

Sleep - Myths and facts

Sleep is important for learning, sleep deprivation results in intellectual deprivation, avoid alarm clocks!

- 1. Myth: Since we feel rested after sleep, sleep must be for resting.** Ask anyone, even a student of medicine: *What is the role of sleep?* Nearly everyone will tell you: *Sleep is for rest.* **Fact:** Sleep is for optimizing the structure of memories. If it was for rest or energy saving, we would cover the saving by consuming just one apple per night. To effectively encode memories, mammals, birds and even reptiles need to turn off the thinking and do some housekeeping in their brains. This is vital for survival. This is why the evolution produced a defense mechanisms against skipping sleep. If we do not get sleep, we feel miserable. We are not actually as wasted as we feel, the damage can be quickly repaired by getting a good night sleep. It is our brain dishing punishment for not sticking to the rules of intelligent life-form: let the memory do restructuring in its programmed time
- 2. Myth: Sleep before midnight is more valuable.** **Fact:** Sleep is most valuable if it comes at the time planned by your own body clock mechanisms. If you are not sleepy before midnight, forcing yourself can actually ruin your night if you wake up early
- 3. Myth: Sleeping pills can help you sleep better.** **Fact:** Sleeping pills can help you sleep, but this sleep is of far less quality than naturally induced sleep. Sleeping pills can be useful in circumstances where sleep is medically vital and cannot be achieved by other means. Otherwise, avoid sleeping pills whenever possible
- 4. Myth: Avoid naps.** **Fact:** Naps may indeed worsen insomnia in people suffering from DSPS, esp. if taken too late in the day. Otherwise, naps are highly beneficial to intellectual performance. It is possible to take naps early in the day without affecting one's sleeping rhythm. Those naps must fall before or inside the so-called *dead zone* where a nap does not produce a *phase response* (i.e. shift in the circadian rhythm)
- 5. Myth: A nap is a sign of weakness.** **Fact:** Nap is not a sign of weakness, ill-health, laziness or lack of vigor. It is a phylogenetic remnant of a biphasic sleeping rhythm. Not all people experience a significant mid-day slump in mental performance. It may be well masked by activity, stress, contact with people, sport, etc. However, if you experience a slump around the 5th to 8th hour of your day, taking a nap can dramatically boost your performance in the second half of the day
- 6. Myth: People are of morning or evening type.** **Fact:** This is more of a misnomer than a myth. Evening type people can easily be made wake up with the sun by means of chronotherapy. What people really differ in is the period of their body clock and its sensitivity to zeitgebers (e.g. light, activity, stress, etc.). People with an unusually long natural day and low sensitivity to resetting stimuli will tend to work late and wake up late. Hence the tendency to call them "evening type". Those people do not actually prefer evening, they simply prefer longer working days
- 7. Myth: People who sleep less live longer.** In 2002, Dr Kripke compared the length of sleep with longevity (1982 data from a cancer risk survey). He figured out that those who sleep 6-7 hours live longer than those who sleep 8 hours and more. No wonder that a message started spreading that those who sleep less live longer. **Fact:** The best longevity prognosis is ensured by sleeping in compliance with one's natural body rhythm. Those who stick to their own good rhythm often sleep less because their sleep is better structured (and thus more refreshing). "Naturally sleeping" people live longer. Those who sleep against their body call, often need to clock more hours and still do not feel refreshed. Moreover, disease is often correlated with increased demand for sleep. Infectious diseases are renowned for a dramatic change in sleep patterns. When in coma, you are not likely to be adding years to your life. Correlation is not causation
- 8. Myth: Alarm clock can help regulate sleep rhythm.** **Fact:** Alarm clock can help you push your sleeping rhythm into your desired framework, but it will rarely help you accomplish a healthy sleeping rhythm. The only tried-and-true way to accomplish a healthy sleep and a healthy sleep rhythm is to go to sleep only then when you are really sleepy, and wake up naturally without external intervention
- 9. Myth: Night shifts are unhealthy.** **Fact:** People working in night shifts are often forced out of work by various ailments such as a heart condition. However, it is not night shifts that are harmful. It is the constant switching of the sleep rhythm from day to night and vice versa. It would be far healthier to let night shift people develop their own regular rhythm in which they would stay awake throughout the night. It is not night wakefulness that is harmful. It is the way we force our body do things it does not want to do
- 10. Myth: Being late for school is bad.** **Fact:** Kids who persistently cannot wake up for school should be left alone. Their fresh mind and health are far more important. Parents who regularly punish their kids for being late for school should immediately consult a sleep expert as well as seek help in attenuating the psychological effects of the trauma resulting from the never ending cycle of stress, sleepiness and punishment

11. **Myth: Being late for school is a sign of laziness. Fact:** If a young person suffers from DSPS, it may have perpetual problems with getting up for school in time. Those kids are often actually brighter than average and are by no means lazy. However, their optimum circadian time for intellectual work comes after the school or even late into the evening. At school they are drowsy and slow and simply waste their time. If chronotherapy does not help, parents should consider later school hours or even home-schooling
12. **Myth: We can sleep 3 hours per day.** Many people enviously read about Tesla's or Edison's sleeping habits and hope they could train themselves to sleep only 3 hours per day having far more time for other activities. **Fact:** This might work if you plan to party all the time. And if your health is not a consideration. And if your intellectual capacity is not at stake. You can sleep 3 hours and survive. However, if your aspirations go beyond that, you should rather sleep exactly as much as your body wants. That is an intelligent man's optimum. With your improved health and intellectual performance, your lifetime gains will be immense
13. **Myth: We can adapt to polyphasic sleep.** Looking at the life of sailors, many people believe they can adopt polyphasic sleep and save many hours per day. In polyphasic sleep you take only 4-5 short naps during the day totaling less than 4 hours. There are many "systems" differing in the arrangement of naps. There are also many young people ready to suffer the pains to see it work. Although a vast majority will drop out, a small circle of the most stubborn ones who survive a few months and will perpetuate the myth with a detriment to public health. **Fact:** We are basically biphasic and all attempts to change the inbuilt rhythm will result in loss of health, time, and mental capacity. A simple rule is: when sleepy, go to sleep; while asleep, continue uninterrupted. See: [The myth of polyphasic sleep](#)
14. **Myth: Going to bed at the same time is good for you. Fact:** Many sleep experts recommend going to sleep at the same time every day. Regular rhythm is indeed a form of chronotherapy recommended in many circadian rhythm problems. However, people with severe DSPS may simply find it impossible to go to sleep at the same time everyday. Such forced attempts will only result in a self-feeding cycle of stress and insomnia. In such cases, the struggle with one's own rhythm is simply unhealthy. Unfortunately, people suffering from DSPS are often forced into a "natural" rhythm by their professional and family obligations
15. **Myth: Silence and darkness are vital for sleep.** This may be the number one advice for insomniacs: use your sleeping room for sleep only, keep it dark and quiet. **Fact:** Silence and darkness may indeed make it easier to fall asleep. They may also help maintain sleep when it is superficial. However, they are not vital. The most important factor that makes us sleep well, assuming good health, is the natural circadian rhythm. People who go to sleep along their natural rhythm can often sleep well in bright sunshine. They can also show remarkable tolerance to a variety of noises (e.g. loud TV, family chatter, outside the window noise, etc.). If you suffer from insomnia, focus on understanding your natural sleep rhythm. Peaceful sleeping place is secondary. Insomniacs running their daily ritual of perfect darkness, quiet, stresslessness and ship-counting are like a stranded driver hoping for fair winds instead of looking for the nearest gas station
16. **Myth: People who sleep less live longer.** Not so long ago, Dr Kripke compared the length of sleep with longevity. He figured out that those who sleep 6-7 hours live longer than those who sleep 8 hours and more. No wonder that a message started spreading that those who sleep less live longer. **Fact:** The best longevity prognosis is ensured by sleeping in compliance with one's natural body rhythm. Those who stick to their own good rhythm often sleep less as their sleep is better structured and more refreshing. No wonder they live longer. Those who sleep against their nature, often need to clock more hours and still do not feel refreshed. Moreover, disease is often correlated with increased demand for sleep. When in coma, you are not likely to be adding years to your life
17. **Myth: The body will always crave excess sleep as it craves excess food.** Some people draw a parallel between our tendency to overeat with sleep. They believe that if we let the body dictate the amount of sleep, it will always ask for more than needed. As a result, they prefer to cut sleep short with alarm clock to "optimize" the amount of sleep they get. **Fact:** Unlike storage of fat, there seems to be little evolutionary benefit to extra sleep. Probably, our typical 6-8 hours of sleep are just enough to do all "neural housekeeping". People with sleep deficit may indeed tend to sleep obscenely long. However, once they catch up and get into the rhythm, the length of their sleep is actually likely to decrease
18. **Myth: Magnesium, folates, and other supplements can help you sleep better. Fact:** Nutrients needed for good health are also good for sleep. However, supplementation is not likely to play a significant role in resolving your sleep problems. Vitamins may help if you are in deficit, but a vast majority of sleep disorders in the society come from the lack of respect or understanding of the circadian rhythm. If you are having problems with sleep, stick to the rules presented in this article. As for food, stick to a standard healthy diet. That should suffice
19. **Myth: It is best to wake up with the sun. Fact:** You should wake up at the time when your body decides it got enough of sleep. If this happens to be midday, a curtain over the window will prevent you from being woken up by the sun. At the same time sun may help you reset your body clock and help you wake up earlier. People who wake up naturally with the sun are indeed among the healthiest creatures on the planet. However, if you do not wake up naturally before 4 am, trying to do so with the help of alarm clock will only add misery to your life
20. **Myth: Sleeping little makes you more competitive.** Many people are so busy with their lives that they sleep only 3-4 hours per night. Moreover, they believe that sleeping little makes them more competitive. Many try to train themselves for minimum sleep. Donald Trump, in his newest book, tells you: "*If you want to be a billionaire, sleep as little as possible*". **Fact:** It is true that many geniuses slept little. Many

business sharks slept even less. However, the only good formula for maximum long-term competitiveness is via maximum health and maximum creativity. If Trump sleeps 3 hours per night and enjoys his work, he is likely to run it on alertness hormones (ACTH, cortisol, adrenaline, etc.). His sleep is probably structured very well and he may extract more neural benefit per hour of sleep than an average 8-hours-per-night sleeper. Yet that should not make you try to beat yourself to action with an alarm clock. You will get shortest and maximum quality sleep only then when you [perfectly hit your circadian low-time](#), i.e. when your body tells you "now it is time to sleep". Sleep in wrong hours, or sleep interrupted with an alarm clock is bound to undermine your intellectual performance and creativity. Occasionally, you may think that a loss on intellectual side will be counterbalanced with the gain on the action side (e.g. clinching this vital deal). Remember though, that you also need to factor in the long-term health consequences. Unless, of course, you think a heart attack at 45 is a good price to pay for becoming a billionaire

21. Myth: You cannot change the inherent period length of your body clock. Fact: With various chronotherapeutic tricks it is possible to change the period of the clock slightly. It can be reset or advanced harmlessly by means of melatonin, bright light, exercise, meal timing, etc. It can also be reset in a less healthy way: with an alarm clock. However, significant lifestyle changes may be needed to resolve severe cases of DSPS or ASPS. The therapy may be stressful, and the slightest deviation from the therapeutic regimen may result in the relapse to an undesirable rhythm. Those who employ free-running sleep may take the easiest way out of the period length problem: stick to the period that is the natural outcome of your current lifestyle

Summary

- Sleep is important for learning! Sleep deprivation results in intellectual deprivation!
- Sleep as much as you feel you need ([why?](#))
- Avoid alarm clocks ([why?](#))
- Forget about trying to fall asleep at pre-planned time! Let your body decide! ([why?](#))
- Forget about trying to fall asleep quickly! If your body decides it is the right time, it will come naturally! ([why?](#))
- Do not try to make yourself sleepy! It is enough you stay awake and keep on working/learning long enough! ([why?](#))
- It is much better to eliminate the source of stress rather than to try to forget stressful situations right before the bedtime!
- Learn the details of your sleep timing (how many hours you sleep, how many hours before you need to take a nap or go to sleep again, etc.). Use this knowledge to optimize your schedule ([why?](#))
- Adjust the timing of intellectual work to your circadian cycle (see [Fig. 5](#))
- Stick with good people! The bad lot will often ruin your slumber
- Be careful with caffeine. Drink coffee only upon awakening (or after a nap if you take one)
- Do not go beyond a single drink of alcohol per day. Drink it at siesta time
- Quit smoking!
- Use siesta time for a nap if you find it helpful

- If you cannot fall asleep in 30 minutes, get up! You are not yet ready for sleep! ([why?](#))
- If you experience racing thoughts at the time when your body calls for sleep, the best method is: get up and use ... [SuperMemo](#) for 30 minutes! Few other activities can be equally taxing to your tired brain (do not expect this to work before your circadian timing though)
- If you sleep it out and still not feel refreshed, be sure you do not sleep against your circadian rhythm. Try [free running sleep](#). Remember that you may need 1-2 weeks to synchronize all bodily functions before this starts working!
- If you cannot get refreshing sleep even in free-running conditions after at least a month of trying, consult a sleep specialist (see: [Sleep Disorders](#)). Remember, however, that a bad night is a factor of life. Few can avoid it. Do not get alarmed even if it happens weekly

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