

“Sleeping in the Swamp”

Sleep Improvement Program Script

This presentation was created in by Robbie Gerke, a health education intern for GatorWell Health Promotion Services at the University of Florida, under the supervision of Jane Emmerée, Ph.D., CHES. It has been adapted from the STEPS II Program with permission from Franklin C. Brown, Ph.D., Department of Psychology, Eastern Connecticut State University. Contact Jane Emmerée at emmeree@ufl.edu or 352-392-1161 ext. 4281 with questions or comments. Special thanks to Healthy Gators 2010, GatorWell Health Promotion Services, the College of Health and Human Performance, and WUFT/WJUF-FM.

S1: Title Slide

Welcome to Sleeping in the Swamp, a program designed to help you create healthy sleeping habits and improve the quality of your sleep.

S2: Objectives

College students are notorious for developing poor sleep habits while at college, and they have a much higher rate of sleep difficulties than other adults,¹⁻³ but the good news is that there are many proven ways to improve sleep habits. For about the next 15 minutes, I am going to tell you why it is important to have good sleep habits in college, the impact that sleep problems can have on your grades and life, how to have good sleep habits, and what to do if you are having problems with your sleep.

S3: College Students’ Sleep Patterns

Many students often say they crammed for hours the night before a test and complain to their professors that they studied all night and still had trouble on the test. Students also complain about morning classes, avoiding them if possible, and then sleep in on days they don’t need to get up. The average student goes to bed and wakes up two hours later on the weekend than during the week^{1,2}, and these sleep habits can lead to long-term sleep difficulties and poor sleep quality. In recent studies,^{1,2} about 90% of college students reported regular sleep difficulties, and the average sleep length for college students has decreased by more than an hour since 1969.⁴ Further, the college lifestyle itself seems to be impacting students’ sleep habits. Compared to the average adult, twice as many students report symptoms of Delayed Sleep Phase Syndrome, which consists of sleep-wake cycles that shift later and later over time, often resulting in less class attendance and lower grades. One study found that without a sleep treatment intervention, students’ sleep quality became worse over the semester, but those who participated in a sleep education program like this one demonstrated consistent sleep qualities throughout the entire semester.⁵

S4: Affects of Good Sleep Habits

Many students believe if they only sleep six hours every night they will adjust to it. People who get more than six hours of sleep per night have faster reaction times and thinking speed,⁶ both of which are important in academic life, athletics, and leisure pursuits.

Good sleep habits can even increase your ability to learn new things and remember them later. Why does this occur? As it turns out, one of the purposes of sleep is to organize and store information learned during the day so it is easier to recall at a later time. This reorganization and memory storage seems to occur during dream sleep. Studies⁷⁻⁹ have found that the longer the amount of dream sleep, the better people perform on recently learned knowledge tests.

In addition to your grades, good sleep habits can positively impact your life as well. Good sleep quality in college students is related to less depression, fewer mood swings, less irritability, better concentration, and greater life satisfaction.¹⁰ Habitually tired students tend to report greater frequencies of negative mood and more marijuana and alcohol use.¹¹

S5: Sleep and Academic Performance
So you may be wondering, “What’s the big deal? All I have to do is drink some caffeine if I feel sleepy or go back to bed after class and everything will be fine.” Unfortunately, research shows otherwise.¹² Two groups of students were given a test that measured critical thinking abilities and attention. One group of students stayed up all night before the test and the other group slept eight hours before the test. The group who stayed up all night rated their performance on the test higher than the students who slept before the test. However, the students who got a full night’s sleep actually performed better on the test. This is probably why some of you believe you did fine on a test after staying up all night to study but are shocked when you get a lower grade than expected.

S6: Sleep and GPA
By now you’re probably starting to realize that getting a consistent nights sleep might be a good idea, but just in case you need a little more convincing, here is proof that sleep has a direct impact on your grades. One study¹³ showed that sleep had a greater impact on grade point average than exercise, nutrition, mood state, perceived stress, time management, or any other variables tested.

S7: Sleep and GPA
Another study¹⁴ showed that students with grades of C or lower reported about 25 minutes less sleep per night and going to bed about 40 minutes later than students reporting As and Bs. One reason this may be true is that while you sleep your brain goes through a process called memory consolidation. This is where the things you learned during the day are consolidated and stored in memory. By depriving yourself of sleep you prevent this process from occurring, and this helps explain why pulling an all-nighter to cram for a test is a bad idea.

S8: The Importance of Consistent Sleep
Having a *consistent* sleep schedule is just as important as the *amount* of sleep. Research shows that students who shift their sleep schedules two hours earlier or later, or sleep two hours shorter or longer than normal, have the same problems as those who sleep less than six hours a night. Namely, they report depressive symptoms, lower sociability, and more frequent concentration and attention difficulties.¹⁵

Another common myth is that people can adjust to unusual sleeping patterns. People with chronic irregular sleep-wake cycles do not adjust but continue to have low levels of energy, emotional distress, slower reaction times and a general decline in alertness¹⁶. In other words, if you have an option of sleeping later than normal to get eight hours or more of sleep or of getting up after only six hours but sticking to your regular wake-up schedule, it is better to stick to your schedule. Attempting to make up for lost sleep will disrupt your sleep schedule and you will have trouble getting back to sleep at your normal time. Staying up late on the weekend is why many people hate Monday mornings, besides having to go to work or class.

These are just a few examples of the importance of consistent sleep habits and good quality sleep. Many other examples and discoveries about the impact of sleep on our daily lives are being made all the time. The main point is that sleep can clearly impact your life in many areas.

S9: Tips for Consistent Sleep
Now I’m going to talk about ways to have consistent sleep. The following tips are ways you can improve your sleep quality. Research indicates that following these guidelines can improve sleep quality much more than medications.^{16, 17}

1. Wake up within an hour of your normal wake-up time everyday, including weekends. This establishes a regular wake time. If you sleep late every time you go to bed late, you will find your bed and wake time shifting later each day. It is much better to have a consistent schedule and sleep approximately the same amount at the same time each night.

2. Expose yourself to sunlight or other bright lights in the morning. You become and stay sleepy when your biological clock releases the hormone melatonin into your body, and bright light stops the flow of melatonin. Without exposure to bright light, many people's bodies do not completely stop the flow of melatonin and this is also why many people feel sleepy or depressed on cloudy days.

3. Avoid taking naps. If you do take a nap, limit it to less than an hour early in the afternoon. If you have difficulty falling asleep, or go to bed late and wake up at your normal wake-up time, you will naturally feel sleepy during the day. Taking a long nap late in the day may cause you to have difficulty falling asleep at your normal bedtime.

4. Do not go to bed until you are drowsy. If you go to bed without being sleepy, you might toss and turn and worry about not falling asleep, which makes your body more aroused and makes it even harder to get to sleep. This can become a habit and lead to sleep problems. Some people worry that waiting until feeling sleepy is not realistic since they have to wake up at an early hour the next morning, but if you get up at the same time each day your body will become tired enough that after several nights you will be able to fall asleep at your scheduled bedtime.

These first four tips will give you a consistent sleep cycle. Remember, sleeping later than normal may be as detrimental, or even more detrimental, as getting only a short number of hours of sleep. Sleeping late can mess up your sleep routine for several days, whereas, not getting enough sleep will only bother you that day.

S10: Tips for Improving Sleep

Now that you have the tools for consistent sleep, here are some tips for improving the quality of your sleep.

1. Exercise regularly but not within two hours of bedtime. Exercising in the morning or afternoon may be a good way to counter feelings of sleepiness because it wakes you up through physiological arousal; however, this same arousal may keep you from falling asleep if you exercise too close to your normal bedtime.

2. If you usually snack before bedtime, have a light carbohydrate snack with a small amount of fluid, such as milk. Going to sleep hungry is not comfortable, but at the same time you do not want to eat or drink too much because it may cause you to get up and go to the bathroom in the middle of the night.

3. Avoid alcohol later than two hours before bedtime. Although alcohol may help you relax and fall asleep, it leads to restless, non-restorative sleep, and you will tend to wake up during the night as it wears off.

4. Avoid caffeine within six hours prior to bedtime. Caffeine is a stimulant for all people—even for those who claim they do not feel any different after ingesting it—and it can interfere with the natural sleep cycle. So if you are having sleep difficulties, check the ingredients of evening medications, beverages, or food that you eat before bedtime to see if one of them may be the culprit.

5. If you are a smoker, avoid smoking within two hours of bedtime. Like caffeine, nicotine is a powerful physical stimulant. Your mind may feel more relaxed after a cigarette but you are more physically aroused. Higher physical arousal makes it more difficult to fall asleep. If you are looking for a reason to quit smoking and have sleep problems, this may be a good time to think about quitting. You can find more information on how to stop smoking, visit the Healthy Gators 2010 website at www.healthygators.hhp.ufl.edu.

S11: Tips for Controlling Your Sleep Environment
Next are some ways to control your sleeping environment.

1. Don't use your bed or bedroom for any activity other than sleep or sex. This will ensure you associate the bedroom with sleeping. If you begin to associate your bed or bedroom with other activities, it will be difficult to fall asleep and/or stay asleep. You should not watch television, read, talk on the phone, worry, argue with your significant other, or even eat in bed. This may be difficult to follow if you live in a residence hall, but try to at least limit your activity on your bed to relaxing activities. For example, if you are having a heated discussion on the phone, try not to do it while lying on your bed.

2. Lie down intending to sleep only when sleepy. If you go to bed when you're not sleepy, you will associate your bed with feeling frustrated about not being able to fall asleep. If you are unable to fall asleep after about 15 minutes, get up and go into another room. If you are in a residence hall, get out of bed and do something non-sleep related, but that is relaxing. Return to bed only after you feel sleepy.

3. Make your bedroom easier to sleep in and have a bedtime routine. Each night do the same routine in the same order. This will prepare your body for sleep and you will associate these activities with bedtime. Turn down the lights, make sure your bed is comfortable, and minimize noise. Use earplugs if your neighbors are noisy. Uncomfortable sleeping environments raise your physiological arousal and decrease your chances of falling asleep or staying asleep.

4. If you awaken in the middle of the night and cannot fall asleep within 15 minutes, get out of bed and do something else that is relaxing until you feel sleepy again. Lying in bed trying to fall asleep can lead to worrying about sleep. This worry can lead to associating your bed with stress and anxiety, making it even harder to fall asleep. Getting out of bed ensures you only associate your bed with sleep.

You now have all the tools necessary to improve the quality of your sleep. By following these tips, you should begin to see an improvement not only in your sleep, but in your grades and other areas of your life as well.

S12: Campus Resources

If you think you may be having sleep problems, consider making an appointment with your primary health care provider. If you want more information about getting on a regular sleep schedule, there are several resources on campus. If you are a UF student, you can meet with a health educator at GatorWell Health Promotion Services or a counselor at either Student Mental Health Services or the Counseling Center. You can also find relaxing pod casts under the Mental Health and Stress Relief section of the Healthy Gators 2010 website under Tools and Self-Assessments.

S13: Local Resources

Some local resources include the Sleep Clinic at Shands at UF and Sleep Studies at Shands at AGH. Call them for more information.

S14: Web Resources

In addition to campus and local sources, you can also find information online at WebMD, the Mayo Clinic, and the National Sleep Foundation.

S15: In conclusion, remember the following key points: do everything you can to associate your bed with sleep and sex only; consistency is essential to your sleep schedule; good sleep habits are linked to better academic performance; and even small changes to your sleep schedule can have a big impact on your life and grades. Be sure to check out the other sleep-related links including sleep assessments, creating your own behavior plan, and printing the Sleeping in the Swamp handout. Thank you for watching this presentation.

References Cited

1. Brown FC, Buboltz WC, Soper B. Prevalence of delayed sleep phase syndrome in university students. *College Student Journal* 2001;35:472-476.
2. Buboltz WC, Brown F, Soper B. Sleep habits and patterns of college students: a preliminary study. *Journal American College Health* 2001;50:131-135.
3. Lacks P, Rotert M. Knowledge and practice of sleep hygiene techniques in insomniacs and good sleepers. *Behaviour Research Therapy* 1986;24:365-368.
4. Hicks RA, Pellegrini RJ. The changing sleep habits of college students. *Percept Mot Skills* 1991;72:1106.
5. Brown FC, Buboltz WC, Soper B. Development and evaluation of the Sleep Treatment and Education Program for Students (STEPS). *Journal of American College Health* 2006;54(4):231-237.
6. Hicks RA, Gilliland M. Habitual sleep duration and the premature decline of aging-sensitive abilities in young adults. *Bulletin of the Psychonomic Society* 1981;18:305-308.
7. De Koninck J, Lorrain D, Christ G, et al. Intensive language learning and increases in rapid eye movement sleep: evidence of a performance factor. *International Journal of Psychophysiology* 1989;8:43-47.
8. Karni A, Tanne D, Rubenstein BS, et al. Dependence on REM sleep of overnight improvement of a perceptual skill. *Science* 1994;265:679-682.
9. Smith C, Lapp L. Increases in number of REMS and REM density in humans following an intensive learning period. *Sleep* 1991;14:325-330.
10. Pilcher JJ, Ginter DR, Sadowsky B. Sleep quality versus sleep quantity: relationships between sleep and measures of health, well-being and sleepiness in college students. *Journal of Psychosomatic Research* 1997;42:583-596.
11. Jean-Louis G, Von Gizycki H, Zizi F, Nunes J. Mood states and sleepiness in college students: influence of age, sex, habitual sleep and substance use. *Perceptual and Motor Skills* 1998;87:507-512.
12. Pilcher JJ, Walters AS. How sleep deprivation affects psychological variables related to college students' cognitive performance. *Journal of American College Health* 1997;46:121-126.
13. Taub JM. Behavioral and psychophysiological correlates of irregularity in chronic sleep routines. *Biological Psychology* 1978;7:37-53.
14. Wolfson AR, Carskadon MA. Sleep schedules and daytime functioning in adolescents. *Child Development* 1998; 69:875-887.
15. Taub JM, Berger RJ. Acute shifts in the sleep-wakefulness cycle: Effects on performance and mood. *Psychosomatic Medicine* 1974;36:164-173.
16. Lichstein KL, Riedel BW. Behavioral assessment and treatment of insomnia: a review with an emphasis on clinical application. *Behavior Therapy* 1994;25:659-688.
17. Murtagh DRR, Greenwood KM. Identifying effective psychological treatments for insomnia: A meta-analysis. *Journal of Consulting and Clinical Psychology* 1995; 63:79-89.

Other Articles and Studies on Sleep:

- Brown FC, Buboltz WC, Soper B. Relationship of sleep hygiene awareness, sleep hygiene practices, and sleep quality. *Behavioral Medicine* 2002;28(1): 33-39.
- Carpenter S. Research confirms the virtues of 'sleeping on it.' *Monitor on Psychology* 2001;32(9). Retrieved at: <http://www.apa.org/monitor/oct01/toc.html>.
- Carpenter S. Sleep deprivation may be undermining teen health. *Monitor on Psychology* 2001;32(9). Retrieved at: <http://www.apa.org/monitor/oct01/toc.html>.
- Curcio G, Ferrara M, Gennaro L. Sleep loss, learning capacity and academic performance. *Sleep Medicine Reviews* 2006;10:323-337.
- Kelly, W. Sleep-length and life satisfaction in a college student sample. *College Student Journal* 2004;38:428-430.
- Machado ERS, Varella VBR, Andrade MMM. The Influence of Study Schedules and Work on the Sleep-Wake Cycle of College Students. *Biological Rhythm Research* 1998;29:578-584.
- Trockel MT, Barnes MD, Egget DL. Health-related variables and academic performance among first-year college students: implications for sleep and other behaviors. *Journal of American College Health* 2000;49:125-131.