



43% of Americans Damage Their Brain by Making This Mistake

Posted By [Dr. Mercola](#) | June 01 2011 | 8,314 views

Crazy Art Ideas, the website linked below, contains a number of facts about sleep you might not ever have heard of. For example:

- Men dream about other men 70 percent of the time; women dream about men and women equally
- A quarter of married couples sleep in separate beds
- You can only dream about faces you have already seen, whether you are aware of this or not
- Koalas sleep 22 hours a day; giraffes sleep less than 2 hours a day
- 12 percent of people dream only in black and white -- although that number was higher before the invention of color TV

To learn more amazing sleep facts, click on the link below.

Sources:

- » [Crazy Art Ideas](#)



Dr. Mercola's Comments:

While the featured article is jam-packed with obscure and amusing tidbits about sleep, this comment will focus on more serious matters. Sleeping well is one of the cornerstones of optimal health, and if you ignore your poor sleeping habits, you will, in time, pay a price.

Unfortunately, sleep deprivation is such a chronic condition these days that you might not even realize you suffer from it. According to the National Sleep Foundation's (NSF) 2010 "[Sleep in America Poll](#)," few Americans get sufficient amounts of sleep. Only four in 10 respondents said they got a good night's sleep every night, or almost every night, of the week.

[This year's NSF poll](#) specifically explored the connections between communications technology and sleep patterns. Forty-three percent of Americans still reported "rarely or never" getting a good night's sleep on weekdays, but amazingly, 20 percent reported being awakened by phone calls, text messages or email at least a few nights a week, and a whopping 95 percent reported using some type of electronic device within an hour of going to bed.

Over the years, scientists have discovered just how far-reaching the effects of sleep deprivation can be, and more recently, they've started bringing attention to the detrimental effect technology has on sleep. Clearly, if you're being awakened by incoming emails and voice mails, you may want to consider turning these contraptions off...

Because as you will see, poor sleeping habits and sleep deprivation can have far-reaching effects on everything from your weight, to your physical-, mental- and emotional health and well-being.

How Sleep Influences Your Physical Health

Without good sleep, optimal health may remain elusive, even if you eat well and exercise

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(although those factors will tend to improve your ability to sleep better).

One of the explanations for why the health effects of sleep deprivation and sleep disruption are so numerous is that the circadian system "drives" the rhythms of biological activity *at the cellular level*. Hence disruptions tend to cascade outward throughout *your entire body*.

For example, interrupted or impaired sleep can:

Dramatically weaken your <u>immune system</u> .	Increase your risk of cancer, and accelerate tumor growth: When your circadian rhythms are disrupted, your body produces less melatonin (a hormone and an antioxidant), which <u>decreases your ability to fight cancer</u> , and promotes tumor growth.
Increase your risk of heart disease.	<u>Harm your brain</u> by halting new cell production. Sleep deprivation can increase levels of corticosterone (a stress hormone), resulting in fewer new brain cells being created in your hippocampus.
Aggravate or make you more susceptible to stomach ulcers.	Contribute to a pre-diabetic state, making you feel hungry even if you've already eaten, which can <u>wreak havoc on your weight</u>
Raise your blood pressure.	Contribute to premature aging by interfering with your <u>growth hormone production</u> , normally released by your pituitary gland during deep sleep (and during certain types of exercise, such as <u>Peak Fitness Technique</u>). Growth hormone helps you look and feel younger.
Worsen constipation.	<u>Increase your risk of dying from any cause.</u>

Furthermore, according to a report in the *Journal of the American Medical Association (JAMA)*, lack of sleep can further exacerbate other serious and chronic diseases, such as:

Parkinson disease (PD)	Alzheimer disease (AD)	Multiple sclerosis (MS)
Gastrointestinal tract disorders	Kidney disease	Behavioral problems in children

Sleeping Well Matters if You're Struggling with Your Weight

Disturbed sleep can also impair your ability to lose excess pounds or maintain your ideal weight. Research has shown that people who sleep less than seven hours a night tend to have a higher body mass index (BMI) than people who get more sleep. This is likely the effect of altered metabolism, because when you're sleep deprived, leptin (the hormone that signals satiety) falls, while ghrelin (which signals hunger) rises.

In one study, researchers found that people who received only four hours of sleep a night for two nights experienced:

- 18 percent reduction in leptin
- 28 percent increase in ghrelin

This combination leads to an increase in appetite.

Additionally, sleep-deprived subjects tend to eat more sweet and starchy foods, opposed to vegetables and dairy products. Researchers have suggested that these sugar cravings stem from the fact that your brain is fueled by glucose (blood sugar); therefore, when lack of sleep occurs, your brain starts searching for carbohydrates to keep going.

If you're chronically sleep deprived, consistently giving in to these sugar cravings will virtually guarantee that you'll gain weight.



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Furthermore, sleeping less than six hours per night can also radically decrease the sensitivity of your insulin receptors, which will raise your insulin levels. This too is a surefire way to gain weight as the insulin will seriously impair your body's ability to burn and digest fat. It also increases your risk of diabetes. In short, sleep deprivation puts your body in a pre-diabetic state, which can lead to plummeting health...

Your Mental- and Emotional Health also Hinge on Optimal Sleep

As mentioned earlier, the circadian clock—the biological cycles of waking and sleeping—affects biological activity at the cellular level, and this includes your brain.

Hence sleep also has a tremendous impact on your mental- and emotional state.

For example, [a study published earlier this year](#) found that mice whose sleep cycles were disrupted not only got fatter, but also showed less mental flexibility and were more impulsive than mice kept on their natural schedule. The authors found changes in metabolic hormones, and "loss of dendritic length and decreased complexity of neurons in the prelimbic prefrontal cortex, a brain region important in executive function and emotional control."

It appears this loss of emotional control applies to humans as well. According to the National Sleep Foundation, a national epidemic of sleepiness is one of the primary contributing factors of road rage.

Sleep disturbances and sleep deprivation can also affect your:

- **Short term memory:** Your circadian clock controls your daily cycle of sleep and wakefulness by alternately inhibiting and exciting different parts of your brain through regulating the release of certain neurotransmitters. The part of your brain known as the hippocampus must be excited in order for the things you learn to be organized in such a way that you'll remember them later.

If your internal clock isn't functioning properly, it causes the release of too much GABA. According to a [previous study](#), an excess of GABA inhibits your brain in a way that leads to short term memory problems and the inability to retain new information.

- **Creativity and learning performance:** Proper sleep enhances performance, learning and memory by [improving your creative ability](#) to uncover novel connections among seemingly unrelated ideas.
- **Your emotional resilience and ability to release stress:** Good sleepers and poor sleepers experience about the same number of daily minor stressful events, but good sleepers are less disturbed by them.

Poor sleepers experience both their minor and major life events as being more negative than do those who sleep well.

- **Your overall mood and mental stability:** Sleep deprivation can lead to symptoms of depression, and can even cause changes in your brain activity similar to those experienced by people with psychiatric disorders.

How Much Sleep Do You Need?

It's important to remember that chronic lack of sleep *has a cumulative effect* when it comes to disrupting your health. You cannot skimp on sleep on weekdays, thinking you'll "catch up" over the weekend. What's needed is consistency.

Generally speaking, adults need between six and eight hours of sleep every night. However, there are plenty of exceptions. Some people feel fine on as little as five hours a night, while others need as much as nine or 10 in order to feel at their best.

The amount of sleep you need can also drastically change depending on circumstances. For example, most people need more sleep when feeling ill, or during emotionally stressful times. Pregnant women also typically need more sleep than usual during the first trimester.

My advice is to carefully and sensitively *listen to your body*. If you feel tired when you wake up, you probably need more sleep. Frequent yawning throughout the day is another dead giveaway that you need more shut-eye.

Optimizing Your Sleep Sanctuary

There are many factors that can influence your sleep, but one that many fail to consider is the use of light-emitting technology, such as your TV and computer, before going to bed. These emit the type of blue light that will suppress melatonin production and hamper your ability to fall asleep. Ideally, you'll want to turn them off *at least* an hour prior to bed time.

Next, making sure your bedroom is ideally suited for sleep can also go a long way to ensure restful and uninterrupted sleep:

1. **Cover your windows with blackout shades or drapes to ensure complete darkness.** Even the tiniest bit of light in the room can disrupt your internal clock and your pineal gland's production of melatonin and serotonin. Even the faint glow from your clock radio could be interfering with your sleep.

Also close your bedroom door, get rid of night-lights, and refrain from turning on any light during the night, even when

getting up to go to the bathroom. If you have to use a light, install so-called "low blue" light bulbs in your bedroom and bathroom. These emit an amber light that will not suppress melatonin production.

2. **Keep the temperature in your bedroom at or below 70 degrees F (21 degrees Celcius).** Many people keep their homes and particularly their upstairs bedrooms too warm. Studies show that the optimal room temperature for sleep is quite cool, between 60 to 68 degrees F (15.5 to 20 C). Keeping your room cooler or hotter can lead to restless sleep.

When you sleep, your body's internal temperature drops to its lowest level, generally about four hours after you fall asleep. Scientists believe a cooler bedroom may therefore be most conducive to sleep, since it mimics your body's natural temperature drop.

3. **Check your bedroom for electro-magnetic fields (EMFs).** These can disrupt your pineal gland and the production of melatonin and serotonin, and may have other negative effects as well.

To do this, you need a gauss meter. You can find various models online, starting around \$50 to \$200. Some experts even recommend pulling your circuit breaker before bed to kill all power in your house.

4. **Move alarm clocks and other electrical devices away from your head.** If these devices must be used, keep them as far away from your bed as possible, preferably at least 3 feet.

If you're feeling anxious or restless, try using the Emotional Freedom Technique (EFT), which can help you address any emotional issues that might keep you tossing and turning at night.

For even more recommendations and guidelines that can help you improve your sleep, please see my article [33 Secrets to a Good Night's Sleep](#).

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