

Get your ZZZ and *Stay Healthy:* *How Poor Sleep Makes You Sick*

By Theona Layne



Like food and water, the body needs sleep to function at optimum levels. Unfortunately, these days, getting a good night's rest is as rare as finding cheap rent in Manhattan. Many things contribute to poor quality sleep, but insomnia is the most likely culprit. According to the American Academy of Sleep Medicine, a staggering 10 percent, or roughly 31 million Americans, suffer from chronic insomnia.

Another reason for sleep deprivation is simply staying up too late. Thomas Edison unknowingly had a hand in our modern war against insomnia. "Before the invention of the light bulb, the average night's sleep was nine hours a night. Now it's six hours a night," says Dr. Jacob Teitelbaum, Medical Director of the National Fibromyalgia and Fatigue Centers, Inc. and author of the best-selling book *Fatigued to Fantastic*.

Regular sleep, preferably 7-8 hours, keeps the body's natural circadian rhythm in check. The circadian rhythm, or the body's internal clock, tells the body when to wake up, when to sleep, and even when to eat. But there's a deeper connection between circadian rhythm and sleep. As it turns out, sleep is the body's primary defense against disease.

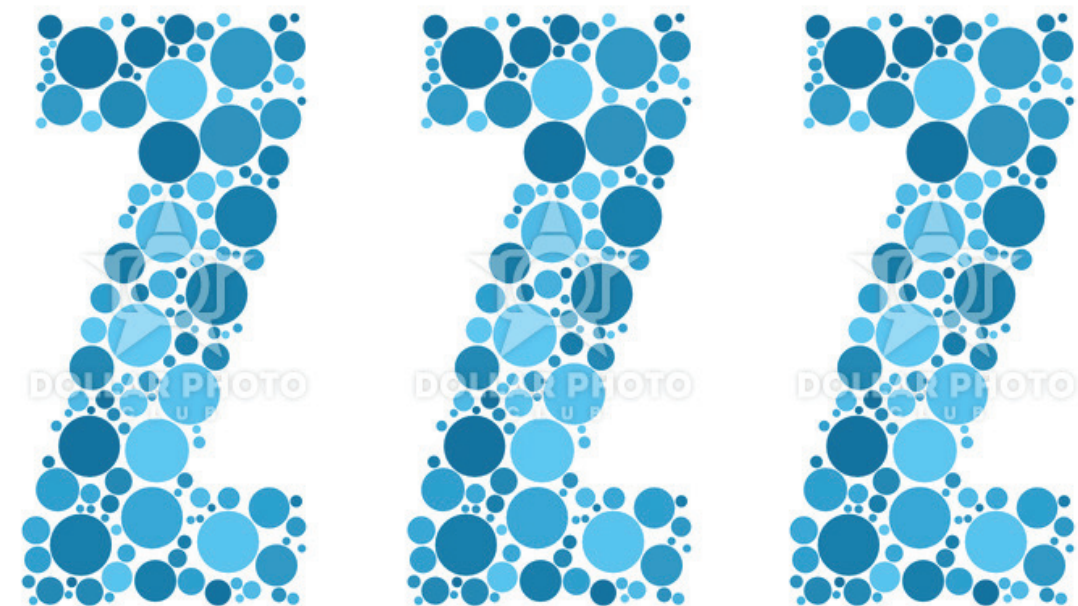
"Every disease can be worsened by poor sleep," says Carolyn Dean, MD, sleep and nutrition expert and author of *The Magnesium Miracle*. Numerous scientific studies back up Dean's claim and link chronic sleep deprivation to illnesses like diabetes, Alzheimer's disease and even cancer.

In a recent study published in *Current Biology*, women who get poor sleep are more likely to develop breast cancer compared with those who get regular sleep. In the study, scientists divided lab mice genetically prone to developing breast cancer into two groups. Scientists took one group of mice and exposed them to regular cycles of light & dark, simulating a normal sleep/wake cycle in humans. Then, scientists exposed mice in the second group to irregular periods of light & dark. Mice in the first group developed breast cancer a full two months before the other group of mice.

The body makes cancer cells, and it's the immune system's job to fight them off. "When a person doesn't get enough sleep, cancer cells grow too fast, and the immune system isn't able to destroy them," says Teitelbaum. The *Current Biology* study also provides some evidence of poor sleep and its link to weight gain. The sleep-deprived mice tended to be 20 percent heavier than their well-rested comrades.

In addition to weight gain, scientific studies claim there's a link between sleep deprivation and glucose intolerance, an early indicator of diabetes. Poor sleep interferes with fat metabolism by slowing insulin's ability to regulate blood sugar. If the body can't normalize blood sugar levels, weight gain is almost inevitable. And to make matters worse, if the body can't manage blood sugar efficiently, diabetes typically isn't far behind. The diabetes epidemic continues to skyrocket. In the United States, there are 29 million people with the disease and an astounding eight million who don't even know they've already developed diabetes.

Another illness linked to poor quality sleep is Alzheimer's disease. Alzheimer's disease is the sixth largest cause of death in the U.S. with a new case developing every 67 seconds. Researchers at the University of Wisconsin-Madison found that people with sleep disturbances tend to have higher amounts of amyloid deposits in their brain. These amyloid deposits clump together in the brain and form a plaque that over time blocks signaling between neurons. Eventually, these deposits trigger inflammation that further destroys brain cells. One function of sleep is to repair the body by flushing the brain of harmful toxins; this includes excess beta-amyloid proteins. While sleep isn't a cure for Alzheimer's, it does play a part in lessening symptoms of the disease and according to research, plays a big role in Alzheimer's prevention.



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Changing Your Habits

With all the science linking disease development to sleep disturbances, getting a proper night's sleep is more essential than ever. But in today's caffeine-infused, technology obsessed world, how is this done? One way to get a better night's sleep is by sticking to a regular bedtime. The body's peak hours of repair are between 10 at night and 2 in the morning, so hitting the sack by 10 pm, or 11 pm at the very latest, is key for cell rejuvenation and immune strengthening.

Avoid watching any adrenaline inducing TV shows and movies before bedtime to make falling asleep easier. Wearing a black eye mask before hitting the hay helps keep light from reaching the brain, which can happen even if the eyes are closed. Dr. Carolyn Dean credits magnesium and melatonin as important weapons in the war against sleep deprivation. Magnesium is a fantastic natural muscle relaxant while the brain produces melatonin, a chemical that helps us sleep. According to Dean, a 2-3 mg dosage of melatonin is best. By the way, exposure to light during bedtime lowers melatonin production.

Further, a recent clinical study says 30-minute naps can help the body recover by reversing the negative hormonal impact of a poor night's sleep. Study participants who got less than six hours sleep a night had twice the amount of stress hormones circulating in their blood compared with participants who got six or more hours of shut-eye. After two 30 minute naps, participants' stress hormones, blood pressure, and immunity levels returned to normal. "Lack of sleep decreases immunity," says Teitelbaum, "and that's why insomniacs tend to have immune dysfunction."

There are plenty of reasons for not getting enough sleep. Whether it's endlessly browsing social media, spending countless hours in front of the TV, or just good old-fashioned insomnia, experts agree: poor sleep quality can result in serious health consequences. To review: Stick to a regular bedtime as much as possible. Kick technology out of the bedroom. Twitter, Facebook, and YouTube will still be there in the morning!