## Why is Sleep

## Jmporiamt for Iteens?

Sleep is vital for people of any age. For teens, though, profound mental, physical, social, and emotional development requires quality sleep.

## Thinking and Academic Achievement

Sleep benefits the brain and promotes attention, memory, and analytical thought. It makes thinking sharper, recognizing the most important information to consolidate learning. Sleep also facilitates expansive thinking that can spur creativity. Whether it's studying for a test, learning an instrument, or acquiring job skills, sleep is essential for teens.

Given the importance of sleep for brain function, it's easy to see why teens who don't get enough sleep tend to suffer from excessive drowsiness and lack of attention5 that can harm their academic performance6.

## Emotional Health

Most people have experienced how sleep can affect mood, causing irritability and exaggerated emotional reactions. Over time, the consequences can be even greater for teens who are adapting
to more independence, responsibility, and new social relationships.

Prolonged sleep loss may negatively affect emotional development, increasing risks for interpersonal conflict as well as more serious mental health problems.

Mental health disorders like anxiety, depression, and bipolar disorder have routinely been linked to poor sleep, and sleep deprivation in teens can increase the risk of suicide. Improving sleep in adolescents may play a role in preventing mental health disorders or reducing their symptoms.

## Physical Health and Development

Sleep contributes to the effective function of virtually every system of the body. It empowers the immune system, helps regulate hormones, and enables muscle and tissue recovery.

Substantial physical development happens during adolescence and can be negatively affected by a lack of sleep. For example, researchers have found that adolescents who fail to get enough sleep have a troubling metabolic profile that may put them at
higher risk of diabetes and long-term cardiovascular problems.

## Decision-Making and Risky Behavior

Sleep deprivation can affect the development of the frontal lobe, a part of the brain that is critical to control impulsive behavior. Not surprisingly, numerous studies have found that teens who don't get enough sleep are more likely to engage in highrisk behaviors like drunk driving, texting while driving, riding a bicycle without a helmet, and failing to use a seatbelt. Drug and alcohol use, smoking, risky sexual behavior, fighting, and carrying a weapon have also been identified as more likely in teens who get too little sleep.

Behavioral problems can have widespread effects on a teenager's life, harming their academic performance as well as their relationships with family and friends.



## Accidents and Injuries

Insufficient sleep in teens can make them prone to accidental injury and even death. Of particular concern is an elevated risk of accidents as a result of drowsy driving. Studies have found that sleep deprivation can reduce reaction times with an effect similar to that of significant alcohol consumption. In teens, the impact of drowsy driving can be amplified by a lack of driving experience and a higher rate of distracted driving.

## Are Teens Getting Enough Sleep?

By almost all accounts, many teenagers in Canada are not getting the recommended 8-10 hours of sleep per night. In the 2006 Sleep in Poll by the National Sleep Foundation, $45 \%$ of adolescents reported getting less than eight hours per night.

The problem may be getting worse. Data from four national surveys conducted from 2007-2013 found that nearly $69 \%$ of high school students got seven or fewer hours of sleep per night. Estimates place the rate of insomnia in adolescents as high as $23.8 \%$.

Insufficient sleep among teens has been found to be higher among women than men. Older teens report getting less sleep than people in early adolescence. Surveys have also found that teens who identify as Black, Asian, and multiracial have the highest rates of sleeping less than eight hours per night.

## Why is it Hard to Get Good Sleep?

There is no single reason for sleep insufficiency among teens. Several factors contribute to this problem, and these factors may vary from teenager to teenager.

Delayed Sleep Schedule and School Start Times During adolescence, there is a strong tendency toward being a "night owl," staying up later at night and sleeping longer into the morning. Experts believe this is a two-fold biological impulse affecting the circadian rhythm and sleep-wake cycle of teens.

First, teens have a sleep drive that builds more slowly, which means they don't start to feel tired until later in the evening. Second, the body waits longer to start producing melatonin, which is the hormone that helps promote sleep. If allowed to sleep on their own schedule, many teens would get eight hours or more per night, sleeping from 11 p.m. or midnight until 8 or 9 a.m., but school start times 18 in most school districts force teens to wake up much earlier in the morning. Because of the biological delay in their sleep-wake cycle, many teens simply aren't able to fall asleep early enough to get eight or more hours of sleep and still arrive at school on time.



With reduced sleep on weekdays, teens may try to catch up by sleeping in on the weekend, but this may exacerbate their delayed sleep schedule and inconsistent nightly rest.

## Time Pressure

Teens often have their hands full. School assignments, work obligations, household chores, social life, community activities, and sports are just some of the things that can require their time and attention.

With so much to try to fit into each day, many teens don't allocate sufficient time for sleep. They may stay up late during the week to finish homework or during the weekend when hanging out with friends, both of which can reinforce their night owl schedule.

Pressure to succeed while managing these extensive commitments can be stressful, and excess stress has been known to contribute to sleeping problems and insomnia.

## Use of Electronic Devices

Electronic devices like cell phones and tablets are ubiquitous among teens, and research, such as the 2014 Sleep in America Poll, finds that $89 \%$ or more of teens keep at least one device in their bedroom at night.

Screen time late into the evening can contribute to sleeping problems. Using these devices can keep teens' brains wired, and incoming notifications can cause disrupted and fragmented sleep. Evidence also points to suppressed melatonin production from exposure to the light from cell phones.

## Sleep Disorders

Some teens have poor sleep because of an underlying sleep disorder. Adolescents can be affected19 by obstructive sleep apnea (OSA), which causes repeated pauses in breathing during sleep. OSA frequently causes fragmented sleep and excessive daytime sleepiness.

Though less common, teens can have sleep disorders like Restless Leg Syndrome (RLS), which involves a strong urge to move the limbs when lying down, and narcolepsy, which is a disorder affecting the sleep-wake cycle.

## Mental Health Problems

Mental health conditions like anxiety and depression can be a challenge to quality sleep in teens as well as adults. Insufficient sleep can contribute to these conditions as well, creating a bidirectional relationship that can worsen both sleep and emotional wellness.

## Neurodevelopmental Disorders

Neurodevelopmental disorders, such as atten-tion-deficit/hyperactivity disorder (ADHD) and autism spectrum disorder (ASD)20, can make it harder for teens to sleep well. Lack of sleep may also contribute to more pronounced symptoms of these conditions.

## How Can Teens Get Better Sleep?

Teens who are having sleep problems should start by talking with their doctor about how much sleep they are getting and how it impacts their daily life. Their pediatrician can work to identify any underlying causes and craft the most appropriate and tailored treatment.


Depending on the cause of sleep problems, medications may be considered; however, in most cases, treatment with medications isn't necessary for teens to get better sleep.

A beneficial step is for teens to review and improve their sleep hygiene, which includes their sleep environment and habits. Some healthy sleep tips that can help in this process include:

Budgeting eight hours of sleep into your daily schedule and keeping that same schedule on both weekdays and weekends. Creating a consistent pre-bed routine to help with relaxation and falling asleep fast. Avoiding caffeine and energy drinks, especially in the afternoon and evening.
Putting away electronic devices for at least a halfhour before bed and keeping them on silent mode to avoid checking them during the night. Setting up your bed with a supportive mattress and pillows.

Keeping your bedroom cool, dark, and quiet. Sleep hygiene modifications may be included in cognitive behavioral therapy for insomnia (CBT-I), a form of talk therapy for sleeping problems that has demonstrated effectiveness in adults and may be helpful to teens. CBT-I works by reshaping negative ideas and thoughts about sleep and implementing practical steps for better sleep routines.

## How Can Parents Help Teens Get Better Sleep?

For many parents, a first step is asking their teenage children about their sleep since surveys indicate that many parents don't realize that their children are having sleeping problems.

Parents can encourage teens to see a doctor while also working with their children to make gradual sleep hygiene improvements. Some research has found that teens whose parents set a firm bedtime get more sleep and have less daytime drowsiness21.

Another avenue for parents is advocating for later start times with their local school district. A number of districts have experimented with delayed starts and found beneficial results 22 as measured by attendance and academic performance.

Parents can also work with their teens to avoid overscheduling and commitments that can generate stress and trade off with adequate time for sleep.


