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Sleep Facts: Did You Know?

The entire purpose of sleep isn't fully understood. But what we do know is that it serves a restorative functioning (e.g., cell repair & replacement such as healing wounds), impacts memory, and is related to growth and development of the skeletal, nervous, and muscular systems and of the brain (in infant mammals only). Sleep is also important for proper functioning of the immune system.

- It should take you 15-20 min to fall asleep (if you're fully rested and had adequate sleep the night before)
- The average teenager only gets 7 hours and 53 minutes of sleep per night (but they actually need 9-10 hours per night).
- Circadian rhythms (your body's natural internal clock) determine when we fall asleep and wake up. These rhythms tend to shift by 1-2 hours later for teens meaning that their bodies are naturally inclined to stay awake and sleep in 1-2 hours later than adults. Because of this, there is a secondary school (Eastern Collegiate in Toronto, ON) that is experimenting with having school start at 10am. So far, they've had really good results!
- Sleep is different from hibernation. Animals that hibernate (like bears) actually have to have additional sleep time after waking up from hibernation, because of the lack of sleep during hibernation.
- All mammals dream. Everyone dreams (even if they don't remember their dreams).

Sleep Debt: What is it?

Sleep debt is the cumulative effect of not getting enough sleep leading to mental and/or physical fatigue. It can be total [being awake or having no sleep at all for days or weeks] but is most often partial [not enough sleep for many days or weeks].

How much sleep do you actually need?

Age	Sleep Needed
5-12 years	9 – 11 hours
Teens	9 – 10 hours
Adults	7 – 9 hours

Why does it Matter?

Sleep debt has a significant impact on our bodies (physiological functioning) but also on our thinking & reasoning (cognitive functioning) and our emotions. In addition to the obvious fatigue, inadequate sleep can cause decreases in our measurable intelligence (IQ), flexible thinking, memory, concentration, and creativity. It can create safety concerns because judgment (decision making) and reaction times are negatively affected and can leave you more likely to make mistakes (e.g., think of driving or taking an exam). Sleep debt also takes a big toll on one's immune system and resilience to stress in part because of increased cortisol production (chronic stress hormone). It can cause an increase in irritability as well as weight gain because (because when we're tired we tend to eat more unhealthy foods). Sleep debt can negatively impact your health, social relationships (family harmony, friendships), job performance, and grades at school.



While a regular sleep schedule is best, in reality we're often sleep deprived so when you can, try to repay that sleep debt. Here are some strategies to try:

- Power naps (15-20 min max). If you're going to sleep any longer, you're better to sleep a full 90 minutes (roughly one full sleep cycle). Teens can consider fitting in a power nap in a spare period.
- Sleep in on weekends (again, only about one 90 min cycle so instead of getting up at 7 get up at 8:30).

- Avoid the snooze alarm. The extra 9 to 10 minutes of snoozing is poor quality sleep. You would be better off to just set the alarm 10 minutes later, get 10 more minutes of good quality sleep, and then get up when the alarm goes off the first time.



- Avoid or at least reduce early morning activities (e.g., 5am hockey practice) that interfere with sleep whenever possible.
- Try getting to sleep earlier, but be realistic. If you regularly go to bed at 1 A.M., attempting a 10 P.M. bedtime is a big jump and not likely to work well. Instead, try going to sleep 30 min earlier for one week (e.g., 12:30A.M.). Then the next week, try 30 min earlier (e.g., 12 Midnight), until you find you can wake up feeling rested and re-stored.



The Truth about Caffeine

Caffeine is a substance that is known to interfere with sleep. It is an ingredient in more than just coffee and tea. Chocolate, iced teas (e.g., Brisk), and certain colas and root beers contain caffeine, and it can be present in other drinks. Energy drinks (e.g., Red Bull, Rockstar, etc.) can contain a lot of caffeine. Caffeine's impact peaks 1 hour after consumption but it stays in your system for 6-7 hours. So if you don't want caffeine to interfere with your sleep, try to avoid consuming it after 3 or 4pm. Caffeine can be sneaky - even if you fall asleep after consuming caffeine, it can still disrupt deep sleep (known as Stage 3 & 4 sleep). These stages of deep sleep are actually the most restorative sleep you get all night.



For further information and suggestions contact the psychology staff at your school or Dr. D. Lean, Chief Psychologist.

