

Snooze, ...OR You Lose!

by Sherry Martina

It's too bad we can't accrue sleep like we do money. Imagine the possibilities if we could spend all summer accumulating large sums of zzz's. We could deposit all those rejuvenating REM's in a snooze account to draw on during the school year as needed. Cramming all night for that math test or project due the next day would simply require the appropriate debit card and a minimum balance of eight zzz's. No longer would we have to pay for all nighters with fuzzy thinking and bleary eyes. The benefits of a good night's rest would literally be a dream come true.

From the looks of my many of students and my own bleary-eyed reflection more mornings than I'd like to admit, we're no strangers to the practice of overdrawn when it comes to sleep, or to making large deposits of zzz's when the balance in our snooze accounts reach dangerously low levels. That's what weekends are for. I think the majority of us know what we need to do to maintain balance in our lives. Eat right, log 8 hours of sleep, sneak in some physical activity that goes beyond walking from one class to the next. It's just our stunning and constantly high-speed lives are tough to give up at the end of the day. We seem to thrive on cramming more into a single day than Crayola has crayons, hoping to color our world with everything from adventure to advancement, fortitude to attitude. It makes great copy for Facebook. Time is the enemy, the only obstacle to a world delivered in daily doses of endless possibilities awaiting our perusal. We're like my two-year-old grandson railing against the inevitable when bedtime arrives, reluctant to let go our toys. We dine from a menu of buffet proportions available 24-7, feasting on life with an appetite to match our burgeoning desires and waistlines, our own reality surpassing anything reality TV has to offer. Since Thomas Edison invented the light bulb and turned night into day, we've pushed the envelope of practicality and sensibility to get ahead, and stay ahead. From mundane to must-have, we're often too willing to forfeit healthy eating, adequate sleep, and daily exercise so our day can go from black and white to Technicolor. Stimulated beyond boredom, is it any wonder we suffer insomnia when we finally succumb to the inevitable need for sleep?

Actually, unlike adults, teens do have a built in excuse for insomnia. According to the National Sleep Foundation, teens' circadian rhythm means their peak hours are from 11 am to 11 pm. So that's why my mathematical breakfast of champions goes untouched most mornings! All kidding aside, I conducted my own extremely small and very biased study yesterday on the relationship between sleep deprivation and academic performance. I divided the members of my first hour calculus class into two groups – those who appeared sleep deprived week after week versus those who appeared rested and alert. I then computed the overall average for each group since second semester began. The difference between the two groups was a staggering 10 percentage points. There is plenty of solid evidence to support my humble findings.

MRI brain scans show that information absorbed by the brain during the day is essentially placed in what we might call a temporary holding tank. During sleep, the

information absorbed during the day is processed and relocated to permanent storage in different parts of the brain. That process involves all stages of the sleep cycle, essentially meaning that when we deprive our brain the time needed during sleep for processing, we are literally impacting retention and IQ. The more you learn in a day, the more sleep you need that night. Some scientists are even theorizing that ADHD may have origins in early sleep problems.

Amazingly sleep scientists using newly developed technology can now isolate and measure the impact of a single lost hour of sleep. Dr. Avi Sadeh of Tel Aviv University is one of the leading authorities in the field. For 6th graders involved in his field study, the performance gap created by just three hours of sleep deprivation was bigger than that between a 4th grader and a 6th grader. In other words, the 6th graders performed at a 4th grade level when operating with just one less hour of sleep for 3 consecutive nights. Another study by Dr. Kyla Wahlstrom of the University of Minnesota involved 7000 high school students in Minnesota. She found teens who received A's average 15 more minutes of sleep a night than those who earned B's. B students managed on average 11 more minutes of sleep than C students, who in turn clocked 10 more minutes of sleep than D students. Wow, every single minute of sleep really does count! The results were startling enough to prompt the school board in Edina, Minnesota to delay the start of school from 7:25 am to 8:30. In the year before the delayed opening, the top 10% of Edina's student body averaged 1288 on the math and verbal portions of the SAT. The results the next year for the same top 10% was 1500. Wow, my 10 percentage points are looking like pretty reliable data right about now. In Lexington, Kentucky, where the opening of school was also delayed, the rate of teen automobile accidents dropped 16% while the rest of the state saw a 9% increase. Pretty impressive data! I'll pass it along to the administration.

Oh, and did I mention that on average, children who sleep less are fatter than children who sleep more. According to a University of Texas study, an adolescent's odds of obesity went up 80% for each hour of sleep lost. For years all those hours in front of the television seemed a logical explanation for the rise in childhood obesity since the 70's, particularly given the decline in physical activity. But kids today, on average, watch only 7 minutes more of television than they did 40 years ago. And if that's not enough to get you thinking about the benefits of maintaining some balance in your life, consider this! Mounting evidence shows a positive relationship between higher achievement and higher levels of fitness, with the correlation greatest in the field of mathematics. Simply stated, move it, or lose it!

It takes commitment and discipline to balance our wants with our needs. Naperville North is a think tank of professionals and students, the majority of whom are very high achievers. I thrive on your hopes and dreams and the challenges that come with providing an educational experience that will insure you personal success. You strive to meet the educational expectations of your parents and teachers. We all struggle 24-7 to keep pace, to maintain our balance while walking the thin line between outstanding and mediocre. As high achievers, we are especially vulnerable to the lure of those wee hours in the morning. Don't go there. Snooze, or you lose! At the very least, I've given you something to think about today. Go home tonight and sleep on it. At least 8 hours.