

HEALTH & WELLNESS / LIFESTYLE

Take a Nap

Andrew Rader, LAc, MS

It is like finding a hole in the universe. A door nobody else knows about. You swing it open and crawl through into the streets of a small town. You pass the barbershop. The pharmacy. The bank. The grocery. Maybe a row of grain elevators on the edge of town. All the houses are white. People are sitting out on their porches as if they've been expecting you. They wave and say a few words. Some ask you to come up and visit for a time. They want to know what you were doing before you fell asleep and what you plan on doing when you wake up. They're fascinated by it all. Sleep is the sole religion of this town. Icons of their reclining saints are everywhere. On Sundays, even the infirm gather their pillows and blankets and walk to church to lie down on the pews and worship their great and slumbering god. It's a pleasant place, you almost hate to leave. - "Afternoon Nap" by David Shumate

What do Winston Churchill, Napoleon Bonaparte, Albert Einstein, Leonardo Da Vinci and John F. Kennedy all have in common, other than that they are all men? They all took regular afternoon naps. Our culture has a problem with sleep in general and napping specifically. In our quest for ever-increasing productivity, a nap and early bedtime are frowned upon. We are multitasking and doing "one more thing" until late into the night. However, the tide may be beginning to shift. Arianna Huffington, in an article titled "Sleep Challenge 2010: Women, It's Time to Sleep Our Way to the Top. Literally." put out a challenge to women this past January to get "a full night's sleep" each night for one month. Unfortunately, it was sold on the concept that more sleep makes women more productive, but it was a step in the right direction. Practitioners of holistic medicine know how critical sleep is to our overall health, but do we really get it?

There is evidence to suggest that naps are part of evolutionary biology for humans, especially the afternoon nap. Napping in the afternoon is common to many cultures, toddlers and the elderly. Perhaps, in the tropics, it was a mechanism to take us out of the fierce noonday sun. Diurnal patterns show a drop in temperature in the mid afternoon, concomitant with a drop in energy. Some attribute this lull to post-pyramidal narcolepsy but it doesn't really happen after breakfast or dinner. Solo yacht racers average about five hours of sleep in a 24-hour cycle by taking multiple naps. Farley Mowat, when living with the wolves in Canada, found that if he slept like they did, he did quite well. The wolves would nap for a while, then be active, and then nap again. Periods of activity interspersed with short naps allow time for deep sleep. There is enough evidence to suggest that biphasic or even polyphasic sleep patterns (one or two periods of sleep per 24 hour cycle) are beneficial whether or not nighttime sleep is adequate.

The National Sleep Foundation states that in 1910, the average American slept nine hours per night. By 1975, that number had dropped to 7.5 hours/night. Today, it is closer to seven hours/night. Discussing hours of sleep each night is only one small part of the picture. In addition to hours, or quantity, there is of course, quality of sleep, or what is now called sleep intensity. What is most important is time spent in deep sleep, when the slow brain wave sleep occurs. For people with sleep apnea, or who wake very easily, these deeper levels of sleep are often lacking. We intuitively know the benefits of deep sleep, but more and more, we are learning the mechanics of the physiology behind these benefits.

Let's look at how sleep affects memory. In a study done by Dr. William Fishbein and Hiuyan Lau at City University of New York a group of 20 native English speakers were taught Chinese words made of two characters that all related to women; words such as sister, mother, aunt, etc. Half the group then took a monitored nap so that no REM sleep occurred. The naps were about 90 minutes long. The whole group then took a multiple-choice test that quizzed them on new characters/words that involved combining some of the characters previously learned with new ones. The new words were characters matched up with characters from the first group signifying "woman." The group that took the nap did significantly better. You don't need to take a 90-minute nap to benefit. Even a brief nap can be helpful.

In another experiment involving memory and sleep, Wisconsin researchers would interrupt deep sleep with a beep that would not wake the sleeper, but prevent deep sleep. Those who had interrupted deep sleep did not do as well remembering a task they had learned the day before compared to a group who had uninterrupted sleep.

Dr. Dennis McGinty of the University of California at Los Angeles believes that the hippocampus is affected when deep sleep is affected and new cells are hindered from growing enough to affect memory weeks after sleep returns to normal. He tried to replicate sleep apnea in rats. He hooked them up to brain monitors and for 12 nights whenever they reached deep sleep, they would be awakened. These rats, even after two weeks of uninterrupted sleep did not do as well with learning mazes as the control group who had never been awakened. What this means is that a certain level of deep sleep is needed for learning and memory to work efficiently.

Sleep is directly related to weight as well. It works in both directions. Weight gain is tied to poor sleep, and being overweight contributes to poorer quality sleep. The *Journal of the American Medical Association* and *Lancet* have published articles associating sleep loss to increased hunger by affecting cortisol metabolism. Loss of deep sleep is tied to reduced levels of growth hormone. In addition, sleep loss leads to higher levels of blood sugar, which, in turn leads to insulin resistance, perhaps the foundation of metabolic syndrome. In fact, sleep loss is a major risk factor for type 2 diabetes. Loss of weight will reduce sleep problems. An Australian study showed that for more than 300 obese patients who received a surgical procedure for weight loss, their snoring, sleep apnea, daytime sleepiness and insomnia all improved.

When patients come to us with fatigue, deficient *qi* patterns, depression, diabetes, memory loss and weight issues, we must remember the importance of good sleep has in these conditions. As the TV repair person will first check to see if the TV is plugged in, so we must first check in with our patients' sleep habits. Unfortunately, sleep issues are not so easily addressed, as it involves multiple factors of human behavior. We don't really have herbs or points that can change a habit directly, so we might tend to overlook sleep hygiene. Unfortunately, until sleep is adequately addressed, many health issues may be difficult to fully resolve. So please pay attention to sleep.

APRIL 2010