

How To Get A Good Night's Sleep

Dr Lim Li Ling, Sleep Disorders Unit, Singapore General Hospital
National Neuroscience Institute, Singapore

Sleep Is Important for Wellbeing

Most of us have experienced sleeplessness at one time or another and are familiar with the feeling of fatigue, sleepiness and impaired daytime functioning that accompanies it. Some people suffer insomnia, or difficulty falling or staying asleep, on a long term basis. Many have resorted to the chronic use of sleeping pills, or even alcohol, to induce sleep, which often creates even more problems. In contrast, after a good night's sleep, we wake up feeling refreshed and recharged, a state which allows us to be fully alert and ready to do our best in our daily activities. Again, most of us would also have experienced the great satisfaction of deep, restorative sleep, which usually comes naturally after a prolonged state of wakefulness. The importance of good quality sleep is only slowly being recognized: Sleep experts regard sleep as being as important as good nutrition and regular exercise to optimum physical and mental health.

Why We Sleep

In the last several decades, although scientists have learned a great deal about sleep through human and animal sleep deprivation experiments, the function of sleep itself remains a mystery. Sleep is believed to be a time of rest and repair for the body, and possibly a time for consolidation of learning and memory for the brain. We know a lot more about what happens when we do not get enough sleep than what precisely the function of sleep is.

Consequences of Sleep Deprivation

When rats are deprived of sleep there are major changes in metabolism, leading to increased appetite, weight loss, decreased body temperature and ultimately premature death after a few weeks. In humans, restriction in the amount of sleep has not led to similar dramatic changes in physiology or death. However there are significant effects on alertness, mood, performance and brain function.

The longest documented duration a human being has gone without sleep is 11 days. This feat was achieved in 1965 by a high school student in San Diego. This young man experienced severe sleepiness and had to be kept awake by physical activities such as playing basketball. Besides sleepiness, he also became irritable and developed abnormalities in brain function, causing memory lapses, difficulty concentrating, delusions and hallucinations. His body temperature dropped and he developed slurred speech, incoordination and blurred vision. Human sleep deprivation studies before and since have shown consistent detrimental effects on alertness, mood and performance.

When we do not get enough sleep we become very sleepy in the daytime, so that unless we are aroused by external factors, we may fall asleep suddenly. This can result in embarrassing situations such as falling asleep during meetings, or can be dangerous if we fall asleep at the wheel. Our performance in tasks that require close attention is impaired. We make more mistakes in our work and overall tend to be less productive. We are more

prone to accidental injuries. Our mood is affected and we may become depressed or irritable. In children and adolescents, chronic lack of sleep has been associated with poorer grades, emotional problems and attention deficit disorder. Very large population studies have also shown that people who get very little sleep, less than 4 hours a day, have an increased risk of death. This cause of this association between short sleep duration and higher mortality is unknown.

How Much Sleep Do We Need?

The amount of sleep we need varies according to age. In adults, there is a wide range of about 6 to 10 hours. There are people who can sleep fewer than 5 to 6 hours and still function normally, this group of people are known as “short sleepers”. However most people will require at least 6 hours of sleep a night.

Infants, children and adolescents need much more sleep. For example, infants need up to 16 hours of sleep a day in the first year of life. Children need up to 10 to 12 hours of sleep and adolescents need at least 8.5 to 9 hours of sleep for optimum functioning.

A simple way to gauge the amount of sleep needed is to recall one’s sleep pattern during vacation time when there are no external pressures dictating when we go to bed and when we have to get up. During such times when we allow ourselves to fall asleep and wake up naturally, we should feel refreshed and alert in the daytime. Our normal sleep requirement can be estimated from such non-stressful times.

Conversely, when we are not getting enough sleep, we tend to feel very sleepy in the daytime, and fall asleep very quickly at bedtime. Sleep deprived people have difficulty getting up in the morning without an alarm clock, and often have to sleep in over the weekend to catch up on lost sleep accumulated over the week. If your sleep pattern is such, then you likely are not getting enough sleep on a regular basis.

What Is Good Sleep?

You are a good sleeper if you fall to sleep and wake up at about the same time every day, including weekends. You should get at least 6-8 hours of sleep on a regular basis. When you wake up, you feel refreshed and can maintain normal alertness throughout the day. It is normal to feel a mid-afternoon “dip”, but there should not be overwhelming sleepiness. Toward bedtime, you know how to relax yourself after a busy day, and fall asleep within 10-15 minutes of going to bed. You do not wake up except once or twice to go to the bathroom, and fall back to sleep easily. Good sleepers reap the benefits of feeling invigorated in the morning and are poised to make the most of their innate abilities, whether it be at school or at work. Adequate sleep allows us to perform to the best of our abilities, unimpaired by fatigue, mood disturbances and poor concentration or thinking.

What Is Important For Good Sleep?

There are several basic “rules” for good sleep:

1. Try to go to bed and wake up at around the same time. Our sleep-wake patterns are regulated by an internal “clock” which dictates when we feel sleepy. We are

usually sleepiest at bedtime, and again sometime in the mid-afternoon. This internal clock runs in an approximately 24 hour cycle, in a regular manner. People who have good sleep habits are well synchronized with their internal clocks, and fall to sleep and wake up like clockwork. When our lives are in-synch with our internal clocks, we tend to function best. People who routinely vary their sleep-wake times, like shift workers, tend to have poorer quality sleep, and sleep less overall than others. When our daily life schedules are nicely synchronized with our internal clocks, we will naturally sleep better. If we keep changing our bed and wake times, there is desynchronization which is stressful for our bodies, and not conducive to good sleep.

2. If you already have difficulty falling to sleep, do not lie in bed tossing and turning indefinitely, watching the clock. If you keep doing this, your mind and body become “conditioned” to struggle with sleep every night in the same manner, and will associate the bedroom with stress and reinforce the difficulty with sleep. In order to “break” this conditioning, you should make it a point to get out of bed if you are unable to sleep within 15 to 20 minutes. You should leave the bedroom and go somewhere else to do something relaxing, such as reading, listening to music or watching TV. You should only return to bed when you are sleepy again, however long it takes. You need to develop the reverse conditioning, whereby you associate the bedroom with sleepiness and sleep, so that you will fall asleep readily when you go to bed.
3. Following on the above, the bedroom should ideally be a place only for sleep and sexual activity. If you have a problem with insomnia, you should not read, watch TV or work in bed. Associating the bed with other types of activities, especially if they are stimulating, will make it harder to fall asleep.
4. Avoid caffeine and stimulating activities close to bedtime. Caffeine can stay in your body for over 10 hours, and can affect sleep because it is a stimulant. People with problems sleeping should not drink caffeinated beverages from the afternoon or at night. Smoking and alcohol should also be avoided close to bedtime. Stimulating activities such as vigorous exercise, intense work and exciting or violent TV programmes should be avoided close to bedtime. The higher our level of arousal at bedtime, the harder it is to fall asleep. However sleepy and tired we are, this can be counteracted by high levels of arousal.
5. Long afternoon naps make it difficult for us to fall asleep at night and should be avoided. Our ability to sleep is related to our sleep “drive” which builds throughout the day in proportion to how long we stay awake. So the longer we stay awake, the sleepier we get. If we blunt this drive to sleep by taking a long afternoon nap, we may have difficulty falling asleep at night. People who lack sufficient sleep may benefit from a short nap in the afternoon to refresh them, but those who have difficulty falling asleep in general should avoid daytime naps.

6. A daily ritual to help us relax at the end of the day is a good lead-up to falling asleep easily. This can take the form of a warm bath, dimming the lights, reading quietly, a relaxing TV programme, soft music or just about any pleasurable activity that is something you look forward to at the end of the day. If we can learn to wind down after a day of stresses, our natural sleep drive which has built up over the day of wakefulness takes over, and allows us to fall asleep.

Conclusion

A good night's sleep is not difficult to achieve once we follow the "rules" based on an understanding of our body's internal clock, our inherent sleep drive, arousal factors and conditioning. If we can learn to adopt these "sleep-smart" habits, we will be able to get many good nights of sleep and wake up feeling refreshed and ready to start the day.