

SIMPLE CHANGES THAT MAKE AN IMPACT: IMPROVING SLEEP HABITS

"A good laugh and a long sleep are the best cures in the doctor's book." – Irish Proverb

High quality, adequate sleep might be the most understated health habit that can make a tremendous impact on the well-being of your employees. Today's society is busier and more connected with technology than ever before, and is sleeping less and less. In the 1960s, the average American slept between seven and eight and one-half hours of sleep nightly, while today 50% of the population gets less than seven hours a nightⁱ. Sleeping adequately should be considered as essential to well-being as food and water. The Centers for Disease Control and Prevention realizes the importance of proper rest and has identified inadequate sleep as a public health epidemicⁱⁱ. Share this information with your employees and empower them to invest in their health by making adequate sleep a priority.

Why is proper sleep so important?

- Sleep is the body's way to reset itself. Getting the recommended amount of sleep, seven to nine hoursⁱⁱⁱ, helps the body to perform more efficiently.
- Adequate sleep improves memory and mental processing, which helps productivity and rational thinking.
- Getting enough sleep boosts immunity. People who sleep less than seven hours a night are almost three times more likely to contract the common cold.iv
- Adequate sleep helps maintain weight and can aid in weight loss. Research shows that swapping an hour of television time for more sleep contributes to a weight loss of more than 14 pounds a year.
- When you sleep more, you make better eating choices. Adequate sleep increases the digestive hormone, leptin, an appetite suppressor, and decreases the hormone ghrelin, which increases hunger.
- Children with adequate, high quality sleep are more active, eat healthier and perform better in the classroom. ix,x,xi

What happens when we are sleep deprived?

- Sleep deprivation causes increased hunger and more consumption of calorie dense, high-carbohydrate foods, resulting in weight gain.xii
- Research shows that losing 90 minutes of sleep reduces alertness in the daytime by nearly one-third^{xiii}, which can negatively impact productivity and safety.
- Driving while sleep deprived is as hazardous as driving while drunk. Four hours of lost sleep creates as much driving impairment as a six pack of beer. An entire night of sleep loss is equivalent to a blood alcohol level of .19xiv, more than twice the legal limit in Indiana.
- Consistent sleep deficits can age us mentally for four to seven years^{xv} and impair overall mental ability.

Create an optimal sleep environment

- Sleep in a room a few degrees cooler than you are accustomed to during the day. Our bodies naturally regulate our core temperature to be cooler when we sleep and warmer during waking hours.**
- Be cautious during your final hour before bedtime. Using technology, eating or drinking can disrupt sleep. **vii,**viii.Instead, try listening to relaxing music or reading a book.
- Use background or white noise to counteract unexpected sounds that might startle you out of sleep, such as fans or sound machines.xix Just be certain you can still hear critical noises like fire alarms or your children crying out.
- Be mindful of indoor lighting. Artificial light suppresses levels of melatonin, the hormone that regulates sleep and wake cycles.
- Keep lights bright during the day with blinds open and lights designed to imitate natural daylight. These lights emit more blue light from the spectrum, which slows the production of melatonin and assists with alertness.**
- In the evening, use warm or yellow colored lighting, which helps produce more melatonin.xxi



- Be cautious of the lighting used in your bedroom and try to keep it minimal. Avoid bright overhead lighting, and consider eliminating nighttime television in your bedroom. Try to break yourself of falling asleep with the television on, as the lighting can impact sleep quality.xxii
- Consider the light your alarm clock emits. Bright lights can disrupt sleep and can increase anxiety if the time of lost sleep is evident. Turn clocks over or remove them from the bedside if they are disruptive.

Make the most of your morning

- Hitting snooze makes you lose! Studies show that repeatedly hitting snooze during your final hour of sleep does not count toward your quality hours of sleep. Try to set your alarm for the latest possible moment to get the highest quality of sleep---then get up right away.
- If hitting snooze continues to be a problem, place your alarm clock out of arm's reach so you have to physically get out of bed to shut it off.
- Prepare the night before. Give yourself more time for sleep and do everything you can to prepare for the day the night before. Take time to lay out clothes, pack a healthy lunch and prepare all your workday essentials. Allowing yourself more time for rest and avoiding last minute rushing will help you set the tone for a more relaxed and balanced start to the day.

Using this information in the workplace:

Low cost or no cost

- Include this information as a monthly topic in wellness-themed publications.
- Make this topic part of a quarterly challenge focused on simple changes that last.
- Tailor this information for a lunch and learn presentation.
- Consider any formal or informal processes to encourage work-life balance for employees. Example: Checking company email is discouraged after 9pm.

Getting the adequate amount of sleep is as necessary for good health as food and water. Yet, this is often the first thing sacrificed in the busy lives of your employees. Provide them the education and awareness about the topic, and cultivate a work environment that is conducive to getting enough high quality sleep. Remember, an extra hour of sleep is not a loss of productivity, but a positive investment in our health.

Recommended reading:

Eat Move Sleep by Tom Rath | website: www.eatmovesleep.org

For more information on this topic, or suggestions on potential speakers to bring into your organization, contact the Wellness Council of Indiana Helpline at (317) 264-2168. Stay tuned for more *Simple Changes that Make a Big Impact*.

¹ Brody, Y. (2013). Losing Sleep in the 21st Century. Psychology Today. Retrieved from http://www.psychologytoday.com/blog/limitless/201305/losing-sleep-in-the-21st-century

[&]quot;Centers for Disease Control and Prevention (2013). Insufficient Sleep is a Public Health Epidemic. Retrieved from http://www.cdc.gov/features/dssleep/

iii Schwartz, T. (2011, March 3). Sleep is more important than food. Harvard Business Review Blog Network. [Web log]. Retrieved from http://blogs.hbr.org/schwartz/2011/03/sleep-is-more-important-than-f.html

iv Cohen, S., Doyle, W. J., Alper, C. M., Janicki-Deverts, D., & Turner, R. B. (2009). Sleep habits and susceptibility to the common cold. Archives of Internal Medicine, 169(1), 62–67. doi:10.1001/archinternmed.2008.505

^{*} Sivak, M. (2004). Sleeping more as a way to lose weight. Obesity Reviews, 7(3), 295–296. doi:10.1111/j.1467-789X.2006.00262.x

vi Susman, E. (2012, June 11). Sleepy people make bad food choices. MedPage Today. Retrieved from http://www.sciencedaily.com/releases/2011/06/110614101120.htm

vii Spiegel, K., Leproult, R., L'Hermite-Balériaux, M., Copinschi, G., Penev, P. D., & Van Cauter, E. (2004). Leptin levels are dependent on sleep duration: Relationships with sympathovagal balance, carbohydrate regulation, cortisol, and thyrotropin. Journal of Clinical Endocrinology & Metabolism, 89(11), 5762–5771. doi:10.1210/jc.2004-1003



- viii Taheri, S., Lin, L., Austin, D., Young, T., & Mignot, E. (2004). Short sleep duration is associated with reduced leptin, elevated ghrelin, and increased body mass index. PLoS Medicine, 1(3). doi:10.1371/journal.pmed.0010062
- ix Gruber, R., Cassoff, J., Frenette, S., Wiebe, S., & Carrier, J. (2012). Impact of sleep extension and restriction on children's emotional lability and impulsivity. Pediatrics, 130(5), e1155–e1161. doi:10.1542/peds.2012-0564
- * Stone, M. R., Stevens, D., & Faulkner, G. E. J. (2013). Maintaining recommended sleep throughout the week is associated with increased physical activity in children. Preventive Medicine, 56(2), 112–117. doi:10.1016/j.ypmed.2012.11.015
- xi Golley, R. K., Maher, C. A., Matricciani, L., & Olds, T. S. (2013). Sleep duration or bedtime? Exploring the association between sleep timing behaviour, diet and BMI in children and adolescents. International Journal of Obesity, 37(4), 546-551. doi:10.1038/ijo.2012.212
- xii Lack of sleep? Keep away from the buffet. (2013, February 20). ScienceDaily. Retrieved from http://www.sciencedaily.com/releases/2013/02/130220084701.htm
- xiii Manber, R., Bootzin, R. R., Acebo, C., & Carskadon, M. A. (1996). The effects of regularizing sleep-wake schedules on daytime sleepiness. Sleep, 19(5), 432–441.
- xiv Sleepy drivers as dangerous as drunk ones. (2012, May 31). Foxnews.com. Retrieved from http://www.foxnews.com/health/2012/05/31/study-sleepy-drivers-equally-as-dangerous-as-drunken-drivers/
- ** Ferrie, J. E., Shipley, M. J., Akbaraly, T. N., Marmot, M. G., Kivimäki, M., & Singh-Manoux, A. (2011). Change in sleep duration and cognitive function: Findings from the Whitehall II Study. Sleep, 34(5), 565–573.
- xii Doheny, K. (2010, March 29). Can't sleep? Adjust the temperature. WebMD. Retrieved from http://www.webmd.com/sleep-disorders/features/cant-sleep-adjust-the-temperature
- x^{wii} O'Connor, A. (2012, September 10). Really? Using a computer before bed can disrupt sleep. New York Times: Well. [Web log]. Retrieved from http://well.blogs.nytimes.com/2012/09/10/really-using-a-computer-before-bed-can-disrupt-sleep/
- xviii Wood, B., Rea, M. S., Plitnick, B., & Figueiro, M. G. (2012). Light level and duration of exposure determine the impact of self-luminous tablets on melatonin suppression. Applied Ergonomics, 44(2), 237-240. doi:10.1016/j.apergo.2012.07.008
- ** Zhou, J., Liu, D., Li, X., Ma, J., Zhang, J., & Fang, J. (2012). Pink noise: Effect on complexity synchronization of brain activity and sleep consolidation. Journal of Theoretical Biology, 306, 68–72. doi:10.1016/j.jtbi.2012.04.006
- ** Chellappa, S. L., Steiner, R., Blattner, P., Oelhafen, P., Götz, T., & Cajochen, C. (2011). Non-visual effects of light on melatonin, alertness and cognitive performance: Can blue-enriched light keep us alert? PLoS ONE, 6(1), e16429. doi:10.1371/journal.pone.0016429
- Gooley, J. J., Chamberlain, K., Smith, K. A., Khalsa, S. B. S., Rajaratnam, S. M. W., Van Reen, E., Zeitzer, J. M., Czeisler, C. A., & Lockley, S. W. (2011). Exposure to room light before bedtime suppresses melatonin onset and shortens melatonin duration in humans. Journal of Clinical Endocrinology and Metabolism, 96(3), E463–E472. doi:10.1210/jc.2010-2098
- xxii Falchi, F., Cinzano, P., Elvidge, C. D., Keith, D. M., & Haim, A. (2011). Limiting the impact of light pollution on human health, environment and stellar visibility. Journal of Environmental Management, 92(10), 2714–2722. doi:10.1016/j.jenvman.2011.06.029
- wiii Heaner, M. (2004, October 12). Snooze alarm takes its toll on a nation. The New York Times. Retrieved from http://www.nytimes.com/2004/10/12/health/12snoo.html