

**Patient Information:**

- **SLEEP: How Much Do I Need?**
- **Sleep Cycle**
- **Getting Better R. E. S. T. Tips**
- **Do I Have Insomnia?**

## Sleeping Well

### Why do I need sleep?

- ◆ Sleep is considered food for the brain and is just as important as good nutrition and exercise. It is essential to health, a good immune system, mood, and longevity.
- ◆ Sleep is when the body does most of its repair work. During sleep a number of essential hormones are released including those that regulate energy, affect growth and metabolism, and other regulating bodily functions. The body's energy supply is replenished and muscle tissue is rebuilt and restored.
- ◆ Sleep is necessary for adequate cognitive and physical performance as well as a positive mental equilibrium.

### How much sleep do I need?

- ◆ Studies have proven that most adults need between 7 -9 hours of sleep.
- ◆ The amount of sleep each person needs is an individual requirement which can be determined by assessing how a person feels throughout the day. If a person frequently feels drowsy or sleepy during the day they are not fulfilling their sleep requirements.
- ◆ Falling asleep during...
 

<input checked="" type="checkbox"/> Class	<input checked="" type="checkbox"/> Reading
<input checked="" type="checkbox"/> Studying	<input checked="" type="checkbox"/> Sitting at the computer

...are not signs that the material is boring, these are signs that you are sleep deprived! These symptoms may also mean you have an underlying medical condition or sleep disorder. If sleepiness persists after an adjustment in your sleep schedule, consult your practitioner or counselor.

### Try this during the next break from classes...

The best way to determine how much sleep you need is to go to bed at the same time each night and get up without an alarm clock for a week. After the first few days it takes to make up for any sleep debt you may have had, you should find that you begin to wake up at a consistent time feeling rested. This is the amount

### Are you sleep deprived?

If you answer yes (  ) to more than three of the following questions you are probably sleep-deprived:

#### In the past 2-3 weeks...

- I fall asleep five minutes after my head hits the pillow at night.
- I drink caffeinated beverages, such as coffee, tea, or soft drinks, during the day to stay alert and often have an alcoholic beverage at night to relax.
- Getting up in the morning is not easy. I sleep through my alarm or turn it off and go back to sleep.
- I am easily irritated by minor upsets or am grumpy with loved ones, roommates, or coworkers because I am tired.
- I have trouble keeping my eyes open when I drive in the late afternoon or at night.
- I have trouble concentrating and even nod off occasionally during the late after-noon and evening.
- I would participate in more social activities or hobbies if I weren't so tired.

#### In the past 6 months...

- I've had two or more bouts with the common cold, flu, and/or other minor health nuisances.

### What can happen if I don't get enough sleep?

Sleep cycle disruption can significantly reduce cognitive and physical performance:

- ◆ Memory is consolidated during sleep. When taking a test the sleep deprived student is much more likely to make errors. Even a two hour reduction in the sleep cycle can significantly reduce the amount of information retained in a study session the night before an exam. Much of what was read or studied earlier in a late night cram session may be lost due to a short night's sleep.
- ◆ Lack of sleep contributes to difficulty completing tasks, concentrating, and making decisions. In fact, a lack of concentration and sleep is the cause of more than 100,000 car crashes each year.

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- ◆ Sleep deprivation can weaken the immune system, decreasing the body's ability to resist disease. Recent research suggests that consistent lack of sleep contributes to the aging process and diabetes. In the sleep deprived state it is difficult for the body to keep blood sugars stable, making the sleep deprived person prone to insulin resistance and weight gain. Sleep debt may also reduce the amount of necessary regulating hormones released during a normal sleep cycle and activate the inflammatory system leading to a variety of problems including heart disease.
- ◆ The sleep deprived state will hinder fitness gains in strength, speed, and agility.
- ◆ Emotions are another factor influenced strongly by lack of sleep. We lose our ability to manage stress, and begin to feel depressed, irritable, and angry. When sleep deprived, over-reactions to situations and outbursts are more common.

## *What is sleep debt and how do I get out of it?*

- ◆ Sleep debt = the loss of an adequate amount of sleep necessary for proper functioning.
- ◆ Those depriving themselves of the hours of sleep they need owe their body the sleep that they have lost.
- ◆ Sleep debt can only be paid off by physically sleeping. No amount of willpower can overcome the body's strong need for sleep. It is suggested that the body needs the sleep it loses on an hour per hour basis. For example, if a body is deprived three hours of sleep one night, a person must sleep three extra hours of sleep to make up for the loss.
- ◆ Sleep debt accumulation can cause fatigue, difficulty making decisions or solving problems, anxiety, increased chance of making errors, grumpiness & irritability, anger, difficulty concentrating, decreased ability to take tests, dark circles & bags around the eyes, inadequate muscle repair, coordination, and strength, increased risk of an accident while driving, weakened immune system, decreased ability to regulate energy & hormones, decreased ability to recall information or pay attention in class. If sleep debt continues over an extended period of time it can contribute to heart disease, diabetes, weight gain, hormonal imbalances, and/or depression.
- ◆ Sleep debt and heavy caffeine use can cause an elevated level of stress hormones to occur in your body.

## NAPPING 101\*\*

Napping is not a replacement for sleep but can be useful in preventing sleep debt. For example, if you know you are going to lose sleep on a particular night, try napping that afternoon before going into sleep debt the next day. This helps keep your sleep cycle in check.

- ☑ There is a greater return from the first 20-30 minutes of sleep relative to any other 20-30 minutes of sleep making the nap a powerful tool.
- ☑ Napping can help produce short term alertness for driving or studying
- ☑ The best time to take a nap is from noon to 6:00 PM; the peak time is from 1-3 PM when we typically feel most sleepy
- ☑ It is critical that you lie down completely

\*\*If insomnia is an issue, try not taking naps. Keep a sleep journal for two weeks to help identify what is preventing you from getting restful sleep. Consult your practitioner or a counselor if problems persist.

## *How does the sleep cycle work?*

The body has a circadian clock which regulates the sleep and wake cycles. This is the brain's natural way of telling us when to sleep and when to be active. The clock helps to insure that the necessary restorative body functions (i.e. secreting important hormones, lowering blood pressure and kidney functions, etc.) occur at night when we are sleeping. The longer we are awake, the stronger our body's drive is to sleep.

There are 2 states experienced with continuous sleep:

- ◆ REM (**R**apid **E**ye **M**ovement)
- ◆ NREM (**N**on **R**EM sleep)

Experiencing the right mix and length of each of these sleep states is important for quality, restful, and restorative sleep.

The **NREM** state consists of 4 stages. Throughout the night the body transitions through each stage progressing from very light sleep to deep and restorative sleep; stage 4 being the deepest and most restorative when essential growth, repair, and development hormones are released.

**REM** sleep occurs about every 90 minutes. The periods of REM sleep get longer as continuous sleep is experienced. Between the 7<sup>th</sup> and 8<sup>th</sup> hour of sleep, we experience nearly an hour of REM sleep. REM sleep is necessary for providing energy to the brain and body and is also important to daytime performance, contributing to memory consolidation. The more continuous and uninterrupted sleep is, the more refreshed one will feel the next day.

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## STUDY SMART — SLEEP CYCLE & ACADEMIC PERFORMANCE

- ☑ Loss of REM sleep creates a dramatic reduction in the retention of recently learned information
- ☑ Good sleep habits (going to bed & getting up at the same time each day, avoiding sleep debt, etc.) can improve health and grades
- ☑ Lack of sleep leads to problems completing a task, concentrating and making decisions.
- ☑ Studies show that students who get 8 hours of sleep or more are happier, less hostile, less fatigued, and perform better on standardized cognitive tests than students who do not get adequate sleep.

### How do I get better sleep?

With the fast paced college lifestyle, it's easy for students to neglect sleep or sacrifice it for school or social reasons. In order to have a better night's sleep, resulting in more productive days, a healthier lifestyle, a more positive mood, less stress, and an improved immune system, try the following sleeping tips. For best results, try these tips over a period of time such as 3 weeks; you should find yourself getting better **REST**.

### REGULATE YOUR SLEEP-WAKE PATTERNS:

- Use effective time management skills to help make sleep a priority; get a planner and schedule enough time for the sleep you need.
- Keep regular, consistent sleeping hours. Go to bed and get up at the same time each day.
- Avoid daytime naps if you have trouble falling asleep. Limit naps to less than an hour, and before 6:00PM
- Avoid pulling "all-nighters" to cram for a test. You are more likely to make mistakes, lose your ability to concentrate during the test, and not be able to recall what you studied. Explore time management techniques to help you stay on top of your studies and maintain a more productive sleep schedule.

### ESTABLISH A COMFORTABLE SLEEP ENVIRONMENT:

- Save the bed for sleep (and sex) – avoid watching TV, talking on the phone, reading or doing homework while in bed
- Is your bed comfortable? If not, try a contour pillow or egg crate if the mattress is too hard. Check your sleeping posture.

- Sleeping on your stomach could disrupt your sleep by waking you up with back or neck strain. For best sleep posture, sleep on your side with a pillow under your knees; this supports your lower spine, allows for easier breathing, and reduces snoring. On your side, use a pillow that supports your head without flexing your neck upward.
- Make sure you have enough blankets to keep you warm.
- Make sure the room temperature is cool (but not cold), and that it is dark and quiet.

### Try these tips to keep it dark & quiet...

- ☑ Hang a dark towel over the window to darken the room
- ☑ Use an eye mask or bandana if needed to keep it dark
- ☑ Use earplugs to keep it quiet
- ☑ Create "white" noise to cover outside noises that may be keeping you awake
  - Use a fan (it can also cool down the room)
  - Tune a radio to static
  - Use head phones to listen to relaxing sounds

### SKIP UPPERS & DOWNERS BEFORE BED:

- Avoid strenuous exercise within 3 hours before bed, you'll be too energized to sleep.
- Create a bedtime ritual. Practice relaxation techniques or do something to wind down and prepare yourself for sleep.
- Avoid sleeping pills unless directed by your medical practitioner. Most sleeping pills are used for short-lasting bouts of insomnia and can only be taken for 2 weeks as they may make insomnia worse after that time.
- Avoid engaging in stimulating activities just before bed – i.e. competitive game of cards, video games, or watching an exciting TV show.
- Avoid caffeine 4-6 hours before bedtime; how you respond to caffeine is individual. Keep in mind that caffeine is in chocolate, regular coffee and tea, and caffeinated sodas.
- Limit your alcohol consumption. Alcohol may help you fall asleep, but it also interrupts your sleep cycle, keeps the body in lighter stages of sleep, and reduces REM sleep time, therefore making you feel less rested the next day.
- Avoid nicotine: the effects of nicotine withdrawal at night may disrupt sleep.
- Avoid eating a large meal or drinking a lot too close to bedtime, as indigestion or too many visits to the bathroom can delay or interrupt sleep.

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- If hungry, grab a small, healthy snack that combines complex carbohydrates & protein for longer lasting stability of blood sugar levels. Example: glass of low-fat milk and a banana or a small bowl of whole-grain cereal & skim milk. Some researchers think tryptophan, a chemical found in milk, naturally induces sleep.
- Avoid high-sugar or high-fat snacks before bed, they may make you feel sleepy at first but a few hours later when blood sugar levels fall you'll wake up hungry. Skip foods such as candies, cakes/pies, pizza, and sodas as a bedtime snack.

## **T**AME YOUR STRESS & TURN OFF YOUR BRAIN:

- Deal with stress in your life. If daytime troubles keep you awake, try jotting notes about ways to deal with them. If problems become overwhelming, seek the advice of a counselor.
- Exercise 3-5 days a week for at least 30 minutes to help you better deal with stress. If performed on a regular basis exercise will help you fall asleep faster and sleep longer than if you don't exercise at all.
- When in bed, mentally relax your muscles, beginning with your feet and working your way up to your head or imagine that you are actually in the most relaxing scenic place you can think of.
- Can't make your brain turn-off? If you can't stop thinking about things you have to do, do a brain dump: get up, make some notes or a "to-do" list so that you don't feel like you must remember all of your thoughts, then try to get some sleep.
- Don't toss and turn. If still awake after 20 minutes, get out of bed and do some quiet, relaxing activity, then return to bed when you are sleepy.

## **KEEP YOUR SLEEP NEEDS IN CHECK: Keep a Sleep Log**

A sleep log or journal helps you examine some of your health and sleep habits so that you can pinpoint any causes or patterns in your routine that are contributing to your poor sleep. For 2 weeks keep track of when you get up, fall asleep, and/or nap. Record your daily stress level. Rate how long it took you to fall asleep and how rested you feel in the mornings. Also make note of when you lie awake or have trouble falling asleep and record what activities you were doing before bedtime and/or any disturbances in your environment.

If you find that your sleep journal doesn't help you determine the cause of your sleeplessness take your journal to a practitioner or counselor to help you sort out what might be the cause.

## *Do I have insomnia?*

The ten main reasons why people report not sleeping well are: stress or anxiety, illness, noise, light, an over committed schedule, caffeine, alcohol, stimulant medications (i.e. diet pills, cold/allergy remedies, asthma medications), depression or anger, and fear/worry. Many people have trouble sleeping sometimes, but if a person has trouble falling asleep, doesn't sleep soundly, or wakes up early and can't fall back to sleep on a regular basis they are experiencing insomnia. Stress is the most common cause of insomnia. This can be caused by things like school, job pressures, family and relationship issues, health related problems or illness or death of a friend or family member or even big changes in daily routine. Usually short term or acute insomnia goes away when the stressful situation passes or the underlying source of stress is dealt with.

Insomnia that lasts for more than a week may be related to an on-going health problem such as depression or anxiety. Chronic insomnia is when a person experiences the symptoms of insomnia for a month or longer. This can be caused by medical, physical, or psychological conditions. A medical practitioner or a professional counselor should be consulted and special treatment may be required. Proper treatment of depression or other illness often helps the insomnia go away. Treatment may include doing certain things to improve your sleep habits and environment, reduce your stress, and/or take prescription medications. Relaxation training and/or Bio-feedback can often be very helpful; Contact the Cook Counseling Center 231-6557 for more information.