

# Problems Sleeping?

Chronic loss of sleep can be dangerous. Researchers from the University of Warwick and University College London have found that lack of sleep can more than double the risk of death from cardiovascular disease.

We sleep for half of our lives. Think about it, half of our lives we are sleeping. For humans and other mammals, regular sleep is essential for survival. Still, there are those people who swear that they require only 4 or 5 hours a night. Not Me! I sleep, and I sleep hard. My mother tells a story about a car crash that happened at 4AM right outside my window when I was 4 or 5 years old. There was a whole lot of noise, commotion, emergency vehicles and everything else that goes along with a car accident. I don't exactly know what happened... I was sleeping! In fact, before writing this, I had to call my mother to make sure that it really happened. I don't remember, I was sleeping.

More recently, on New Year's Eve 2007, my wife and I had third row tickets to see Southside Johnny at the Count Basie Theater. I slept thru his whole show right under his nose! I slept thru a loud rock concert! To this day, I think that Southside Johnny wants to kick my butt. I sleep like I am in a coma.

## HOW MUCH SLEEP DO YOU NEED?

The National Sleep Foundation in the United States maintains that seven to nine hours of sleep for adult humans is optimal and benefits alertness, memory, problem solving, overall health, as well as reducing the risk of accidents.

AGE	HOURS OF SLEEP
1-6 mo.	16-16.5
6-18 mo.	14-16
18mo. - 4 yrs	12-14
4-7	11
7-10	10-10.5
10-13	10
13-16	9-10
16+	8-9

## HOW WE FALL ASLEEP?

How do our bodies know when it is time to sleep? Sleep is controlled by the body's own time clock, called a circadian clock which is controlled by homeostasis. Adenosine, that builds up in the brain throughout the day as we burn energy. Adenosine combined with messages from your circadian clock send a powerful message of sleepiness to your body. Your body is ready when it reaches a minimum core body temperature, and then secretes the hormone melatonin. Rest and restoration is maximized when your body is prepared for sleep.

*NOTE: The amount of sleep you get may be inadequate if it occurs at the wrong time of day.*

- **Stage 1 (Drowsiness)** - Lasts just five or ten minutes. Eyes move slowly under the eyelids, muscle activity slows down, and you are easily awakened.
- **Stage 2 (Light Sleep)** - Eye movements stop, heart rate slows, and body temperature decreases.
- **Stages 3 & 4 (Deep Sleep)** - Allows the brain to go on a vacation needed to restore the physical energy we expend during our waking hours. Research also shows that immune functions increase during deep sleep.
- **REM sleep (Dream Sleep)** - At about 70 to 90 minutes into your sleep cycle, you enter REM sleep. You usually have three to five REM episodes per night. This stage is associated with processing emotions, retaining memories and relieving stress. Breathing is rapid, irregular and shallow, the heart rate increases, and blood pressure rises.

Each phase may have distinct physiological functions. Sleeping pills and alcohol can suppress stages of sleep, leading to sleep deprivation. This results in sleep that exhibits loss of consciousness but does not fulfill its physiological functions.

## EFFECTS AND CAUSES OF SLEEP DEPRIVATION

A widely publicized 2003 study performed at the University of Pennsylvania School of Medicine demonstrated that cognitive performance in humans declines with fewer than eight hours of sleep.

It has also been shown that sleep deprivation affects the immune system. In a study by Zager in 2007, rats were deprived of sleep for 24 hours. When compared with a control group, the sleep-deprived rats demonstrated a 20% decrease in white blood cell count, a significant change in the immune system.

## SIGNS YOU MAY BE SUFFERING FROM SLEEP DEPRIVATION INCLUDE:

- difficulty waking up in the morning
- poor performance in school, on the job, or in sports
- increased clumsiness
- difficulty making decisions
- falling asleep during work or class
- feeling especially moody or irritated

Not getting enough rest and sleep and can cause mental, emotional and physical fatigue. It is unclear why a lack of sleep causes irritability, but it is suggested that if the body produces insufficient cortisol during sleep, it can have negative effect on the alertness and emotions of a person during the day.

## NATURAL SOLUTIONS TO PROMOTE SLEEP

1) **Valerian** - (Valeriana officinalis) is a herb that has been long used as a remedy for insomnia. Today, it is an accepted over-the-counter insomnia remedy in Germany, France, Switzerland, Belgium, and Italy.

2) **Melatonin** - Is a popular remedy to help people fall asleep when the sleep/wake cycle has been disturbed, such as people who work the graveyard shift or people who with jet lag.

3) **Relaxation Techniques** - There are many different techniques such as yoga, meditation, or visualization which involves imagining a relaxing scene.

4) **Diet** - Cut out caffeine, avoid sweets, and eat magnesium-rich foods such as legumes, seeds, wheat bran, almonds, cashews and dark leafy veggies.

5) **Aromatherapy** - The scent of English lavender has long been used as a folk remedy to help people fall asleep. Research is starting to confirm lavender's sedative qualities. It's been found to lengthen total sleep time, increase deep sleep, and make people feel refreshed.

6) **Light** - If you have trouble falling asleep at night, you may need more light in the morning. Light exposure plays a key role in telling the body when to go to sleep and when to wake up. On the other hand, if you find you're waking up too early in the morning, you may need more light in the afternoon. Try taking a walk in the late afternoon. A dark room also makes for easier sleeping.

7) **Music** - Gentle, slow music is another remedy that can help to improve sleep. Music has been found to improve sleep quality, decrease nightly waking, lengthen sleep time, and increase satisfaction with sleep.

8) **Acupuncture** - A University of Pittsburgh analysis concluded that acupuncture may be an effective treatment for insomnia. A preliminary study found that five weeks of acupuncture increase melatonin secretion in the evening and improved total sleep time.

9) **Exercise** - Lack of exercise can contribute to poor sleep. Muscle tension and stress build in the body. Exercise can promote deep sleep that night. However, intense

exercise too close to bed can increase adrenaline levels, leading to insomnia.

10) **Other natural options** - Chamomile, hops, passionflower, lemon balm, and ashwagandha are other herbs that are often used for insomnia.

## DREAM

Diet, Rest, Exercise, Adjustments, Mental Attitude. Equal management of each aspect of DREAM is essential for optimum health. I live my life thru DREAM. It works and can be adjusted daily to achieve results. You can too! All you have to do is give yourself a score from 1-20 for each letter of DREAM. 0 is the lowest and 20 is the highest score you can get. Even though I sleep hard, I don't always get 8 hours, which is what I feel I need to be fully recharged. But, I do sleep hard, so I give myself an 18/20. Score yourself for the other letters. The closer your number is to 100, the healthier you are. If you have a low score for one letter, than you see where you need help.

It is extremely rewarding to get the things out of life what you want from it. It is fun. It is all because of DREAM, and how you perform each aspect of DREAM will directly affect every other letter in the word. Diet affects rest and mental attitude. Rest affects mental attitude. Exercise helps you maximize rest. A positive mental attitude comes from a healthy diet, and so on. ■

Sleep Tight,  
Dr. Raj Gupta



*We ARE the Doctors  
You've been Aching for!*

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