Sleep and Your Brain

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Most college students pull all-nighters more than two times a month. They also get less sleep than they need approximately 1 out of every 3 nights. What are the effects of sleep deprivation on your brain, and on your ability to perform well in your classes?

As you might expect, the effects are serious. But it's difficult for most people to understand how serious. Here's part of the problem: 24 hours of sleep deprivation significantly affects fatigue and confusion. But—and this is the confusing part—it has little effect on mood states.

So if you stay up all night, scientific evidence demonstrates that you'll be physically and mentally exhausted, and unable to perform your best academically. But at the same time you might *feel* alright, which could lead you to think that all-nighters are perfectly acceptable.

Be careful about making this kind of assumption! Studies show that college students consistently overrate their ability to concentrate and perform academically when lacking sleep. Most students simply aren't aware of the degree to which sleep deprivation impairs their ability to complete cognitive tasks successfully.

DID YOU KNOW?

Studies have shown that after 19 consecutive hours or more without sleep, performance on tests is equivalent to that at a blood alcohol concentration of 0.1%.

In other words, if you pull an all-nighter, your cognition is no better than if you were legally drunk!

So what can you do about it? Think about trying some or all of the following strategies for a good night's sleep.

1. Go to bed and get up at the same time every day, including weekends. A regular routine keeps you in step with your biological rhythms and helps you make it through an entire day without needing a nap.

2. Exercise regularly, especially if you can fit in a workout late in the afternoon. Most people find exercising close to bedtime makes sleep more difficult.

3. Avoid stimulants. Using alcohol, caffeine, and cigarettes are likely to result in sleeplessness.

4. We all have the ability to fall asleep; it's hardwired into our brains. But trying to **force** ourselves to sleep often has the opposite effect. So if you can't sleep, try to alter your location: get out of bed, and find something soothing or boring to do.

5. Avoid naps whenever possible. They make it harder to fall asleep at night.

6. Try to find a quiet place to sleep. Noisy environments disturb even the soundest sleepers. Wear ear plugs if you have to.

7. Try to reserve your bedroom for sleeping only. If possible, watch TV, eat, study, etc. somewhere else. Otherwise, you'll associate your sleeping place with stimulating activities.

8. Practice some sort of relaxation technique; examples include meditation, biofeedback, and deep breathing. Another good technique is alternately tensing and relaxing your muscles for several minutes.

Understanding Body Clocks

Your body clock is a tiny cluster of nerve cells in the center of your brain; it relies on sunlight to keep you synchronized with planetary time. The quality of your sleep depends on how well your body clock is synchronized. For example, if you go to bed every night at 11 pm and get up every morning at 7 am, you'll probably find yourself becoming sleepy and waking close to those times automatically, even if you don't set an alarm clock.

This happens because our bodies have the ability to keep their own time. In fact, we have two major internal timing systems. The first is set by the light-and-dark cycle of the day. When you eyes sense the sun, for example, they tell your brain it's time to wake up. The second system regulates your body temperature; it naturally rises during the day and drops during the night. This temperature clock is reset through the routine of waking, sleeping, and possibly eating. Because we do these activities on day-to-night cycle, the two biological clocks typically run in synch.

If your body clock is out of synch, it's very hard to feel rested, no matter how much you sleep. The good news is that it's possible to reset your body clock. Try getting up at the same time every day for a week, no matter what time you go to bed. Chances are you'll soon find getting up easier. And the longer you get up at the same time, the better your body clock will work.