

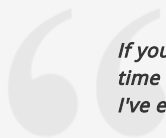
Module 4.4: Sleep Problems and Disorders

Disruptions of Normal Sleep

Regardless of one's chronotype, there are situations in which a person's circadian clock gets out of synchrony with the external environment. Traveling across multiple time zones, we often experience **jet lag**, a collection of symptoms that results from the mismatch between our internal circadian cycles and our environment. These symptoms include fatigue, sluggishness, irritability, and **insomnia**.

Individuals who do rotating shift work are also likely to experience disruptions in circadian cycles. **Rotating shift work** refers to a work schedule that changes from early to late on a daily or weekly basis. For example, a person may work from 7:00 a.m. to 3:00 p.m. on Monday, 3:00 a.m. to 11:00 a.m. on Tuesday, and 11:00 a.m. to 7:00 p.m. on Wednesday. In such instances, the individual's schedule changes so frequently that it becomes difficult for a normal circadian rhythm to be maintained. This often results in sleeping problems, and it can lead to signs of depression and anxiety. These kinds of schedules are common for individuals working in health care professions and service industries, and they are associated with persistent feelings of exhaustion and agitation that can make someone more prone to making mistakes on the job.

Rotating shift work has pervasive effects on the lives and experiences of individuals engaged in that kind of work, which is clearly illustrated in stories reported in a qualitative study that researched the experiences of middle-aged nurses who worked rotating shifts. Several of the nurses interviewed commented that their work schedules affected their relationships with their family. One of the nurses said,



If you've had a partner who does work regular job 9 to 5 office hours . . . the ability to spend time, good time with them when you're not feeling absolutely exhausted . . . that would be one of the problems that I've encountered. (West et al., 2009, p. 114)

There are things we can do to help us realign our biological clocks with the external environment. The use of a bright light have been shown to alleviate some of the problems experienced by individuals suffering from jet lag or the consequences of rotating shift work. Because the biological clock is driven by light, exposure to bright light during working shifts and dark exposure when not working can help combat insomnia and symptoms of anxiety and depression.

Insufficient Sleep

Table 4.1 Sleep Needs at Different Ages

When people have difficulty getting sleep due to their work or the demands of day-to-day life, they accumulate a sleep debt. A person with a **sleep debt** does not get sufficient sleep on a chronic basis. The consequences of sleep debt include decreased levels of alertness and mental efficiency. Interestingly, since the advent of electric light, the amount of sleep that people get has declined. While we certainly welcome the convenience of having the darkness lit up, we also suffer the consequences of reduced amounts of sleep because we are more active during the nighttime hours than our ancestors were. As a result, many of us sleep less than 7–8 hours a night and accrue a sleep debt. While there is tremendous variation in any given individual's sleep needs, the National Sleep Foundation cites research to estimate that newborns require the most sleep (between 12 and 18 hours a night) and that this amount declines to just 7–9 hours by the time we are adults.

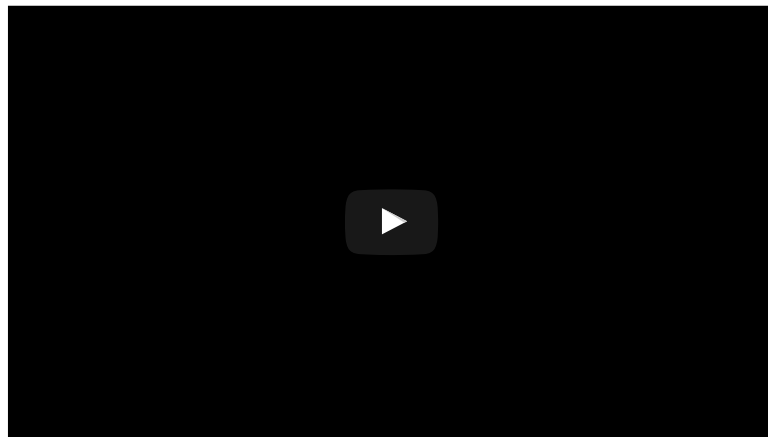
Table 4.1 shows amounts of sleep at different ages.

Age	Nightly Sleep Needs
0–3 months	12–18 hours
3 months–1 year	14–15 hours
1–3 years	12–14 hours
3–5 years	11–13 hours
5–10 years	10–11 hours
10–18 years	8–10 hours
18 and older	7–9 hours

Links to Learning

Watch this brief video below describing sleep deprivation in college students.

Here's another brief video below describing sleep tips for college students.



Given that college students are notorious for suffering from significant sleep debt, chances are you and your classmates deal with sleep debt-related issues on a regular basis.

Sleep debt and sleep deprivation have significant negative psychological and physiological consequences. As mentioned earlier, lack of sleep can result in decreased mental alertness and cognitive function, and often results in depression-like symptoms. These effects can occur as a function of accumulated sleep debt or in response to more acute periods of sleep deprivation. It may surprise you to know that sleep deprivation is associated with obesity, increased blood pressure, increased levels of stress hormones, and reduced immune functioning. Furthermore, individuals suffering from sleep deprivation can also put themselves and others at risk when they put themselves behind the wheel of a car or work with dangerous machinery. Some research suggests that sleep deprivation affects cognitive and motor function as much as, if not more than, alcohol intoxication.

Link to Learning

To assess your own sleeping habits, read [this article](#) about sleep needs.

Sleep Disorders

Many people experience disturbances in their sleep at some point in their lives. Depending on the population and sleep disorder being studied, between 30% and 50% of the population suffers from a sleep disorder at some point in their lives. This section will describe.

Use the slideshow below to learn more about several sleep disorders as well as some of their treatment options. Click the arrows to move from one disorder to the next.

[Access a printable copy of this slideshow](#) 

Insomnia

Insomnia, a consistent difficulty in falling or staying asleep, is the most common of the sleep disorders. Individuals with insomnia often experience long delays between the times that they go to bed and actually fall asleep. In addition, these individuals may wake up several times during the night and have difficulty getting back to sleep. One of the criteria for insomnia involves experiencing these symptoms for at least three nights a week for at least one month's time.

It is not uncommon for people suffering from insomnia to experience increased levels of anxiety about their inability to fall asleep. Increased anxiety leads to increased arousal, which makes the prospect of falling asleep even more unlikely. Chronic insomnia is almost always associated with feeling overtired and may be associated with symptoms of depression. Factors that may contribute to insomnia include age, drug use, exercise, mental status, and bedtime routines. People who suffer from insomnia might limit their use of stimulants such as caffeine or increase their amount of physical exercise during the day. Treatment may include stress management techniques and changes in problematic behaviors that could contribute to insomnia. Additionally, cognitive-behavioral therapy, which focuses on cognitive processes and problem behaviors, may be helpful in treating insomnia.).



Dig Deeper

A Sleepwalking Defense?

On January 16, 1997, Scott Falater sat down to dinner with his wife and children and told them about difficulties he was experiencing on a project at work. After dinner, he prepared some materials to use in leading a church youth group the following morning, and then he attempted repair the family's swimming pool pump before retiring to bed. The following morning, he awoke to barking dogs and unfamiliar voices from downstairs. As he went to investigate what was going on, he was met by a group of police officers who arrested him for the murder of his wife.

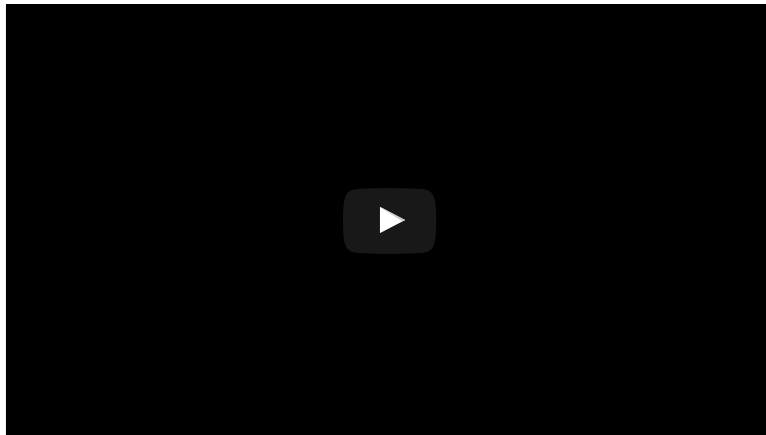
Yarmila Falater's body was found in the family's pool with 44 stab wounds. A neighbor called the police after witnessing Falater standing over his wife's body before dragging her into the pool. Upon a search of the premises, police found blood-stained clothes and a bloody knife in the trunk of Falater's car, and he had blood stains on his neck.

Remarkably, Falater insisted that he had no recollection of hurting his wife in any way. His children and his wife's parents all agreed that Falater had an excellent relationship with his wife and they couldn't think of a reason that would provide any sort of motive to murder her.

Scott Falater had a history of regular episodes of sleepwalking as a child, and he had even behaved violently toward his sister once when she tried to prevent him from leaving their home in his pajamas during a sleepwalking episode. He suffered from no apparent anatomical brain anomalies or psychological disorders. It appeared that Scott Falater had killed his wife in his sleep, or at least, that is the defense he used when he was tried for his wife's murder. In Falater's case, a jury found him guilty of first degree murder in June of 1999; however, there are other murder cases where the sleepwalking defense has been used successfully. As scary as it sounds, many sleep researchers believe that homicidal sleepwalking is possible in individuals suffering from the types of sleep disorders described above.

Link to Learning

Narcolepsy has been portrayed in movies and other media, usually in a comical way. The reality is that this disorder can be disruptive to a person's life and affect normal functioning. Watch the video below of a young woman who shares webcam footage of her own experience being affected by this disorder.



Good Sleep

Good sleep is important to our health and longevity. It is no surprise that we sleep more when we are sick, because sleep works to fight infection. Sleep deprivation suppresses immune responses that fight off infection. As we studied earlier, when we sleep well, our cognitive functions are increased, we are mentally alert, our blood pressure and stress hormones are decreased, and our overall health is maintained. Psychosomatic Medicine found that older adults who had better sleep patterns also lived longer.

Check Your Knowledge

As you read your assignment for this lesson, pay close attention to the [key terms and phrases](#) listed throughout the chapter. These terms and concepts are important to your understanding of the information provided in the lesson.

Module 4.4 Flashcards

Click on the notecard to reveal the definition.

RESET

Insomnia

◀ Previous Card

Term 1 of 9

Next Card ▶

← [Module 4.3](#)

[Module 4.5](#) →