

## Sleep Impacts Obesity, Diabetes and Safety, By David A. Buczek, MA

We all have heard the warnings about “burning the candle at both ends” and how this can make us susceptible to catching a cold or to making mistakes. Well, unlike other urban legends, this one is true, and science shows us a clear link between sleep and our ability to live life fully charged, stay healthy and remain safe.

Many of us live extremely busy lives and often cut our sleep short for a night or two during the week and then catch up on the weekend by sleeping in. But, if we get less than the eight hours or so of sleep that we all need on a regular basis, we can't really catch up completely with only a few extra hours of sleep on the weekend. So, we start the cycle again the next week with our “sleep bank” already in the red because we are carrying an accumulated sleep debt. This chronic sleep restriction opens us up to potential health and safety consequences.



Obesity can be one consequence of not getting enough sleep. Recent studies show a direct link between restricted sleep and changes in body weight. The reason is tied to two peptides in our brain that regulate our appetite. Ghrelin stimulates our sense of hunger and leptin helps us know when our hunger is satisfied. When we don't get the proper amount of sleep, we experience decreased levels of leptin and increased levels of ghrelin. Therefore, we experience a stimulated appetite, and not only that, but we end up craving high-fat, high carbohydrate foods. As a result, people who sleep less than six hours a night are about 30 percent more likely to become obese than those getting seven to nine hours of sleep.

Another consequence of not getting our proper rest is that it increases our risk of contracting a number of serious health problems. People with sleep disorders and chronic sleep loss may experience the following:

- Insufficient sleep may lead to Type 2 diabetes. Research studies show that people who are sleep restricted process glucose more slowly, and that people who sleep less than five hours per night have a greatly increased risk of developing diabetes.
- Insufficient sleep may lead to heart disease and hypertension. Research studies indicate that just one night of insufficient sleep in people with hypertension resulted in increased blood pressure the next day, and that there is a direct correlation between poor sleep and cardiovascular disease and stroke.

- Insufficient sleep may lead to reduced life expectancy. Considering the many ways that insufficient sleep can impact our ability to live life fully charged, it is not surprising that research studies show that those of us who sleep less than five hours each night have a 15 percent greater mortality risk from all causes.

And, if obesity and increased health risks were not sufficient reasons to place a priority on our sleep, insufficient rest and increased sleepiness causes accidents. Some of the major industrial accidents of all time were associated with the reduced sleep of those involved, including the Three Mile Island nuclear accident, the Exxon Valdez oil spill and the Chernobyl nuclear meltdown. Closer to home, drowsy driving causes 100,000 crashes and 1,550 deaths on our roads and highways each year. And accidents and incidents at work increase, as do more sick days per accident, when sleep deprivation intrudes into our workplace.

So, make a commitment to not burn the candle at both ends. Make good choices about your sleep and wake schedule that enable you to get about eight hours of sleep each night. Not only will you wake more refreshed and ready to go, but you will improve your ability to live life fully charged by warding off illness and reduce your risk of accidents both on and off the job.

You can learn more about the impact of sleep on your health by visiting the *Fully Charged* website.  
([https://my.faa.gov/org/linebusiness/ato/safety/fully\\_charged.html](https://my.faa.gov/org/linebusiness/ato/safety/fully_charged.html))



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