowsy, you almost certainly have a very large sleep debt. A large sleep debt makes us vulnerable to apathy, inattention, and unintended sleep episodes. Errors, accidents, injuries, deaths, and catastrophes can result, not to mention poor grades.

Sleep debt is the easiest debt to pay that can save your life.

America is a sleepy society.

How many Americans are seriously or dangerously sleep deprived? There is no doubt whatsoever that vast numbers of us in school, in the workplace, in the transportation industry, in a variety of service industries, and particularly, in shift work situations, are carrying a dangerously large sleep debt. In Gallup Poll surveys, 56% of the adult population reports that drowsiness in the daytime is a problem.

Drowsiness is **red alert!**



I sincerely hope that sleep deprived students will take the following advice seriously. Drowsiness is red alert! **Drowsiness is the last step before falling asleep, not the first.** Imagine what that could mean when you're behind the wheel of a car driving on the highway. **Drowsiness may mean you are seconds from a disaster.** If everyone responded as if it were an emergency when they became aware of feeling drowsy, an enormous amount of human suffering and catastrophic events would be avoided.

What is sleep?

The crucial event that occurs as we fall asleep is an abrupt shut down of the neural processes that allow us to perceive the world around us. At one moment we are awake, and can see and hear. A fraction of a second later we are asleep, and we are completely blind and completely deaf. Sleep is a behavioral state in which sensory stimulation is blocked and we cease to be conscious of the world around us. (However, the brain never sleeps!)

What are sleep disorders?

Sleep disorders (such as snoring, tooth grinding, and choking) are illnesses and disturbances of sleep that are caused by abnormalities existing only during sleep or abnormalities of specific sleep mechanisms. They can also produce symptoms during wakefulness, but are best confirmed by an examination of the patient during sleep utilizing a procedure called polysomnography, also widely known as a "sleep test."

One more time! Drowsiness is red alert!

The single most important thing to remember from this document is that **drowsiness means you are seconds away from sleep.** Seconds away from sleep may mean seconds away from death. If you are behind the wheel, just a few seconds of sleep can lead to a catastrophic disaster. Many freshmen may not do very much driving, but if you are a passenger, pay attention to the person who is driving. Recently, my limousine driver fell asleep at the wheel. If I had not been paying attention, I would not be here today. All this can be avoided with one simple rule:

Immediately STOP any potentially dangerous activity when you feel drowsy.

Encourage others to do likewise. Learn to be sensitive to your level of drowsiness. Being sensitive to your sleep tendency and responding appropriately may save your life.

According to the National Highway Traffic Safety Administration, drowsy driving results in around 100,000 automobile wrecks each year and that number is conservative, for fatigue often plays a major role in many accidents where it is not officially documented.



The ultimate cost of sleep debt is a driver falling asleep at the wheel. 80% of these accidents end up fatal, and they happen far too often.

Sleeping tips

Melatonin is a hormone that the body produces on its own and that plays a role in sleep. Melatonin levels rise about two hours before bedtime. Most people make enough melatonin, however, there are steps you can take so that you work with, and not against, your melatonin cycles. Create optimal conditions for it to do its job by keeping the lights low before bed. The following tips can help to get a good night's sleep:

- ergonomic pillows
- a cool dark room (avoid the glare of TV, computer, tablet and cellphone within 30 minutes of bedtime)
- a warm bath 90 minutes before bedtime (shower does not help)
- no daytime naps (except to catch up on sleep debt)
- no alcohol or caffeine within 4 hours of bedtime
- no heavy meal within 2-3 hours of bedtime; a light snack is fine
- exercise helps, but not within 2 hours of bedtime
- get exposure to some daylight in the morning and afternoon
- sleep aids and supplements may be taken on doctor's advice

If sleep has not come in 20 minutes, it is best to sit quietly in the dark or read something dull, like the warranty on the refrigerator, until the eyelids close.

You can try a supplement on a short-term basis if you're experiencing insomnia, want to overcome jet lag, or are a night owl who needs to get to bed earlier and wake up earlier, such as for work or school.

Determine your own sleep requirement and best practices.

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Sources:

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